



## **SRINIVAS INSTITUTE OF MANAGEMENT STUDIES**

**Srinivas Campus, Pandeshwar, Mangalore – 575 001.**

**Karnataka State, India**

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# **MANEGMA – 2014**



**Proceedings of the National Conference on**

**Changing Trends**

**in Management, IT & Social Sciences**

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# **SRINIVAS INSTITUTE OF MANAGEMENT STUDIES**

**PANDESHWAR, MANAGALORE -01**

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Extension of opportunity to all aspirants for education and Expansion cross all realms of knowledge

## **OUR MISSION :**

To inculcate values of human dignity and mutual respect, generate the spirit of enquiry, induce healthy competitions , encourage sustainable accomplishments and ensure enriching rewards

## **OUR GOAL:**

To emerge as premier world – class academic institution rooted in incredible heritage of our nation and poised to contribute the challenges of the nature

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- To create centre of excellence imparting quality education.
- To offer to the society industry academically empowered and ready-for-the job professionals in diverse fields.
- To foster research and disseminate research findings for the all-round development of the nation and community at large.
- To contribute to nation building by generating a pool of human resources trained in science, technology, humanities, management, education and research.
- To maintain dynamic equilibrium between the various educational institutions and the environment

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## **PREFACE**

As the saying goes “There is nothing permanent in life except change” each and every person or organisation goes through this process of change in life. Change is inevitable; it is the very nature of being. Every day is very different from the previous day.

Changes can be of two types, first is the changes that take place in nature. Which cannot be controlled by us, and on the other hand we have the changes that occur in the social, technological or any other field including our personal life. These are the changes that we can try to control over.

We are highly grateful to Sri. CA A. Raghavendra Rao, President, A Shama Rao Foundation; Sri. A. Srinivas Rao, Vice President, A Shama Rao Foundation; Smt. Mitra S Rao, Secretary, A Shama Rao Foundation; Dr. P S Aithal, Principal, Srinivas Institute of Management Studies for their guidance, support and encouragement to organise the National Conference.

We also thank all the authors of the papers for their effort in preparing their papers in a presentable fashion and the members of the organising committee for their sincere efforts and hard work.

This compilation is an attempt to bring forward the changes that are happening in the areas of Management, Information technology and social sciences. We are sure that the papers printed in this volume will arouse further thoughts and generate more meaningful discussions among researchers, which may pave way for the growth of further research and development in these aspects.

**Mr. Amith Menezes**  
**Editor**

## **FORWARD**

I am happy that Srinivas Institute of Management studies, Pandeshwar has come out with this compilation of scholarly papers under the theme “Changing trends in Management, IT and Social Sciences”

Change is the essence of life, we can't be afraid of change. You may feel very secure in the pond that you are in, but if you never venture out of it, you will never know that there is such a thing as an ocean or a sea. Holding on to something that is good for you now may be the very reason why you don't have something better.

This change will bring in lots of new developments in the economy. No doubt, this attempt to bring out scholarly papers by distinguished researchers on the subject is praise worthy contribution.

I wish all the best to all those who are working hard to strengthen academia and policy makers to provide this volume.

**Dr. P S Aithal**  
**Principal**  
**SIMS, Pandeshwar**

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# A study on Innovations and Best Practices in Higher Education Institutions : A case study of SIMS

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**Abstract-** Education has become competitive and so too the educational institutions. In order to survive the competition, institutions have to improve the quality of their services. Changes in culture, aspiration and levels of skills required in securing employment for students, force higher education institutions today to rework on their educational models and add value to each and every aspects in their service. Innovations and best practices in higher educational institutions enhance quality and add value to their services. Srinivas Institute of Management Studies (SIMS), which combines technology, management and social service education has identified and implemented innovations and best practices to differentiate itself among the competitors and to add value in its educational services. In this paper, we have discussed about 65 innovations small and big, developed indigenously and implemented during last four years. The paper also contains some of the institutional best practices having visible impact on the quality of higher education imparted by the institution. Finally two institutional best practices are elaborated with the aim of the practice, the underlying principles and concepts, particular contextual features, challenging issues that have had to be addressed in designing and implementing the practice, and its implementation, including its uniqueness in Indian higher education, evidence of success, identifying the problems encountered and resources required to implement the practice.

## I. INTRODUCTION

Science and technology are growing alarmingly and consequently the knowledge base of all disciplines are expanding fast. The educational system is invested with the responsibility of absorbing, assimilating and delivering the new knowledge to its incumbents. Higher education therefore has become competitive. It not only matters how much in terms of quantity but how good in terms of quality that it delivers the knowledge. Student centric focus is gradually shifting to student friendly approaches, and innovations and best practices are adopted to add value and get more mileage in the knowledge delivery. Changes in culture, aspiration, levels of skills required in securing employment for students, and cost of providing the service, force higher education institutions today to rework on their educational models and add value at each and every aspects in their service [1-3]. This has become a high priority for institutions either struggling for existence or striving for excellence.

Higher education is a change-resistant enterprise. Institutional culture, faculty governance and built in bureaucracy all work together to slow down its evolution. In

part, this has contributed to the enormous "survival success" of old branded higher education institutions. In order to improve quality, higher education institutions have to think beyond presently adopted credit based systems [4-5]. By adding competency to the students and the system, through innovations and best practices, institutions can add value to the education system to address large social and economic challenges such as rapidly rising costs of tuition, growing need for more and specialized education for employment, job market competition etc. Competency-based education provides the flexibility students need, focuses on assessing learning and affordable because it is scalable in ways that create efficiencies.

Innovations and best practices in higher educational institutions enhance quality and add value to their services [6]. Srinivas Institute of Management Studies (SIMS), Mangalore, which combines information technology, business management and social work education has identified and implemented innovations and best practices to differentiate itself among the competitors and to add values in its educational services. About 65 innovations small and big, have been developed indigenously and implemented during last four years. Selected institutional best practices having visible impact on the quality of higher education imparted by the institution are discussed. The college also implemented about 40 individual faculty best practices along with institutional best practices which has contributed to improve the quality. Over a period of four years of introduction of best practices, considerable impact was felt in the overall efficiency of the institution, teaching-learning process and student progression.

## II. INNOVATIONS AT SIMS

Innovations are value additions. They represent any activity or improvement initiated into the system which would impact the efficiency of its core activity either directly or indirectly. The college has introduced several innovations which have helped to create a positive impact on the functioning of the college. Following Innovations have been introduced in the college during last 4 years :

1. Biometric Attendance for Faculty Members : The college has introduced biometric attendance for faculty and all staff. This avoids error and malpractice.
2. Wi-Fi Facility : The college introduced Wi-Fi facility

first time among all other colleges for wireless internet access in the campus at all times.

3. Photos of eminent people with their selected quotations are displayed in all prominent places to inspire students.

4. Apart from information in the college website, Online Components of teaching are included.

5. Links to Online Journals & Free Textbooks are provided in the college website to download according to the requirement.

6. Student Activity Photos are displayed in the College Corridor walls.

7. LCD projectors are fitted in all classrooms for teaching & student presentation.

8. Teachers use amplifiers in large classrooms.

9. All CRT monitors are replaced by 19 “ LCD Monitors for avoiding the hazardous radiation effect.

10. Use of video lectures provided by NPTEL to assist in teaching. The college has received a Certificate of Appreciation for this purpose.

11. Value Added Chapter is included to be taught in each subject for all courses along with prescribed University Syllabus.

12. Dual specialization offered in P.G. management course to promote multiple carrier avenues.

13. CCD Cameras are fixed in each classroom & corridor to monitor the discipline of the institution.

14. The college introduced open book examination in order to improve the reasoning and analytical skills of the students while answering questions and reduce tension and fear of examinations.

15. The college provides book bank facility to its students

16. The college introduced special counseling services to rid the failed students of back paper syndrome.

17. Enhancing reference opportunities for students and faculty involving in research projects by accessing resource from other sources such as paid Membership to Mangalore University library in addition to college library resources. .

18. Displaying photos of Rank Holders on Corridors

19. Separate departmental Libraries.

20. Locker Facility on rent for PG students for safe keeping of personal belongings..

21. Chapter wise Assignments for internal assessment.

22. Weightage for attendance in Internal assessment to encourage cent percent attendance.

23. Students are allowed access to high speed internet facility in the computer lab during evening time & Sundays.

24. College conducts JOB – FAIR to attract employers to the campus.

25. Many new programs have been started under own NGO called Srinivas Institute of Rural Reconstruction Agency (SIRRA) for social work.

26. Group projects is compulsory for BCA & MCA students in each semester.

27. Short time internship in NGOs is introduced for MBA students.

28. Virtual investment on online share market is practiced in P.G. Management Course as a learning experience in share market dealing.

29. Submission of assignment through E-mail in certain subjects in MBA course.

30. Photographs of Rank Holders & Best Academic achievers are provided in institutions Website.

31. Faculty availability to the students for consultation and tutorials on Saturday afternoon.

32. Regular Faculty Development Programs for capacity building of faculty.

33. Plan of introducing a project on solar based Green Energy Campus.

34. Participating student in Planning & organizing of various programs conducted in the college..

35. SMS information to parents about attendance shortage and Internal Exam Marks.

36. E-Placement Brochure and E- Magazine published in College Website.

37. Laptop computer Charging Facility at every seat in AC Gallery Hall.

38. Closed Circuit TV surveillance in all classrooms during University Exams.

39. Alumni invited as distinguished guest for College programs.

40. Open door policy to meet Principal.

41. Students get a unique experience to participate and receive their Graduation scroll in conventional graduation Gown and cap.

42. An extra opportunity to all the students of the college and hostel to interact with foreign professor in computer science.

43. A declaration form is to be submitted by every student who absent for the class stating the attendance position in that subject to alert against repeated absents in undergraduate programs.

44. As an additional alert mechanism, students with attendance shortage are required to produce a declaration

signed by parents and the head of the institution before payment of University exam fee.

centres in chosen areas of Management to promote faculty interest in pursuing research & publications.

S. N o.	Curricular Aspects	Teaching- Learning & Evaluation	Research, Consultancy & Extension	Infrastructure & Learning Resources	Student support & Progression	Governance, Leadership & Management
1	Website as information resource	Use Video Lectures of NPTEL	Weblinks to online journals	Inspirational quotations on wall display	Wi-Fi Internet facility	Biometric attendance system
2	Dual specialization offered by college	Open book examination	Increased reference facility for Research & Projects	Student activity photos on display	Celebration of graduation day with Gown & scroll	CCD cameras in all classrooms
3	Separate departmental libraries	Compulsory chapter wise assignment	Social service programmes under own NGO	LCD fitted classrooms	Zero balance account for the students & ATM facility inside the campus	Attempt for solar based green energy campus
4	Value added chapters in all subjects	Weightage for attendance in internal assessment	Student group projects	Use of amplifiers in class	Counselling services	Student participation in organising events
5	Information on additional online courses like eDX.	Virtual investment training on share market	Establishment of Research centres to promote faculty research	CRT monitors replaced by LCD monitors	Photos of academic achievers on display	E-placement brochure and e-magazine
6	Book exhibitions in the college	Submission of assignment through E-mail	Computer literacy classes for poor children	Locker facility on rent	Job fairs to attract employers to campus	Honouring alumni as distinguished guests
7	Subject wise library books in college website	Regular faculty development programmes	Student programs in special schools for physically challenged children.	Access to high speed internet for students	Paid internship in NGOs	Medical insurance facility for students and staff
8	Provision for downloading old question papers from website	CCTV surveillance of University exams	Old cloth collection for supporting local NGOs.	Laptop computer charging facility in classroom	Photos of academic achievers on website	EDP cell to develop young entrepreneurs
9	Competitive exam books in library collection	Foreign professors in the college campus	Blood donation camp by social service cell	Barcode based identification of library books	SMS information to parents	Open door policy to meet Principal
10	Classes begin with silent prayer to recall the goal	Declaration in case of absence in class	Institutional Consultancy priority areas provided in website	Well furnished classrooms	Youth empowerment efforts through Vivekananda study circle.	Principal collecting feedback through regular class visit
11	Book bank facility	Additional alert mechanism for attendance shortage	Student developed software usage for library	Ramp facility for disabled students	Traditional day celebration by students	Verification of ongoing classes & documentation
12	Additional time faculty availability for consultation	Student exchange programme	Student developed software for Office automation		MOU with nationalized banks for student education loan	

45. Medical Insurance Facility is provided to all students in Srinivas Hospital.

46. Establishment of Vivekananda Study Circle in the college for conducting personality development programs.

47. As an innovation, the Institution has initiated research

48. Computer Literacy classes are conducted by MCA students for poor children of Govt. Schools.

49. Students celebrate Independence day in special schools for physically challenged children.

50. edX global is a consortium of Global Universities of

developed countries which provide online courses in advanced technology areas. Students are encouraged to take up such edX global on-line courses as value addition.

51. A collection centre for used cloth is started in the college, which is distributed periodically to needy poor people through local NGOs.

52. EDP Cell – organize workshops and training programmes to develop young entrepreneurs.

53. Blood Donation Camp organized by social service cell (SIRRA).

54. College library conducts Book Exhibition every year.

55. Onam Festival & other traditional day celebration by students are encouraged.

56. College has MOU with Many Nationalized Banks for availing Education Loan so that poor students get education opportunity.

57. Computerization of Library & Office through Software developed by our Students.

58. The institution follows a practice of physical verification classes in progress & document.

59. College website maintains subject wise textbook list so that students can verify availability of a particular book from home or anywhere using internet.

60. Zero-Balance Account : Through collaboration with nationalized banks, the college provides zero balance account for its students for operating ATM.

61. Students can download old Question Papers of University exams from College website.

62. Competitive Exam Books are added in the collection of books with the library.

63. Every day classes begin with Silent Prayer recalling the goal of the student.

64. Executive cushion chairs are provided for students in P.G. Classes

65. Principal visits the classes and meets students frequently and motivates them and collects feedback.

66. Student Exchange Program between institutions in MBA course.

67. Institutional Consultancy priority areas provided in website

68. Ramp facility for disabled students

### **III. BEST PRACTICES AT SIMS**

Time tested innovations are implemented in the form of best practices when they are worked out into a system which is durable and enduring. Some of the best practices adopted and implemented in SIMS are discussed below :

1. Earn while Learn® Program : The college encourages and provides opportunity to support themselves taking up part-time jobs so that they become self-dependent.

2. Save a Year® Program : This is enable students with marginal attendance shortage to make up their attendance requirement by providing additional classes so as to avoid losing a year.

3. Equal Opportunity in education for everybody irrespective of their caste, religion, nationality, gender and students with poor academic performance. The first come first admission model of the institution supports this best practice.

4. Entry Test & Summarization of the class by two students used as a teaching technique.

5. Comprehensive Performance Management System through faculty self-evaluation & rating by head of the institute.

6. Admission to backward students on subsidized fee lower than University approved fee in selected courses. This helps the students from backward community students to get higher education.

7. The College conducts mentorship program to support students and the faculty acts as mentors. This will help weaker students to perform better academically.

8. Foreign Industry visits and Certification Program opportunity for MBA students. This gives better exposure and confidence to handle situations.

9. Certification Program for enhancing employability skills. The college has introduced a number of certificate programmes which suits the requirement of students in different courses so that they build skills which would enhance their employability.

10. Group/Team Projects for Computer Science Students in every Semester. This will help them to increase their proficiency in developing various application software.

11. Close monitoring of staff for improved efficiency through maintaining work diary. This will help to maintain accountability and efficiency in work.

12. Computerization of college library and student information system using software developed by students. This has helped the college library and the office in best use through indigenously developed technology through student effort.

13. Annual prize for best project of the year from among all projects submitted during the year. This encourages the quality research projects by the students.

14. Subscription of Business News Papers by the college to all business management students and weekly News Analysis in groups.

15. Social work through institutional NGO.

16. Offering Choice Based paper to largest number of students from other colleges
17. The college provides session wise Teaching Plan, College Calendar, and Study Materials prepared according to the syllabus with Chapter end Assignments to all students in all courses.
18. The college distributes Business News Paper – “Economic Times” for each and every student of MBA every day and conduct news Analysis program every week.
19. Along with University Syllabus, the college provides additional Workshops and Skill Development programs in Course & Technology related areas in the Subjects as Value addition.
20. Library facility is kept open till 8.00 pm on working days and during day time on Sundays.
21. A suggestion/Complaint Box is fixed on wall in front of College office to get feedback/suggestions/complaints from the students.
- 22.. Involvement of Faculty members in Admission Process.
23. Graduation Day Celebration with Graduation Dress & Certification for every passed student.
24. The institute conducts three internal exams against university standard practice of two internal exams. One among this is a preparatory exam which covers entire syllabus with a duration similar to the university exam in order to give firsthand experience.
25. Locker facility is provided to Students to make mobile phone free classrooms & Corridor.
26. Ramp & Lift facility are shared with Physically handicapped students.
27. The college has a best practice of providing comprehensive information on each of the courses through a hand book.

#### **IV. ELOBORATION OF TWO BEST PRACTICES**

##### **A. Comprehensive Performance Management System**

###### **1. Title of the Practice**

Comprehensive Performance Management System through faculty self-evaluation & rating by head of the institute

###### **2. Goal**

In order to maintain the quality of teaching learning process at desired level, it is essential that the performance of the faculty is monitored on a regular basis. Since any assessment to be done alone by a superior has its own drawbacks, it is appropriate that each faculty being assessed should be given an opportunity for self-assessment on the same parameters. Even this is not sufficient because,

the recipient or beneficiaries namely students are not getting an opportunity to assess their teachers, With this in view the college has adopted a comprehensive Performance Management System which gives scope for all the three components to be put together under one evaluation.

### **3. The Context**

In the context of higher education, the quality of the faculty is a determinant for the effectiveness of teaching - learning, student development and institution building. It is therefore essential that the faculty maintain high quality capable of imparting the best required to the students. These for example, include improving the teaching style, use of varying teaching techniques, and involving students in the learning process. A true evaluations of the faculty helps in improving their capability through knowledge generation, involvement in research and consultancy, personality development and the contribution to the society. All the more, in the present time, it is important that a good teacher admired by the students who receive his services. In the light of this the faculty should strive to continuously improve while performing on the job in areas like research, consultancy, higher studies, technology adoption, and community service. He should foresee the challenges ahead and prepare himself for long term sustainability in the profession.

### **4. The Practice**

Our model of faculty performance management is built on a overall grade point of 250 points which is subdivided into six areas of evaluation as shown bellow :

(1) Academic activities : This carries the highest score of 100 points. This include, Course Material Development, Planning & Scheduling classes, academic record keeping, knowledge and command of the subject, assignments and tutorials, administered to the students, presentation and communication skills, better evaluation practices, event management and student development activities, commitment to work ethics, and creativity and innovation in teaching learning process.

(2) Contribution to Institutional Activities : This carries 40 points under various performance criteria such as co-ordination of academic activities, student support systems, institutional support systems, and new initiatives for team involvement.

(3) Research, Publications and Consultancies : This carries a total of 25 grade points which is sub-divided into contributions to research and publications including Guidance to Students Projects, efforts made for obtaining funded projects. participation in sponsored projects, preparations and review of research papers, presentation in conferences and workshop and publications in journals.

(4) Professional activities & Self development Initiatives : This carries a total of 25 points under various performance criteria including initiatives for acquiring higher

qualifications, recognition in professional societies, expert lectures delivered, chairing technical sessions, honours received, and such other recognition and achievement.

(5) Participation in student admission : This carries a total of 10 points under various performance criteria like involvement in admission of students, propaganda and publicity for enhancing admission, utilizing opportunity to spread the information of the courses and admissions to the college in various forms and networking through alumni for enhancing admission.

(6) Student assessment : This is a most important part of the assessment since, this has to be done by the students in a spirit of judicious review and confidentiality. The factors considered here are regularity, punctuality, time consciousness, preparation for classes, competency in the subject, syllabus completion in time, presentation skill (voice, clarity & language), methodology adopted in teaching, interaction with the student, and accessibility with the student outside the class.

The portion 1-6 mentioned above are self assessment of the faculty which is matched with the assessment by the head of the institute. This gives an advantage for conveying a feedback on the misgivings in one's own assessment of the self. The part 6 of the assessment is done exclusively by the students and is not affected by self or superior review. In our practice, we found that this rating yields a score of 175 points which is indicative of good performance and leaving evidence to success to suggest that there is scope for further improvement.

## **5. Evidence of Success**

This system is unique in terms of measuring the performance involving them equally in the process. The result of the assessment is discussed with each faculty independently which gives an opportunity to improve their performance against target and developing insights on their weakness. Based on introducing this system, it is noticed that, the faculty involvement in developing study material, academic record keeping, administering assignments and tutorials, conducting internal examinations, fair assessment of the students, preparation for classes, use of various teaching techniques, knowledge and command of the subject, involving in admission process and maintaining interaction with the students. Faculty members also shown enhanced interest in research & publications. After the introduction of this system, there is an average increase of 20% in the performance of individual faculty annually. The college also conducts Faculty development Programme (FDP) in these areas which serve as benchmarks for enhancing performance.

Ever since this system was introduced, there is evidence of marked improvement in student results, increased admissions, popularity for the institution, improvement in academic activities of the faculty. The

overall learning atmosphere of the institution has improved and both students and faculty keep themselves fully busy on academic, co-curricular activities and extra-curricular activities.

## **6. Problems Encountered and Resources Required**

At the time of introducing this system, the following problems were encountered and necessitated the resources to implement it.

- All faculty were open minded in their assessment of themselves. This created unmatched inferences between two different faculty and also between self assessment and superior assessment. Faculty development programmes were conducted to orient them in this exercise which could overcome the problem.
- There was apprehension that student assessment may lead to biased inferences. Retaining objectivity and confidentiality could overcome this bias.
- Student assessment data were massive to process. This was overcome through standardization of the score.
- Opportunity has been provided to junior faculty who cannot advance in professional activity by substituting it with involvement in student admission process.

## **B. Certification Program for enhancing employability skills.**

### **1. Title of the Practice**

Certification Program for enhancing employability skills.

### **2. Goal**

The existing curriculum for all courses suffers limitation particularly in two aspects. One is the knowledge gap which means that the alarming increase in the new knowledge acquisition emerging from multitude of research studies and numerous theoretical writings has not been incorporated in the curriculum from time to time. Small and piece mill measures in the form of syllabus revision often do not suffice. This obviously results in not being able to cope with newer circumstances, work and context. Added to this is the problem of skill deficiency which hinders employability. Keeping this in view, the institute has evolved a number of skill development certificate programs which could be offered simultaneously while doing the course.

### **3. The Context**

Feedback from employers and alumni revealed that drastic improvement is required for equipping the students to fit to the present day. As a result of extensive consultation

and discussions, it was realized that programs for enhancement of skills may be introduced to be offered to the students to equip them. Since the skill requirement varies across all disciplines of study as well as within each discipline vis-à-vis the nature of job handled by a specific incumbent. This was a major challenge. Identifying experts both internal and external to offer these programmes was yet another challenge. Since, the major part of the duration of the course is spent on teaching and learning subjects in the curriculum, finding the required time available to introduce this parallel to the regular course of study was yet another challenge. The tight schedule of working hours and course requirement often inhibit the students from committing to anything extra. Keeping in mind these challenges, the institution introduced short duration certification programmes for both undergraduate and post graduate courses which are relevant to the job requirements of the course and related to their interest. These certificate programmes were introduced purely optional and the institute provides pass certificates under its name & seal.

#### 4. The Practice

The college has identified a list of about 36 certificate programs for the P.G. Courses and 18 certificate programs for undergraduate programmes. Further this is divided between the different semesters of the course. In every semester, the course co-ordinator will choose the required number of certificate programmes to be offered in that semester. The total duration of each certificate program is 6 - 8 hours extending over 5-7 days. Largely it is offered during the middle of every semester and the working hours are adjusted without affecting the regular courses adversely. In a given semester almost 09 certificate programs will be given in P.G. Courses and 04 programs in undergraduate courses. The range of certificate programmes are grouped under different areas as shown in following table :

S. No.	Area	Programme
1	Technology related	Mobile Business, Animation and visual effects Investment banking Cloud computing Android operation system & applications Nanotechnology & Quantum Computing
2	Human skills related	Human resource development Counselling Human rights NGO management Industrial & labour law Business Communication Spoken English Business correspondence Event management KASH enrichment Corporate Yoga & mind control
3	Basic computer knowledge related	Tally, Excel & Access Spread sheet techniques Hardware and networking E-Business website development

		Linux and open source software Tally accounting software Oracle certified professional Sun certified Java professional Lindo & Gambit operations research software
4	Future challenges related	Blue ocean strategy and green business, Strategic management in IT sector Cyber law & IT security CA-CPT & IPCC
5	Business application related	R-Statistical computing, SPSS /PSPP Statistical software Online Investment Quantitative analysis using MATLAB/OCTAVE Retail marketing & Brand management Enterprises Resource Planning Nanotechnology commercialization & business opportunities
6	Entrepreneurship & Own business related	Entrepreneurship Development

100 percent attendance is compulsory to appear for the examination and the proficiency is measured before pass result is granted.

Indian higher education suffers from its curriculum addiction and intensive programmes which often takes the students to death without being able to expand. The high profile teaching faculty are not prepared to offer additional services. The institutions lack flexibility in imparting what is actually required for the students. The students most often are not able to recognize, what would benefit them before they come to experience ground realities. Popularizing institution offered courses has its own limitations of not able to motivate the aspirants.

#### 5. Evidence of Success

In a short period of introducing certificate programme, there is a clear evidence of success measured in terms of number of programmes launched during the semester, number of classes conducted on each program, number of students offering the course, attendance level of the students, proficiency gained, feedback from teachers and overall enthusiasm.

Over a period of time, the institute expects increased competition in its admission to all courses which can be contributed largely due to the value added through certificate courses. Time and again these all courses will be reviewed in terms of their content, duration and relevance.

The review result indicates that there is a considerable improvement in the following :

1. Successful performance in present job
2. Ability to use technology in work place
3. Obtaining additional consideration in securing job, promotion etc.
4. Preference in obtaining internship in leading institutions
5. Decreased dependencies on external training agencies

6. Cost saving for the organization in terms of additional expenses for training.
7. Greater job satisfaction and efficiency in work
8. Low level of attrition.
9. Increased instances of own entrepreneurial ventures
10. Better self management

#### 6. Problems Encountered and Resources Required

Since these certificate programs are offered over and above the curriculum, the students have hesitation to come forward and receive it. Therefore, so much of motivation has become necessary. Secondly, many students are not aware of the merits and advantages these programs would offer in terms of securing jobs and ensuring performance. As an institution which has pioneered such innovations, popular acceptance may take time. Many students find that the work load will be too much by volunteering for such courses.

Apart from above, identifying suitable courses which have futuristic demand is also tough.

Sparing the time and additional preparation of the faculty of the college acts as a burden.

The resources required are the following :

1. Manpower - Tapping expertise as well as upgrading the existing faculty for the conduct of the programmes.
2. Cost - The entire certificate programmes are offered free of cost. The institution bears all the expenses.
3. Time - Additional working hours are fitted into the regular schedules through substitution of filling.
4. Infrastructure - The classrooms, library and laboratory are available with the institute.
5. Transcript - The course plan as well as the pass certificate are provided under the seal of the college.

#### V. CONCLUSION

The introduction of innovations and best practices in SIMS has resulted in changed philosophy and approaches to teaching-learning process. The managerial theory namely -Theory X and Theory Y propounded by McGregor as applied to students in an educational institution has given way to new set of assumptions based on theory Y. The following are the assumptions based on theory X.

- Most students are basically lazy and do not want to study. They are coming for studies because of their parents who force them.
- They have no interest in attending classes and writing assignments.
- Internal marks are not serving as motivators.
- They do not take examinations seriously.
- High marks as a desire is cherished by most of the students, but they are not prepared to toil and get it.

- They have taken the course only for the sake of getting a job.
  - Examinations are treated as botheration and unnecessary burden. They want pass the course merely spending specified years in the course without any evaluation.
  - If any job is offered, they are ready to leave the course.
- The following are the assumptions based on theory Y.

- All students are not basically lazy. Their interest in studies could be created by the teacher using improved method of teaching and closely working with them.
- With constant support and advise, they will attend all classes. Wrong temperament of the teachers, love for more leisure and wrong friends are influencing to keep away from the classes.
- Internal marks are good motivators if utilized appropriately by the teachers. Unrealistic targets, harsh deadlines and wrong distribution of marks make them disillusioned.
- Students take examinations seriously if evaluation is suiting to reward their capability. Wrong methods of evaluation and wrong practice of examinations make it meaningless.
- Desire to get high marks have to be accompanied by preparedness to work more. The fault can not be attributed to students. It is a fault of the system.
- Job has become important to living. Driven by the pressure of circumstances they ignore to become qualified before taking up a job.
- The low importance for examination is because the employers no longer look at their performance and grades.
- Opportunities are few which tempt them to abandon studies. Given sufficient opportunity, they will stick on to studies.

Innovations have no end. They continue to influence the quality of the education and therefore higher educational institutions should constantly pursue more and new innovations and convert them into best practices to add value to their services.

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# Medical Tourism as a Revenue Generator, Better Economic Possibilities in Aurangabad

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**Abstract :** Medical tourism is a growing phenomenon with policy implications for health systems, particularly of destination countries. Private actors and governments in Southeast Asia are promoting the medical tourist industry, but the potential impact on health systems, particularly in terms of equity in access and availability for local consumers, is unclear. This article presents a conceptual framework that outlines the possibilities of medical tourism in Aurangabad (MS) which can be a better revenue generator in the region. Variables for further analysis of the potential impact of medical tourism on health systems are also identified. The policy implications described are of particular relevance for policymakers and industry practitioners in other Southeast Asian countries with similar health systems where governments have expressed interest in facilitating the growth of the medical tourist industry. This article calls would be helpful for clients in analyzing the opportunities prevailing and critical for the growth of this market. It will also help investors who can refer to the detailed data and analysis on the changing dynamics of the healthcare industry

The concept of Medical Tourism India refers to visit by overseas patients for medical treatment and relaxation. The opportunities in Indian Healthcare sector in medical infrastructure and technology are just as good as those in the West. As Indian healthcare sector develops, a new term has been coined called 'Medical Tourism', which is the process of people from all corners of the world visiting India to seek medical and relaxation treatments. The most common treatments sought are heart surgery, knee transplant, cosmetic surgery and dental care.

According to research reports on Indian Healthcare sector, the medical tourism market is valued to be worth over \$310 million with foreign patients coming by 100,000 every year, and the market is predicted to grow to \$2+ billion by 2015.

Medical tourists choose India as their favorable destination because of the key opportunities in Indian healthcare sector in the form of efficient infrastructures and technology. The health insurance market and National medical systems here are well developed, which is convenient for visitors from the West and the Middle East. They also find the hospital expenses very affordable.

RNCOS in its market research report, "Opportunities in Indian Healthcare Sector" finds that 120,000 overseas patients came to India for medical treatment and this is expected to expand by 30%. The healthcare industry overview shows that the medical infrastructure and technology in this country is in par with those in USA, UK and Europe. India can vie with some of its best hospitals and

treatment centers in the world, and therefore make it a favorable destination.

RNCOS' report is based on extensive research that provides objective analysis of India's healthcare sector performance. The report would be helpful for clients in analyzing the opportunities prevailing and critical for the growth of this market. It will also help investors who can refer to the detailed data and analysis on the changing dynamics of the healthcare industry.

In the upcoming five years, Indian medical tourism is expected to grow twice the present size of any other medical tourism market. India offers medical services at economical rates when compared to the medical treatments in western nations. The medical facilities offered in India are world class while the patients are taken care by world renowned medical centers located all across India. Henceforth India is certainly a good bargain when it is spoken of medical tourism. There are number of merits for opting for medical tourism in country, India. Medical treatments in India are offered at very affordable prices, besides the air ticket expenditure and accommodation expenses also turn out to be less when compared to UK or USA. The patients generally tend to save almost 80% of their cost, in case they opt for India seeking for their medical treatments.

## About Aurangabad city :

Aurangabad district of Maharashtra, India. Aurangabad (meaning "Built by the Throne") is named after the Mughal Emperor Aurangzeb, a well known Mughal Muslim ruler. The city is a tourist hub, surrounded with many historical monuments, including the Ajanta Caves and Ellora Caves, which are UNESCO World Heritage Sites, as well as Bibi Ka Maqbara. The administrative headquarters of the Aurangabad Division or Marathwada region, Aurangabad is said to be a *City of Gates* and the strong presence of these can be felt as one drives through the city. Recently, Aurangabad has been declared as Tourism Capital of Maharashtra. It is also one of the fastest growing cities in the world. It is the 5th largest city in Maharashtra after Mumbai, Pune, Nagpur and Nashik.

## SCOPE OF MEDICAL TOURISM IN AURANGABAD

Aurangabad has immense potential for becoming a medical tourism hub owing to the emerging super specialty hospitals together with the advanced infrastructure, quality medical treatments at economical rates which is coupled with excellent connectivity and calm weather. The relatives accompanying the patients who visit Aurangabad for their

medical treatment will get allured to assorted tourist destinations of Aurangabad. Aurangabad is well acknowledged by tourists who visit India seeking for their total knee replacement and total hip replacement. The Indian government together with the state government is making efforts to promote the sector of medical tourism by motivating setting up of international standard facilities to the tourists that come from all across the world.

In Aurangabad District the rainy season runs from June to September. Winter is from approximately October to February and summer from March to May. The average rainfall of Aurangabad district is 734 mm, and the temperature range is about 5–46 degrees Celsius, which is quite suitable for the medical tourist coming from the gulf countries or from the North African countries. The food and accommodation charges in the city are also cheaper than to Mumbai, Pune and Hyderabad, besides the excellent medical treatment available in a very affordable cost.

### **MEDICAL COLLEGES IN AURANGABAD**

#### **Government Medical College & Hospital :**

The Government medical college (GMC) & Hospital (GMCH), Aurangabad is a medical school affiliated to the Maharashtra University of Health Sciences (MUHS), Nashik. The College is recognized by the Medical Council of India (MCI), New Delhi for medical education in

- MGM Hospital
- Kamalnayan Bajaj Hospital
- Seth Nandlal Dhoot Hospital
- Max Hospitals
- Fortis group of hospitals
- Escorts Heart Institute & Research Centre (EHIR)
- Apollo Hospitals
- Moolchand K R Hospital
- Artemis Health Institute
- Sumananjali Hospital
- Ropdekar Heart Hospital
- Deogiri Multispeciality Hospital
- Anesthesiology
- Ayurveda
- Bone Marrow/Stem Cell Transplant
- Cancer Center
- Cardiology
- Cardiothoracic & Vascular Surgery
- Critical Care Medicine
- Dental & Maxillofacial Surgery
- Department of Nephrology & Renal Transplant
- Dermatology
- Emergency & Acute Care Medicine
- Endocrinology & Endocrine Surgery
- ENT and Cochlear Implant
- External Counter Pulsation
- Gastroenterology & Hepatology
- General & Minimal Access Surgery

India. Founded in 1956 it is one of the premier medical institutions in the state of Maharashtra. At present, the college accepts 150 students per year for the undergraduate course MBBS and around 84 students per year for the various postgraduate courses.<sup>[3]</sup> The College has as excellent training center for young medical doctors, nurses, and DMLT students in the art & science of medicine.

#### **Mahatma Gandhi Mission Institute of Health Science :**

The Mahatma Gandhi Mission Trust is the parent body of MGMIHS which was established in 1982 by Mr. Kamalkishore Kadam with a vision to provide qualitative education by applying innovative and dynamic pedagogical techniques. Since inception, the Trust has focused on providing Health Care Services and Higher Education with dedication and commitment. The MGM Trust was established in Nanded, Maharashtra and in the course of time it extended its services to Aurangabad, Navi Mumbai and Parbhani in Maharashtra and Noida [New Delhi] in Uttar Pradesh. At present, the college accepts 150 students per year for the undergraduate course MBBS and around 45 students per year for the various postgraduate courses.<sup>[1]</sup> The College has as excellent training center for young medical doctors and in other courses in health sciences.

Leading Hospitals in Aurangabad having potential scope of Medical Hospitality

- Mamta Hospital
- Sigma Hospital
- Dunakhe Hospital Pvt Ltd
- Dr Hedgewar Hospital
- Patwardhan Hospital
- Jilla Hospital
- MIT Hospital And Research Institute
- Apex Super Speciality Brain Hospital
- SAI Urology Hospital
- Sanjeevani Childrens Hospital.

Areas of Medical Excellence Available in Aurangabad

- Gynaecology & Obstetrics
- Internal Medicine
- Interventional Radiology
- IVF & Infertility Treatment
- Organ Transplantation (Liver & Kidney)
- Minimal Access & Bariatric Surgery
- Gastroenterology
- Surgical Gastroenterology
- Joint Replacement & Reconstruction
- Cardiology
- Cardio Thoracic Surgery
- Critical Care & Emergency Medicine
- Minimal Access Surgery
- Spinal Disorders & Surgery
- Neurology, Neurosurgery & Neuroendovascular Therapy

- Vascular & Peripheral Vascular Surgery
- Plastic & Cosmetic Surgery
- Arthroscopy & Sports Medicine
- Infertility, IVF & Reproductive Medicine
- Ophthalmology

#### **Possibilities of Economic Upliftment due to Medical**

**Tourism in Aurangabad :** Since the government is actively participating in the expansion of the medical tourism industry, there is much investment in the facilities and resources needed for medical tourists. This including the production of an estimated 20, 000 - 30,000 doctors and nurses each year. At an approximate growth of 30% each year, studies conducted by government and private sectors in India estimate that medical tourism could bring between \$1 billion and \$2 billion US into India by 2015. With all this investment, as well as the growing nature of this competitive market, patients from western countries are usually offered high quality service packages at a fraction of the treatment cost in the home country. Medical Tourism and economic development are linked by the various ways in which medical tourism can contribute to the economic development of a tourist destination. This relationship between medical tourism and economic development is the basis for the dependence of some tourist-based economies on the effects of tourism for their economic development. For instance, tourism provides more jobs for local citizens, helps local citizens start businesses that cater to tourists, leads to the generation of revenue from medical tourist spending and fiscal policies, and aids in the development of infrastructure. One of the benefits or links between tourism and economic development is the fact that a vibrant tourist region provides employment for the citizens of that area.

Tourism needs a lot of services in order to sustain the industry and the same way medical tourism needs a lot of services in order to sustain the Industry. For example, the hospitals creates jobs for people in medical services like Allopathic physician, Clinical Nurse Specialist, Clinical Technologist, Dental Assistant, Dental Laboratory Technician, Dialysis Technician, Licensed Practical Nurse, Nuclear Medicine Technologist, Nurse Anesthetist, Pharmacist, Physical Therapist, Ultrasound Technologist etc etc. Chemist hotels and restaurants. Employment is a macroeconomic factor that contributes to the growth of an economy by providing workers with disposable income and consequently leading to an increase in the Gross Domestic Product (GDP) of the Aurangabad city. Whereas the India's expenditure on health, in terms of percentage of GDP, is amongst the highest for developing countries. In 2001, it was estimated at 5.1 percent, that is, approximately US \$ 22.40 billion. Comparatively, per capita healthcare expenditure is relatively modest at an estimated US \$ 24 in 2001. This can be attributed to the current priority to develop extensive basic health infrastructure, medical education and an extensive public hospital system. The Medicare infrastructure in India includes over 500,000 doctors, 15,000 hospitals and 875,000 beds. In addition,

- Clinical Haematology & Bone Marrow Transplantation
- Child Health & Neonatology
- Holistic Medicine
- NABL accredited laboratories, PET Scan, 3T MRI Scan

semi-urban and rural regions have over 23,000 primary health centers and 132,000 sub-centers. Despite an extensive public healthcare infrastructure, the private sector now dominates the market. According to India's Ministry of External Affairs, the \$ 17 billion dollar healthcare industry, comprises health services, health care equipment and pharmaceuticals and is poised to grow 13 percent annually for the next six years, boosted by medical tourism, which industry watchers say is growing at 30 percent annually. India's medical tourism sector is expected to grow at an annual rate of 30 percent to become a Rs 9,500-crore industry by 2015. As per the estimates of ASSOCHAM, India's medical tourism sector is expected to grow at an annual rate of 30 percent to become a Rs 9,500-crore industry by 2015 as foreign arrivals will increase to avail treatment at lower costs. With global revenues of an estimated \$ 2.8 billion, the healthcare industry is one of the world's largest industry. Indian healthcare industry, according to the Insurance Regulatory and Development Authority has the potential to show the same exponential growth that the software and pharmaceutical industries have shown in the past decade. Only 10 percent of the market potential has been tapped till date. Private hospitals and enterprises have driven the spurt in medical tourism.

#### **FINDINGS AND SUGGESTIONS**

**Reluctance of Hospitals towards Tourism** Most of the Hospitals who participate in Medical Tourism do not give much significance to Tourism. As seen only 28% felt that the desire of patients who come to Aurangabad because of opportunity for tourism is high. 25% thought that it is medium. The remaining 47% thought patients were not concerned about it at all. Only less than half of the hospitals were found to take some initiative to help patients to club their medical travel with tourism. It was also revealed that only 33% of the hospitals were making some initiatives on their own to market their services and only 31% of them were participating in any collective effort for marketing medical tourism. This attitude will not help Medical Tourism. At the same time 64% of them claimed that they were taking initiatives for marketing their services in foreign countries even though in actual practice they were not doing anything more than relying on word of mouth publicity.

**Need for Collective Promotion** Almost all the respondents had pointed out the need and relevance for Collective Promotion. The need to organise road shows, Medical Tourism Fares, and other efforts to convert Aurangabad as Destination for Medical/Dental Tourism . The hospital should organized and establish Foreign Patients Cell under one umbrella, which will look after the promotion and marketing phenomenon. Online combined

presentation, containing of facilities, excellence history and budgetary aspect to be present in a manner which will attract more medical tourism. Accreditation of Hospitals. The attitude of Hospitals towards quality certification is very cold. For the successful participation in Medical Tourism, this should change because the foreign tourists value quality recognitions. Government involvement for the growth and promotion of Medical Tourism The Tourism and Health ministry of GOI should establish an independent department to look after the progress and developments aspects of medical tourism.

Maharashtra Economic Development Council should undertake an innovative approached towards medical tourism not only in Aurangabad but also for the all major cities of the State.

Government should setup special financing agencies on the ground of Industrial Banks for the infrastructural development in the medical sector

### **Problems Faced by Medical Tourism**

It is thankful to know that the level of perceived problems in Medical Tourism is low. However as pointed out earlier, when the scale of operation increases more problems are bound to occur.

### **Environment and Infrastructure**

The various suggestions from the respondents and the discussions we had with the resource persons have emphasized the point that we need improvement in physical and social environment. The physical environment includes the improvement in basic infrastructure, standard of cleanliness etc. Basic amenities should be good—toilets should be user friendly and well maintained. Good standards at lesser cost will make the state a more attractive, value for money destination. For this we have to improve the physical infrastructure and connectivity. The social environment includes the improvement in human culture and behaviour. People have to be friendly to the visitors and guests.

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# Recent Trends in Social Science

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## INTRODUCTION

A recent effort towards globalization of the Indian economy has contributed to two most important developments in case of education and research. They are flow of international aid for educational development, and emergence of private entrepreneurship in education and research. Both have serious implications for the quality and quantity for research in India. This has attributed for the horizontal and vertical strengths in social sciences like how it has expanded and how is its depth. At present how it has taken its turn from tradition to applied version. This is analysed in the objectives of this paper,

## OBJECTIVES AND METHODOLOGY

Using the secondary source of data and observation the objectives are framed as follows,

1. To analyse the recent trends in social science research.
2. To examine the interdisciplinary aspect of social science.
3. To review the application part of social science.

In the paper significance is given like in past just intellectuals who were reachable to research world were only permitted to do research but the scenario has been changed to reach common man who is willing to do and its job oriented. In social science we could see how application in form of mathematics is applied in form of QT in economics which is traditional subject in social science.

## RECENT TRENDS IN SOCIAL SCIENCE RESEARCH

India has been characterised by a well-established long tradition of sound research in social sciences as well as physical and natural sciences. There are a good number of social science research institutions, some of which come under the umbrella of a national body called Indian Council of Social Science Research (ICSSR) and some of which are funded by government(s) directly. Research traditions in the university departments are also strong and vibrant. Research both at doctoral and post-doctoral levels is highly respected, and financially supported by state. In all, the ICSSR, the University Grants Commission and Department/Ministry of Education at national and state levels have been the principal financiers of research in social sciences in India. The importance of research for advancement of knowledge and for social policy formulation is widely recognized in most of the developing and developing economies of the world. Recent efforts towards globalization of the Indian economy have contributed to two most important developments in case of education and research. They are: flow of international aid for educational development, and

emergence of private entrepreneurship in education and research. Both have serious implications for the quality and quantity for research in India.

In the recent past, one notices a major shift in research in education from basic (or fundamental) research to applied (and empirical) research. Both basic and applied research are respectable areas, and both have their own significance and utility. Both complement each other. Many 'fundamental' research contributions have not been noted in the recent past. In contrast, empirical research bulged rather in geometric progression. It is obvious that fundamental research cannot progress at the same rate of growth as of empirical research. Otherwise perhaps fundamental research contributions do not remain 'fundamental'. In the empirical research also, contribution of research in terms of improvements in empirical research -- in the form of insights it provides into the empirical complexities, improvement in empirical techniques, is not as high as the volume of empirical applications. Few significant methodological improvements have taken place, but the number of applications got multiplied several times. After all, multiplication of number of blind applications of a technique to new and old sets of data does not form progress in applied research.

Equally important is a shift from empirical to action research. Researchers are not content with empirical and applied research. They became more 'action-oriented', and action research became a hot favourite among many. Except for a few action research programmes, many action research activities end up in a fiasco, essentially because action research cannot be an alternative to theoretical and empirical research. A good action research is a theatre of a set of very complex factors. It requires, inter alia, very sound theoretical formulation of a viable development model. Many researchers -- national and international non-governmental organisations are an important lot in this category -- jump into action research, without fulfilling this basic condition, and as a result they cannot but fail. They may be having genuine social commitment. But social commitment is a necessary, but not a sufficient condition for the success of action research programmes. Neither action nor research could be found finally in such action research programmes. A strong tendency in research in the recent past has been a shift from data analysis to collection and compilation of data. The funding agencies or consulting firms, particularly international consulting firms who do not know even the basic information about a country or a given region, seem to be more interested in information rather than

the analysis. Researchers play to the tune of those who pay for.

### **INTERDISCIPLINARY ASPECT OF SOCIAL SCIENCE**

'Research study' is becoming an old term. Now-a-days it is called 'research report' or simply and more commonly 'report'. This shift in terminology has important bearing on our thinking. The primary role of the researcher becomes not 'studying', but 'reporting'. Reporting to whom may be to the society. But more commonly it is 'reporting' only to the funding agency. In the name of inter-disciplinary and multi-disciplinary research, researchers specialise in no specific area. Inter-disciplinary or multi-disciplinary research can be (or should be) evolutionary in nature. After a researcher develops thorough professional expertise in one discipline, he/she may be able to know the strengths and weaknesses of the particular discipline to explain a particular phenomenon, and thereby realise the need to cut across the boundaries of the given discipline, and to use research and other tools relating to other necessary disciplines. In such a case, one discipline becomes a core discipline in which the researcher has sufficient expertise, and other disciplines complement the core one in analysing and explaining a particular phenomenon. In the recent past, such an evolutionary process is by-passed, and as a result, the researcher more often becomes a jack of all trades and master of none. Another interesting trend in this context worth noting is crossing of disciplines. Even before one tries to understand his or her discipline somewhat in depth, the researcher frequently crosses over to other disciplines, in response to the needs of the consulting firms, but in the process loses the ground on which he/she could have firmly and somewhat confidently stood, and can never become an expert in the discipline he/she crossed to. A distinction may be made between branching into a specialisation in a core discipline and crossing disciplines altogether. While the former kind is desirable, the latter kind is not. In short, a major shift takes place from research production to research management. The role of the researchers is not necessarily focused on conducting research, but more importantly on management or co-ordination of it. Researchers become research managers or suddenly research managers are born without any experience and training not only in the given specific area in particular, but even in research in general. All this also contributed to emergence and rapid growth of national and international consulting firms, if not intermediary or broker agencies, both in public and private sectors in educational research. These consulting firms, which do not make any distinction between research and any other area of physical output production on the one hand, and between research in education and any other area, serve as 'brokers' between financiers of research and researchers. Thus the shift takes place from conducting of research to co-ordination and management of research.

With the growth of intermediaries -- both in public and private sectors, but more particularly in private sector--

research also becomes very expensive and financially a highly lucrative area. The Indian researchers, who never treated research as financially rewarding, are now known as consultants and are asked to fill-up the forms that list half a dozen types of fees and other charges. With private and international organisations entering the scene, there has also been competition among these organisations in identifying the consultants for their jobs, which further escalate the fee rates. Researchers in public institutions, who used to receive respectable but low salaries, now find it worth leaving for good the public sector and join as consultants in the private sector even for a short span of time shows the interdisciplinary aspect of social sciences in the recent venture of subjects.

### **APPLICATION PART OF SOCIAL SCIENCE**

Social science is an academic discipline concerned with society and the relationships among individuals within a society. It includes anthropology, economics, political science, psychology and sociology. In a wider sense, it may often include some fields in the humanities such as archaeology, history, law, and linguistics. The term may however be used in the specific context of referring to the original Science of society, established in 19th century, sociology. Émile Durkheim, Karl Marx and Max Weber are typically cited as the principal architects of modern social science.

Positivist social scientists use methods resembling those of the natural sciences as tools for understanding society, and so define science in its stricter modern sense. Interpretive social scientists, by contrast, may use social critique or symbolic interpretation rather than constructing empirically falsifiable theories, and thus treat science in its broader sense. In modern academic practice, researchers are often eclectic, using multiple methodologies (for instance, by combining the quantitative and qualitative techniques). The term social research has also acquired a degree of autonomy as practitioners from various disciplines share in its aims and methods.

Making use of a blend of learning technologies, this interdisciplinary course investigates how social science is used to make sense of everyday dilemmas such as sustaining relationships, making a living, finding a place to live, being part of a community, or making one's voice heard. The course explores how social scientists use evidence and data, theories and explanations, and norms and values to make sense of social life. By studying this course you will develop the practical skills and intellectual resources required to analyse the ways in which social science can be used both to understand and to shape our social lives.

To conclude, research priorities in education are getting distorted, and the quality of research has got affected seriously in the recent past. Some of these aspects are directly attributable to the important developments

mentioned earlier, viz., flow of international aid for education and research and emergence of private entrepreneurship in research. All these aspects are, however, not exactly related to these developments, but these developments do strengthen the forces that contribute to the shifts in priorities. The undesirable trends described above are not yet very dominant ones. But they need to be taken very seriously, as they seem like signalling the new emerging shifts in research priorities in the near future. Serious academic activity appears to be becoming a victim to all these degenerating trends, rather than being a great historical role-setter for development of the society.

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# An Innovative Education Model to realize Ideal Education System

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**Abstract**— Education is the most important thing for any country to develop and prosper. Education moulds the character and intelligence of individuals. It also provides the talent and motivation to every person. The conventional education system at higher education level is analog to brick and mortar type business system, where a student get systematic education from college/University by physically attending required courses regularly (Full time/part Time). In this paper we have presented an Ideal Education System model by considering its various characteristics under Input conditions, Systems requirements, Output conditions and Environmental & social conditions. These characteristics are analyzed with an objective to achieve the goal. We have studied the possibility of realizing our Ideal Education System through Online Education using E-education model. Finally a comparison is made between Conventional Education Models and Online E-education Model.

**Keywords**—Ideal education system, Characteristics of ideal education system, Online education, E-education

## I. INTRODUCTION

Education is the most important thing for any country to develop and prosper. Education moulds the character and intelligence of individuals. It also provides the talent and motivation to every person. The conventional education system at higher education level is analog to brick and mortar type business system, where a student get systematic education from college/University by physically attending required courses regularly (Full time/part Time). However, the conventional education system has many drawbacks and lot of improvements are expected in future days. To improve any present systems, it is normal practice that such systems have to be compared with an hypothetical, predicted system of that kind called "Ideal system".

The word 'Ideal system' refers to the system which has ideal characteristics i.e., perfect in every way. It is what the mind pictures as being perfect. The concept of ideal engine, ideal switch, ideal voltage source, ideal current source, ideal semiconductor devices like ideal diodes, ideal transistors, amplifiers etc. have been defined and taken as standards to improve the quality and performance of such practical devices or systems. It is found that, by keeping such hypothetical devices or systems in mind, researchers have continuously been improving the characteristics/properties of practical devices / systems to upgrade their performances. Hence ideal properties of a device or a system can be used to upgrade or improve its properties towards reaching 100% efficiency. By

comparing the properties/characteristics of a practical device/system with its ideal counterpart, one can find out the possible modifications in that device /system towards reaching the objective of achieving such an ideal system [1].

In this paper, we have presented an Ideal Education System model by considering various characteristics under 4 categories such as Input conditions, Systems requirements, Output conditions and Environmental & social conditions, and analyzed these characteristics with an objective to achieve the goal. We have also studied the possibility of realizing our Ideal Education System Model through Online Education using Mobile devices. Finally a comparison is made between Conventional Education Models and Online education Model using Mobile devices.

## II. IDEAL EDUCATION SYSTEM MODEL

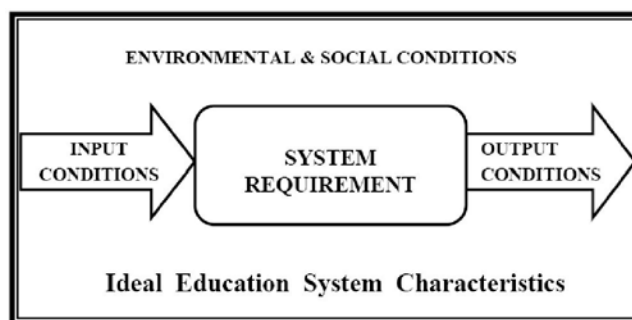


Figure 1. Classifications of an Ideal Education System Characteristics.

Education at its best will effectively prepare students for the working world. An ideal education system would not only prepare students for the working world but would also prepare them to become empowered to transform the working world to better suit the needs of the people. An Ideal education system shall have characteristics which can be predicted and classified. Based on various factors which decides the ideal education system characteristics, a model consisting of the input conditions, output conditions, system requirements, and social & environmental conditions is derived by a qualitative data collection instrument namely focus group method [2,3]. The block diagram of such a system is shown in Fig. 1

### A. Social & environmental conditions :

(1) The Ideal Education provides education to the entire world rather than a single neighbourhood /Country and hence it has an unlimited global reachability.

(2) The Ideal Education offers courses of study, which enjoys an inelastic demand in the world market. (inelastic refers to a Course that people need or desire almost at any price.)

(3) The Ideal Education provides all types of courses in all field of specialization and imparts knowledge, skills and experience to all people irrespective of their age, gender, previous qualification and country of origin.

(4) The Ideal Education system provides high quality education to everybody irrespective of their economic, social, linguistic and cultural background.

#### *B. Input Conditions :*

(5) The Ideal Education system need minimum instructors in identified courses and must utilize optimum service from them.

(6) The Ideal Education system operates on a low overhead. It does not need an expensive location, big campus and huge amount of infrastructure. Only a few Universities are required to provide quality education to the entire world.

(7) The Ideal Education system does not require major investments in equipments and other education & training systems or repetition of large number of universities in every state and every country. In other words, it does not require huge capital.

#### *C. System Requirements :*

(8) The Ideal Education system is relatively free of all kinds of government regulations or restrictions.

(9) The Ideal Education system is portable or easily moveable. This means a student registered for a course should get the service wherever he moves.

(10) The Ideal Education system satisfies its students intellectual needs. There is no constraints like compulsory subjects, minimum and maximum subjects.

(11) The Ideal Education system leaves enough free time to instructors as well as to students. In other words, it doesn't require attention/study of 12, 16, or 18 hours a day.

(12) The Ideal Education system is one in which the income of the university does not limit by personal output (Leverage). In the Ideal Education system, one can train 10,000 students as easily as can have one."

(13) The ideal Education system students can take exams any time, any number of times and results should be declared immediately. There is nothing like losing a year due to failure in examination.

(14) The ideal Education system will provide services to its registered students anywhere, any time and any amount of time. i.e., it is ubiquitous.

(15) In ideal system, the technology is used in such a way that all pedagogies of education system should be delivered effectively.

(16) An ideal education system provides all students with not only basic knowledge but also social skills and good behaviours.

#### *D. Output Conditions :*

(17) In ideal Education system, the demand for variety of courses is higher than supply and the efficiency of the system is always 100%.

(18) In ideal Education system, the students have a choice on alternative in terms of course/service providers.

(19) The ideal Education system will be sustainable for long time.

Any education system which has the above properties is considered as ideal education system and the conventional education systems called brick and mortar systems have serious drawbacks/limitations in terms of the above properties [4].

### **III. ANALYSIS OF THE CHARACTERISTICS**

Ideal Education System characteristics can be explained based on their effectiveness in improving the qualities and benefits of the education system in empowering & to reform the working world. The characteristics mentioned in ideal education system model are further discussed below :

#### **(1) Global Reachability :**

Any ideal system will sustain for longer period providing services to larger number of people. An Ideal Education system will be eyeing at global students and provides education to the entire world rather than a single neighbourhood /Country which has only limited students. Hence Ideal education system has an unlimited global reachability.

#### **(2) Inelastic demand :**

The Ideal Education offers all required and possible courses of study with highest quality and enhanced values, which enjoys an inelastic demand in the world market due to their benefits. In ideal education system, the benefits of education & training is always more than the cost incurred to avail it.

#### **(3) Open Courses for everybody :**

The Ideal Education System provides all types of courses in all field of specialization and imparts knowledge, skills and experience to all people irrespective of their age, gender, previous qualification and country of origin. This helps everybody in the world to have access to higher education in chosen area irrespective of his/her origin.

#### **(4) High Quality Courses for everybody :**

The Ideal Education system provides high quality education to everybody irrespective of their economic, social, linguistic and cultural background. The product/course in ideal education system is developed in such a way that it has unique features in terms of concepts, pedagogy, technology, understandability, innovativeness, cost/price or any other advantages.

#### **(5) Minimum Instructors requirement :**

Any education system can sustain for longer period by decreasing the cost. The Ideal Education system need minimum instructors in identified courses and must utilize optimum service from them for proper model of course delivery. Using a model of utilizing less, highly qualified, experienced, innovative instructors to provide training, will minimize the expenditure of the system.

#### **(6) Low overhead :**

The total cost of any education system is the sum of Fixed cost and Variable cost. The fixed cost involves initial investment on the education system and the variable cost include maintenance cost. By decreasing initial investment without

compromising with quality, the education system can decrease its overall cost. As per our definition, the Ideal education system operates on a low overhead. It does not need an expensive location, big campus and huge amount of infrastructure. Only few Universities are required to provide quality education to the entire world.

(7) Low investments :

Out of various resources used in any education system, capital investment like investment on land, buildings, equipments and other infrastructures need huge capital. On the other hand the Ideal education system does not require big cash outlays or major investments in land, equipments, buildings and other education & training systems or repetition of large number of universities in every state and every country. In other words, it does not require huge capital.

(8) Free of Government Regulations :

Many conventional education systems are facing problems due to Government regulations based on the nature of education (basic, higher, professional etc.), the environmental issues and the neighbouring community issues. These regulations sometime make the educational systems as nonprofit or to shut down. An Ideal system is relatively free of all kinds of government regulations or restrictions so that it can do sustainable services for longer period.

(9) Portability :

The conventional Education models have uncertainty in their efforts of providing continued service to the students due to various reasons including shifting from one country to another country or due to natural calamities. This problem can be solved in Ideal education model due to its portability or easy moveability. This means a student registered for a course should get the service wherever he moves.

(10) Satisfying intellectual needs :

In conventional education, the organization grows due to the collective efforts of the instructors and students and it may not satisfy the intellectual needs of the individual students. However, Ideal education system satisfies the intellectual needs of every student. There is no constraints like compulsory subjects, minimum and maximum subjects etc.

(11) Less time consumption :

The Ideal Education system leaves enough free time to instructors as well as to students. Students can take the courses at any leisure time. They need not attend the courses every day and spend equal amount of time every day. Similarly the instructors also need not engage with busy schedules. In other words, it doesn't require attention/study of 12, 16, or 18 hours every day. In addition the students need not waste their time for unproductive activities like travel etc.

(12) Potential opportunity for high income :

The education systems must have profit for further progress. There is nothing wrong in expecting huge profit for honest efforts. One of the advantages of Ideal education system is possibility of ensuring large profits. The Ideal Education system is one in which the income of the university does not limit by personal output of its instructors (Leverage). In the Ideal Education system, one can have 10,000 students as

easily as can have one." This is mainly due to intangible nature of courses/services and scalability.

(13) Repeated Opportunity for continuing education :

In ideal Education system, students need not be tensed due to heavy pressure during examination. The examinations are scientifically planned to test their understandability and intelligence. They can take exams any time, any number of times and results should be declared immediately. There is nothing like losing a year due to failure in examination.

(14) Ubiquitous :

The ideal Education system will provide services to its registered students anywhere, any time and any amount of time. i.e., it is ubiquitous. This is the major advantage of ideal educational system compared to conventional brick-and-mortar system.

(15) Technology dependent :

In ideal system, the technology is used in such a way that all pedagogies of education system should be delivered efficiently and effectively. Students should get opportunity to do experiments through simulation, group discussions/group activities through online communication models.

(16) All-round education :

An ideal education system provides all registered students with not only basic knowledge but also social skills and good behaviors. This will qualify them and empower to reform the working world.

(17) Hundred percent efficiency :

In ideal Education system, due to its global reachability to anybody and everybody, the demand for variety of courses is higher than supply and the efficiency of the system is always 100%.

(18) Choice of alternative Courses :

Depending upon the self interest, job demands, environmental factors, the students in ideal Education system have a choice of alternative in terms of course/service providers.

(19) Longer Sustainability :

The ideal Education system will be sustainable for long time due to its advantages like low cost, high quality, and ubiquity.

#### **IV. ONLINE EDUCATION THROUGH MOBILE DEVICES AS IDEAL EDUCATION MODEL**

To realize the Ideal Education System in practice, we need to convert University Courses to intangible in nature. The education system should be online electronic (intangible) components and is controlled by any place in the world. The courses and the education model should be chosen in such a way as it should have characteristics, at least close to Ideal Education system model. This can be realized by online courses provided by virtual universities located anywhere in the world. In order to reach such online virtual courses to the students located anywhere, they should use mobile communicating devices so that the model will be perfectly ubiquitous [5].

An intangible course marketed through E-business model is the possible solution while approaching towards Idealization of the education. A ubiquitous E-Business model using intangible courses by virtual universities is most suitable for

elevation to Ideal education system. Most of the characteristics discussed in Fig. 1 of Ideal Education system can be achieved through and compared to the properties of online Education using mobile devices.

#### A. Benefits of Online Mobile Education

The benefit from the students point of view is accessing education services anywhere, any time and any extent of time. These features significantly save the valuable time of the student. The main advantages of online mobile education for the global students are listed as follows[6] :

(1) Ubiquity : Through mobile devices, education applications are able to reach students anywhere at any time. On the other hand, students can get any course they are interested in, whenever they want regardless of where they are, through Internet-enabled mobile devices. In this sense, mobile education makes a service or an application available wherever and whenever such a need arises. Communication can take place independent of the students and universities location. The advantages presented from the omnipresence of information and continual access to university courses will be exceptionally important to time-critical applications.

(2) Personalization : An enormous number of education courses, services, and applications are currently available on the Internet, and the relevance of information received by users is of great importance. Since owners of mobile devices often require different sets of applications and services, mobile education applications can be personalized to represent information or provide services in ways appropriate to the specific students use. Additionally, personalized courses/content is paramount in operating mobile devices because of the limitation of the user interface. Relevant university courses must always be only a single "click" away, since web access with any existing wireless device is not comparable to a PC screen either by size, resolution or "surfability".

(3) Reduced costs : This is due to availing and using various courses and services by number of students online. The course fee charged by service providers/universities is much cheaper than fees of conventional education systems. The heavy competition and the price war between mobile service providers also reduced mobile service usage cost.

(4) Flexibility : Because mobile devices are inherently portable, students may be engaged in activities, such as working or travelling, while doing their study through their internet-enabled mobile devices.

(5) Increased comfort : Many students secretly hate the conventional education system because of punitive fees, inconvenient working hours and unhelpful university staff. In online mobile education system, due to quick and continuous access of interested and required courses from any global university, the service is available 24 hours a day, without requiring the physical interaction with the instructors.

(6) Time saving : The main benefit from the online mobile education system from student's point of view is significant saving of time by the automation of education services including access to study materials, video lectures, online assignment submission, online interaction/discussion with

both instructors and peer students, online exam and evaluation etc. Since the response of the medium is very fast, the students can get their result soon after the examination.

(7) Convenience : The ability and accessibility provided in wireless devices will further allow online mobile education system to differentiate its abilities from conventional education systems. People who wants to study any course in any university will no longer be constrained by time or place. Rather, it could be accessed in a manner which may eliminate some of the labor of life's activities. For example, students waiting in line or stuck in traffic will be able to access course materials/take an exam through online mobile education applications. Students may recognize a special comfort which could translate into an improved quality of life.

(8) Dissemination: Some wireless infrastructures support simultaneous delivery of data/information to all registered online mobile students within a specific geographical region. This functionality offers an efficient means to disseminate information to a large student population simultaneously.

#### B. Comparison of Conventional Education and Mobile Education

The system properties like - free of government regulations, portability, satisfying intellectual needs, less time consumption, potential opportunity for high income, repeated opportunity for continuing education, ubiquity, and technology dependence; Input Conditions like - minimum instructors requirement, low overhead, low investments; Output Conditions like - all-round education, hundred percent efficiency, choice of alternative courses, and longer sustainability; Social & environmental conditions like - global reachability, inelastic demand, open courses for everybody, and high quality courses for everybody of ideal education model are realizable to certain extent using online mobile education as shown in Table 1. Thus online education using mobile devices called mobile education is a suitable education model for realizing our hypothetical Ideal business model.

### V. CONCLUSION

(1) The various characteristics of Ideal Education System are identified and classified.

(2) A suitable Online Mobile Education model is developed to realize most of the properties of Ideal Education System.

(3) Various E-business models are used to study the possibility of realization of Ideal Education System.

(4) It is found that ubiquitous E-Business called Online mobile education model can have most of the Ideal Education System characteristics.

TABLE 1 : COMPARISON OF CONVENTIONAL EDUCATION AND ONLINE MOBILE EDUCATION IN TERMS OF IDEAL SYSTEM CHARACTERISTICS.

S. No	Ideal Education System Characteristics	Conventional Education	Online Mobile Education
.			

		n	ratio
1	Global Reachability	No	Yes
2	Inelastic demand	No	Yes
3	Open Courses for everybody	No	Yes
4	High Quality Courses for everybody	No	Yes
5	Minimum Instructor requirement	No	Yes
6	Low overhead	No	Yes
7	Low investments	No	Yes
8	Free of Government Regulations	No	Yes
9	Portability	No	Yes
10	Satisfying intellectual needs	No	Yes
11	Less time consumption	No	Yes
12	Potential opportunity for high income	No	Yes
13	Repeated Opportunity for continuing education	No	Yes
14	Ubiquity	No	Yes
15	Technology dependent	No	Yes
16	All-round education	Yes	Yes
17	Hundred percent efficiency	No	Yes
18	Choice of alternative Courses	No	Yes
19	Longer Sustainability	No	Yes

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He has two years post doctoral research experience at Physical Research Laboratory, Ahmedabad, India and one year post doctoral research experience at CREOL, University of Central Florida, USA, in the field of Characterization of nonlinear optical materials. He has about 22 years teaching experience both at UG and PG level in Electronics, Computer Science and Business management. Currently he is working as PRINCIPAL at Srinivas Institute of Management Studies, Mangalore, India. He has published about 35 research papers in peer reviewed journals and two text books on physics and Electronics for Engineering students. He has research interest in Nonlinear optical absorption, Optical Phase Conjugation, Photorefractive materials, e-business, m-business, ideal business, and nanotechnology business Opportunities.

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# Recent Trends in Marketing Practices

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**Abstract** - Today markets perceptions are changed a lot & new dimensions have emerged bringing new thought & focuses together. Markets today bring about significant changes due to changing trends & marketing practices arising in the markets. Companies are creative, unique & innovative in their marketing practices. Companies who can deliver best out of best survive in the markets & can swiftly build their customer bases & top line as well as bottom lines faster. What is important for the companies in markets today is building & developing brands, a great brand does more it lends coloration & resonance to a product or service. Brands that are worthy can create loyalty & preference & can have a better command over the markets. A company strongly thinks of product line as well as brand extension & so are the marketers. Companies are increasingly turning to image & emotional marketing to win customers. An attempt is made focus to on presently operating marketing trends which is highly useful to the respective companies.

- Ø From make & sell marketing to sense & respond marketing: Companies can perform better if they perform better than its competitors. The basic challenge facing marketers today is developing a superior understanding of companies customers' needs rather than pushing the core products & services better in the market.
- Ø From show room services to home delivery services: In order to increase value additions & to meet or exceed the clients expectations companies have turned their strong attention on delivering products/services doorstep. The major rationale behind this is to make customers convenient, as well as to retain the existing customers. "Higher the delivered value, more the satisfaction rate, more the chances of customer's sticking to the same brands". Company's real strength today is determined by its customer size.
- Ø From focussing on customer attraction to focussing on customer retention : Existing customers are like bird in hand who are the companies real assets. Companies pay more attention by all means to serve & satisfy their present existing customers before they venture in an endless race to find new customers. Customers must move on from earlier transactional marketing to present relationship marketing.
- Ø From pursuing market share to pursuing customer share: Companies strongly believe that if customer share (A strong customer Base) is strongly pushed up & starts accelerating market share will

accelerate by itself. Companies put up a very strong service, committed & dedicated people & strong investments in better resources which help in services of clients better. Companies also invest more of its time to find better products & services that can be sold to the customers.

- Ø From marketing monologue to customer dialogue: What customers see, observe, perceive & view very strongly matters very much in the market. It is important for companies to maintain a customer's Data base which will help them in keeping continuous touch with them. A stronger relationship can be build when you actively listen to your customers, understand their problems clearly, work out feasible solutions & implement the same.
- Ø From rapid focussed Advertising to public relationships: Most of the time, resources, manpower which is spent for advertising would go sheer waste if the message in the ads is not clearly understood. Hence it is very clear that companies have to focus upon advertising as well public relationships. The major tools of PR is as follows Publications, Events, News, Community affairs, Identity media, lobbying & Social investments (PENCILS).
- Ø From customer satisfaction to customer values: Value delivered to the customers remains permanent & it is permanently recognised in the market as well as company. Since value delivered by the company to the customer helps in long run, this cannot be ignored. It enhances reputation; create credibility & reliability for the company for which there is no substitute. Value purely depends on Quality, Service & Price (QSP) of companies Product/Service. A due consideration should be given for value adding & non value adding costs. Smart companies today offer purchase value as well as user Value also to their customers.
- Ø From mass marketing to customized marketing: In mass marketing companies focus upon large markets covering different clients. Companies here prefer to deal with the bulk clients than the individual client. Most of the times individual clients or their interests are not taken care of such a client's needs are not catered. But in customized marketing each individual client are taken care of & companies at that time develops the capability of

dealing with individual clients. Better products are developed to meet the needs of every individual client in the business.

- Ø From owning assets to owning brands: Class one company's today focus on building & developing brands. Instead of owning Factories, Stock keeping units, Manufacturing units & outsourcing firms, Companies smartly think that if they invest heavily in brand building they can generate returns in a very short possible period of time.
- Ø From operating in the market place to operating in the cyber space: Most of the Online Ad's, website creations as well as posting the entire features of the products of the company can create better perception in the minds of the clients, moreover it creates transparent image for the companies in the eyes of the client. Smart companies are developing its presence both on line as well as off- line. These companies are using internet for buying, selling, recruiting, training, exchanging & communicating.
- Ø From single channel marketing to multiple channel marketing: To serve any customer in the markets irrespective of the geography it is now very much essential for the companies to concentrate on more than one channel. The rationale behind this focus is that, customers have huge plethora of products available in the market, if the companies limit itself

in these competitive markets it is difficult for them to survive in the long run. Companies no longer rely on one channel to reach & serve all their customers. Their customers have different prefer channels for accessing the company's products & services.

- Ø From product centric marketing to customer centric marketing: Companies can very fast build up their Top line as well as Bottom lines when they focus on building a very large customer base. The sign of marketing maturity is when a company stops focusing on its products & starts focussing on its customers.

### CONCLUSION

As discussed in the above these trends will affect different Industries & Companies at different rates & times. Companies doing business in the markets must decide where they stand with respect to each marketing trend.

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# Concept of Ideal Business & Its Realization Using E-Business Model

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**Abstract**— In this paper, an attempt is made to identify some of the important characteristics of an Ideal Business in terms of input conditions, system requirements, output conditions and market requirements are identified and analyzed. The paper describes how these characteristics can be achieved in practical business by incorporating electronic online business model using mobile devices called mobile business. The paper also discusses how a small business planned by an entrepreneur can be improved towards an ideal business level by incorporating information communication technology (ICT) components. The conceptual nature of mobile business including major features, value chain, benefits of mobile business from customers point of view and comparison of mobile business properties with that of ideal business properties are discussed. The various factors affecting mobile business in terms of the characteristics of Ideal business are studied. Finally, some of the possible products and services which can lead to the concept of Ideal Business are identified and analyzed.

**Keywords**- Ideal Business; E-business; e-business models; e-business strategies; online business

## I. INTRODUCTION

The word 'Ideal system' refer to the system which has ideal characteristics i.e., perfect in every way. It is what the mind pictures as being perfect. The concept of ideal engine, ideal switch, ideal semiconductor devices like ideal diodes, transistors, etc. have been defined and taken as standards to improve the quality and performance of such practical devices or systems. It is found that, by keeping such hypothetical device or systems in mind, researchers have continuously improve the characteristics/properties of practical devices / systems to upgrade their performances. Hence ideal properties of a device or a system can be used to upgrade or improve its properties towards reaching 100% efficiency. By comparing the properties/characteristics of a practical device/system with its ideal counterpart, one can find out the possible modifications in that device /system towards reaching the objective of achieving such an ideal device.

The simple definition of Business is a system of doing things with a profit motivation. This includes selling and/or purchasing any products/services with an objective of usually long term profit. A sustainable successful business involves 'Ease of Use'.

## II. PROPERTIES OF IDEAL BUSINESS

An Ideal business system shall have characteristics which can be predicted and classified. Based on various factors which decides the ideal business system characteristics, a model consisting of the input conditions, output conditions, market conditions and system requirements, is derived by a qualitative data collection instrument namely focus group method [1,2]. The block diagram of such a system is shown in Fig. 1

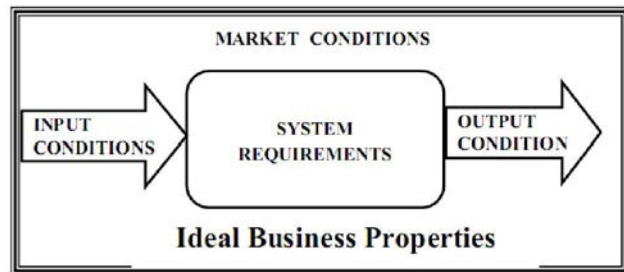


Figure 1. Classifications of Ideal Business Properties.

### A. Market Conditions

- (1) The Ideal Business sells its products/services to the entire world rather than a single neighborhood and hence it has an unlimited global market.
- (2) The Ideal Business offers a product/service, which enjoys an inelastic demand in the market. (inelastic refers to a product that people need or desire almost at any price.)
- (3) The Ideal Business markets a product/service that cannot be easily copied. This means that the product/service is an original or, at least, it is something that can be copyrighted or patented.

### B. Input Conditions

- (4) The Ideal Business has minimal labor requirements. The fewer personnel, the better is the business.
- (5) The Ideal Business operates on a low overhead. It does not need an expensive location. It does not need large amounts of electricity, or advertising, or legal advice, or high-priced employees, or a large inventory.
- (6) The Ideal Business does not require big cash outlays or major investments in equipment or product. In other words, it does not require huge capital.

### C. System Requirements

(7) The Ideal Business is relatively free of all kinds of government regulations or restrictions.

(8) The Ideal Business is portable or easily moveable. This means one can shift his business and himself anywhere he wants to.

(9) The Ideal Business satisfies its owner's intellectual needs. There is nothing like being fascinated with what he does.

(10) The Ideal Business leaves enough free time to its owner. In other words, it doesn't require his labor and attention of 12, 16, or 18 hours a day.

(11) The Ideal Business is one in which the income is not limited by personal output (Leverage). In the Ideal-Business, one can have 10,000 customers as easily as can have one."

(12) The ideal Business will not have any liability after sales.

(13) The ideal Business will not have problems like seasonality, perishability and price drop.

### D. Output Conditions

(14) In ideal Business the demand is always very high than supply and the efficiency of production is always 100%.

(15) The ideal Business will be sustainable for long time.

Any business which has the above properties is considered as ideal business and the conventional business called brick and mortar business has serious drawbacks/limitations in terms of the above properties.

## III. CHALLENGES TO ACHIEVE IDEAL BUSINESS

To realize the Ideal Business in practice, we need to identify a product or service which is intangible in nature. The business should be monopoly and controlled by any place in the world. The product/service and the business models should be chosen in such a way as it should have properties, at least close to Ideal Business.

## IV. POSSIBLE SOLUTION THROUGH E-BUSINESS MODEL

An intangible product/service marketed through E-business model is the possible solution while approaching towards Idealization of the business. A ubiquitous E-Business model using intangible product/service is most suitable for elevation to Ideal business. Most of the properties discussed in Fig. 1 of Ideal business can be compared to the properties of E-business using mobile devices. A block diagram of customer oriented E-business model using mobile device is shown in Fig. 2 [3].

In this model, based on user request, the mobile device identifies the user through physical possession of the device, passwords, or biometrics such as voice recognition (path 1). The mobile banking service provider authenticates the transaction request from the device via either subscriber identification (as with existing phones) or cryptographic mechanisms such as digital signatures or secure protocols, like the Wireless Transport Layer Security Specification through private network service provider PNSP (path 2). The users can perform secured operations on account balance or loan account statement, transfer money between two accounts in

the same bank (internal transaction), loan payment, or payment of electricity, water, phone, credit card and cellular phone/pager bills, through the bank (path 3). The financial transaction can be also performed between the mobile banking service provider and the merchant for m-commerce payment through PNSP (path3a)and/ or other financial institution(s) for bill payments or interbank transfer through PNSP (path 3b) and may involve secure payment protocols such as Internet Keyed Payments/Secure Electronic Transactions, or iKP/SET [4]. After completion of requested transaction, the mobile banking service provider delivers a confirmation of transaction to the user (path 4). In today's mobile phones, authorization is via subscriber identification mechanisms, which do not provide non-repudiation. However, in future, mobile consumers might also use a secure mobile signing device, to avoid disputes. This device may allow high-value transactions, as well as paying mobile operators who are not completely trusted (such as when roaming). Mobile communication mechanisms (such as GSM) allow the foreign (visited) network to authenticate the user with information from the home network. Charging requires prior agreements between the visited and the home networks. Designers of the Universal Mobile Telecommunications System (UMTS) recognized the difficulty of establishing agreements in advance among visited networks and all home networks [5]; thus, UMTS includes mechanisms for dynamic negotiation and setup of roaming agreements between a visited network and a home network. Roaming agreements seek to establish fees and ensure operator trustworthiness. Operators are trusted to deliver payments in time; foreign (remote) operators are also trusted to not overcharge visiting customers. A secure signing mobile device can prevent fraud (overcharging) by foreign network providers, thereby allowing more automated and variable roaming agreements. Operators can also use the final payments protocol [6], to extend pair-wise trust relationships into global trust relationships, allowing automated, secure, low-cost universal roaming.

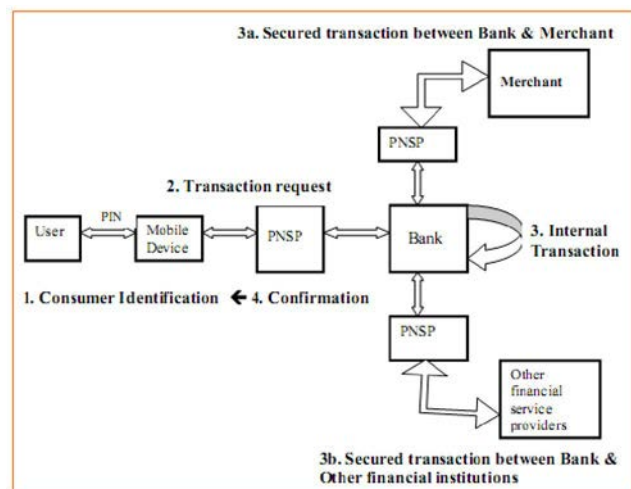


Figure 2. Customer oriented E-business model using mobile device.

## V. MOBILE BUSINESS AS AN IDEAL BUSINESS

### A. Features of E-Business Using Mobile Devices

E-Business using mobile devices called mobile business, promising unlimited information, entertainment, and business, and gives users the ability to access the Internet from any location at any time, the capability to pinpoint an individual mobile terminal user's location, the functionality to access information at the point of need, and a need-based data/information update capability. Mobile business has features not available to traditional e-business, some of which are :

1. Ubiquity: Through mobile devices, business entities are able to reach customers anywhere at any time. On the other hand, users can also get any information they are interested in, whenever they want regardless of where they are, through Internet-enabled mobile devices. In this sense, mobile business makes a service or an application available wherever and whenever such a need arises.
2. Personalization: An enormous number of information, services, and applications are currently available on the Internet, and the relevance of information users receive is of great importance. Since owners of mobile devices often require different sets of applications and services, mobile business applications can be personalized to represent information or provide services in ways appropriate to the specific user.
3. Flexibility: Because mobile devices are inherently portable, mobile users may be engaged in activities, such as meeting people or traveling, while conducting transactions or receiving information through their Internet-enabled mobile devices.
4. Dissemination: Some wireless infrastructures support simultaneous delivery of data to all mobile users within a specific geographical region. This functionality offers an efficient means to disseminate information to a large consumer population.

### B. Mobile business Value Chain

Transport, basic enabling service, transaction support, presentation service, personalization support, user application, and content aggregators are the seven links in the mobile business value chain. The transport link maintains and operates the infrastructure and equipment to guarantee data communication between mobile users and application. Basic enabling service link provide services such as server hosting, data backup, and system integration. The Transaction support link provides the mechanism for assisting transactions, for security, and for billing users. The presentation service link converts the content of Internet-based applications to a wireless standard suitable for the screens of mobile devices. The Personalization support link gathers users' personal information, which enables personalized applications for individual users. The Content aggregators link provide information in a category or search facilities to help users find their way around the Internet. Finally the user applications link used to carry out mobile business transactions for mobile consumers. The following sectors will get benefit under m-business transformation [7] :

1. Banking industry: Possible facilities that could be offered include Account Balance Enquiries, Last 'n' transactions, Utility Bills Payment, Cheque clearing notifications, Inter account Transfers, Statement and Cheque book requests, Access to Portfolio management and other share dealing services.
2. Share market industry: Mobile phone-based stock trading allows users to receive instant updates on market information. The system allows to users to identify which stock they are interested in and what levels of alert they want. The warnings are then sent to the user's handset, and then they can buy or sell immediately without going to a computer.
3. Shopping: Many mobile service providers are planned to launch services that promote shopping using mobile. Fabmart, Zee marketing are few examples. Customers can pay for their purchases through their mobile phone bills. Text message shopping is already in use to buy books, CD etc., at bargain rate.
4. Building and construction materials industry: The fragmented nature, geographical spread and multiplicity of levels in the distribution structure for most products in this industry offers unique challenges and opportunities for e-business & m-business initiatives. M-business adaptation in this sector would be driven by factors such as improving brand building and customer services, penetrating markets in the semi-urban and rural pockets, improved dealer management, and ensuring timely supplies and services.
5. Metal industry: M-business adaptation in the metal sector would be primarily driven by working with lower inventories and adapting IT techniques and catering the customers through remote devices. This will increase market coverage and widen distribution reach, improved dealer management and controlling cost at every stage of the value chain. Metals, as commodity, also provide considerable scope for on-line tendering and auction applications.
6. Office automation industry: The Indian office automation industry is another potential candidate to adopt m-business strategies to its sales and service. The major benefits would be improved customer service, wider market coverage, and marketing and procurement costs reductions.
7. Packaging industry: The packing industry is another potential sector for adopting m-business. Handling order taking and order placement through mobile, the package industries can improve supply efficiency, customer service and market coverage.
8. Indian engineering industry: Engineering industry with huge annual turnover is another potential candidate for m-business implementation. Front-end activities like enhanced customer service and receiving new order, and back-end activities like enhanced vendor communication and booking purchases can emerge key priority areas in this industry.
9. Electrical and electronics industry: Implementing e-business and m-business in these industries is expected to result in improved sales and customer service through better information dissemination.
10. Chemical industry: Chemical and Petro-chemical industries are considered on-line business is a cost reduction

tool. By adopting these strategies they would improve supply chain efficiency and reduce marketing / procurement costs.

11. Hotels and tourism industries: Booking hotel rooms and resorts at any time, at any place can be done through m-business options.

12. Pharmaceutical industry: Pharmaceutical industry views m-business as a tool that would aid community building, and to smaller extent, reduce costs through better supply chain management. They also expect to use this medium to provide people with more information on diseases and the products used to cure them.

13. Logistics industries: Both transportation and warehousing parts of logistics are potential candidates for m-business implementation due to the fact of increase in products sold on-line. The need to move a large volume of small parcels and the increase in customer expectations.

14. Auto –components industry: The auto-component industry is another prominent candidate for m-business implementation. Due to the increasing competition in the domestic market and threat of imports, necessitating widening of market reach, and exploring export markets.

15. Lottery and Betting: All on-line lotteries and betting can accept the bets through the message delivered by SMS. The M-business technology allows not only mobile betting but also, using a mobile video-phone, be able to watch the actual race while moving on the road or while travelling in an aeroplane.

16. Mobile positioning services: With mobile positioning services your phone could become a personal tracking device, allowing your family friends and employer to know where you are at all times. Mobile positioning integrates with satellite positioning systems and let people tell others where they are.

### *C. Benefits of Mobile Business from Customers Point of view*

The benefit from the customers' point of view is accessing services at anywhere, any time and any extent of time. These features significantly save the valuable time of the customer. The main advantages of m-business services for the customers are listed as follows :

(1) Ubiquity : Through mobile devices, business applications are able to reach customers anywhere at any time. On the other hand, users can also get any information they are interested in, whenever they want regardless of where they are, through Internet-enabled mobile devices. In this sense, mobile business makes a service or an application available wherever and whenever such a need arises. Communication can take place independent of the users location. The advantages presented from the omnipresence of information and continual access to business will be exceptionally important to time-critical applications.

(2) Personalization : An enormous number of business information, services, and applications are currently available on the Internet, and the relevance of information users receive is of great importance. Since owners of mobile devices often require different sets of applications and services, mobile business applications can be personalized to represent information or provide services in ways appropriate to the specific user. Additionally, personalized content is paramount

in operating mobile devices because of the limitation of the user interface. Relevant information must always be only a single "click" away, since web access with any existing wireless device is not comparable to a PC screen either by size, resolution or "surfability". Therefore, subscriber profile ownerships is a key element in m-business success, as it will allow selectively targeted m-business applications. As such, the mobile database becomes a primary factor of m-business success by compiling personalized data bases and providing personalized services. One example, is the SIM (Subscriber Identification Module) smartcards which serve as a mobile database allowing the user to run applications and operate secure transactions. Such personalized information and transaction feeds, via mobile devices, offer the greatest potential for the customization necessary for long-term success.

(3) Reduced costs : This is due to availing and using various products and services by number of customers online. The transaction fee charged by banking service providers for financial services is much cheaper than conventional retail banking transaction fees. The heavy competition and the price war between mobile service providers also reduced mobile service usage cost.

(4) Flexibility : Because mobile devices are inherently portable, mobile users may be engaged in activities, such as meeting people or traveling, while doing business, conducting transactions, or receiving information through their Internet-enabled mobile devices.

(5) Increased comfort : Many customers secretly hate their business service provider/banks because of punitive charges, inconvenient opening hours and unhelpful branch staff. In mobile business due to quick and continuous access, purchases and transactions can be made 24 hours a day, without requiring the physical interaction with the service provider.

(6) Time saving : The main benefit from the mobile business customers' point of view is significant saving of time by the automation of purchasing & banking services processing and introduction of an easy maintenance tools for managing customer's money. Since the response of the medium is very fast, the customer can wait till the last minute before purchasing and concluding a fund transfer.

(7) Convenience : The ability and accessibility provided from wireless devices will further allow m-business to differentiate its abilities from conventional business and e-business. People will no longer be constrained by time or place in conducting business activities. Rather, m-business could be accessed in a manner which may eliminate some of the labor of life's activities. For example, consumers waiting in line or stuck in traffic will be able to handle daily transactions/purchases through m-business applications. Consumers may recognize a special comfort which could translate into an improved quality of life.

(8) Better cash management : Mobile business facilities speed-up cash cycle and increases efficiency of business processes as large variety of cash management instruments are available on internet sites of banks. For example, it is possible to manage companies short term cash via online or mobile

banking like investments in over-night, short and long term deposits, in commercial papers, in bonds and equities, in money market funds etc. In mobile business, customers can download the features of product/services or their history of different accounts and do a what –if analysis on their own mobile device, before affecting any transaction on the web or through mobile service providers. This will lead to better funds management.

TABLE 1 : COMPARISON OF CONVENTIONAL BUSINESS AND ONLINE BUSINESS IN TERMS OF IDEAL BUSINESS CHARACTERISTICS.

S. No.	Ideal Business Characteristics	Conventional Business	Online Business
1	The Ideal Business sells its products/services to the entire world and hence it has an unlimited global market.	No	Yes
2	The Ideal Business offers a product/service, which enjoys an inelastic demand.	No	Yes
3	The Ideal Business sells a product/service that cannot be easily copied. i.e., it is something that can be copyrighted or patented.	No	Yes
4	The Ideal Business has minimal labor requirements.	No	Yes
5	The Ideal Business operates on a low overhead.	No	Yes
6	The Ideal Business does not require big cash outlays or major investments in equipment or product.	No	Yes
7	The Ideal Business is relatively free of all kinds of government regulations or restrictions.	No	Yes
8	The Ideal Business is portable or easily moveable.	No	Yes
9	The Ideal Business satisfies your intellectual needs.	No	Yes
10	The Ideal Business leaves you with free time.	No	Yes
11	The Ideal Business is one in which your income is not limited by your personal output (Leverage).	No	Yes
12	The ideal Business will not have any liability after sales.	No	Yes
13	The ideal Business will not have problems like seasonality, perishability and price drop	No	Yes
14	In ideal Business the demand is always very high than supply and the efficiency of production is always 100%.	No	Yes
15	The ideal Business will be sustainable for long time.	No	Yes

#### *D. Comparison of Mobile Business Properties with that of Ideal Business*

The system properties like - free from Government regulations, portability, and satisfying our intellectual needs, availability of free time, independency of income with personal output, no liability after sales, and no headache like problems of seasonality, perishability and price drop; the market

conditions like - unlimited global market, inelastic demand, and copyright/patenting opportunities of ideal business also can be realizable using mobile business properties for intangible products/services. The input properties like - minimal labor requirements, low overhead, and low capital requirement; the output conditions like – high efficiency, and sustainable for long time, of ideal business also realizable to certain extent using mobile business properties for intangible products/services as shown in Table 1. Thus e-business using mobile devices called mobile business is a suitable business model for profit maximization and approaches to hypothetical Ideal business model.

#### *E. Analysis of some possible Products/ Services for Ideal Business*

Mobile business using various mobile devices for some of the products/services is suitable candidate for having ideal business characteristics. The products/services which are intangibles in nature used in mobile business transactions are most suitable candidates to follow almost all the characteristics of an ideal business model. Small business of selling the software products, e-books, e-music or any similar product/service will give the advantages of the Ideal Business properties.

### VI. CONCLUSION

- (1) The various properties of Ideal business are identified and classified.
- (2) A suitable business model is identified to realize most of the properties of Ideal Business.
- (3) Various E-business models are used to study the possibility of realization of Ideal Business.
- (4) It is found that ubiquitous E-Business called mobile business with intangible product/service can have most of the Ideal business properties.

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# Retention of Key Employees: Issues and Challenges

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**Abstract**— Key employees are the most important, valuable and productive asset of an organization. Attracting and retaining them is one of the toughest challenges for the managers. In organizations, competitive advantage is determined and driven by human resources. It is the employees who innovate, and innovation is the only path to sustainable performance and thereby guarantying the survivals of the company's up to a greater extent. But key employees have some aspirations too. It is not possible for them to lead a complete or successful life unless they are rich. Not only they want to earn more money, they wish to command great respect too. In the present time, when there is no dearth of opportunities for key employees in competitors organizations', retaining them becomes very difficult for the management due to the very fact that every employees are different and so do their aspirations. It is in this context, that the management should innovate and undertake some studies to determine aspirations of its key employees, and then attempt to meet them in order to make them stay back. The objective of this paper is to find out various factors which influence employee retentions and reasons for employee leaving the organization.

**Keywords**- Key employees, Aspirations, Retention

## I. INTRODUCTION

Employees play an extremely crucial role in the sustainability and development of organization. But unfortunately, they are not robots; they are human beings and can think and have aspirations too. They want a number of things, like they want to earn more money, command more respect, and lead a successful life etc... Information technology has revolutionized the entire gamut of our life. At the one hand, globalization has given a lot of opportunities to even smaller organization to prosper and grow, on the other; it has made the competition extremely tougher. It is in this context that retention of key employees has become extremely crucial for the management. Management should pay full attention to manage their aspirations appropriately so that goals of both the employees and organization's should be achieved. In this paper some of important elements of employee aspirations are provided. By carefully working on these elements, the management will be in a position to address the problem of key employee's attrition and thereby saving their key employees along with huge turnover costs.

## II. REVIEW OF LITERATURE

A lot of research has taken place focusing on the higher order employees needs like self-actualization. There is less written about the fact that people also work for a living! Ignoring or downplaying matters such as pay benefits, and job security is an error of monumental proportions. Management can do little to maintain high employee morale if workers harbor a fundamental sense of unfairness as to how they are treated on these basic issues. [2]

The traditional motivational strategies used by management to attract and retain the talented employees are proving inadequate and may not be able to solve the problem of their retention in the era of globalization. In order to enlighten the management to solve this problem with some novel approach this paper intends to find out the causes of employee departure, role of employee aspiration in organizations, and how to meet them with the following objectives:-

## III. THE OBJECTIVES OF THIS STUDY ARE TO FIND OUT

1. The concept of key employee and the impact of their turnover in the organization.
2. The issues and challenges of employee retention.
3. Recommend the necessary retention strategies to managers about retaining the key employees and reducing turnover costs.

## IV. RESEARCH METHODOLOGY

The nature of data used in this study was mainly secondary data. The data primarily consists of extensive review of existing literature comprising of Journals, internet, Books, previously conducted research in the field, white papers, websites dedicated for retention management strategies, magazines etc. . The data was used to find out the contemporary employee retention strategies employed by the organizations, and all other previously conducted research in the field so far. This had enabled to identify the prevalent gaps in the existing literature and prompted me to undertake this study.

## V. WHAT IS EMPLOYEE RETENTION

Employee retention as defined by Business dictionary is, "An effort by a business to maintain a working environment which supports current staff in remaining with the company. Many employee retention policies are aimed at addressing the various needs of employees to enhance their job satisfaction and reduce the substantial costs involved in hiring and training new staff." [9]

Each individual who performs a function at your organization no matter how junior or senior are the puzzle pieces that fit together to create the larger picture of success. Missing one of those pieces puts a hole in the picture and stops your company being successful. To keep them, your company must develop a retention strategy with clearly defined goals. [4]

## **VI. REASONS FOR DEPARTURE OF KEY EMPLOYEES**

A number of researches had taken place to ascertain the reasons of employee departure. Some of the important reasons for employee departures cited in major research studies are, in descending order [1], [7], [12] and [13].

1. Employee/manager relationship
2. Inability to use core skills
3. Not able to impact the organization's goals, mission
4. Frequent reorganizations; lack of control over career
5. Inability to "grow and develop"
6. Employee/organization values misalignment
7. Lack of resources to do the job
8. Unclear expectations
9. Lack of flexibility; no 'whole life balance'
10. Salary/benefits

A recent research study conducted at a large multinational technical firm showed that a significant number of employees (96 per cent of those interviewed) admitted they did not provide the "real" reason for departure [13]. Acknowledging that their manager was the primary reason they left seemed "too risky". Instead, they chose to give reasons (for resigning) such as:

- Better opportunity
- Industry change
- Better working conditions
- Lack of development

It is important to note that – steps undertaken by the management to solve attrition problems based on these exit interview's data will be nothing more than a fallacy.

## **VII. KEY EMPLOYEES**

Key employee can be defined as, "Individual who possesses a unique ability essential to the continued success of a business firm. For example, this individual might have the technical knowledge necessary for research and development of products that keep the company at the cutting edge of its field. The death, disability or loss of this key individual could severely handicap the company. [10]

A. Key employees are the employees who makes difference to:

- Customers
- Other employees
- Managers and Executive Management
- Shareholders, Boards of Directors and other constituents

B. Key employees Exhibit:-

- Breadth as well as depth of technical/functional knowledge
- Better Customer service
- Creativity & Flexibility
- Continuous learning approach
- Self-direction and self-motivation
- Commitment to the organization's success

## **VIII. WHY RETENTION OF KEY EMPLOYEES ARE IMPORTANT?**

When a key employee leaves, he takes away the knowledge, experience, culture, and value system of the organization which might be tapped and used against the organization in the global environment. High attrition is also not good for the image of the company as it sends wrong signals to prospective employees and customers.

The old adage "Look after the small things and the big things look after themselves" can easily apply to your workforce. "Look after your people and the business will look after itself. Your staff is more than employees. They are valuable individuals with unique competencies and characteristics who require appreciation as much as a paycheck. In fact, people are the single most valuable element within your organization. Without them, you simply cannot do business or generate revenue. It is not just human resource companies that are in the people business – every business needs excellent people to prosper. [4]

## **IX. CALCULATING THE COST OF ATTRITION**

The costs of high staff turnover can be incredible to the management. Given below is a list of costs related to employee turnover. [1], [6], [7] & [12]. It will provide some "insight" into various components often included in the calculation.

- Loss of productivity-work put on hold until replacement is on board
- Cost of overtime or temporary help to get the work done during selection and training of replacement
- Lost efficiency, including the interaction and institutional knowledge
- Lowered morale of co-workers
- Recruiting costs (advertising, time to place ads, development of promotional materials, management of web sites)
- Search firm fees (often equivalent to 30 per cent of new hire's first year salary)
- Screening of applicants (time to review resumes)
- Interviewing time (how many people interview each applicant)
- Hiring costs like testing, background checks, drug screens
- Relocation expenditures, temporary housing
- Time spent in orientation Training, assimilation into work team
- Lower productivity during learning period—for both the new individual and those providing the training
- Loss of other employees
- Lost customers

If enough of the right people leave, the loss can cripple and even kill a company. [2]

## **X. EMPLOYEES ASPIRATIONS: SOME INSIGHTS FOR MANAGERS**

Aspiration can be defined as, “A hope or ambition of achieving something.” A number of factors are responsible for the rise of employee’s aspirations. Some of them are:-

- Growth in the field of information and technology
- Globalization
- Better education
- Better opportunities worldwide
- Recognition and value of talent etc...

The vast majority of employees want a lot of things “most.” Indeed, it is a psychological illness to want just one thing, such as money to the exclusion of everything else, or affection to the point that one is willing to sacrifice anything for it, including fair compensation for one’s work. Basically there are three primary goals of the people at work. These are:-

### **[a].Equity**

### **[b]. Achievement and**

### **[c]. Camaraderie**

- ✓ For a majority of employees, no other goals are nearly as important as these.
- ✓ These goals have not changed over time and they cut across cultures, at least the cultures of the economically developed sectors of societies.
- ✓ Understanding these sets of goals and establishing organization policies and practices that are in tune with them, is the key to high workforce morale and firm performance. These basic goals are very crucial for the employees and it gives opportunities to the organizations to keep the morale of their employees high by fulfilling these goals. There is generally no conflict between the goals of most employees and the needs of their organizations. [2]

## **A. Equity**

It can be defined to be treated justly in relation to the basic conditions of employment. Certain basic conditions are expected simply by virtue of the employment relationship. They are unrelated to portfolio/position in the company or to performance. They are defined by generally accepted ethical and community standards and, while the basic goals do not change over time, a number of the standards that define what is acceptable do change. **The basic conditions** are as follows:

- **Physiological**, such as having a safe working environment, a workload that does not damage physical or emotional health of employees, and reasonably comfortable physical working conditions.
- **Economic**, such as having a reasonable degree of job security, satisfactory compensation policy, and satisfactory fringe benefits etc...
- **Psychological**, such as being treated respectfully, having reasonable accommodation made for personal and

family needs, having credible and consistent management, and being able to get a fair hearing for complaints. [2]

## **B. Achievements**

It can be defined as taking pride in one’s accomplishments by doing things that matter and doing them well; to receive recognition for one’s accomplishments; to take pride in the organization’s accomplishments. A sense of basic equity in the employment relationship serves as the foundation on which high employee morale can be built: the need to feel proud of one’s accomplishments and the accomplishments of the organization is then freed to drive behavior toward high performance. Sense of achievement has six primary sources:

- **Challenge of the work itself.** The extent to which the job uses an employee’s intelligence, abilities, and skills.
- **Acquiring of new skills.**
- **Ability to perform.** Having the training, direction, resources, authority, information, and cooperation needed to perform well.
- **Perceived importance of the employee’s job.** It is the employee’s sense of worth of the job he is performing and contribution to the organization, to the customer, and to society.
- **Recognition received for performance.** It can consist of both non-financial (such as a simple “thank you” from the boss or a customer) and financial (compensation and advancement that are based on performance).
- **Working for a company of which the employee can be proud.** Employees, on the average, are most favorable toward the overall characteristics of the organization (such as the quality of the organization’s products and services, its profitability, and its ethics) and, at the other pole, toward the immediate work environment (such as the job, co-workers, and the technical ability of the immediate supervisor). The least positive ratings tend to be about efficiency at a “middle” level (such as bureaucracy, consistency of direction from management, and, as will be seen later, cooperation across units) and also about reward. [2]

## **C. Camaraderie**

It can be defined as having warm, interesting, and cooperative relations with others in the workplace. Human beings are social animals: positive interaction with others is not only gratifying, but essential for mental health. We often neglect the extent to which an organization functions not only as a business entity, but also as a community that satisfies social and emotional needs of its members. Most favorably rated aspect of camaraderie is simply the relationship between co-workers, followed by teamwork within the workers’ unit, teamwork across departments in a given location, and finally, teamwork and cooperation across the entire company. [2]

#### D. How these three factors works in combination

The Three Factors described above asserts that employees seek to satisfy three basic needs—equity, achievement, and camaraderie—in any employment situation. It further asserts that, when all three needs are met, it results in enthusiasm directed toward accomplishing organizational goals. A great company for employees is one that largely meets all of their needs for equity, achievement, and camaraderie. Until that happens, it is no more than a “good” company. [2]

#### XI. RETENTION OF KEY EMPLOYEES: SOME STRATEGIES

The elements of equity, achievement and camaraderie are the basic motivators for almost all the employees. Fulfilling these aspirations of employees could lead to a enthusiastic employee with high morale which is good for both the employee and employer.

Apart from the abovementioned strategies some of personal non-monetary Reward Recognition programmes could also be employed to reward and retain the employee's like-

- (a) Giving time off
- (b) Flexible working hours
- (c) Job-sharing
- (d) Giving Office Space
- (e) Home Office
- (g) Involving in some special projects, Committee Involvement etc...
- (h) Public Acknowledgment
- (i) Career development and training
- (j) Company organized discounts such as fitness memberships etc...
- (k) Community and Charity Involvement.

It is very important for management to ask from the employees what they want, and then must strive to meet them. The solution lies in understanding the three basic factors of employee aspirations i.e. equity, achievement and camaraderie with their associated elements. Let the employee feel empowered. Ask the employees what they want. Create a cohesive work environment; instill a sense of equity, let them feel the sense of achievement. Let them feel the sense of belongingness through camaraderie.

#### XII. CONCLUSION

The retention of key employees is extremely crucial for organizations to prosper in the era of globalization. The management has big challenges to manage the aspirations of employees. It is not only sufficient to motivate the employees, but also to check that any management actions and policies should not work as a demotivator. Employees are human being and they want to earn more money and command respect at the workplace and in the society. The role of the management is to identify these otherwise hidden employee aspirations and should be able to provide it to them. Creating an environment in which these needs are met produce

extremely satisfied employees who are really an asset to the organizations.

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# Reward System and its impact on Employee Motivation in Non-Governmental Organization

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**Abstract** - India has a rich experience of philanthropic activities, which can be analyzed in pre and post independent phases. Over the past few decades, the number of third sector initiatives has emerged as a response to the failures of the state and market in addressing the unsatisfied needs of the society, which denotes the sphere between state and market. In present days we can witness the role and initiatives taken by NGOs in executing benevolent activities to serve the society. They are playing a significant role in modern India and trying to fill the gaps created by the government and market. Non-governmental organizations are running parallel to government organization and supplementing the activities of government. Employees of non-governmental organizations play a significant role and they are the valuable assets of organization. Most of the organizations facing employee related problems, hence it is a responsibility of organizations to take care of employee to prevent future damages. Considering plenty of literature, this paper has made an attempt to understand theoretical aspects of reward system and its impact on employee motivation in NGOs.

**Keywords:** NGOs, responsibility, reward, motivation

## I. INTRODUCTION

History of philanthropic activities in India analyzed in pre and post independent period. We can witness 150 years of philanthropy in India. In the year 1860 Societies Registration Act has been passed under the British Raj with an intention improve the legal condition of societies established to promote literature, science or charitable purposes. In present scenario non-governmental organizations are taking initiatives in promoting community welfare. Though non-governmental organizations came in to existence in the last two decades, its activities and functions were performed in the pre independence period. Historically non-profit organizations have been divided in to four periods- the mid of late colonial period (1810s to 1947); the early post-Independence period (1947 to the late 1950s); the 1960s and 1970s; and the 1980s. In the period between 1810 to 1947 Christian missionaries, Indian bourgeoisie and Gandhian voluntarism have initiated many welfare related activities (Sen, 1992). The period between 1947 to the late 1950s Gandhian and religion based NGOs initiated voluntary activities. In the year 1960s and 1970s few more non-profit organisations similar to Gandhian and religion based NGOs were established. Non-governmental organisations are oriented towards providing welfare services to the society and it is not oriented towards profit. The profit accumulated in the NGO work environment is

not distributed to its stake holders, it is used for the purpose of community development. Employees are the major assets of non-governmental organisations. As we know an organisations are made up of human beings. Employees play a significant role in organisational activities. Efforts of employees play a significant role in achieving organisational goal. A.S., O, & M.A, (2013) supported above statement by stating, no organisations can achieve stated objectives without contribution of its employees, employees play a major role on it. The study carried out by Chum, Mook, Handy, Schugurensky, & Quarter, (2013) revealed two types of work force in the non-governmental organisations they are volunteers and paid employees. The study undertaken by Liao-Troth (2001) revealed similarities between paid employees and volunteers on various aspects psychological contract, organisational commitment and organisational justice. Reward play a major role in the work environment, it is a tool used to recognise the efforts of an employees. A.S., O, & M.A, (2013) developed a model which consists of two types of rewards i.e. intrinsic and extrinsic reward, result of the study depicted a positive relationship between reward and employee performance. In general view point we can say reward act as an important tool to motivate employee in the organisation. In simple words motivation is defined as the process that initiates, guides and maintains goal oriented behaviors. Employee motivation which includes financial and non financial which benefits organisations in attaining its predetermined goals. Human resource problem in the workplace is a major challenge faced by all organisations. Providing reward motivates employees to perform well and also helps to overcome HR problems. The study has made an attempt to discuss the concept of reward and motivational aspects of non-governmental organisation. The paper is presented in four sections. Section one gives backdrop for the study. Section two covers issues relating reward system, employee motivation, employee performance, job satisfaction and reward system in non-profit organisations. Section three discusses proposed framework of the study. Section four discusses plan for future research and provides concluding remark.

## II. THEORETICAL FRAMEWORK

### A. Reward and employee motivation

Researchers from around the world have made an attempt in describing and establishing relationship between

reward and motivational aspects of employees. Large numbers of literatures are available on this issue. The empirical study conducted by (Ali & Ahmed 2009; Danish & Usman 2010) found a significant relationship between reward and recognition and motivation and satisfaction. The study undertaken by Pratheepkanth (2011) suggested employees are rewarded when there is a equitable balance between the employee's contribution to the organisation and the organisations contribution to the employees. The study revealed when there is higher employee reward in the work environment this leads to higher employee motivation and lower employee rewards leads to lower the employee motivation.

Lanfranchi and Narcy (2012) found that the NGO workers are more enthusiastically motivated by their profession, dedicate their effort to social missions, monetary incentives like performance pay will not play an important role in inducing them. It clears that though non-profit employees are intrinsically motivated they deserve extrinsic motivations. The above studies clears that there is a direct relationship between reward and employee motivation. Hence reward plays a major role in motivating employees in the organizations.

#### **B. Reward and employee performance and job satisfaction**

A.S., O, & M.A (2013) revealed employee reward such as pay, performance bonus, recognition and praise are the important tools that can be used to motivate employees to get good level of performance. The study discovered a significant relationship between reward dimensions and employee performance in the work place. Gohari, Kamkar, Hosseinipour, & Zohoori (2013) proposed a frame work on reward, job satisfaction and employee performance with an intention to establish linkage between of linkage. Found positive relationship between reward and employee performance and stated jobsatisfaction acts as a mediator between reward and employee performance. In the study of Ibrahim, et al. (2012) revealed four factors influencing job satisfaction of employees. Those four factors are, effective recruitment, reward, leadership skill and personality directly influences on the level of job satisfaction.

The study carried out by Özutku (2012) examined the influence of intrinsic and extrinsic rewards on employee result in manufacturing industry. The result revealed a positive relationship between intrinsic reward and employee result, on the other hand extrinsic rewards do not have a significant relationship with employee result. Yasmeen, Farooq, & Asghar (2013) undertook a study with an intention to examine the impact of rewards on organisational performance. The study proved a negative relationship between between salary, bonus and organisation performance and a positive relationship between recognition, appreciation and organisation performance. The above arguments clears that to increase employee performance and job satisfaction level reward

play a major role. Combination of intrinsic and extrinsic reward plays an important role in this aspects.

#### **C. Reward sytem in non-profit organisation**

The non-profit organistions are not oriented towards profit, its main aim is to provide services to the needy people. Many of the researchers conducted study on reward system in nonprofit organisations. Tippet & Kluvers (2007) found in a not-for-profit organisation intrinsic reward play a significant role in motivating employees than extrinsic reward. In the study of Leete (2000) argued majority of non-profit organisations rely on intrinsically motivated employees. Mosca, Musella, & Pastore (2007) identified positive relationship between non pecuniary compensation and job satisfaction in the non-profit sector. Aurioi & Brilon (2008) in his study highlighted non-profit organisations are attracts both intrinsically and extrinsically motivated employees. Hafiza, Shah, Jamsheed, & Zaman (2011) study results reveals that there is a significant and positive relationship between extrinsic rewards and employee motivation but it has been observed that organizations are not offering right amount of financial rewards (extrinsic rewards) to their employees in this sector. However, intrinsic rewards found an insignificant impact on employee motivation.

From the literature, it is clears that it is a responsibility of non-profit organizations to take care of its employees. The employees have to be motivated by using both intrinsic and extrinsic reward. The reward system directly shows its impact towards employee performance and employee motivation. The combination of intrinsic and extrinsic reward is significant to motivate staff in the non-profit organization. The review reveals that much of the research in the field of non-governmental organization (NGO) workers are carried out in foreign countries such as U.K., Jordon, Bangladesh, Cambodia, Pakistan, Thailand, Greece, Australia, Uganda, Srilanka, United States, England etc. Very few studies were carried out in India on NGO workers.

#### **D. Research objectives**

The objective of the study is to find out the relationship between reward system and employee motivation and impact of rewards on motivation in non-governmental organizations

#### **E. Research Methodology**

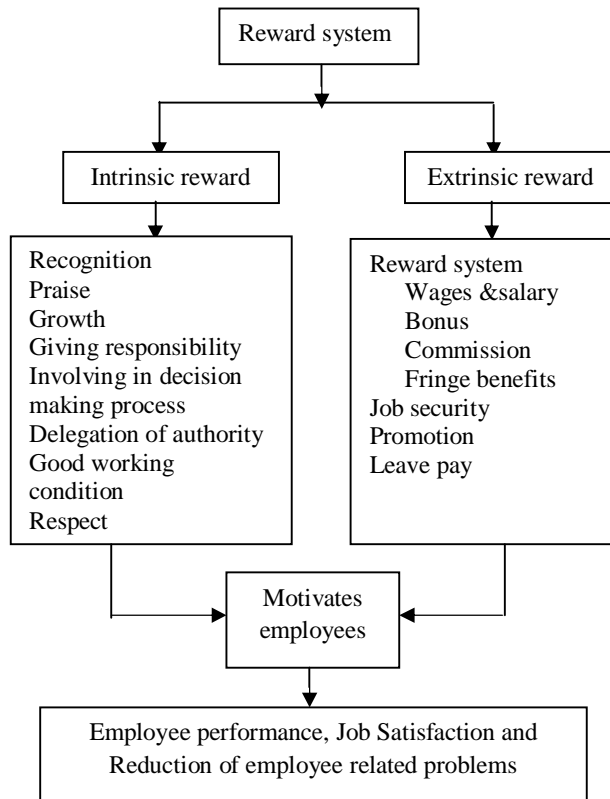
The study is descriptive in nature. Information and data in the study is developed based on secondary data by referring articles from online journal, books, magazines

### **III. PROPOSED FRAME WORK**

Followed by the above discussion, there are evidences to support there exists a positive relationship between reward system and its impact on employee motivation. The proposed framework clears combination of both intrinsic and extrinsic reward act as an important tool

to motivate employees, to increase level of performance, increased level of job satisfaction and helps to solve many employee related problems.

#### A. reward system and its impact on employee motivation in non-governmental organization



Source: Self constructed

The above diagram depicts the role of reward system in the work place. There is a positive impact of reward system in motivating employees. There are two kinds of reward systems intrinsic and extrinsic. Intrinsic reward system is termed as non-financial reward system and extrinsic reward system is termed as financial reward system. When an organization uses both intrinsic and extrinsic reward system which motivates employee and leads to increase performance level of employee, increases job satisfaction and helps to solve employee related problems. Hence, non-governmental organization as an employer has to consider combination of both intrinsic and extrinsic reward system to overcome human resource challenges in the work place.

#### B. Impact of effective reward system

1. Increases level of performance
2. Good relationship between employee and employer
3. Labor problems can be reduced
4. Reduction of cost of recruitment
5. Increases job satisfaction

6. Stimulates employees to perform challenging work.

#### IV. CONCLUSION AND IMPLICATION

Non-governmental organizations are playing a major role in modern India. Over the past few decades the numbers of non-governmental organizations are increased as response to the failures of the state and market in addressing the unsatisfied needs of the society. These organizations concentrate more about community development aspects and not oriented towards profit. Non-governmental organizations face various resource challenges like- financial, information and human related. Human related challenges are considered as far more severe and consistent challenge faced by non-governmental organizations. Effective employee reward system helps to solve employee related problems in the workplace. Reward system plays a major role in motivating employee work place. Effective reward system motivates employees, increases job satisfaction and performance level of employees. This literature reveals positive relationship between reward system and employee motivation.

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# Securities Market and Behavioral Finance

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**Abstract-** “A big part of financial freedom is having your heart and mind free from worry about the what-ifs of life.”

The statement is very true with respect to behavioral finance - behavioral finance is the psychological behavior of the financial practitioners and the outcome of it in the market. The studies already conducted reveals that the characteristics of the market participants systematically influence individual's investment decisions as well as market outcomes. Rationality of the investors is influenced by many forces in the market like demographic, economic, and cognitive factors. One among such force is market sentiments. It is a major force which controls or measures the movement in the price of the stock in the securities market. In this paper the researchers are analyzing upon to the behavioral pattern and the influence of it in the securities market. This empirical research made on the emerging issues of stock market provides the investors an opportunity to analyze the investment decisions. This study is an highlight on the theory of behavioral finance, which endorse human behavioral and psychological attitude for successful and profitable investor.

**Keywords:** *Definition of behavioral finance, investor's psychology, securities market investor's decision.*

## INTRODUCTION

The introduction of new theories and models in 1950- 60's like portfolio optimization theory, the capital asset pricing model and efficient market hypothesis led to many contradictory evidence started to emerge. This led to a reconsideration of the mutual belief about the applicability of the leading theories of modern finance which in turn gave birth to a new era- that of behavioral finance

Behavioral finance is a combination of psychology and economics to explain why and how investors act towards an investment decision and how it affects the market. Behavioral finance has been shown to positively impact investors' financial decision-making. Stock selection, can also be improved by the use of behavioral tools. Empirical academic research has highlighted two types of pervasive investor behavior which impact share prices, causing them to diverge from those predicted by the Efficient Markets Hypothesis (EMH); under reaction of stock prices to news and overreaction or anchoring to a stream of good or bad news.

I. Behavioral finance is a relatively new paradigm of finance, which seeks to supplement the standard theories of finance by introducing behavioral aspects to the Behavioral finance is a relatively new paradigm of finance, which seeks to supplement the standard theories of finance by introducing behavioral aspects to the decision making process.

II. The decisions of investors on stock market play an important role in defining the market trend, which influences the economy. To understand and give some suitable explanation for the Investors' decisions, it is important to explore which behavioral factors influencing the decisions of individual investors and how these factors impact their investment performance. It will be useful for investors to understand common behaviors which justify their reactions for better returns.

## DEFINITION OF BEHAVIORAL FINANCE

A field of finance that proposes psychology-based theories to explain stock market anomalies. Within behavioral finance, it is assumed that the information structure and the characteristics of market participants systematically influence individuals' investment decisions as well as market outcomes.

A theory stating that there are important psychological and behavioral variables involved in investing in the stock market that provide opportunities for smart investors to profit. For example, when a certain stock or sector becomes "hot" and prices increase substantially without a change in the company's fundamentals, behavioral finance theorists would attribute this to mass psychology. They therefore might short the stock in the long term, believing that eventually the psychological bubble will burst and they will profit.

## OBJECTIVE OF THE STUDY

The objective of the study is to identify the determinants of investment behavior and their relative importance in shaping the behavior of individual investors.

## LIMITATIONS OF THE STUDY

There are a variety of investment avenues in the capital market and a lot more are popping up also, but the study was limited to equity investments only. The reluctance from investor's side to reveal data on their income and investment made was a major limitation faced by the researchers.

## THEORETICAL BACKGROUND

### Prospect Theory

Traditionally, it is believed the net effect of the gains and losses involved with each choice are combined to present an overall evaluation of whether a choice is desirable. Academics tend to use "utility" to describe enjoyment and contend that we prefer instances that maximize our utility. According to prospect theory, losses have more emotional impact than an equivalent amount of gains

Prospect theory also explains the occurrence of the disposition effect, which is the tendency for investors to hold on to losing stocks for too long and sell winning stocks too soon. The most logical course of action would be to hold on to winning stocks in order to further gains and to sell losing stocks in order to prevent escalating losses. To understand prospect theory, you need to know what it disagrees with. The villain in this drama is “expected utility theory”, a series of assumptions about human behavior. Expected utility theory says that people are good at assessing probabilities—people know that their aero plane (almost definitely) will not crash, so do not feel nervous about the flight. The theory also states that people experience good things or bad things equally—it is as pleasurable to find £5 on the street, as it is painful to lose £5.

### EVIDENCE FOR IRRATIONAL BEHAVIOR

Kahneman and Tversky conducted a series of studies in which subjects answered questions that involved making judgments between two monetary decisions that involved prospective losses and gains. The implication is that people are willing to settle for a reasonable level of gains (even if they have a reasonable chance of earning more), but are willing to engage in risk-seeking behaviors where they can limit their losses. In other words, losses are weighted more heavily than an equivalent amount of gains.



### Investor behavior which affects the investing decisions

1. **Unaware of Trading** -The main reason that you need help when investing in the stock market is that it can be very complicated and most people simply don't have the knowledge that they need to do it successfully. If you spend any time looking into how to choose stocks you are quickly going to come across all kinds of terms and concepts where you have no idea what they mean. Since you really don't want to be investing your money in things that you don't understand the best thing that you can do is to get somebody who can help you.
2. **Emotionally attached** – The investors have a strong emotional attachment to their money, this can be a real problem when investing. If you have a fear of losing money, or if you fall in love with a particular stock you can quickly suffer large losses. In fact most people lose money not because they don't know what
3. **Following the crowd**-Humans are prone to a herd mentality, conforming to the activities and direction of others. This is a common mistake in investing. tendency to panic and depend on the direction of others is exactly why problems arise in the stock market
4. **Panic Buying**- This is the hot-tip syndrome, whose symptoms usually show up in buzzwords such as "revolution", ". You see a stock rising and you want to hop on for the ride, but you're in such a rush that you skip your usual scrutiny of the company's records. The best course of action is to do your due diligence.
5. **Panic Selling** - This is the "end of the world" syndrome. The market (or stock) starts taking a downturn and people act like it's never happened before. Symptoms include a lot of blaming, swearing, and despairing. Regardless of the losses you take, you start to get out before the market wipes out what's left of your retirement fund. The only cure for this is a level head.
6. **Overtrading**- The investors have a tendency to trade more with a small holding period. They keep on buying and selling securities seeing to have positive and negative fluctuations in the market with an aim of ploughing high profit.
7. **Xenophobia**-People with this psychological disorder have an extreme fear of foreigners or strangers. Even though most people consider these fears irrational, investors engage in xenophobic behavior all the time. Some of us have an inborn desire for stability and the most seemingly stable things are those that are familiar to us and close to home. The important thing about investing is not familiarity but value. If you look at a company that happens to look new or foreign but its balance sheet looks sound, you should not eliminate the stock as a possible investment.
8. **Perception**- It is a process with which we organize and explain the environmental stimuli in order to get to expressive experiences. But what causes the investor to get into trouble in his decisions is his misperception of reality.
9. **Pride** - This occurs when you are trying to save face by holding a bad investment instead of realizing your losses. Admit when you are wrong, cut your losses, and sell your losers. At the same time, admit when you are right and keep the winners rather than trying to over-trade your way up.
10. **Lust** – Lust in investing makes you chase a company for its stock price instead of its personality. Lust is a definite no-no and a cause of bubbles and crazes.
11. **Avarice**– This is the act of selling dependable investments and putting that money into higher-yield,

higher-risk investments. This is a good way to lose your shirt--the world is cold enough without having to face it naked.

12. **Gluttony** – A complete lack of self-control or balance, gluttony causes you to put all your eggs in one basket, possibly an over-hyped basket that doesn't deserve your eggs. Remember proper balance and diversification are essential to a portfolio.
13. **Sloth** – this means being lazy and not doing your due diligence. Passive investors can profit with less effort and risk than over-active investors.
14. **Extroversion**- An extroverted person usually focuses on external elements and is under their influence. Extroverted people consider a lot on the external elements and do not take their personal deeds as the result of intellectual evaluation but the result of external element.
15. **Media**-Real investors are influenced by the media. They tend to buy, rather than sell, stocks when those



stocks are in the news. This attention-based buying can lead investors to trade too speculatively and has the potential to influence the pricing of stock

16. **Time:** Short-term versus long-term focus. The tendency to focus on the short term is a human characteristic. Behavioral economists refer to it as hyperbolic discounting — “a way of accounting in a model for the difference in the preferences an agent has over consumption now versus consumption in the future.”

#### Implication of these behaviors to behavioral finance

These behaviors of investors are based on the behavioral finance. These are mental and emotional factors which tend the investors to make issues

1. **Overconfidence** - A serious error in judgment you can make as an investor is to be overconfident. People generally rate themselves as being above average in their abilities. They also overestimate the precision of their knowledge and their knowledge relative to others. Many investors believe they can consistently time the market. But in reality there's an overwhelming amount of evidence that proves otherwise. Overconfidence results in excess trades, with trading costs denting profits. If you are

overconfident about your investment skill, you are likely to trade too much. Investors can be overconfident about their forecasts and opinions

Overconfidence has two components: overconfidence in the quality of your information, and your ability to act on said information at the right time for maximum gain. Studies show that overconfident traders trade more frequently and fail to appropriately diversify their portfolio. To overcome this bias the only way is Trade less and invest more.

2. **Mental accounting**– It may cause incoherence in personal financial management since it can lead to financial decisions being taken independently of each other. It is that the way a person subjectively frames a transaction in their mind will determine the utility they receive or expect. The separation of finances may be into distinct bank or investment accounts, or may simply be in

the mind of the individual. Although mental accounting can help in the organization of finances, it can also hinder rational decision-making. The mental accounting bias is a significant problem in investing. For example, many investors divide their investments into separate accounts (mental and physical). Consider a simple split between a safe investment portfolio and a speculative portfolio. The problem with this separation is that net wealth would be unchanged if the investor held one portfolio. But by separating the two, the investor could be tempted to cut winners in the speculative account to top up the safe account to some pre-established psychological level.

3. **Illusions and Deceptions** -Another cognitive bias is the illusion of control. The illusion of control causes people to behave as if they were able to exert control where this is impossible or unlikely; such control includes the ability to identify future out-performers. The illusion of control, together with overconfidence, may explain why so many investors choose actively managed funds when tracker funds outperform them and have lower charges.

4. **Fear** – The outcome of the fear factor holds back the investor in risky securities which will lead to loss of investment opportunity. It is not always better for an investor to take a neutral position too much nor less fear which will make him a rational investor.
5. **Reducing regret-** As humans, we try to avoid the feeling of regret as much as possible and often we will go to great lengths, sometimes illogical lengths, to avoid having to own the feeling of regret. To overcome this bias ,if the stock rises above a certain level, set a trailing stop that will lock in gains if the trade loses a certain amount of gains. Make these levels unbreakable rules and don't trade on emotion.
6. **Limited attention Span-**There are thousands of stocks to choose from but the individual investor has neither the time nor the desire to research each. Humans are constrained by what economist and psychologist Herbert Simon called, "bounded rationality." This theory states that a human will make decisions based on the limited knowledge they can accumulate. Instead of making the most efficient decision, they'll make the most satisfactory decision. Because of these limitations, investors tend to consider only stocks that come to their attention through websites, financial media, friends and family, or other sources outside of their own research
7. **Chasing Trends-** Humans have an extraordinary talent for detecting patterns and when they find them, they believe in their validity. When they find a pattern, they act on it but often that pattern is already priced in. Even if a pattern is found, the market is far more random than most traders care to admit.
8. **Familiarity-It** may cause some investors to be too concentrated on opportunities in their own countries. They are more familiar with and confident about local investment opportunities, so despite the fact that it's much easier than in the past to diversify investments across geographies, they go with what they know and can easily understand.
9. **Anchoring-**They may not be able to get their mind off a particular sell-price target, even if new information is available or the investing landscape has shifted significantly. They become stuck and may even ride markets to the bottom if they cannot let go of what they think the price "should" be.

We surveyed the fund managers and investors to establish their decision-making processes. The population in the study included all the 40 investors. Out of which only 26 respondents have responded to the questionnaire. This section

reports the results of the behavioral factors that affect investment decision-making by institutional investors.

Behavioral factors	Yes	No	Yes %
Representativeness			
You buy 'hot' stocks and avoid stocks that have performed poorly in the recent past.	15	11	57.69
You use trend analysis to make investment decisions.	17	09	65.38
Overconfidence			
You use your predictive skills to time and outperform the market.	19	08	73.08
Anchoring.			
Your trading is affected by recent experiences in the Market.	20	06	76.92
You use the purchase price of stocks as a reference point in trading.	22	04	84.62
Mental accounting			
You tend to treat each element/account in your investment portfolio separately	20	06	76.92
Mental accounting (selling losing investment of portfolio)	11	15	42.31
Regret aversion			
You avoid selling shares that have decreased in value	16	10	61.54
You sell shares that have increased in value faster	11	15	42.31
Fear of risk			
When faced with a sure gain, you are risk averse	18	08	69.23
When faced with a sure loss, you are a risk taker	0	20	0

Factor	Very high impact	High impact	Moderate impact	Little impact	No impact
Price Changes		11	12		3
Past trends of the stock		12	9	5	

Following the crowd		12	9	5	
Emotional attached	14	8	1	2	1
Dependency	15	9	2		
Overtrading		2	13	5	6
Panic buying and selling	4	9		3	10
Fear of IPO	5	9	2	1	9
Perception towards stock	2	10	6	5	3
Avarice	2	7	8	5	4
Effective Portfolio	2	9	6	4	5
Holding period	2	2	8	6	8
Influence of media	1	3	10	5	7

### CONCLUSIONS AND IMPLICATIONS

Behavioral finance certainly reflects some of the attitudes embedded in the investment system. Behaviorists will argue that investors often behave irrationally, producing inefficient markets and mispriced securities - not to mention opportunities to make money. That may be true for an instant, but consistently uncovering these inefficiencies is a challenge. Questions remain over whether these behavioral finance theories can be used to manage your money effectively and economically.

That said, investors can be their own worst enemies. Trying to out-guess the market doesn't pay off over the long term. In fact, it often results in quirky, irrational behavior, not to mention a dent in your wealth. Implementing a strategy that is well thought out and sticking to it may help you avoid many of these common investing mistakes

Investors may overestimate their skills, attributing success to ability they don't possess and seeing order in information or data where it doesn't exist. Having expressed a preference for an investment, people often distort any other information in order to add weight to their decision. Investors are often unable to alter long-held beliefs, even when confronted with overwhelming evidence that they should. - They fall in love with their investments, rationalize losses, or hang on too long to sell. Most investors will avoid risk when there is the chance of a certain gain. But faced with a certain loss, they become risk takers. Most investors will avoid risk when there is the chance of a certain gain. But faced with a certain loss, they become risk takers and are often impatient to

sell a good stock. They make a distinction between money easily made from investments, savings or tax refunds and hard-earned money - found money is more readily spent or wasted. People tend to think in extremes - the highly probable news is considered certain, while the improbable is considered impossible. Assume that lack of market or price movement represents stability, while volatility represents instability. Investors follow the crowd, and are heavily influenced by other investors or compelling news; they fail to check out the real facts and make predictions based on limited information as if they had special foreknowledge. Investments are often thought of as pieces of paper rather than part ownership of a company and become obsessed with prices and trend-watching, rather than solid information.

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# A review on Organic Materials for Optical Phase Conjugation & All-optical Switches

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**Abstract**— Materials with exceptional nonlinear optical properties are critical to the continuing development of photonic and electro-optical devices, such as those used in optical communications, networking, optical computation for signal processing and data storage equipments. The changing trend is to use organic materials/dyes that exhibit exceptional nonlinear optical properties instead of conventional materials which have comparatively low nonlinear properties. These organic materials/dyes are easy to prepare in solution or solid form. The resulting organic material has a low dielectric constant, eliminating the need for poling while maintaining the refractive index. However, these organic materials have few of the drawbacks inherent in the processing of comparable inorganic materials like of intense light induced degradation or bleaching and aggregation at higher dye concentration. In order to overcome these drawbacks and for effective use of highly nonlinear dyes, the dye molecules are doped in polymer matrix. This idea of dye-doped polymer material matrix may increase the concentration of absorptive or fluorescence centers as well as the opto-chemical and opto-physical stability. In this paper, we have discussed the strategic advantages of dye-doped polymer nonlinear materials in comparison with organic and inorganic nonlinear materials for optical phase conjugation and all optical switches in future photonics technology. This was done by studying the linear optical properties and nonlinear optical Phase Conjugation properties of two azo dye-doped polymer films by considering organic dyes disperse orange (DO-25) and disperse yellow (DY-7) doped in a polymer matrix Polymethyl methacrylate methacrylic acid (PMMA-MA). The nonlinear optical phase conjugation properties are studied using Degenerate Four Wave Mixing set-up using 532 nm wavelength CW laser beam. The effect of dye concentration, intensity of backward, forward pump, and inter beam angle between probe and forward pump beam on phase conjugation reflectivity are also studied and compared.

**Keywords**- Azo Dye-doped Polymer films, Degenerate Four Wave Mixing, Nonlinear Optical Properties, Optical Phase Conjugation.

## I. INTRODUCTION

Materials with exceptional nonlinear optical properties are critical to the continuing development of photonic and electro-optical devices, such as those used in optical communications, networking, Optical computation for signal processing, and data storage equipments. The nonlinear optical material is a general term for the materials efficiently make appearance of nonlinear phenomena optically as the responses to optical wavelength conversion,

optical amplification as well as the refractive index changes due to its intensity. Nonlinear optical materials are largely divided into inorganic and organic materials. In 1930, the nonlinear optical effect related to optical wavelength conversion was predicted, which was said to be the first finding knowledge about the nonlinear optical phenomenon. In 1960, laser oscillation using inorganic material was reported. Since then researches of inorganic nonlinear optical materials were actively taken place, but now-a-days, probably there is no more that undiscovered [1].

With the rapid development of modern science and technology, information transmission capacity of communication increases day by day. Optical communication, which has advantages of large transmission capacity, high transmission velocity, excellent anti-jamming ability and good Signal-to-Noise value, is becoming a main method in communication researches at present. Functions like optical switching and memory by non-linear optical effects, all depending on light intensity, are expected to result in realization of a pivotal optical device in optical computing. This is a new data processing system that makes the maximum use of light characteristics such as parallel and spatial processing capabilities and high speed.

All-optical networks with good performances, such as big capacity, good transparency, wavelength routing characteristics, compatibility and extensibility, has become the first choice of next generation of wide-band net with a promising application. Accompanied by the deep research of wave division multiplex (WDM), switches have drawn more and more people's attention. In the existing optical-electronic-optical conversion apparatus of present communication net, disadvantages of slow switching speed and clock displacement have lead to a "bottleneck" of optical fiber communication systems. All-optical switches which can break through the transmission speed limits of electro-optical, acousto-optical, thermo-optical and micro-electro-mechanical switches, can serve as effective methods to solve these problems. Based on the third-order nonlinear optical (NLO) effect, phase all-optical switches use a controlled light to bring changes of refraction index and make phase difference when signal light passes through sample and thus carry out the function of "on" or "off" of optical switches. Its nonlinear phase difference is proportional to  $(2 / \pi) n_2 I L$ , where  $I$  is intensity,  $L$  is length

of interaction of wave and  $n_2$  is nonlinear refraction index. The properties, such as change speed, intensity loss, sensitivity to optical polarization and insert loss, all depend on third-order NLO materials used to synthesize apparatuses. At present, it is with great enthusiasm to emphasis on exploring and synthesis of materials for all-optical switches based on the continual discovery of varies kinds of new materials. There are other applications of third-order NLO materials, including optical limiting devices, Q-switch, passive mode locking, optical operation and light storage etc.. Laser weapons applied to military have special effects on optical-electro antagonism, aerial defense and military recovery. Laser blinding can make eyes blind temporarily or permanently, and laser can also destroy important apparatus in the satellite, such as detectors and sensors. As a result, laser protection materials and devices have become a focus. The purpose of laser protection is to protect people and devices from damage of high intensity. These optical limiting devices are mainly based on the materials' third-order NLO properties, including self-focusing, self-defocusing, two-photon absorption, reverse saturable absorption and nonlinear scattering. Comparing to earlier laser protection devices, it has advantages of fast response, wide protected band, low optical limiting threshold, large damage threshold and high linear transmission, etc. The third-order NLO properties of materials can also be used in the compression (mode-locking) and shaping of laser pulses, optical bistability, etc.. Third-order NLO materials also have many potential practical exciting applications, and motivated scientists to continually explore new materials with high third-order NLO properties. The demands of materials for all-optical information process and high-speed all-optical switches include large nonlinear refraction index, small linear and nonlinear absorption coefficient, fast response and low propagation loss [1].

Photonic and electro-optical (in which information storage or processing involves the modulation and switching of light beams) devices are used in many applications which include : Electro-optic modulators , Mach-Zehnder interferometers, Optical switches, Optical interconnectors , Frequency doublers for high-power lasers, Active waveguides, Optical memory storage devices, Optical computing devices, Nonlinear directional couplers, Nonlinear Bragg reflectors, Optical limiters, Photorefractive memories.

The global market for Non-Linear Optical Materials and Applications is in Millions of US\$. There are several companies including many key and niche players worldwide such as CASIX, Inc., Cleveland Crystals, Inc., Coherent, Inc., Conoptics, Inc., Cristal Laser SA, Crystal Technology, Inc., Deltronic Crystal Industries, Inc., EKSMa OPTICS, Fujian Castech Crystals, Inc., Inrad Inc., JDS Uniphase Corporation, Laser Optics, LINOS Photonics GmbH & Co. KG, Northrop Grumman Synoptics, Nova Phase, Inc., Quantum Technology, Inc., Raicol Crystals Ltd., Saint-

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## II. NONLINEAR MATERIALS : NEW INITIATIVES

Currently, there exists a wide range of inorganic non-linear optical materials [2-3] with varied wavelengths, damage thresholds and optical characteristics. The research focus is to develop materials that meet all requirements such as faster response, high laser damage threshold and wide transparency range coupled with adaptability, processing ability and the ability to interface with other materials. Further robust growth in demand for high bandwidth fiber optic networking infrastructure and high speed optical computing are expected to boost the demand for Non-Linear Optical Materials

On the other hand, the 1982 ACS symposium report added momentum to the organic nonlinear optical material studies. Since then the studies have started to become active. It revealed organic compounds with the delocalized conjugated electrons which have excellent nonlinear optical property and high-speed responsiveness due to high mobility of electrons. The 21st Century is said to be an age of photonics. As one of the basic technology of photonics, improvements of the wavefront control technology using organic nonlinear optical effects are considered very important. Now R&D on the organic materials with excellent nonlinear optical properties, and vigorous applied studies have been carried out.

Present developments in the field of materials chemistry show that, though inorganic materials are still the choices for many devices, interest in organic materials are growing day-by-day in view of their adaptability to various kinds of applications. The field of organic molecular materials has transformed the use of materials in the modern world in the last 20 years, and it can be seen that organic molecules provide wonderful opportunities to materials researchers to design custom-tailored materials whose properties at the macroscopic /microscopic level reflect closely to the modeled or actual behavior of individual

molecules. In other words, development of novel functional organic materials is a rapidly growing area of science, which probably can replace the traditionally used materials with cheaper and better-performing new ones in the near future, and also bring out some new applications [4 - 6].

In view of the technological applications of the organic materials, the current research focus is in five technical areas, which are (1) Structural and multifunctional materials, (2) Energy and power materials, (3) Photonic and Electronic Materials, (4) Functional organic and hybrid materials, (5) Bioderived and bio-inspired materials. Among the five main technological thrust areas of the organic materials, the focus of this thesis is on "PHOTONIC MATERIALS", which can find applications in the field of linear and electric nonlinear optics (otherwise known as photonics). Some of the benefits of organic nonlinear optical materials are :

- **Easy to process:** Because they do not require electric poling or the preparation of large single crystals, these materials are easier to process than inorganic optical materials.
- **Lower cost:** The ease of processing directly translates into a lower cost to fabricate.
- **High second- and third-order susceptibility:** This technology exhibits exceptional performance in doubling and tripling the frequency of light passing through it, making it at least comparable to inorganic materials.
- **Low dielectric constant:** An optical material with a high dielectric constant requires a larger poling voltage in order to polarize the dipole moment and can suffer changes in the refractive index. This technology requires no poling voltage and maintains its refractive index.
- **High electro-optic coefficient:** Materials with a high electro-optic coefficient are more suitable for electro-optic modulation for high-speed devices.
- **Colorless:** It is believed that the clarity of the doubling material will prevent the absorption of visible light, allowing a wide variety of light frequencies to be doubled.
- **Resistant to laser damage:** The tripling material can be exposed to 432,000 20-nanosecond pulses at 20 Hz without any evidence of damage to the organic material, making it ideal for use in photonic applications.

These organic materials have few of the drawbacks inherent in the processing of comparable inorganic materials like of intense light induced degradation or bleaching and aggregation at higher dye concentration. In order to overcome these drawbacks and for effective use of highly nonlinear dyes, the strategic idea for the next practice is doping the dye molecules in polymer matrix. This idea of dye-doped polymer material matrix may increase the

concentration of absorptive or fluorescence centers as well as the opto-chemical and opto-physical stability [7 - 8].

Nonlinear optical phase conjugation (OPC) by degenerate four-wave mixing (DFWM) is an important technique with applications in many fields of science and technology including image transmission, optical image processing, optical filtering, and laser resonators [7]. When two counter propagating and intense light beams interact with a nonlinear medium, together with a less intense third one, a fourth beam is generated from the medium, which will be the phase conjugation of the third beam. This technique is called four-wave mixing. The unique feature of a pair of phase-conjugate beams is that the aberration influence imposed on the forward (signal) beam passed through an inhomogeneous or disturbing medium can be automatically removed from the backward (phase-conjugated) beam passed through the same disturbing medium [8]. The main applications of degenerate DFWM techniques are nonlinear spectroscopy, real time holography, and phase conjugation. Phase conjugation by (DFWM) has been demonstrated in many organic or inorganic materials using pulsed or continuous-wave (cw) lasers. [9-10].

The organic molecules exhibit large polarizabilities because excited  $\pi$ -bond electrons are delocalized and hence easily polarizable. Nonlinear absorption like two photon absorption and saturable absorption plays a very important role when dyes are used for the production of phase conjugation light, because  $\chi^{(3)}$  is inversely proportional to the saturation intensity. These systems exhibit large third-order susceptibilities. OPC has been reported in Glasses and other solid matrices doped organic dyes emerged as promising materials for OPC because of their large third-order nonlinear susceptibilities  $\chi^{(3)}$ . In these materials, the phase-conjugate wave can be generated at low light intensities provided by the continuous-wave lasers. Moreover, these materials can be easily prepared in the laboratories. The important fundamental physical processes like nonlinear refraction, thermal grating, saturation and reverse saturable absorption, two photon induced fluorescence, photorefractive, and stimulated Brillouin scattering etc. may lead to the formation of a laser-induced grating in the medium are associated with the generation of phase conjugated wave [11].

In this paper we have studied the linear optical properties and nonlinear optical Phase Conjugation properties of two azo dye-doped polymer films by considering organic dyes disperse orange and disperse yellow doped in a polymer matrix Polymethyl methacrylate methacrylic acid (PMMA-MA). The nonlinear optical phase conjugation properties is studied using Four Wave Mixing set-up using 532 nm wavelength CW laser beam. The linear absorption, single photon fluorescence, two photon induced fluorescence behavior are studied. PC Reflectivity as

function of angle between the probe beam and forward pump beam and transmittance as a function of time are studied.

### III. DESIGN OF NONLINEAR MOLECULE

#### General Criteria

One of design strategy is proposed recently by Albota et.al, [12] dealing with molecules based on benzene ring as  $\pi$ -center which is attached symmetrically by either electron-donor (D) or electron-acceptor (A) through various lengths of conjugated connectors; D- $\pi$ -D or A- $\pi$ -A. They concluded that  $\sigma$  is increased by increasing the length of conjugation; change with the D/A strength and the extent of symmetric intramolecular charge-transfer (CT) from the D ends to the  $\pi$ -center or vice versa, meaning that symmetric charge redistribution effectively occurs upon excitation of such symmetric molecules. A similar approach was made in designing molecules by Reinhardt [13] and his coworkers. dealing with benzene ring as  $\pi$ -center which is symmetrically coupled with two electron acceptor (A- $\pi$ -A) or asymmetrically with D and A (D- $\pi$ -A), respectively. There is no clear effect of structural symmetry on  $\sigma$  values, although increasing conjugation length of  $\pi$ -center brings about a significant improvement of the value. In fact, an asymmetric structure, D- $\pi$ -A. This seems to suggest that there must be more crucial molecular factors other than structural symmetry involved. In this study we have considered two azo dye molecules.

#### Sample Preparation

Commercially available [3-[N-ethyl-4-(4-nitrophenylazo) phenyl-amino]propionitrile (Disperse Orange-25) as shown in Fig. 1 and 4-[4-(Phenylazo)phenylazo]-o-cresol (Disperse Yellow-7) as shown in Fig. 2 (Aldrich Chemical Co.) are purified by recrystallization twice with spectrograde ethanol and by vacuum sublimation. The purity is determined spectroscopically. Purified chloroform is used as the solvent. To prepare the film, Polymethyl methacrylate – metacrylic acid was used as polymer matrix. The thin films of DO-25 and DY-7 doped in PMMA-MA is prepared using hot press technique. Thin films of variable thickness are obtained between two glass slides.

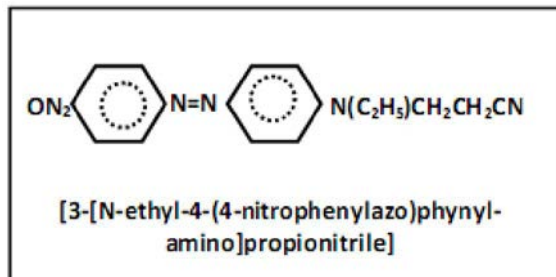


Fig. 1. Molecular structure of Disperse Orange -25.

#### Linear Optical Properties of DASPB

The linear absorption spectra of DO-25 and DY-7 doped in PMMA-MA are measured on a VARIAN Cary UV-vis-IR recording Spectrophotometer. Fig. 3 and Fig. 4 show the linear absorption spectrum of these samples respectively. The spectral curve has shown that there is a strong absorption band with peak absorption located at 468 nm in case of DY-7 and at 468 nm with a bandwidth of 100 nm, a medium absorption peaked at 270 nm with a bandwidth of 60 nm in case of DO-25 and no linear absorption is observed in entire spectral range of 580 to 1200 nm.

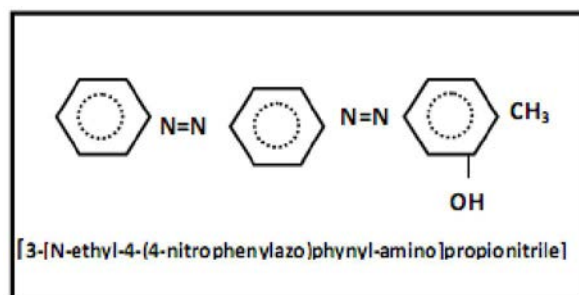


Fig. 2. Molecular structure of Disperse Yellow -7.

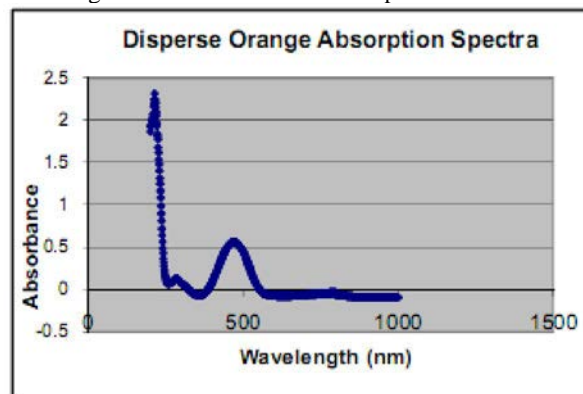


Fig. 3. Linear absorption spectrum of DO-25 in PMMA-MA polymer matrix.

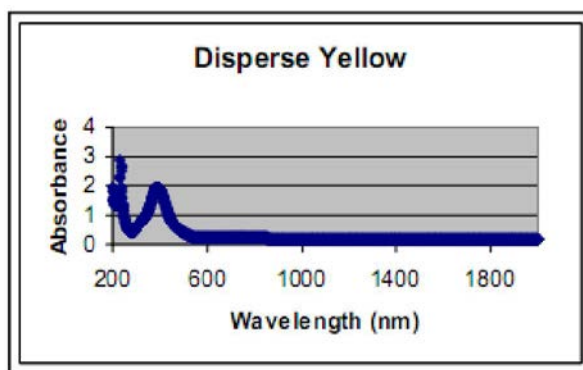


Fig. 4. Linear absorption spectrum of DY-7 in PMMA-MA polymer matrix.

#### IV. STUDY OF PHASE CONJUGATION

##### Experimental Configuration for DFWM

The schematic diagram of the phase conjugation experiment is shown in Fig. 5. A CW Nd:YAG laser beam of variable input power at 532 nm was divided into three beams, two counter-propagating pump beams  $E_1$  and  $E_2$  namely forward-pump and backward-pump beams respectively and a probe beam  $E_3$  to form the DFWM configuration. The spot size of each of these three unfocused beams at the nonlinear medium was 1.0 mm in diameter. The constant power ratio of the probe beam ( $E_3$ ), forward-pump beam ( $E_1$ ) and backward-pump beam ( $E_2$ ) used in this work was  $\approx 1 : 10 : 10$ . The angle between the probe beam and the forward-pump beam was initially  $8^\circ$ . The sample was exposed simultaneously to all these three beams. The optical path lengths of all the three beams were made equal, so that they were coherent at the sample. The phase-conjugate wave retraces the path in the opposite direction to that of the probe beam  $E_3$  and was detected with the help of a photo detector and power meter. The experimental set-up was mounted on a vibration isolation table to avoid the destruction of the laser-induced gratings formed in the DO-25/DY-7 dye-doped polymer matrix due to mechanical disturbances. The effect of Phase Conjugation signal strength (PC reflectivity) as a function of recording time for different concentrations of dyes doped in PMMA polymer matrix, PC reflectivity as a function of angle between the probe beam and the forward-pump beam, dependence of PC reflectivity on backward pump Intensity by keeping the power of the forward pump and probe beams constant, dependence of PC reflectivity on forward pump power by keeping the power of the backward pump beam and probe beam constant, the conjugate beam reflectivity as a function of the input probe beam intensity, and Transmittance of the sample as a function of time were studied [14].

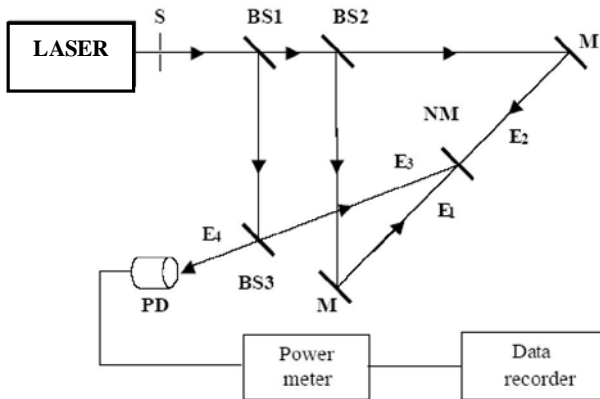


Fig. 5. Experimental set-up for observation of PC wave, S, Shutter; BS1–BS3, Beam splitters; M, Mirror; NM, Nonlinear medium; PD, Photo-detector.

#### V. RESULTS & DISCUSSIONS

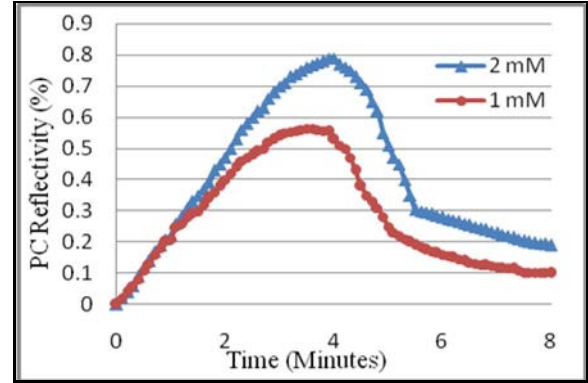


Fig. 6 . PC signal versus recording time for different concentration for DO-25.

The PC signal measurements are taken by varying the parameters which influence the PC signal reflectivity during the DFWM process. Fig. 6 shows the PC signal strength versus the time for different dye concentration of the DO-25 doped polymer films and Fig. 7 shows the PC signal strength versus the time for two dye concentration of the DY-7 doped polymer film. It is found that the PC intensity rises linearly to a maximum and then starts decreasing. The phase grating formed is transient. To get maximum reflectivity, it is necessary that there be a perfect overlap of the probe and the pump beams in the nonlinear medium. Fig. 8 shows the PC reflectivity as a function of recording angle between the forward pump and probe beam of DO-25 and DY-7 samples. It seems from the figure that, as the angle between the probe beam and the forward pump beam increases, the PC reflectivity first increases and then decreases. This may be because as the angle increases, the probe beam becomes elliptical and only a fraction of its area falls within the interaction region. Because of two-wave coupling, the maximum PC reflectivity is achieved when the angle is 7 degrees in case of both DO-25 and DY-7 samples.

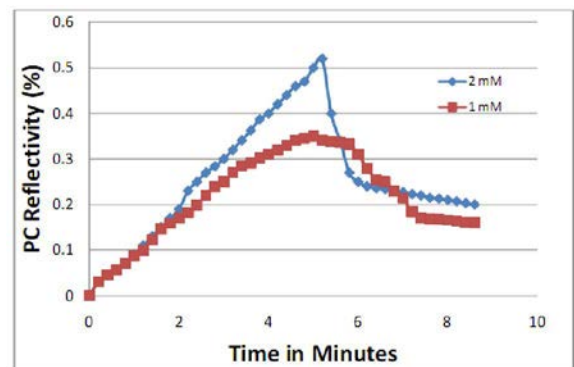


Fig. 7.: PC signal versus recording time for different concentration for DY-7.

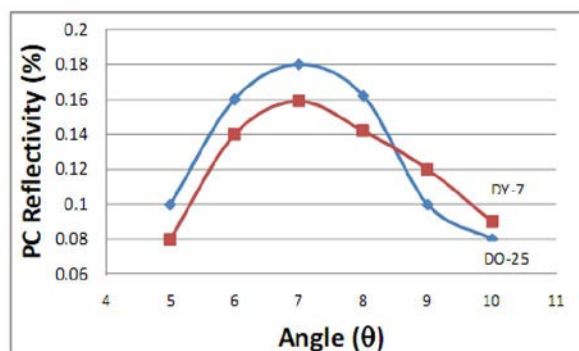


Fig. 8. PC Reflectivity as function of angle between the probe and forward pump beams.

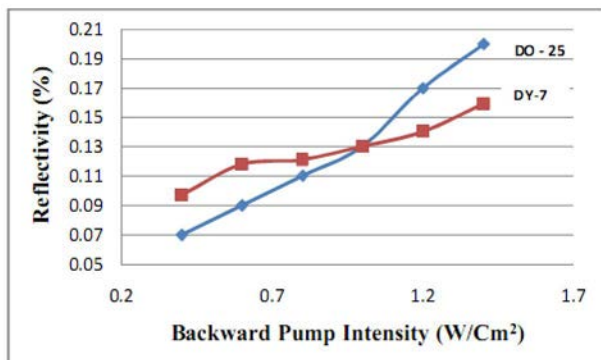


Fig. 9.: Dependence of PC reflectivity on backward pump Intensity

A maximum reflectivity value of 0.18 % is observed in case of DO-25 and of 0.16 % is observed in case of DY-7 for probe beam intensity at 2.5 W/cm<sup>2</sup>, and further increase in probe beam intensity resulted to decrease in PC reflectivity. The effect of the backward pump beam power on the PC reflectivity of both the samples by keeping the power of the forward pump and probe beams constant and varying the backward pump beam is shown in Fig. 9.

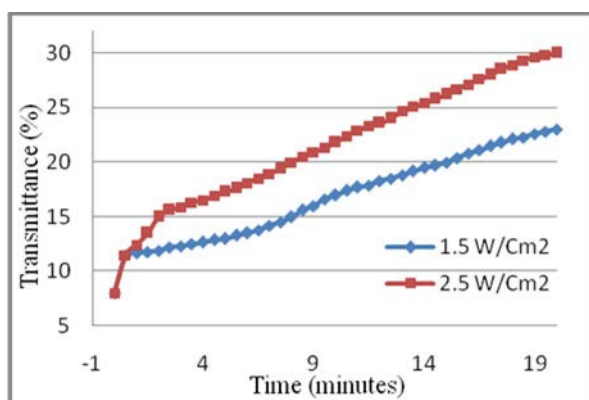


Fig. 10. Transmission as a function of time for DO-25.

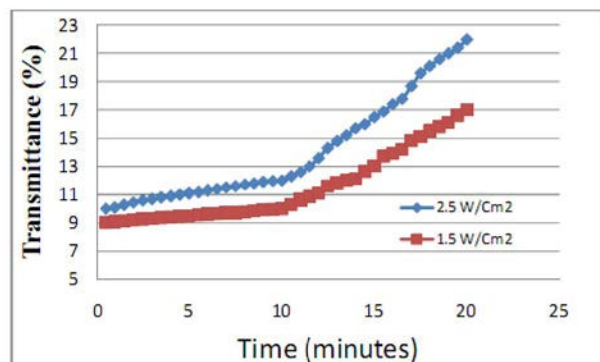


Fig.11. Transmission as a function of time for DY-7.

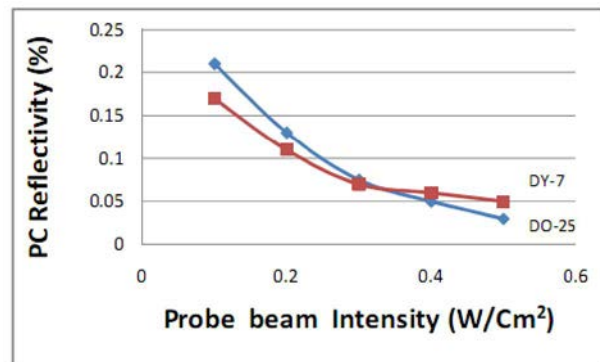


Fig 12. Conjugate reflectivity as a function of probe beam intensity.

Fig. 12 shows the influence of the input probe beam intensity on the conjugate beam reflectivity. A maximum reflectivity value of 0.22% is observed in case of DO-25 and of 0.17% is observed in case of DY-7 for probe beam intensity at 0.11 W/cm<sup>2</sup> respectively, and further increase in probe beam intensity resulted to decrease in PC reflectivity. Similar observations have been reported in other kinds of material doped with organic dyes [15]. Fig. 13 shows the variation of reflectivity for different power of forward pump beam for both the samples. The PC reflectivity increases linearly with the power of forward pump beam. There are two main processes which must be considered in the discussion of origin of OPC in dye doped PMMA-PA films: (1) the formation of thermal grating and (2) third order nonlinear optical processes. The DO-25 and DY-7 films illuminated with 532 nm radiation of variable intensity and the transmittance of the sample is measured simultaneously by using photodetector. If the effect observed in our experiments is of purely thermal nature, bleaching of the sample film will be observed. The results obtained for the sample are shown in Fig. 10 and Fig. 11 respectively. It is clearly demonstrated that the transmission of sample increases with time. The experiment described above indicates that the third order nonlinear processes like reverse saturable absorption mainly responsible for OPC in the sample under study.

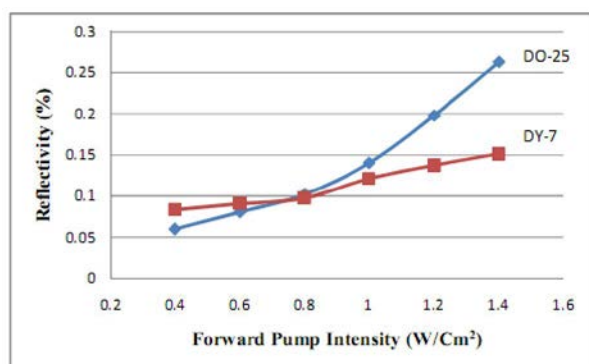


Fig.13. Dependence of PC reflectivity on forward pump power.

Dyes doped in polymer matrix have the capability of generating a phase-conjugate wave by not only DO-25/DY-7 but also holographic process [16]. To distinguish the phase-conjugate wave generated by DFWM from that by the holographic process, the transient behavior of the PC signal was studied. For this, the DO-25/DY-7 dyes doped in PMMA – MA polymer matrix were first illuminated with three waves  $E_1$ ,  $E_2$  and  $E_3$  for a specified duration, and afterwards,  $E_1$  and  $E_3$  were successively turned off, so that only  $E_2$  was incident on the dye film. Fig. 10 and Fig. 11 show the measured phase-conjugate signal as a function of time. The initial rise to a peak within a few minutes is due to DFWM and holographic processes; the sudden drop in the intensity of the PC signal after shutting off both the write beams  $E_1$  and  $E_3$  indicates the contribution from the fast DFWM process. Due to the holographic process the PC signal is present even after  $E_1$  and  $E_3$  are shut off, and it decays rather slowly. If the phase-conjugate wave was generated only by DFWM, the lack of only one of the three beams  $E_1$ ,  $E_2$  and  $E_3$  would have stopped generation of the phase-conjugate wave. Therefore, it is inferred that the rapidly decaying component corresponds to the phase-conjugate wave which is generated by the DFWM. On the other hand, if spatially modulated information formed by  $E_1$  and  $E_3$  can be recorded in the DO-25 and DY-7 dyes in PMMA – MA polymer film, the phase-conjugate wave can still be generated when  $E_2$  tries to read this stored information, during the lifetime of the holographic grating.

## VI. CONCLUSION

We have observed low-intensity optical phase-conjugation in organic material DO-25 dye in PMMA – MA polymer matrix and DY-7 dye in PMMA – MA polymer matrix using a degenerate four-wave mixing set-up, employing 532 nm light radiation from a CW Nd:YAG laser. The phase-conjugate signal is found to have contributions from the DFWM and the holographic processes. The maximum phase-conjugate beam reflectivity observed in these dye films is about 0.22% in DO-25 doped PMMA-MA matrix and 0.17% in case of DY-7 doped PMMA-MA polymer matrix. The maximum PC reflectivity is achieved when the angle between probe and forward

pump beam is 7 degrees. The effects of dye concentration, intensity of backward, forward pump and inter beam angle between probe and forward pump beam on phase conjugation reflectivity are also studied. PC signal strength first increases and then decreases. PC reflectivity is increased by increasing the intensity of the backward and forward pump beam. The polarization and intensity profile are verified to be preserved in the conjugate signal. The predominant phase conjugation signal is attributed to the facts that reverse saturable absorption and large third order susceptibility of the dye molecules. Since the DO-25 and DY-7 dyes in PMMA – MA polymer film are used at 534 nm and this may be suitable for low-power semiconductor lasers in the red wavelength region, DO-25/DY-7 dyes in PMMA – MA polymer film may be a promising organic material for real-time double-exposure phase-conjugate interferometry.

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# The Perception of Customers towards the Use of Technology in Banking Services- An Empirical Study

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**Abstract:** Finance is the life blood of trade, commerce and industry. Now a days Banking Sector acts as the backbone of modern business. Development of any country depends upon the banking system. In the past, the concept of banking was restricted only to the bank premises. The customers used to come to the bank to avail the banking services. But, the modern concept of banking is beyond the bank's premises. After liberalization, the fast development in the Information and Communication sector has emerged as a boon to the banks and they are trying to satisfy their customers to the maximum extent to multiply their customer base. Today, the bank customers are availing the technology based services rendered by the banks. This paper is targeting the customers who are using the technology based services to understand their perception. If the services of the banks are not reaching the customers in a way the bankers want them to reach, then the entire exercise of the bankers will be waste. With this purpose an attempt has been made to understand the perceptions of the customers towards the technology based services in banking industry with reference to Corporation Bank. The present study has been carried out with the following objectives:

1. To understand the technology used in banking industry in general.
2. To know the various technologies based services offered by Corporation Bank.
3. To find out the attitude of the customers towards the use of technology based services offered by Corporation Bank.
4. To understand the perceptions of the customers towards the use of technology based services in Corporation Bank.
5. To suggest some measures for the better provision of services based on the findings of the study.

The study is based on primary data and analysis is done through various statistical tools to draw a meaningful conclusion.

**Keywords-** technology; customers; services; bank; cards; mobile-banking; internet banking.

## I. INTRODUCTION

Finance is the life blood of trade, commerce and industry. Now a days Banking Sector acts as the backbone of modern business. Development of any country depends upon the banking system. In the past, the concept of banking was restricted only to the bank premises. The customers used to come to the bank to avail the banking services. But, the modern concept of banking is beyond the bank's premises. After liberalization, the fast development in the Information and Communication sector has emerged as a boon to the banks

and they are trying to satisfy their customers to the maximum extent to multiply their customer base.

## II. PURPOSE AND OBJECTIVES

### A. Purpose of study:

Today, the bank customers are availing the technology based services rendered by the banks. This paper is targeting the customers who are using the technology based services to understand their perception. If the services of the banks are not reaching the customers in a way the bankers want them to reach, then the entire exercise of the bankers will be waste. With this purpose an attempt has been made to understand the perceptions of the customers towards the technology based services in banking industry with reference to Corporation Bank.

### B. Objectives:

The present study has been carried out with the following objectives:

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To suggest some measures for the better provision of services based on the findings of the study.

## III. METHODOLOGY

The primary data for the present study is collected from the customers who are using ATM cards, credit cards, users of online banking, mobile banking and tele-banking facilities. The study is only focused on the customers of Corporation Bank. The sample size which we have considered for the study includes 50 customers, who are representatives of different groups such as employed, home makers, students, senior citizens etc. The study area is Mangalore in Dakshina Kannada district. The customers are selected based on convenience sampling method.

The primary data is collected through questionnaire method. The questionnaire includes 16 questions; all the questions were closed ended questions. The primary data collected from various respondents is organized in the tabular form. Such organized data has been analyzed with the help of average and percentage to draw a meaningful conclusion. Along with the primary data secondary data was also collected from published sources such as books, websites and reports to substantiate the primary data.

#### IV. ANALYSIS AND INTERPRETATION

##### 1. USERS OF ATM CARD.

This classification is necessary to know the ratio of respondents using ATM card where the study has been undertaken. Keeping this in mind, the data has been gathered and exhibited in Table 1.

TABLE 1: USERS OF ATM CARD.

Response	No. of Respondents	Percentage
Use	50	100
Do not use	Nil	Nil
<b>Total</b>	<b>50</b>	<b>100</b>

Source: Survey data

Table 1 shows the classification of respondents using ATM card. Out of 50 respondents all the 50 use ATM card, accounting for 100%. It was found that all the respondents use ATM card in the study undertaken.

##### 2. FREQUENCY OF USING ATM CARDS.

This classification is necessary to know the frequency of using ATM card by the respondents. The relevant data has been gathered and shown in Table 2.

TABLE 2: FREQUENCY OF USING ATM CARDS

Frequency	No. of Respondents	Percentage
Everyday	6	12
Once in a week	20	40
Once in fortnight	6	12
Once in a month	10	20
Occasionally	8	16
<b>Total</b>	<b>50</b>	<b>100</b>

Source: Survey data

Table 2 shows the frequency of using ATM card by the respondents. Out of 50 respondents, 20 use ATM card once in a week, accounting for 40%, followed by 10, once in a month, accounting for 20%, 8 use occasionally, accounting for 16% and 6 each use it every day and once in fortnight,

accounting for 12% each. It is found that a large number of respondents use ATM card once in a week in the study region.

##### 3. LEVEL OF SATISFACTION OF ATM CARD HOLDERS.

This classification is necessary to know the level of satisfaction of ATM card holders. The level of satisfaction has been measured and exhibited in Table 3.

TABLE 3: LEVEL OF SATISFACTION OF ATM CARD HOLDERS.

Level of Satisfaction	No. of Respondents	Percentage
Highly satisfied	10	20
Satisfied	27	54
Neutral	7	14
Dissatisfied	2	4
Highly dissatisfied	4	8
<b>Total</b>	<b>50</b>	<b>100</b>

Source: Survey data

Table 3 shows the level of satisfaction of the respondents in using ATM card. Out of 50 respondents, 27 are satisfied with ATM facilities, accounting for 54%, 10 are highly satisfied, accounting for 20%, 7, neutral, accounting for 14%, 4, highly dissatisfied, accounting for 8% and 2 are dissatisfied, accounting for 4%. It is found that a large number of respondents are satisfied with the ATM facilities provided by the Corporation Bank.

##### 4. USE OF CREDIT CARDS

This classification is necessary to know the ratio of users of Credit card in the study undertaken. Keeping this in mind, the data has been gathered and exhibited in the Table 4.

TABLE 4: USE OF CREDIT CARDS

Response	No. of Respondents	Percentage
Use	22	44
Do not Use	28	56
<b>Total</b>	<b>50</b>	<b>100</b>

Source: Survey data

Table 4 shows the classification of respondents holding Credit card, Out of 50 respondents, 22 respondents use Credit card, accounting for 44% and 28 respondents are not using Credit card, accounting for 56%. It is found that a large number of respondents are not using Credit card in the study undertaken.

##### 5. BENEFITS ENJOYED BY CREDIT CARD HOLDERS.

This classification is necessary to know the benefits enjoyed by Credit card holders. The relevant information has been collected and exhibited in Table 5.

TABLE 5: BENEFITS ENJOYED BY CREDIT CARD HOLDERS

Benefits	No. of Respondents	Percentage
No risk of holding cash	4	18
To get credit facility	10	45
To purchase and to make payment	6	27
All the above	2	10
<b>Total</b>	<b>22</b>	<b>100</b>

Source: Survey data

Table 5 shows the benefits enjoyed by credit card holders. Out of 22 respondents, 10 are benefited to get credit facility, accounting for 45%, 6, to purchase and to make payment, accounting for 27%, 4, no risk of holding cash, accounting for 18%, 2, all the above, accounting for 10%. It is found that a large number of respondents are benefited to get credit facility by having credit Cards.

#### 6. LEVEL OF SATISFACTION OF CREDIT CARD HOLDERS

This classification is necessary to know the level of satisfaction of credit card holders. The relevant information has been collected and exhibited in Table 6.

TABLE 6: LEVEL OF SATISFACTION OF CREDIT CARD HOLDERS

Level of Satisfaction	No. of Respondents	Percentage
Highly satisfied	4	18
Satisfied	10	45
Neutral	5	23
Dissatisfied	2	9
Highly dissatisfied	1	5
<b>Total</b>	<b>22</b>	<b>100</b>

Source: Survey data

Table 6 shows the level of satisfaction by the users of credit cards. Out of 22 respondents, 10 are satisfied, accounting for 45%, 5 are neutral, accounting for 23%, 4 are highly satisfied, accounting for 18%, 2 are dissatisfied, accounting for 9% and 1 respondent is highly dissatisfied, accounting for 5%. It is found that a large number of respondents are satisfied with the use of credit card in the study undertaken.

#### 7. USERS OF TELE BANKING.

This classification is necessary to know the ratio of respondents using tele banking in the study undertaken. Keeping this in mind, the data has been gathered and exhibited in Table 7.

TABLE 7: USERS OF TELE BANKING

Response	No. of Respondents	Percentage
Use	23	46
Do not Use	27	54
<b>Total</b>	<b>50</b>	<b>100</b>

Source: Survey data

Table 7 shows the users of tele banking. Out of 50 respondents, 27 respondents do not use tele banking, accounting for 54%, and 23 respondents use telebanking, accounting for 46%. It is found that a large number of respondents do not use tele banking in the study undertaken.

#### 8. BENEFITS ENJOYED BY USERS OF TELE BANKING

This classification is necessary to know the benefits enjoyed by the users of telebanking. The relevant information has been collected and shown in Table 8.

TABLE 8: BENEFITS ENJOYED BY USERS OF TELE BANKING

Benefits	No. of Respondents	Percentage
To make payments of utility bills	11	48
To transfer funds	4	18
To make balance enquiry	2	8
Any time banking	3	13
All the above	3	13
<b>Total</b>	<b>23</b>	<b>100</b>

Source: Survey data

Table 8 shows the benefits enjoyed by the users of telebanking. Out of 23 respondents, 11 are benefited to make payments of utility bills, accounting for 48%, 4, to transfer funds, accounting for 18%, 3 each, any time banking and all the above, accounting for 13% and 2, make balance enquiry, accounting for 8%. It is found that a large number of respondents are benefited to make payment of utility bills in the study undertaken.

#### 9. LEVEL OF SATISFACTION BY THE USERS OF TELE BANKING FACILITY.

This classification is necessary to know the level of satisfaction by the users of Tele banking. This information has been collected and shown in Table 9.

TABLE 9: LEVEL OF SATISFACTION BY THE USERS OF TELE BANKING FACILITY

Level of Satisfaction	No. of Respondents	Percentage
Highly satisfied	4	17

Satisfied	10	43
Neutral	5	22
Dissatisfied	2	9
Highly dissatisfied	2	9
<b>Total</b>	<b>23</b>	<b>100</b>

Source: Survey data

Table 9 shows the level of satisfaction by the users of tele banking. Out of 23 respondents, 10 are satisfied, accounting for 43%, 5 are neutral, accounting for 22%, 4 are highly satisfied, accounting for 17% and 2 each are dissatisfied and highly dissatisfied, accounting for 9% each. It is found that a large number of respondents are satisfied in the study undertaken.

#### 10. USERS OF INTERNET BANKING.

This classification is necessary to know the ratio of respondents using Internet banking in the study undertaken. Keeping this in mind, the data is gathered and exhibited in the Table 10.

TABLE 10: USERS OF INTERNET BANKING

Response	No. of Respondents	Percentage
Use	31	62
Do not use	19	38
<b>Total</b>	<b>50</b>	<b>100</b>

Source: Survey data

Table 10 shows the users of Internet banking. Out of 50 respondents, 31 use internet banking, accounting for 62% and 19 do not use internet banking, accounting for 38%. It is found that a large number of respondents use internet banking in the study undertaken.

#### 11. BENEFITS ENJOYED BY USERS OF INTERNET BANKING.

This classification shows the benefits enjoyed by users of Internet banking in the study area. This information has been collected and shown in Table 11.

TABLE 11: BENEFITS ENJOYED BY USERS OF INTERNET BANKING

Benefits	No. of Respondents	Percentage
Home banking	11	36
Economical	6	19
To transfer funds to others	6	19
All the above	8	26
<b>Total</b>	<b>31</b>	<b>100</b>

Source: Survey data

Table 11 shows the benefits enjoyed by users of internet banking. Out of 31 respondents, 11 are benefited by

home banking, accounting for 36%, 8 are benefited by all the other reasons, accounting for 26%, 6 each are benefited since it is economical and to transfer funds to others, accounting for 19% each. It is found that a large number of respondents are benefited by using internet banking because of home banking.

#### 12. LEVEL OF SATISFACTION ENJOYED BY THE USERS OF INTERNET BANKING.

This classification is necessary to know the level of satisfaction by users of internet banking. This information has been collected and shown in Table 12.

TABLE 12: LEVEL OF SATISFACTION ENJOYED BY THE USERS OF INTERNET BANKING

Level of Satisfaction	No. of Respondents	Percentage
Highly satisfied	5	16
Satisfied	15	48
Neutral	6	19
Dissatisfied	4	13
Highly dissatisfied	1	4
<b>Total</b>	<b>31</b>	<b>100</b>

Source: Survey data

Table 12 shows the level of satisfaction by the users of internet banking. Out of 31 respondents, 15 are satisfied, accounting for 48%, 6 are neutral, accounting for 19%, 5 are highly satisfied, accounting for 16%, 4 are dissatisfied, accounting for 13% and 1 is highly dissatisfied accounting for 4%. It is shown that a large number of respondents are satisfied in the study undertaken.

#### 13. USERS OF MOBILE BANKING.

This classification is necessary to know the ratio of respondents using Mobile banking in the study undertaken. Keeping this in mind, the data is gathered and exhibited in the Table13.

TABLE 13: USERS OF MOBILE BANKING

Response	No. of Respondents	Percentage
Use	27	54
Do not use	23	46
<b>Total</b>	<b>50</b>	<b>100</b>

Source: Survey data

Table 13 shows the classification of users of mobile banking. Out of 50 respondents, 27 use mobile banking, accounting for 54% and 23 are not using mobile banking, accounting for 46%. It is found that a large number of respondents use mobile banking in the study undertaken.

#### 14. BENEFITS ENJOYED BY THE USERS OF MOBILE BANKING

This classification is necessary to know the benefits enjoyed by the users of mobile banking. This information has been collected and shown in Table 14.

TABLE 14: BENEFITS ENJOYED BY THE USERS OF MOBILE BANKING

Benefits	No. of Respondents	Percentage
To make payment of utility bills	6	22
To make balance enquiry	8	30
To know latest interest rates	8	30
All the above	5	18
<b>Total</b>	<b>27</b>	<b>100</b>

Source: Survey data

Table 14 shows the benefits enjoyed by users of mobile banking. Out of 27 respondents, 8 each are benefited to make balance enquiry and to know latest interest rates, accounting for 30% each, 6, to make payment of utility bills, accounting for 22% and 5, by all the mentioned reasons, accounting for 18%. It is found that a large number of respondents are benefited to make balance enquiry and to know latest interest rates in the study undertaken.

#### 15. LEVEL OF SATISFACTION OF THE USERS OF MOBILE BANKING

This classification is necessary to know the level of satisfaction by the users of mobile banking. This information has been collected and shown in Table 15.

TABLE 15: LEVEL OF SATISFACTION OF THE USERS OF MOBILE BANKING

Level of Satisfaction	No. of Respondents	Percentage
Highly satisfied	2	7
Satisfied	12	45
Neutral	8	30
Dissatisfied	3	11
Highly dissatisfied	2	7
<b>Total</b>	<b>27</b>	<b>100</b>

Source: Survey data

Table 15 shows the level of satisfaction of the users of mobile banking. Out of 27 respondents, 12 are satisfied, accounting for 45%, 8 are neutral, accounting for 30%, 3 are dissatisfied, accounting for 11% and 2 each are highly satisfied and highly dissatisfied, accounting for 7% each. It is found that a large number of respondents are satisfied in the study undertaken.

#### 16. PERCEPTION OF THE CUSTOMERS TOWARDS THE PAYMENT FOR THE SAFTY OF ATM.

This classification is necessary to know the perception of the customers towards the payment for the safety of ATM. This information has been collected and shown in Table 16.

TABLE 16: PERCEPTION OF THE CUSTOMERS TOWARDS THE PAYMENT FOR THE SAFTY OF ATM

Response	No. of Respondents	Percentage
Ready to Pay	07	14
Not Ready to pay	43	86
<b>Total</b>	<b>50</b>	<b>100</b>

Source: Survey data

Table 16 shows the perceptions of the customer regarding the payment for the ATM security. Out of 50 customers, 7 customers are ready to pay for the security and 43 customers are not ready to pay for it which accounts for 14% and 86% respectively. Thus it is found that majority of the customers will be happy if they are freed from extra charges for the safety of ATM.

## V. FINDINGS AND SUGGESTION

### A. Major Findings of the Study:

- It was found that all the respondents use ATM card in the study undertaken.
- Majority of respondents use ATM card once in a week in the study area.
- Most of the respondents are satisfied with the ATM facilities provided by the Corporation Bank.
- It is found that a large number of respondents are not using Credit card in the study undertaken.
- A large number of respondents are benefited to get credit facility by having credit Cards.
- Majority of respondents are satisfied with the use of Credit Card in the study region.
- It is found that a large number of respondents do not use tele banking in the study area.
- It is found that a large number of respondents are benefited to make payment of utility bills.
- A large number of respondents are satisfied with the use of tele banking in the study region.
- Most of the respondents use internet banking in the study area.
- Majority of the respondents are benefited by using internet banking because of home banking.
- It is shown that a large number of respondents are satisfied with the use of Internet banking in the study area.
- It is found that a large number of respondents use mobile banking.
- A large number of respondents are benefited to make balance enquiry and to know latest interest rates in the study area.
- A majority of the respondents are satisfied with the use of mobile banking in the study region.

- p. It is found that majority of the customers will be happy if they are freed from extra charges for the safety of ATM.

**B. Suggestions:**

- a. The bank should try to understand the various needs of the unsatisfied customers.
- b. Bank should convince the people to use credit cards for the transactions.
- c. Bank should create awareness among the customers about the use of telebanking.
- d. Bank should not to put additional burden on the customers for the safety of ATM
- e. Banks should start some more innovative services through technology for the benefit of customers.

## VI. CONCLUSION

Technology has been one of the most important factors for the development of mankind. Information and communication technology is the major advent in the field of technology which is used for access, process, storage and dissemination of information electronically. Banking industry is fast growing with the use of technology in the form of ATMs, on-line banking, Telephone banking, Mobile banking etc., plastic card is one of the banking products that cater to the needs of retail segment has seen its number grow in geometric progression in recent years.

Internet has played a plenty of opportunities for players in the banking sector. While the new entrants have the

advantage of latest technology, the goodwill of the established banks gives them a special opportunity to lead the online world. This growth has been strongly supported by the development of in the field of technology, without which this could not have been possible of course it will change our lifestyle in coming years.

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# The Role of Emotional Intelligence in Employees Job

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**Abstract—** Emotional intelligence and job satisfaction are equally important to excel in the growth of both organisation and employee. The purpose of the study is to examine the role of emotional intelligence in the job satisfaction of employees. The population of the study consists of employees working in IT sector, Chennai. Two structured questionnaires were administered among 35 employees to measure the Emotional quotient and job satisfaction. Reliability statistics was applied to test the internal consistency of both the questionnaires. Factor analysis, correlation, two-way ANOVAs were adopted to analyze the research questions and hypothesis.

**Key words -** Emotional intelligence, job satisfaction

## I. INTRODUCTION

Emotional intelligence is the combination of intelligence and emotions. EI is a member of hot intelligences that include social, practical and personal intelligences [5]. Emotional intelligence is intrinsic, it is an internal quality that is difficult to modify and it is the onethat influences the capacity to solve specific problems [6]. An employee who has higher level of emotional intelligence will be more successful both in work and personal life. Job Satisfaction is a collection of feelings associated with the job situation, it is the opinion of the people about the different aspect of their job [11]. Job satisfaction is a most important tool that measures the health of the organisation, service quality of human resource largely depends on employees' job satisfaction [2]. Employees who have high EQ are more satisfied with the job because those individuals can easily overcome the consequences that arise out of stress situations and those individuals whose emotional intelligence are low cannot cope up with the stress situations.

## II. OBJECTIVES OF THE STUDY

- Ø To gauge the emotional intelligence and job satisfaction of employees
- Ø To examine the effect of emotional intelligence on job satisfaction of employees
- Ø To identify the factors that influence job satisfaction of employees

## III. LITERATURE REVIEW

### A. EMOTIONAL INTELLIGENCE

Emotional Intelligence is "the ability to monitor one's own and others' feelings, to discriminate among them, and to use this information to guide one's thinking and action" [4]. EQ is more important than technical skills and

intelligence quotient for success on the job, High EQ is essential to perform the higher level jobs To determine the success in senior leadership positions, EQ is a better indicator than IQ [3]. Many researches indicate that those individuals who have higher level of emotional intelligence are likely to succeed in both career and general life satisfaction. Emotional intelligence is more appropriate in recruitment and selection areas [8] and it also allows an individual to analyse his emotions and to understand other emotions [4]. Emotional intelligence has its root in social intelligence which means ability to understand both men and women and to act wisely when dealing with them [12].

### B. JOB SATISFACTION

Job satisfaction is the general opinion of an individual about his job. A person with high job satisfaction has positive attitude and a person who has dissatisfaction with one's job has negative attitude towards his job. Job satisfaction refers to the pleasurable emotional state resulting from the appraisal of one's job as achieving or facilitating the achievement of one's job values. The various factors that influence job satisfaction are satisfaction with supervision, satisfaction with overall job, satisfaction with policy and support, promotion and advancement, satisfaction with pay, co-workers [10]. If an individual expectation with regards to the job is not met it causes a decrease in job satisfaction [9].

### C. EMOTIONAL INTELLIGENCE AND JOB SATISFACTION

Mood and emotions have impact on overall job satisfaction. In those organisational setup where group work is involved, emotional intelligence helps in understanding one's emotion and the emotions of others and thereby it helps in boosting the morale of co-workers.[1]. Employees with higher level of emotional intelligence are more happy and more active and have more job satisfaction [7]. The employees with high level of EI are more relaxed in performing their jobs and they are totally independent in delivering their contribution.

## IV. RESEARCH METHODOLOGY

Simple random sampling was used in this study. A total of 40 employees of TCS and Infosys participated in this study and two questionnaires were administered to them, out of 40 questionnaires only 35 questionnaires were valid. There are two questionnaires used in the present study. EI was measured by using WPQei questionnaire of Cameron and Job satisfaction was measured by MSQ(20 item scale). Using these questionnaire data were collected from the drawn sample and statically processed.

#### A. Reliability statistics

To estimate the internal consistency for reliability, Cronbach's alpha method is applied to measure the reliability of both the job satisfaction and emotional intelligence questionnaires. The Cronbach alphas for both the questionnaires are 0.729 and 0.907 which indicates high level of internal consistency.

Table 1: Reliability statistics

Factors	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Job satisfaction	.907	.907	20
Emotional intelligence	0.729	0.753	56

### V. DATA ANALYSIS AND INTERPRETATION

#### A. FACTOR ANALYSIS

Factor analysis is a statistical tool primarily used for data reduction. It seeks to resolve a large set of measured variables in terms of relatively few categories, known as factors. This technique allowed the researcher to group variables into factors (based on correlation between variables). While this can be done in a number of ways, the most frequently used approach is principal component analysis which has been used in this research paper. The data was analyzed using SPSS package. Factor analysis was performed on the 20 variables.

The Principal Components Method, using Varimax Rotation reduced the 20 variables 4 factors having eigen values greater than 1.0. First of all, Kaiser Meyer Olkin (KMO) measure of sampling adequacy was calculated to examine the appropriateness of factor analysis. High values (between 0.5 and 0.1) indicate that factor analysis is appropriate. KMO is 0.646 which shows the appropriateness of factor analysis here, in Bartlett's Test of sphericity the chi square value is also large which also favours the same point.

Table 2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.646
Bartlett's Test of Sphericity	Approx. Chi-Square	387.317
	Df	190
	Sig.	.000

Total variance explained table interprets that four components have eigen value greater than 1.0. The four factors explains 62.162% of variance and these four components explains the majority of variance within the set of data

Table 3: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8	38	38	8	38	38	4	21	21
2	2	9	47	2	9	47	4	18	38
3	2	8	56	2	8	56	3	14	52
4	1	6	62	1	6	62	2	10	62
5	1	6	68						
6	1	5	73						
7	1	5	78						
8	1	4	82						
9	1	3	85						
10	1	3	88						
11	0	2	91						
12	0	2	93						
13	0	2	94						
14	0	2	96						
15	0	1	97						
16	0	1	98						
17	0	1	99						
18	0	0	99						
19	0	0	100						
20	0	0	100						

In the final factor solution emerged and the rotated factor matrix( Table 4) has been obtained which gives four factors. The first Component is categorised under the label as "work climate". The second component is categorized under the label "Work nature". The third component is categorised under the label "work environment". The fourth component is categorized under the label "Autonomy", it can be interpreted that work climate, work nature, work environment and autonomy to do the job are essential factors that influence job satisfaction of the employees working in IT sector.

Table 4: Rotated Component Matrix<sup>a</sup>

	Component			
	1	2	3	4
Co-workers	0.75			
Chance to tell people what to do	0.72			
Try own methods	0.69			
Chance to work alone on the job	0.68			
Working conditions	0.63			
Accomplishment	0.61			
Praise for the work done	0.6			0.52
Use ability		0.78		
To do things for other people		0.76		
Busy		0.66		
To do Different things		0.57		
Steady employment		0.52		
Advancement			0.81	
Boss			0.72	
Company policy			0.71	
Somebody in the community	0.51		0.6	
Pay			0.59	
To do things that don't go against conscience				0.81
Freedom to use own judgement		0.55		0.55
Superior's competence				

Table 5: MEAN SCORES OF EI COMPONENTS

EI Components	Mean	RANKS
innovation	3.35	5
Self awareness	3.5679	1
intuition	3.5	3
emotions	3.2536	6
motivation	3.448	4
empathy	3.5408	2
Social skills	3.25	7

#### B. MEAN SCORE

The mean scores (Table 5) of self awareness component of emotional intelligence are high indicating that the IT professionals are aware of their strength and weaknesses and they intent to improve their own capability. The second highest mean score is empathy indicating that the professionals have concern for other people. The third highest mean score is intuition indicating the ability of the professionals to guess in decision making.

#### C. TWO WAY ANOVA

Table 6 interprets that p-value for EI (mean score of emotional intelligence of IT professionals) is 0.001, since the p-value is less than 0.01(0.001<0.01), there is significant difference between emotional intelligence and job satisfaction. The p-value for gender is greater than 0.01(0.877>0.01), thus there is no significant difference between gender and job satisfaction.

Table 6: Tests of Between-Subjects Effects

Dependent Variable: Job Satisfaction

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	13.955 <sup>a</sup>	30.00	0.47	40.23	0.00
Intercept	311.21	1.00	311.21	26915.35	0.00
EI	12.20	26.00	0.47	40.58	0.00
gender	0.00	1.00	0.00	0.03	0.88
EI * gender	1.69	3.00	0.56	48.75	0.00
Error	0.05	4.00	0.01		
Total	367.30	35.00			
Corrected Total	14.00	34.00			

a. R Squared = .997 (Adjusted R Squared = .972)

The interactive influence of emotional intelligence and gender on job satisfaction can be interpreted from the p-value for EI\*gender, where the p-value is 0.00. Here the p-value is less than 0.01; therefore, the interactive influence of gender and emotional intelligent on job satisfaction is significant. Thus the emotional intelligence of male and female has significant influence on job satisfaction.

#### D. CORRELATION BETWEEN COMPONENTS OF EI AND JOB SATISFACTION

Table 7: Correlation

Job satisfaction Emotional Intelligence Criteria	Pierson Correlation
Innovation	0.53
Self awareness	0.206
Intuition	0.023
Emotion	0.245
Motivation	0.045
Empathy	0.012
Social skills	0.121

Table 7 infers that there is a positive correlation between all the criteria of emotional intelligence and job satisfaction thus, it can be concluded that people with higher level of emotional intelligence are satisfied with their jobs and thus contributing more to the organizational output.

#### VI. CONCLUSION

Employee job satisfaction is vital for the well being of an organization because service of the human resource depends on the job satisfaction of employees. Now-a-days , Organizations focusing more on EI than IQ as they understood that a person with high IQ can easily find a place in the organization , but it is only those person with high EQ can with stand for a long period in the organization. The present study confirms that EI has an impact on job satisfaction. Therefore, it is necessary for the organization to ensure that the HR policy incorporates Emotional intelligence in all the HR functions. As employees with high EI level are the assets of an organization it is essential for an organization to recruit people with high level of emotional intelligence.

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# Violent Video Games and Criminal Transformation among Children

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**Abstract :** Media technology is an integral part of children's lives in the twenty-first century. The world of electronic media, however, is changing dramatically. Television, which dominated the media world through the mid-1990s, now competes in an arena crowded with cell phones, iPods, video games, instant messaging, interactive multiplayer video games, virtual reality sites, Web social networks, and e-mail. Video gaming (playing video games) has become a popular activity for people of all ages. Video gaming is a multibillion-dollar industry – bringing in more money than movies and DVDs. They have become very sophisticated and realistic. Some games connect to the Internet, which can allow children and adolescents to play online with unknown adults and peers. Playing them with aggressive content does have an effect on children, teens, and adults.

**Keywords:** *Technology, Electronic media, Video games, DVDs, iPods, Social networks, e-mail.*

## OBJECTIVES OF THE STUDY

- To identify the nature of violent video games
- To understand the impact of video games on children
- To find out better alternatives in solving any such evil situations.

## I. INTRODUCTION

The vast majority of children have access to multiple media. Virtually all have television and radio in their homes, and half have a television in their bedrooms. Most have Internet and video game access, and a significant portion has a cell phone and an iPod. The numbers joining social networking websites like Facebook and MySpace grow daily. Technological convergence, a hallmark of media use today, enables youth to access the same source from different, often portable, media platforms.

## II. DESIRABLE EFFECTS OF VIDEO GAMES ON CHILDREN

- Ø Playing video games helps in the development of perceptual and cognitive abilities and motor skills.
- Ø While playing video games, children acquire problem-solving skills, learn teamwork, and become more alert. It also helps improve their short-term memory. Playing video games requires them to make faster, accurate decisions, thus developing their decision-making skills.

- Ø Interactive video games compel a child to practice more and more in order to be the best. Playing, devising gaming strategies, and winning gives children a sense of achievement and boosts their confidence.
- Ø A study conducted by the University of Rochester states that, "Gamers perform better in tests that involve focus, speed, multi-tasking, vision, and accuracy than others or non-gamers." So playing video games can teach your children to concentrate, plan, come up with different strategies to reach the goal, perform multiple tasks at the same time and learn how to handle complex situations.
- Ø This virtual environment is the future of education as it offers an interactive way for students to learn and succeed in this competitive world.
- Ø **Others include:** Following instructions, Hand-eye coordination, fine motor and spatial skills, Planning, resource management and logistics, Multitasking, simultaneous tracking of many shifting variables and managing multiple objectives, Quick thinking, making fast analysis and decisions, Situational awareness, Perseverance, logical thinking, Pattern recognition, respond to challenges and frustrations, Explore and rethink goals.

## III. NEGATIVE EFFECTS ON CHILDREN

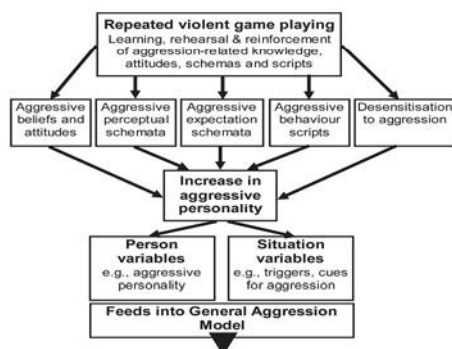
While some games have educational content, many of the most popular games emphasize negative themes and promote:

- the killing of people or animals
- the use and abuse of drugs and alcohol
- criminal behavior, disrespect for authority and the law
- sexual exploitation and violence toward women
- racial, sexual, and gender stereotypes
- foul language, obscenities, and obscene gestures
- Ø Video games have negative effects on the physical health of children. Sitting for hours before the video game consoles can increase the risk of obesity, sleep disturbances, headaches, dry eyes, carpal tunnel syndrome, muscular diseases, as well as skeletal and postural disorders in kids. Other health effects

include agitation, increased heart rate, and high blood pressure.

- Ø Various research studies conducted by B. D. Bartholow, D. A. Gentile, B. J. Bushman, and M. A. Sestir have shown a relation between aggressive behavior and playing video games that have violence in them. They say that indulging in games that have a lot of shooting and killing is said to increase anger in children, leading to aggressive behavior.
- Ø These video games hook children as playing and winning boosts their morale. The University of Calgary conducted an online survey on children aged 9-15 years who play mature and violent video games and concluded that it has a direct relation with tendencies like bullying, becoming abusive, beating, or clobbering siblings or peers.
- Ø There is a direct correlation between children who spend a lot of time playing games and those ignoring their studies, resulting in poor academic performance, cutting school, and dropping out of school.
- Ø Numerous deaths have been reported from around the world because of obsessively playing video games for hours, days, weeks, or months. In 2005, a 28-year-old man from South Korea, collapsed and died of cardiac arrest because of playing World of Warcraft and StarCraft games for 50 straight hours. In October 2007, a teenager from Ohio (USA) shot his parents for taking away his copy of the game Halo 3. A Korean couple, in 2009, spent hours playing video games, neglecting their 3-month old baby, who died from malnutrition and dehydration. A 16-year-old from South Philadelphia (USA) killed his mother in the year 2010 for confiscating his PSP.
- Ø **Others** include: Knack for violence, poor academics, reality or fantasy, loss of empathy etc....

#### IV. WAYS IN WHICH LONG TERM EXPOSURE TO VIOLENT VIDEO GAMES CAN INCREASE AGGRESSIVE COGNITIONS AND ACTION TENDENCIES AND THEN FEED INTO EPISODES OF SITUATIONAL AGGRESSION



## V. CASE ANALYSES

### India

The world is witnessing a spurt in violence among adolescents. India too is undergoing a social transition. Consequently, youngsters are exposed to several risks for violent and aggressive behaviour. There are claims that the 15-year-old boy who knifed his teacher in a private school in Chennai last year was influenced by the ultraviolent Bollywood movie “Agnepath” and its method of securing revenge. Such a claim once again raises the issue of the impact of media violence on children.

### United States

Eric Harris and Dylan Klebold, two 18-year-olds responsible for the Columbine High School massacre in the United States in 1999 where 12 students and a teacher died, were addicted to violent video games. Even more disturbing is the case of Michael Carneal. In 1997, 14-year-old Carneal fired nine shots in 10 seconds in his high school in Kentucky in the United States. Eight scored hits, with three being head and neck shots that killed their victims. Such proficiency with a firearm went well beyond the military standard for expert marksmanship. Yet, Carneal had never fired a pistol in his life. His obsession with computer games converted him into an expert shooter.

### Reasons Estimated

1. Most parents think children watch films and television shows for fun. But little do they realise that many scenes contain hidden messages of violence. “It is possible for children to perceive people as unkind after excessively watching violent television programmes and movies or playing games. This is because they may relate real people to fictional characters.
2. A child is preoccupied with ‘winning’ or ‘surviving’ in a videogame, thereby unintentionally perceiving people (in significant relationships such as parents, siblings, friends and peers) as ‘attacking’ or ‘threatening’.
3. Some television programmes emphasise negative role characters, such as people who cause conflict between loved ones, and appear satisfied regarding someone else’s loss (of any kind).
4. Even seemingly innocuous cartoon shows and crime serials have become the new icons of TV violence, to be imitated in real life. The heroes in films or games who fight villains are depicted as ‘macho’ or fearless. Children may identify themselves with them, admire them and want to behave like them.
5. Most popular role models have had a negative effect on viewership. Smoking by fictional characters may appear fashionable to children as they may feel it is okay to smoke cigarettes. Often, children want to be like their role model. They

imitate their actions, regardless of whether they are good or bad.

## **VI. RESEARCH STUDIES INVOLVED ON THE USE OF VIDEO AND COMPUTER GAMES**

More than half of the boys (55.7 percent) and about 29 percent of the girls reported they played regularly, about 40 percent of the boys and 51 percent of the girls said they played casually, and about 6 percent of the boys and 20 percent of the girls said they did not play computer games. Boys play more often and more regularly than girls do. This indicates different media use styles, and to some extent different leisure preferences of boys and girls.

## **VII. FINDINGS OF THE STUDY**

- Boys who report playing electronic games "daily" more often "play alone inside" (29 percent compared to an average of 22 percent).
- Girls who report playing electronic games "daily" more often "watch television or video films" (45 percent compared to an average of 30 percent). There is no evidence that the use of interactive media replaces the use of traditional screen media.
- Girls who report they "never" engage in "sport activities" also report that they "never" play computer games (18 percent compared to an average of 9 percent). There is no evidence that boys or girls who often play electronic games are less engaged in sport activities. On the contrary, there is a (statistically non-significant) tendency that suggests that daily use of computer games goes along with sport activities (62 percent to 59 percent).
- There is also no evidence that computer games replace reading. At first glance there seems to be such a statistical correspondence, but indepth analysis reveals that this is due to gender: Girls read more often than boys, but are less engaged with the new interactive media. Within both gender groups there is no correspondence between the frequency of playing computer games and reading.

## **VIII. ROLE OF ACTIVE PARENTING IN REDUCING VIOLENCE AMONG CHILDREN**

- ✓ To decrease the negative effects of gaming on children, parental control is essential. Parents should keep a close eye on the type of games their children play.
- ✓ When buying games for kids, parents should check the age limit mentioned on the cover by the Entertainment Software Rating Board (ESRB). They should also avoid buying games that have too much violence in them.

## **Abbreviation Suitable for**

EC - Early Childhood ages 3 and above

E - Everyone ages 6 and above

T - Teens ages 13 and above

M - Mature ages 17 and above

AO - Adults Only ages 18 and above

RP - Rating Pending Awaiting response from the ESRB

- ✓ The most important thing that parents must observe is the amount of time their children spend in front of video game consoles. They should not allow their kids to spend more than two hours per day in gaming.
- ✓ To track and monitor your kids' video gaming habits, place all gaming devices in a more visible area of the house and children less than 2 years should be kept away from playing video or mobile games.
- ✓ Encourage your children to play outdoors or enroll them to different youth clubs that have outdoor activities, which in turn will help them communicate face to face and socialize with people comfortably. Encourage them to take up hobbies, like reading, gardening, and camping.
- ✓ Last but not the least, talk to your kids about how video games should be enjoyed and how much use is good use. Also make them aware of the negative effects these games can have.

## **IX. IMPLICATIONS OF THE STUDY**

Children and adolescents can become overly involved and even obsessed with videogames. Spending large amounts of time playing these games can create problems and lead to poor social skills, time away from family time, school-work, and other hobbies, lower grades and reading less, exercising less, and becoming overweight, aggressive thoughts and behaviors. If parents are concerned that their child is spending too much time playing video games or appears preoccupied or obsessed with aggressive or violent video games, they should first set some limits (for example – playing the games for one hour after all homework is done) and try to encourage the child to participate in other activities. If there is continued concern about their child's behavior or the effects of videogames, a consultation with a qualified mental health professional may be helpful.

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# Biometric Fingerprint Authentication for Secured Online Financial Transactions

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**Abstract**— Ubiquitous banking using mobile devices (mobile banking) is an effective and convenient way of providing electronic banking facility to costumers from anywhere and at any time. The advent of mobile communication technology coupled with boost in trade and commerce activity is increasingly driving the banking financial services to become ubiquitous, personalized, convenient, disseminative and secure. Realizing the advantages to be gained from mobile banking, financial institutions have begun to offer mobile banking options for their customers in addition to the internet banking they already provide. The large scale use of mobile phones in mobile banking has been closely followed by the increase in mobile fraud. Although eager to use mobile financial services, many subscribers are concerned about the security aspect when carrying out financial transactions over the mobile network. In fact, lack of security is seen as the biggest deterrent in the widespread adoption of mobile financial services. Hence, fraud prevention has become an essential ingredient in the success of online financial transactions. To enhance the security for online financial transaction, a biometric fingerprint authentication system is proposed. In this paper the feasibility and limitations of a biometric fingerprint authentication system for mobile banking is discussed.

**Keywords**- Online financial transaction, biometric authentication, ubiquitous banking, mobile business

## I. INTRODUCTION

Ubiquitous banking using mobile devices (mobile banking) is an effective and convenient way of providing electronic banking facility to costumers from anywhere and at any time. The advent of mobile communication technology and globalization are increasingly driving the banking financial services to become ubiquitous, personalized, convenience, disseminative and secured. Realizing the advantages to be gained from mobile banking, financial institutions have begun to offer mobile banking options for their customers in addition to the internet banking they already provide. Most of the literature uses the term “mobile banking” in the sense of traditional retail banking activities such as transferring money, paying bills, checking an account balance, and perhaps even checking on the status of the mortgage. This relatively limited definition may be a reflection of the natural bias many have about banking, simply because their relationship with them is primarily characterized by retail banking activities. In addition,

many individuals have an interest in the stock market, whether through ownership in derivatives like mutual funds or directly in individual equities. These individuals may have an interest or a need to check the status of their investments or actively manage those investments. Thus, the products and services of the modern financial services institution include banking, brokering, and payment services. Each is a different, although complementary aspect of financial and business activities. Mobile technologies extend across many of the banks product lines and well beyond the retail framework.

The reason Why the ubiquitous banking using mobile devices is expected to take over the Internet based online banking services is due to lack of security and a high level of fraud is seen as a major obstacle to the customers for financial transactions. For example, the web browsers and servers are enabled to use public key infrastructures for cryptographic key distribution and to use cryptographic protocols such as SSL for communication security [1]. For financial transactions using internet, the security at both the client and the server end must be taken care. On the client side, the poor platform integrity, the multitude of default CA (Code Authentication) certificates and the arcane user interface pose severe security threats. The high level of vulnerability on the server side is best illustrated by the fact that almost all reported hacker attacks are targeted against servers. The most important types of system attacks which pose severe threat on internet financial transactions are : Password cracking, screen emulators, data diddling, social engineering, malicious code, distributed denial of service, physical perimeter penetration, and wireless intercepts [2]. Other attacks that typically require more sophistication are: cryptanalysis, man in the middle attacks, fast factoring, registry or directory reengineering, EMI/RFI intercepts, IP hijacking, IP spoofing, anonymous IP addressing, and steganography etc. System security can be addressed by installing firewalls and intrusion detection systems, by monitoring security alerts and prompt implementation of security patches. However, this requires skilled system administrators to continuously look after the systems, which is relatively labour intensive compared to communication security and may not possible in small size mobile communication devices at client.

## II. SECURITY ISSUES IN UBIQUITOUS BANKING

Mobile personal devices, usually with a built-in display and keyboard, are well-positioned to provide a technical solution for reducing fraud and allowing the fair allocation of responsibility for damages from fraud. Some amount of security is already part of the authentication mechanism of existing mobile phones as a way to prevent call theft. Moreover, it is relatively easy and inexpensive for device manufacturers to incorporate additional mechanisms to ensure secure transaction authorization. These mechanisms help prevent most fraud and allocate responsibility fairly for any remaining fraud. For users, their value far outweighs their relatively modest cost.

Secure transactions using mobile phones consist of four independent processes :

- 1) *Identification process* : The device identifies the user through physical possession (as with regular mobile phones), passwords, or biometrics (such as voice recognition);
- 2) *Authentication process* : The mobile banking service provider authenticates the transaction request from the device via either subscriber identification (as with existing phones) or cryptographic mechanisms such as digital signatures or secure protocols, like the Wireless Transport Layer Security Specification;
- 3) *Secure performance* : The financial transaction is performed by the mobile banking service provider, possibly with the help of the merchant and/or other transaction provider(s) for bill payments and may involve secure payment protocols (such as Internet Keyed Payments/Secure Electronic Transactions, or iKP/SET) [3, 4].
- 4) *Confirmation* : A confirmation of the completed transaction is delivered to the user.

Mobile phone devices should incorporate mechanisms to securely authenticate transaction requests that can be used by multiple transactions and scenarios. To allocate responsibility, transaction requests should be digitally signed by the device using a private key (not known to the providers) kept in the device. The user does not have to obtain a public-key certificate from a trusted certificate authority; it suffices that the agreement between the user and the provider states the public key and the algorithm. To reduce hardware costs, designers may prefer public-key signature algorithms (such as the Digital Signature Algorithm, or DSA [5], so most of the computations are done offline, and online signing is efficient. The device displays the transaction details to the user and asks his or her consent for each transaction request. The device should ensure the user is aware of the entire request, possibly by limiting the request format. For example, payment transactions may display the amount and other transaction details related to that particular financial service. The security of this design depends on the secure operation of the mobile personal device, including its user identification. Some current mobile devices, including phones, use only simple, preprogrammed processors, and therefore can be trusted to

operate securely. However, some devices support downloaded, general-purpose applications and like computers, may be vulnerable, as with viruses. Secure transaction authorization may, therefore, involve a secure coprocessor, used only to authorize transactions and possibly to view confidential data. There should be visible indication when the display and keyboard are controlled by the secure co-processor, allowing the user to securely identify (such as by password) and authorize transactions. The co-processor is invoked by the main processor to authorize transactions, providing the raw request in shared memory. If authorized, the co-processor returns the signed transaction request in the shared memory. The simplest secure transaction architecture involves only the user, the device, and a single transactions provider (such as a bank, brokerage, or insurance company). The user identifies to the mobile device, possibly through secure identification mechanisms (such as a PIN, voice identification, or fingerprint); the device then authorizes a transaction to the provider (such as money transfers and investments). Authorization is preferably through some secure public-key signature process, allowing precise allocation of responsibility for fraud (disputed transactions). However, less secure forms of authorization (such as relying on subscriber identification and/or encrypted passwords) may suffice for some applications, as in e-banking and mobile commerce solutions. More complex payment transactions such as mobile purchasing typically involve at least one additional party, the merchant. In the simplest case, the merchant receives payment from external payment/transaction provider (such as a bank or credit card company); the mobile transaction provider authorizes the transaction.

Wireless communication capability supports mobility for end users in mobile banking systems. Wireless LAN and WAN are major components used to provide radio communication channels so that mobile service is possible. In the WLAN category, the Wi-Fi standard with 11 Mbps throughput dominates the current market. It is expected that standards with much higher transmission speeds, such as IEEE 802.11a and 802.11g, will replace Wi-Fi in the near future. Cellular networking technologies are advancing at a tremendous pace and each represents a solution for a certain phase, such as 1G, 2G, and 3G, in a particular geographical area, such as the United States, Europe, or Japan. Compared to WLANs, cellular systems can provide longer transmission distances and greater radio coverage, but suffer from the drawback of much lower bandwidth (less than 1 Mbps). In the latest trend for cellular systems, 3G standards supporting wireless multimedia and high-bandwidth services are beginning to be deployed. WCDMA and CDMA2000 are likely to dominate the market.

## III. SECURED TRANSACTION MODEL FOR UBIQUITOUS BANKING

The business models for mobile banking may be based on Consolidation, Location based services, Immediate product payment, Bill payment, Systematic interoperability,

and Non-credit card users [6]. These models are based on specific applications. In consolidation model, the applications that provide consolidated financial views across institutions have value for those people who have banking relationships with more than one financial institution. Such an application would be able to consolidate all assets and liabilities in one view. Visual confirmation of such transactions is one of the attractive features of mobile banking and trading, as the user sees the complete transaction all at once. The restricted screen size of mobile devices is a challenge for this type of visibility. In location-based services model the mobile technology is adopted for identifying and using the actual physical location of the user. This provides an opportunity to customize both data and services by taking into account personal factors and location-related factors [7]. Currently, providing and using location-specific information is possible with a wireless device. The costs and benefits of this functionality to all of the parties involved and the risk that users may be reluctant to have their movements recorded in this way. In Immediate product/service payment model, mobile devices afford the opportunity for consumers to purchase goods or services and draw the payment directly from their bank accounts in a manner similar to the debit card. Bill payment model allows payment bills online. One of the arguments that favour the use of a wireless device in many situations is to satisfy the need for urgency. A cell phone is often invaluable in the case of emergency, which is by definition urgent and time sensitive. Generally, there is not much urgency or time sensitivity to bill payment transactions or most other bank transactions, with the possible exception of the minority of investors who are active traders [8]. Consumers always look for uninterrupted service with an uncomplicated interface between the customer, the device, the wireless service, the network, the merchant, and the bank. This systemic interoperability is a key user consideration in systematic interoperability model. M-banking does offer the potential for a portable payment/banking system that provides systemic interoperability. Presently in most of the countries, the payment mechanism of choice for medium-sized payments is the credit card. Under Non-credit card users model, Mobile banking and mobile payment schemes would have value for those people who do not have a credit card, such as the teenagers, children, or poor credit risks.

Regardless of the bright future of mobile banking, its prosperity and popularity will be brought to a higher level only if information can be securely and safely exchanged among end systems (mobile users and banking service providers). Online banking through mobile service providers is more secure than online banking through internet because of the usage of private network of the service provider (PNSP) and the users' personal mobile device. The existing electronic authorizations for mobile payment security are based on account - holder authentication by the payment system. The use of secure and convenient mobile personal devices through PNSP could revolutionize the payment, banking and investment industries worldwide. In consumer oriented model proposed in Fig. 1 [9], the mobile banking services are provided through mobile network service provider PNSP,

either by collaboration or by strategic alliance. A consumer can use any private mobile network to access a particular real or virtual bank. The consumers and businesses in emerging markets are likely to find mobile financial services more attractive than do their counterparts in developed markets, because they have fewer alternatives. For many remote or low-income consumers, mobile handsets and the mobile Internet could for the first time provide access to financial services such as basic banking and electronic payments; otherwise financial-services providers find such segments impossible to serve cost-effectively. Mobile networks are cheaper to build than fixed-line networks, and mobile services are generally cheaper to roll out than their precursors. A mobile-payments network, for example, can cost less to create and operate than an electronic point-of-sale (POS) merchant network. This means that some countries will be able to leapfrog over intermediate technologies and move directly from a paper-based payments system to a mobile one, without ever having to build an extensive wired POS or automated-teller-machine network.

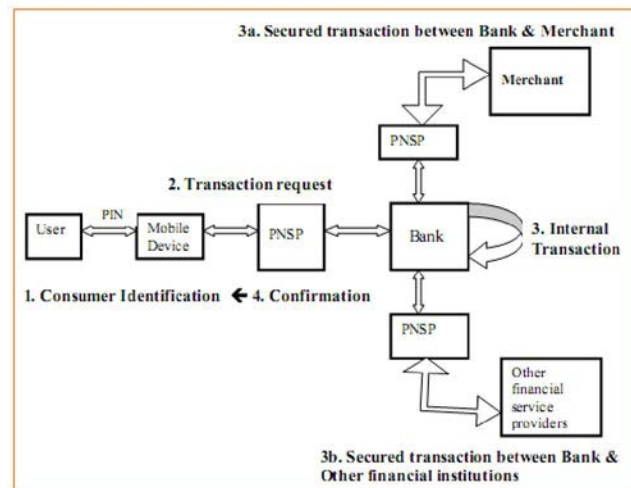


Figure 1. Customer oriented E-business model using mobile device.

In this model, based on user request, the device identifies the user through physical possession of mobile phones, passwords, or biometrics such as voice recognition (path 1). The mobile banking service provider authenticates the transaction request from the device via either subscriber identification (as with existing phones) or cryptographic mechanisms such as digital signatures or secure protocols, like the Wireless Transport Layer Security Specification through private network service provider PNSP (path 2). The users can perform secured operations on account balance or loan account statement, transfer money between two accounts in the same bank (internal transaction), loan payment, or payment of electricity, water, phone, credit card and cellular phone/pager bills, through the bank (path 3). The financial transaction can be also performed between the mobile banking service provider, and the merchant for m-commerce payment through PNSP (Path 3a) and/or other financial institution(s) for bill payments or interbank transfer through PNSP (path 3b)

and may involve secure payment protocols such as Internet Keyed Payments/Secure Electronic Transactions, or iKP/SET [4]. After completion of requested transaction, the mobile banking service provider delivers a confirmation of transaction to the user (path 4).

In today's mobile phones, authorization is via subscriber identification mechanisms, which do not provide non-repudiation. However, in future, mobile consumers might also use a secure mobile signing device, to avoid disputes. This device may allow high-value transactions, as well as paying mobile operators who are not completely trusted (such as when roaming). Mobile communication mechanisms (such as GSM) allow the foreign (visited) network to authenticate the user with information from the home network. Charging requires prior agreements between the visited and the home networks. Designers of the Universal Mobile Telecommunications System (UMTS) recognized the difficulty of establishing agreements in advance among visited networks and all home networks[10], thus, UMTS includes mechanisms for dynamic negotiation and setup of roaming agreements between a visited network and a home network. Roaming agreements seek to establish fees and ensure operator trustworthiness.

Operators are trusted to deliver payments in time; foreign (remote) operators are also trusted to not overcharge visiting customers. A secure signing mobile device can prevent fraud (overcharging) by foreign network providers, thereby allowing more automated and variable roaming agreements. Operators can also use the Final Payments protocol[11], to extend pair-wise trust relationships into global trust relationships, allowing automated, secure, low-cost universal roaming.

Other payment scenarios involve mobile service providers participating in the payment transaction itself, not just in its authorization. One motivation is to establish new payment networks, possibly involving mobile operators and financial institutions as providers of mobile payment services. Motivations for establishing new payment networks include the exploitation of business opportunities inherent in the billing, customer-service, and technical relationships among mobile users (and devices) and mobile operators. Another is support for low-value payments (micropayments) and final (irreversible) payments, each possibly yielding additional mobile communication services. Micropayments and final payments using mobile devices may enable the purchase of content and services delivered via the network, as well as person-to-person payments and money transfers; the latter represents a substantial opportunity, especially in light of the millions of overseas employees worldwide. Moreover, due to their ability to allocate responsibility for fraud, these new payment networks may lower the cost of transactions (as a percentage of the transaction) for large-value payments and money transfers. In other case, the mobile service provider is part of an existing payment network. In either case, the mobile provider acts on behalf of the user as a wallet server, as it is located along the route between mobile device and bank. The

mobile service provider may implement a variety of payment protocols, ranging from the complex (such as iKP/SET) to the simple (such as SSL/TLS transmission of credit card numbers). The mobile network service provider may securely inform the bank of any pending transaction, allowing them to reject fraudulent transactions.

To avoid lack of security and a high level of fraud which is a major obstacle to people embracing the possibilities and advantages of using internet based online banking services, in this model shown in Fig. 1, it is proposed to use the secured network provided by mobile network service providers. The integration of present mobile communication technology with banks is an ideal solution to increase the potential customers trust towards ubiquitous financial transactions using mobile devices. This model supports the user identification through physical possession of mobile device, passwords, or biometrics and authenticates the transaction request from the device by mobile banking service provider through mobile network service provider via either subscriber identification or secure protocols, like the Wireless Transport Layer Security Specification. The secured financial transaction is performed by the mobile banking service provider, with the help of the network service provider(s) for financial transactions as well as for bill payments. The transaction process is completed by delivering a confirmation of transaction to the user. Such consumer oriented model changes the attitude of customers towards using m-banking services due to the advantages of convenience, low cost, anywhere, anytime banking and increases trust on online financial transaction.

How much value a *mobile-financial-services business* can create depends largely on its relevance to a given market. But in any market, a *business* can create value in two ways: directly, by enhancing benefits to customers or reducing costs for participants, or indirectly, by increasing cross-selling, cutting the cost of acquiring customers, or reducing customer churn. Indirect benefits are available only to the provider that comes first to market with a given service or that has assets or capabilities distinctive enough to retain share once competitors have entered the market. The low-cost mobile banking can bring into the fold a considerable group of consumers who formerly could be served only at too high a cost. It replaces the most costly elements of a basic banking service (ATMs and tellers) with a deposit and withdrawal process that relies on much cheaper *mobile* communications and "franchised" (merchant-based) tellers. But the mixing of brand names, distribution networks, and financial services is leading to complex ownership and alliance structures, and extensive vertical integration could undermine competition. Links can lead to fewer benefits for consumers when they exploit reputation or involve sunk-cost investment to reduce competition on price. Mixed conglomerate structures can also challenge a basic principle of competition policy, the separation of content and carriage. Some mixed conglomerates-such as a telecom company merged with a financial service provider-will be able to control content and carriage and can limit access to networks by buyers of services,

or to suppliers that wish to access potential customers. Lack of competition may not result in higher prices for financial services, but it could reduce product and process innovation. To ensure competition and innovation, restrictions may be called for on such vertical or horizontal links. In considering such restrictions, authorities will have to balance many issues, including the potential risk diversification benefits of mixed conglomerates and the benefits for competition of entry by non-financial entities in the financial service sector.

At present, banks, for the most part, are watching from the sidelines while their primary role as the premier financial intermediary is being diminished by online brokers and other financial service providers. Recently, many leading banks were preoccupied with merger and acquisition aimed at expanding networks of brick-and-mortar branches rather than creating or pursuing virtual branches in cyberspace. In truth, bankers' main motive to implement Internet banking was, and still is, to prevent the defection of their customers to other electronic banks or other financial service providers. The consumer oriented model with enhanced authentication changes the attitude of customers towards using m-banking services due to the advantages of convenience, low cost, anywhere, anytime banking and increases trust on online financial transaction.

#### **IV. BIOMETRIC AUTHENTICATION AND ENHANCED TRANSACTION SECURITY**

Technology has a significant role in improving mobile transaction security. There has been a lot of work on biometric identity systems in recent years. The biometric identity system also work and assesses its relevance for mobile banking. In particular, it identifies a biometric technology approach that has already been incorporated in some mobile handsets—a sophisticated, but low-cost, fingerprint sensor. Use of this approach for mobile banking would work. When a customer initiated a mobile banking transaction, the handset would request that the user register his or her fingerprint on the sensor, and the handset would compare the fingerprint to the one already stored in the phone (and, as a backup, also stored on the bank mobile transaction server). The handset would then send the transaction request and the result of the fingerprint comparison—in effect, a biometric ID authentication—to the bank server for approval and execution of the transaction. That would replace the device-based security safeguard (the SIM card) with something much more robust and harder to defeat.

Biometrics is one approach to the authentication of an individual's claimed identity. Recognizing individuals through observation of particular physical characteristics is known as biometrics. A biometrics authentication is a two-stage process. During the first stage, some sort of capture device is used to take a measurement of particular physiological or behavioral characteristics and in the second stage; the measurement is compared to a stored value. Based on the comparison result the system makes an authentication decision. Biometric technologies do not actually compare the

physical traits that they are designed to use as a unique identifier, rather, they create templates for comparison. This enrollment process may require the individual to provide multiple instances of the biometric trait. The initial comparison templates are created during an enrollment process [12].

One way to increase the strength of an authentication mechanism is to use multiple factors of authentication. In the case of biometrics, this could involve requiring the user to input a password or PIN (Personal Identification Number) or to produce some sort of authentication token such as smart card that contains both the PIN and any one of the biometric systems with 1:1 matching. The advantage of such is that many are designed to operate with biometric systems and have sufficient space for storage of biometric templates with them. However, assessing the extent to which an additional authentication factor can increase the overall strength of the authentication services. When passwords are used for authentication, the decision is made relatively straightforward—if correct password is supplied the result is positive authentication, otherwise the individual is rejected. A biometric authentication is conceptually different, in that the decision is based on a probability. Any organization considering the use of biometrics needs to understand the impact of this when reaching a trust decision.

Biometrics is a measurable physical characteristics or personal behavioral trait used to recognize the identity or verify the claimed identity of an enrollee. Examples of physiological characteristics that are used in biometric device include fingerprints, the geometry of the face or hand and patterns within the iris or retina or in the layout of veins. Behavioral characteristics include voice pattern, gait and the dynamics of handwriting or keystrokes. For the authentication process the chosen characteristics must be unique to each individual. Also it is possible to measure the characteristics with the reasonable degree of accuracy. Once the measurement has been taken the data is converted into a biometric template. A template is a representation of the measurement that retains all the relevant information but takes up far less space than the original. It is this template that is compared to a template generated in the same manner during the initial enrolment procedure and based on the similarity of the two, a decision is made whether the user should be granted access.

There are various biometric products like a plethora of fingerprint scanners, voice and facial recognition system, retina/iris scanners, hand geometry devices and signature verification systems available in the market. While fingerprints have proven to be highly reliable and accurate over the years, particularly now using RF imaging, they're not completely infallible. They can be affected over time by such things as years of manual labor or physical injury, so there would probably be a desire to update the reference templates as and when necessary for commercial and financial applications. Other factors that can cause failure in a fingerprint scan are cold and humidity (particularly in the older types of

fingerprinting), and location, angle and pressure of placement on the sensor (known as a platen). Other issues to consider are that the use of fingerprints requires physical contact, which can be a problem in some cultures, and the fact that fingerprinting's long association with criminal justice lends itself to some privacy resistance, although this will probably ameliorate over time with increased use of biometrics and updated privacy laws. Fingerprint capture technology is easily accommodated on a cellphone, with sensor sizes ranging from 12 mm x 5 mm to about 1.5 cm x 1.5 cm, and low power and processing requirements. The fingerprint template itself ranges in size from about 256 bytes to 500 bytes. Thus using finger print biometric identification technique in mobile handsets allows bank server to identify and authenticate the customer for secured financial transactions.

## V. CONCLUSION

We have investigated the security threats in online mobile banking implementations using mobile network. The discussions support to build applications for portable devices that ensure users can securely send their banking information via the mobile network. The mobile banking solutions developed provide platforms for users to bank using mobile communication technology. In order to enhance the security, biometric finger print detection and authentication can be used in mobile device based online financial transaction systems. The possibility of using bio-metric fingerprint security to enhance user authentication by the bank server are discussed.

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# Women Entrepreneurship in India- A Micro Study

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**Abstract:** Entrepreneurship has gained greater significance at global level under changing economic scenario. Global economy in general and Indian economy in particular is poised for accelerated growth driven by entrepreneurship. This is why entrepreneurship is considered to be a prime mover in development and it has been a source for a consequent attractiveness to people especially woman to take up entrepreneurship. Several women are now willing to become entrepreneurs due to various factors. These factors can be broadly classified under two headings, namely, "Pull factors" and "Push factors." Under the first category, the women "entrepreneurs choose a profession as a challenge and adventure with an urge to do something new, liking for business and to have an independent occupation. The other category of women takes up business enterprises to get over financial difficulties and responsibility is thrust on them due to family circumstances. However, the latter category forms a negligible percentage of the total women entrepreneurs. The new thrust given to the process of economic development of the country by the new dynamic leadership has created an all round enthusiasm and the new slogan of "March towards the twenty-first century" had gained popularity. But in this new enthusiasm a very vital sector of the society, which can contribute substantially towards the economic development of the country, is not given enough attention – women entrepreneurs. With the spread of education and new approaches/awareness, women entrepreneurs are achieving higher level of 3E's, namely: (i) Engineering (ii) Electronics (iii) Energy. Women entrepreneurs have been making a significant impact in all segments of the economy in India. In this paper a modest attempt has been made to define the role of women entrepreneurship in India.

**Keywords:** *Woman Entrepreneurship, Indian Economy, Pull factors and Push factors, 3 E's of Woman Entrepreneurship.*

## INTRODUCTION

Women Entrepreneurs may be defined as the women or a group of women who initiate, organize and operate a business enterprise. Government of India has defined women entrepreneurs as an enterprise owned and controlled by a woman having a minimum financial interest of 51% of the capital and giving at least 51% of employment generated in the enterprise to women. Like a male entrepreneurs a women entrepreneur has many functions. They should explore the prospects of starting new enterprise; undertake risks, introduction of new innovations, coordination administration and control of business and providing effective leadership in all aspects of business. By and large they had confide themselves to petty business and tiny cottage industries. Women in business are a recent phenomenon in India. Till the turn of the century, man has enjoyed a dominant position. But change in position technological innovation and modern way of

thinking can reduce the disparity between man and women, and bring about equality and equity between them, the need of the hour in women empowerment both through provision of employment and enterprise creation. Typologically, the former leader to endogenous empowerment and the latter give rise to exogenous empowerment.

## REVIEW OF LITERATURE

Entrepreneurship amongst women is a recent phenomenon. When an enterprise is established and controlled by women, it not only boosts economic growth, but also has many desirable outcomes. Jawahar Lal Nehru has remarked "when a woman moves forward, the family moves, the village moves and the nation moves. But women's entrepreneurship and business ownership is often ignored in comparison to that of men (Ahl, 2006). Family played a crucial role in stopping the entrepreneurs from being held back due to lack of academic qualifications and training, and also served as mentors to them (Dhaliwal et al., 2010). The studies conducted by Kale (1990); Kirve and Kanitkar (1993), revealed that training approach is an important one for helping women in non-traditional high skill, male dominated activities and also to build confidence among women to meet the specific needs. Intensified effort has to be taken to assess the social attitude, mentality, needs and abilities of the women and to impart training. Flexible training programme and interest based skill training can push the women towards entrepreneurial activities. Training to develop good managerial skills is useful and essential to women (Padmavati, 2002 and Sathyasundaram, 2004).

## OBJECTIVES

The study was planned with the following objectives:

- To evaluate the factors responsible for encouraging women to become entrepreneurs
- To study the impact of assistance by the government on women's entrepreneurship.
- To study the policies, programmes, institutional networks and the involvement of support agencies in promoting women's entrepreneurship.
- To discuss the profiles of successful women entrepreneurs.
- To critically examine the problems faced by women entrepreneurs.

## METHODOLOGY

The study is based upon secondary data. The data has been collected from an exhaustive search of relevant publications like newspapers, search engines, News

websites, Trade Journals, Magazines, Trade associations, Books, Industry Portals.

### REASONS FOR WOMEN ENTREPRENEURSHIP

The glass ceilings are shattered and women are found indulged in every line of business. The entry of women into business in India is traced out as an extension of their kitchen activities, mainly 3P's, Pickle, Powder and Pappad. But with the spread of education and passage of time women started shifting from 3P's to modern 3E's i.e., Energy, Electronics and Engineering. Skill, knowledge and adaptability in business are the main reasons for women to emerge into business ventures. Women Entrepreneur is a person who accepts challenging role to meet her personal needs and become economically independent. A strong desire to do something positive is an inbuilt quality of entrepreneurial women, who is capable of contributing values in both family and social life. With the advent of media, women are aware of their own traits, rights and also the work situations. The challenges and opportunities provided to the women of digital era are growing rapidly that the job seekers are turning into job creators. Many women start a business due to some traumatic event, such as divorce, discrimination due to pregnancy or the corporate glass ceiling, the health of a family member, or economic reasons such as a layoff. But a new talent pool of women entrepreneurs is forming today, as more women opt to leave corporate world to chart their own destinies. They are flourishing as designers, interior decorators, exporters, publishers, garment manufacturers and still exploring new avenues of economic participation

**They have made their marks in business because of the following reasons:**

- § They want to improve their mettle in innovation and competitive jobs.
- § They want the change to control the balance between their families and responsibility and their business levels.
- § They want new challenges and opportunities for self fulfillment.

### POLICIES AND SCHEMES FOR WOMEN ENTREPRENEURS IN INDIA

In India, the Micro, Small & Medium Enterprises development organizations, various State Small Industries development corporations, the nationalized banks and even NGOs are conducting various programmes including Entrepreneurship Development Programmes (EDPs) to cater to the needs of potential women entrepreneurs, who may not have adequate educational background and skills. The Office of DC (MSME) has also opened a Women Cell to provide coordination and assistance to women entrepreneurs facing specific problems.

There are also several other schemes of the government at central and state level, which provide assistance for setting up training-cum-income generating

activities for needy women to make them economically independent. Small Industries Development Bank of India (SIDBI) has also been implementing special schemes for women entrepreneurs.

In addition to the special schemes for women entrepreneurs, various government schemes for MSMEs also provide certain special incentives and concessions for women entrepreneurs. For instance, under Prime Minister's Rozgar Yojana (PMRY), preference is given to women beneficiaries. The government has also made several relaxations for women to facilitate the participation of women beneficiaries in this scheme. Similarly, under the MSE Cluster Development Programme by Ministry of MSME, the contribution from the Ministry of MSME varies between 30-80% of the total project in case of hard intervention, but in the case of clusters owned and managed by women entrepreneurs, contribution of the M/o MSME could be upto 90% of the project cost. Similarly, under the credit guarantee Fund Scheme for Micro and Small Enterprises, the guarantee cover is generally available upto 75% of the loans extended; however the extent of guarantee cover is 80% for MSEs operated and/ or owned by women.

Some of the special schemes for women entrepreneurs implemented by the government bodies and allied institutions are provided below.

- Schemes of Ministry of MSME
  - Trade related entrepreneurship assistance and development (TREAD) scheme for women
  - Mahila Coir Yojana
- Schemes of Ministry of Women and Child Development
  - Support to Training and Employment Programme for Women (STEP)
  - Swayam Siddha
- Schemes of Kerala State Women's Development Corporation
  - Self employment loan programmes
  - Educational loan schemes
  - Single women benefit schemes
  - Job oriented training programmes
  - Marketing support for women entrepreneurs
  - Autorickshaw / school van's driver scheme
- Kerala Government's Women Industries Programme
- Delhi Government's Stree Shakti Project
- Schemes of Delhi Commission for Women (Related to Skill development and training)
- Incentives to Women Entrepreneurs Scheme, 2008, Government of Goa
- Magalir Udavi Scheme, Pudhucherry Government

Financing Schemes by Banks/ Financial Institution's

## WOMEN ENTREPRENEUR ASSOCIATIONS

The efforts of government and its different agencies are supplemented by NGOs and associations that are playing an equally important role in facilitating women empowerment. List of various women associations in India is provided below.

1	Federation of Indian Women Entrepreneurs (FIWE)
2	Consortium of Women Entrepreneurs (CWEI)
3	Association of Lady Entrepreneurs of Andhra Pradesh
4	Association of Women Entrepreneurs of Karnataka (AWAKE)
5	Self-Employed Women's Association (SEWA)
6	Women Entrepreneurs Promotion Association (WEPA)
7	The Marketing Organization of Women Enterprises (MOOWES)
8	Bihar Mahila Udyog Sangh Bihar Mahila Udyog Sangh
9	Mahakaushal Association of Woman Entrepreneurs (MAWE)
10	SAARC Chamber Women Entrepreneurship Council
11	Women Entrepreneurs Association of Tamil Nadu (WEAT)
12	TiE Stree Shakti (TSS)

### ROLE OF WOMEN AS AN ENTREPRENEUR:

**1) IMAGINATIVE:** It refers to the imaginative approach or original ideas with competitive market. Well-planned approach is needed to examine the existing situation and to identify the entrepreneurial opportunities. It further implies that women entrepreneurs have association with knowledgeable people and contracting the right organization offering support and services.

**2) ATTRIBUTE TO WORK HARD:** Enterprising women have further ability to work hard. The imaginative ideas have to come to a fair play. Hard work is needed to build up an enterprise..

**3) PERSISTENCE:** Women entrepreneurs must have an intention to fulfill their dreams. They have to make a dream transferred into an idea enterprise; Studies show that successful women work hard.

**4) ABILITY AND DESIRE TO TAKE RISK:** the desire refers to the willingness to take risk and ability to the

proficiency in planning making forecast estimates and calculations.

**5) PROFIT EARNING CAPACITY:** she should have a capacity to get maximum return out of invested capital.

A Woman entrepreneur has also to perform all the functions involved in establishing an enterprise. These include idea generation, and screening, determination of objectives, project preparation, product analysis, determination of forms of business organization, completion of formal activities, raising funds, procuring men machine materials and operations of business. Some of the important functions identified include:

- § Exploration of the prospects of starting a new business enterprise.
- § Undertaking a risk and handling of economic uncertainties involved in business.
- § Introduction of innovations, imitations of innovations.
- § Co ordination, administration and control.
- § Supervision and leadership.

In nutshell, women entrepreneur are those women who think of a business enterprise, initiate it organize and combine the factors of production, operate the enterprise, undertake risk and handle economic uncertainties involved in running a business enterprise.

With education and training, the women have gained confidence to do all work, which was the prerogative of man and do it excellently, rather better than men. Over the years, the educated women have become ambitious, acquired experience and basic skills of competency and self-assurance.

### PROBLEMS OF WOMEN ENTREPRENEURS IN INDIA

Women in India are faced many problems to get ahead their life in business. A few problems can be detailed as;

1. The greatest deterrent to women entrepreneurs is that they are women. A kind of patriarchal – male dominant social order is the building block to them in their way towards business success. Male members think it a big risk financing the ventures run by women.
2. The financial institutions are skeptical about the entrepreneurial abilities of women. The bankers consider women loonies as higher risk than men loonies. The bankers put unrealistic and unreasonable securities to get loan to women entrepreneurs. According to a report by the United Nations Industrial Development Organization (UNIDO), “despite evidence that women’s loan repayment rates are higher than men’s, women still face more difficulties in obtaining credit,” often due to discriminatory attitudes of banks and informal lending groups (UNIDO, 1995b).
3. Entrepreneurs usually require financial assistance of some kind to launch their ventures – be it a formal bank

loan or money from a savings account. Women in developing nations have little access to funds, due to the fact that they are concentrated in poor rural communities with few opportunities to borrow money (Starcher, 1996; UNIDO, 1995a). The women entrepreneurs are suffering from inadequate financial resources and working capital. The women entrepreneurs lack access to external funds due to their inability to provide tangible security. Very few women have the tangible property in hand.

4. Women's family obligations also bar them from becoming successful entrepreneurs in both developed and developing nations. "Having primary responsibility for children, home and older dependent family members, few women can devote all their time and energies to their business" (Starcher, 1996, p. .The financial institutions discourage women entrepreneurs on the belief that they can at any time leave their business and become housewives again. The result is that they are forced to rely on their own savings, and loan from relatives and family friends.
5. Indian women give more emphasis to family ties and relationships. Married women have to make a fine balance between business and home. More over the business success is depends on the support the family members extended to women in the business process and management. The interest of the family members is a determinant factor in the realization of women folk business aspirations.
6. Another argument is that women entrepreneurs have low-level management skills. They have to depend on office staffs and intermediaries, to get things done, especially, the marketing and sales side of business. Here there is more probability for business fallacies like the intermediaries take major part of the surplus or profit. Marketing means mobility and confidence in dealing with the external world, both of which women have been discouraged from developing by social conditioning. Even when they are otherwise in control of an enterprise, they often depend on males of the family in this area.
7. The male – female competition is another factor, which develop hurdles to women entrepreneurs in the business management process. Despite the fact that women entrepreneurs are good in keeping their service prompt and delivery in time, due to lack of organizational skills compared to male entrepreneurs women have to face constraints from competition. The confidence to travel across day and night and even different regions and states are less found in women compared to male entrepreneurs. This shows the low level freedom of expression and freedom of mobility of the women entrepreneurs.
8. Knowledge of alternative source of raw materials availability and high negotiation skills are the basic

requirement to run a business. Getting the raw materials from different source with discount prices is the factor that determines the profit margin. Lack of knowledge of availability of the raw materials and low-level negotiation and bargaining skills are the factors, which affect women entrepreneur's business adventures.

## HOW TO DEVELOP WOMEN ENTREPRENEURS?

Right efforts on from all areas are required in the development of women entrepreneurs and their greater participation in the entrepreneurial activities. Following efforts can be taken into account for effective development of women entrepreneurs.

1. Consider women as specific target group for all developmental programmes.
2. Better educational facilities and schemes should be extended to women folk from government part.
3. Adequate training programme on management skills to be provided to women community.
4. Encourage women's participation in decision-making.
5. Vocational training to be extended to women community that enables them to understand the production process and production management.
6. Skill development to be done in women's polytechnics and industrial training institutes. Skills are put to work in training-cum-production workshops.
7. Training on professional competence and leadership skill to be extended to women entrepreneurs.
8. Training and counseling on a large scale of existing women entrepreneurs to remove psychological causes like lack of self-confidence and fear of success.
9. Counseling through the aid of committed NGOs, psychologists, managerial experts and technical personnel should be provided to existing and emerging women entrepreneurs.
10. Continuous monitoring and improvement of training programmes.
11. Activities in which women are trained should focus on their marketability and profitability.
12. Making provision of marketing and sales assistance from government part.
13. To encourage more passive women entrepreneurs the Women training programme should be organized that taught to recognize her psychological needs and express them.
14. State finance corporations and financing institutions should permit by statute to extend purely trade related finance to women entrepreneurs.
15. Women's development corporations have to gain access to open-ended financing.

16. The financial institutions should provide more working capital assistance both for small scale venture and large scale ventures.
17. Making provision of micro credit system and enterprise credit system to the women entrepreneurs at local level.
18. Repeated gender sensitization programmes should be held to train financiers to treat women with dignity and respect as persons in their own right.
19. Infrastructure, in the form of industrial plots and sheds, to set up industries is to be provided by state run agencies.
20. Industrial estates could also provide marketing outlets for the display and sale of products made by women.

### **SUCCESS STORIES OF WOMEN ENTREPRENEURS IN INDIA**

- **STORY OF PATRICIA NARAYAN, WINNER OF FICCI WOMAN ENTREPRENEUR OF THE YEAR AWARD:**

The story of Patricia Narayan, winner of this year's 'Ficci Woman Entrepreneur of the Year' award is amazing. She started her career 30 years ago as an entrepreneur, selling eateries from a mobile kart on the Marina beach amidst all odds -- battling a failed marriage, coping with her husband, a multiple addict, and taking care of two kids. Today, she has overcome the hurdles and owns a chain of restaurants. I did not want to be a burden on my parents. So, to be economically independent, I could only do what I knew and what I liked. I started making pickles, squashes and jams at home. I just took a couple of hundred rupees from my mother. I sold everything I made in one day and that gave me confidence.

- **STORY OF SARALA BASTIAN WHO SET UP A SUCCESSFUL MUSHROOM BUSINESS WITH JUST RS 15000:**

At 17, when most girls of her age were set to go to college for higher studies, she got married.

But **Sarala bastian** did not wish to just be confined to her house. She wanted to do something on her own. She wanted to be independent and carve out an identity for herself. "My father gave me the initial capital of Rs 15,000 to start a business in 2004. I started a mushroom farm in my backyard," says Sarala. There has been no looking back since. . . Today, she is a successful entrepreneur in a field not explored by many. It has been an incredible journey for the 32-year-old Sarala.

- **STORY OF KIRAN MAJUMDAR SHAW, THE BIOCON QUEEN:**

Indian businesswoman and Entrepreneur Kiran Mazumdar Shaw is the Chairman and Managing Director of Biocon, Country's leading biotech company. In 2004, Mazumdar Shaw was named the richest woman

in India with a net worth of more than Rs 2000 Crore. She was on the Forbes 2005 list of India's 40 richest people.

Kiran Mazumdar Shaw was born on the 23rd of march, year 1953 in Bangalore, India. She pursued BSc in Zoology from Bangalore University. After college she left for Australia for Post Graduation. She studied brewing at Ballarat University in Melbourne and got the qualification of a master brewer. In 1974 Mazumdar Shaw started working as a trainee brewer with Carlton and United Beverages. Four years later, she joined Ireland's Biocon Biochemicals Limited, where she worked as a trainee manager. Soon after that she set up Biocon India, in collaboration with the same Irish Company.

Mazumdar Shaw started Biocon in 1978 from a rented garage space in Bangalore and with an initial investment of just Rs 10000. In the beginning she had to face a variety of problems and challenges. Banks were not keen to give her loan because biotechnology was a new field and women entrepreneurship was quite rare. She had a difficult time finding a workplace and convincing people to join her organization. Mazumdar Shaw was however determined to overcome all entrepreneurial barriers and make her venture a huge success.

- **STORY OF LATA MANOHAR'S BOUTIQUE – VISHUDDHI:**

Lata Manohar's boutique "Vishuddhi" situated in Anna Nagar, Chennai is truly unique. It does not flaunt arrays of salwars and readymade suits in racks. What strikes one on entering "Vishuddhi" is its simplicity, charm and warmth of Lata.

Lata had always wanted to be an entrepreneurship and she was motivated to go into business on her father's support and encouragement. At 17 years of age, she enrolled for a course in dyeing, printing and block printing with The Weaver's service centre in Chennai. She created a few samples of her own and contacted the export firm Hamosons, way back in 1982. Mr. Dinakaran of Hamosons was impressed by her work and he in turn contacted his boss in Sweden. She was duly impressed and insisted on meeting Lata in person. On meeting her, Lata was asked to create a sample of her designs in five meters. She truly gave it her best shot and the export firm was truly impressed and fascinated by her work. They ended up placing a huge order with her.

Lata teamed up with a friend of hers and executed the order successfully. Their best efforts were rewarded amply when they received a cheque for Rs 16000, which was indeed a tidy sum of money in the '80's. Elated and inspired beyond measure, they decided to start a unit of their own, with this tidy sum as investment.

Lata set up her own printing and manufacturing unit and designed her own salwar suits. In 1986, Lata got married and she had to take a year off from work. The next year saw her venturing out again with the manufacture of

designer salwar suits, which were marketed exclusively to the wholesale market. “Kerala was my main market. I concentrated on Kottayam, and Ernakulam. I conducted exhibition cum sales all over the state. People used to flock to buy my designer suits which were sold under the brand name ‘Shree’ – says a proud Lata.

By 1987, Lata was billing close to one lakh per month from her sale of designer suits. In 1994, she ventured into exports. “I used to do job work for a company where I used to design a lot for the European market. We used to do hand printing, embroideries by machine and hand. From 1998-2004, we did extremely well. Some of my designs were used in the Armani collection and were featured on FTV”, Lata reminisced with pride.

It was Lata’s unique idea to paint the corners of silk material with lac, wherein they get sealed; stones are then embroidered on to them.

With these experiences to aid her, Lata set up ‘Vishuddhi’. Here, fabrics are designed and sold, customised tailoring undertaken, hand and machine embroidery done and sarees designed. Block printing orders too are undertaken.

“For a short stint, I have worked with the Indo – German Chamber of Commerce. Mr. Claire was impressed with my enthusiasm and it was a dream of mine to be able to contribute towards buying of our own home and I did it! I was able to pitch in with my own 20 lakh for our dream home” – smiles an elated Lata.

She agrees that her work, though slightly on the expensive side, does not compromise on quality. At Vishuddhi, materials are stacked tastefully on shelves that are artistically designed. Lata weaves her own magic out of these, particularly suited to each client.

Some of her creations are truly awe inspiring. A simple Kerala sari was magically and beautifully transformed into a designer ware. Give her two different pieces of material and Lata, with her innate creative spark, designs a beautiful sari out of it. She uses her own add-ons and embroidery to embellish and beautify her materials.

Lata has her own stitching unit with five tailors to help her out. She is adept and proficient at designing Western attire and her clientele is spread out over both India and abroad.

#### **TIPS FOR WOMEN ENTREPRENEURS:**

- Start a business that works for you and your personal life
- Research the product/ service
- Assess the market
- Start business with adequate funds
- Do networking
- Consult with professionals

#### **FUTURE OF WOMEN ENTREPRENEURS**

For women entrepreneurs there seems to be more interest than ever among investors and lending institutions. “The private sector has woken up to the potential market of women in a very big way,” says Tomb. “Women are starting and growing significant businesses, but the financial services on the horizon can help them to scale.” She’s as encouraged—if not more so—by activity in Washington with increasing focus on female entrepreneurship as a possible solution to the jobs crisis. “Entrepreneurship is a vehicle for jobs creation and women are the future of entrepreneurship,” she says. “The potential is untapped.”

The scene has been set with the rise in women-run funds– Starvest Partners, Women’s Venture Capital Fund and Illuminate Ventures all invest heavily in women as do Comcast and Accel. While exciting and encouraging interest from funds interested in high yield returns also indicates that the promise of female-driven (and female-facing) businesses is being acknowledged. After all, even the most socially-conscious and equal-opportunity of venture capitalists wouldn’t invest in female founders and female-led markets unless there was a return to be made.

#### **CONCLUSION AND SUGGESTIONS**

With strong, targeted educational opportunities, appropriate services, expansion of non-profit activities, an emphasis on industry and opportunities that match the talents and experiences women bring to the marketplace, creation of the appropriate regulatory environment, and community housing and safety programs, a region can support the participation of women and encourage women to take on leadership roles. If a region undertakes to be supportive of women entrepreneurs, it will cultivate a precious resource. As regions compete for business in the future, the regions with such environments will be most attractive to both men and women and will succeed in economic expansion.

Women entrepreneurs should be encouraged by role models and aided by mentors. Women should be rewarded equally. There should one day be no need for special awards for women because they will receive their equal share of recognition in fair competitions. We also need to create new narratives of success for women and men alike. These stories should become part of our culture and affect the aspirations of our youth. Tales of women and men who achieve greatness through entrepreneurship, through dedication and hard work, though collaboration and sharing praise and rewards, will add to the culture of success that we need to create for women and men who suffer from self doubt, fear of failure, and a desire to be accepted and liked. This is one, positive way to eliminate the stigma associated with success for women. The civilization that achieves this goal might even double its output without using up its natural resources or recruiting a new population from another region.

Right efforts from all areas are required in the development of women entrepreneurs and their greater participation in the entrepreneurial activities. Entrepreneurship basically implies being in control of one's life and activities and women entrepreneurs need to be given confidence, independence, and mobility to come out of their paradoxes. The following measures are suggested to empower the women to seize various opportunities and face challenges in business.

- Organize training programmes to develop professional competencies in managerial, leadership, marketing, financial, production process, profit planning, maintaining books of accounts and other skills. This will encourage women to undertake business.

- An Awareness programme should be conducted on a mass scale with the intention of creating awareness among women about the various areas to conduct business.

- Vocational training to be extended to women community that enables them to understand the production process and production management.

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- Skill development to be done in women's polytechnics and industrial training institutes. Skills are put to work in training-cum-production workshops.

- Women in business should be offered soft loans & subsidies for encouraging them into industrial activities. The financial institutions should provide more working capital assistance both for small scale venture and large scale ventures.

- Making provision of micro credit system and enterprise credit system to the women entrepreneurs at local level.

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# Innovative Practices - The Differentiating Factor for Private Sector Banks

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**Abstract:** “Innovation Distinguishes between a leader and a follower “, as said by Steve Jobs is quite true. A organization that keeps on innovating or uses innovative practices will always have an edge over its competitors.

Hence, Innovation is the essence for success, the field or sector is insignificant. Banking sector is not an exception to this. Banking is challenging sector, wherein we have lots of cut throat competition and each bank is waiting for a chance to take away the customer from the clutches of the other.

I would be concentrating on the Banking Sector and would be analyzing certain innovative practices used by the new generation private sector banks to attract and retain their customers.

**Keywords:** *Innovation, Banking.*

## INTRODUCTION

"Innovation is the ability to convert ideas into invoices."

Innovation is defined as the use of new knowledge to offer a new product or service that customers want .The new knowledge here refers to technological or market knowledge. Globally, usage of technology is very extensive in the financial sector of which banking sector is an integral part. Innovation plays a very key & crucial role for the survival of small players and also for the large players to retain their leadership amidst cut throat competition. Out of the box thinking is required & such thinking needs to be nurtured by the top managements. No wonder we find a very interesting trend in the recent past in Indian banking, the trend is a major shift from routine banking functions to a very aggressive financial marketing organisations

## PURPOSE

The main purpose of my study is to find the Innovative Practices followed by the new generation Private sector banks as compared to the Public sector banks. In addition it would also lead us to know the reasons as to why the Private sector Banks are trying to come out with these Innovative practices.

## INTRODUCTION

Banks as financial intermediaries are considered an important element for growth in all types of economies, and in emerging economies by most In most countries, but essentially in emerging ones, there are three types of banks: state-owned, private domestic and private foreign. The roles of these banks are important for the development of the economy but it is widely observed that private owned banks

perform much better than their government counterparts. However, we can observe that in different continents and countries, banking systems and bank ownership reflect local history and political issues.

Accordingly, governance and technology issues appear to be the most important challenges for state-owned banks in developing countries markets. Countries with higher levels of state involvement in the banking sector tend to have slower economic growth and less financial development.

Banking is in the midst of change that has arisen due to economic depression. As government seek to improve economic efficiency and better allocation of resources to solve the problem of economic depression, policy makers are shifting towards openness, competitiveness and market discipline. In India too the banking industry India is undergoing a major transformation due to changes in economic conditions and continuous deregulation. As a result, the market place has been redefined with new rules of the game. Banks are transforming to universal banking, adding new channels with lucrative pricing and freebies to offer. Natural fall out of this has led to a series of innovative product offerings catering to various customer segments, specifically in the retail banking segment.

## METHODOLOGY

Unstructured interviews with qualitative approach were carried by interviewing Managers of private and public sector banks. The primary data was collected through telephonic interviews as well as personal interviews with the managers of the various banks. This helped us to identify the practices in the different ownership systems and the reasons for the same. The secondary data is what helped us in concretizing & accelerating the work on primary data.

Interviews were conducted with the managers of the following banks to get the primary data required for the study. The study was done extensively in Mangalore only.

- HDFC Bank
- ICICI Bank
- YES Bank
- Indusind Bank
- ING-Vysya Bank
- AXIS Bank
- Kotak Mahindra Bank

- Bank of Maharashtra
- Indian Overseas Bank
- Bank of India

## FINDINGS

After going through the detailed study on these banks we can arrive at the following things that the private sector banks have come up to cope with the changes and the challenges in the environment

The Major Initiatives are :

- Investing in the state of the art technology as the backbone to ensure reliable service output.
- Leveraging the branch network and sales structure to mobilize low cost current and savings deposits
- Making aggressive forays in the retail advances segment of home and personal loans.
- Implementing organization wide initiatives involving people, process and technology to reduce the fixed costs and the cost per transaction.
- Focusing on fee based income to compensate for squeezed spread, (e.g. CMS, trade services)
- Innovating Products to capture customer 'mind share' to begin with and later the wallet share.
- Improving the asset quality as per Basel II norms.

The Major Innovative practices are :

- **Expanding Geographies through their ATM's** :- this initiative was first done by Axis Bank & has been then followed by many other banks. Wherein they feel that customers will bank with those banks which are access able anywhere. Since opening branches was costly and had its legal effects ,they mooted the idea of having the ATMs at different geographical locations.
- **Strengthening the Brand Value** :-this is done by HDFC bank where in they have strengthened the image of the bank so much so that most of the people are aware of the bank and are do love to associate themselves with the bank.
- **Relationship Management**:-this was first introduced by the private sector banks and later copied on by other banks. Herethere is an exclusive person who caters to the needs of his clients or customers.

- **Wealth Management Services**:-this is yet another indigenous way designed by the private sector banks for giving service to its customers. Here the customers are advised as to where to invest and how to increase your money by giving the right advice.
- **Cash Back facility** :-this is done by Indusind Bank ,where the customers of the bank can get cash back into their savings account on the Debit card usage done during a month. This is popularly known as 'INDUS MONEY'
- **Copy of your issued cheques**:-this practice is followed in Indusind Bank, wherein every quarter when the bank statement goes to the customers it is accompanied with the copies of the cheques issued by the customers for the quarter. This facility is called 'CHECK-IN-CHEQUE'
- **Open an account with your favourite number** :- this is practiced and done in some of the private sector banks. Since core banking has evolved remembering the account numbers have been a difficult task as usually they are more than eight digits. So here the accounts are opened with the customer's favourite numbers such as mobile numbers or date of birth etc.
- **Interest on Savings account** :-since RBI has removed the ceiling or cap on the maximum interest payable to savings account the private banks have introduced increased rates for its customers Ex: Yes Bank gives 7% ; Kotak Mahindra gives 6% to its customers as against 4% by the nationalised banks .
- **Portfolio Management/ Services** :-this is a practice of managing the different investments of your customers profitably coupled with good sound advice.
- **DD drawing arrangement** :-The major advantage of private sector bank is that they have DD drawing arrangements with the corresponding banks. That is,if they do not have a branch where the customer wants to take a DD they will have a tie up with another bank which has a branch there & will issue a DD called correspondent bank DD at that place. Ex: HDFC bank has a tie up with corporation & Axis Bank
- **Free Insurance scheme** :- some private sector banks have a practice of providing free insurance on the life of the account holder if they maintain a particular amount of money in their account. Some banks also cover free insurance on baggage or on shopping based on their debit card usage.

The Major Reasons for Private sector banks going in for these Innovative Practices are :

- Diffused Customer Loyalty
- To attract more customers
- To retain customers
- To enhance the reputation of the Bank
- To gain an upper hand over the rival Banks
- To make it a preferred bank
- To make it more customer friendly Bank
- To increase the customer base
- To increase the asset base of the company
- To offer better quality of products and services
- To provide better customer satisfaction
- To increase the book size of the Bank

### CONCLUSION

This paper explored into the innovative practices followed by the private sector banks. We saw practices such as increased rate of interest on savings account to wealth management services, which helps the banks to enhance the customer base as well as attract more customers. We also

saw the reasons as to why the private sector banks go for these practices. The main reasons highlighted in this study are ranging from retaining customers to increasing the book size of the bank.

Hence we conclude this study by saying that all the innovative practices followed by the private sector banks have helped them to outsmart the public sector banks in majority of the areas of operations.

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# Changing Trends in Indian Stock markets from 2010 to 2013

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**Abstract:** The Indian stock market is considered to be one of the earliest in Asia, which is in operation since 1875. However, it remained largely outside the global integration process until 1991. In line with the global trend, reform of the Indian stock market also started with the establishment of Securities and Exchange Board of India (SEBI). Over the year's Indian Stock market has become one of the important Investment Hub. In recent years the Indian markets have out performed other emerging markets. This study examines changing trend in the Indian stock market over the period of 3 years which was very evident. The detailed analyzing will show us the changing patterns of the investors into different sectors in the stock market.

## INTRODUCTION

The Indian stock market has a very old history to it name, Bombay stock exchange is Asia's first Stock Exchange and one of India's leading exchange groups. Over the past 139 years, established in 1875, BSE Ltd. (formerly known as Bombay Stock Exchange Ltd.) In line with global trend for reforming Indian stock market in the year 1991 Securities and Exchange Board of India (SEBI). BSE has facilitated the growth of the Indian corporate sector by providing it an efficient capital-raising platform. Popularly known as BSE, the bourse was established as "The Native Share & Stock Brokers' Association" in 1875. BSE is a corporatized and demutualised entity, with a broad shareholder-base which includes two leading global exchanges, Deutsche Bourse and Singapore Exchange as strategic partners. BSE provides an efficient and transparent market for trading in equity, debt instruments, derivatives, mutual funds. It also has a platform for trading in equities of small-and-medium enterprises (SME).

More than 5000 companies are listed on BSE making it world's No. 1 exchange in terms of listed members. The companies listed on BSE Ltd command a total market capitalization of USD 1.32 Trillion as of January 2013. It is also one of the world's leading exchanges (3rd largest in December 2012) for Index options trading (Source: World Federation of Exchanges).

The exchange of Indian capital market is National Stock Exchange known as NSE. It was in year 1992 that the National stock Exchange was for the first time incorporated in India. It was not regarded as a stock exchange at once. Rather, the national Stock exchange was incorporated as a tax paying company and had got the recognition of a stock exchange only in year 1993. The Exchange basically function in three market sections, that is, (CM) the Capital

Market Section) F&O (The Future and Options Market Sections) and WDM (Wholesale Debt Market Segment).

The National Stock Exchange has become the first Clearing Corporation in India by the introduction of NSCCL in April 1995. The growth of the National Stock Exchange has been tremendous in every field. It had introduced several programmes and has achieved various achievements and awards while working best in the field in which it is working. The efforts and hard work that is contributed by the National Stock exchange has been tremendous and thus making an important and unique stock exchange in India.

The main objective of this study is to analyze the changing trend in the stock market over 3 years. The stock markets across the globe saw a deep correction in 2008 which changed the investment strategy and planning across the world. Indian markets were hit by deep correction and effect of global meltdown was evident. The only thing separated the Indian markets from other markets in world was its Consumption story.

The Indian economy was slowing down but the consumption, demand and growth compared to other economy was not in very bad shape. The deep correction had left its impact on the markets but slowly market moved into consolidating phase. In 2009 the country went into elections and markets started to perform, the results were out and a stable government was there in the centre which reflected in the stock market performance. The markets created history on 18<sup>th</sup> May 2009 by coming into halt twice because it had hit the upper circuit. Trading was restored after break of two hours. Finally after two upper circuits at 11.55am markets were close for the day. Sensex had gained more than 2000 points and the day is remembered as Bulls day.

The stock markets after a spectacular run saw many meaningful correction and again went into consolidation where there was lack of triggers for really to call a bull market. The end of financial year 2009 saw a decent gain compared to 2008 which saw the worst crash of the stocks in recent times. The study here will take you to through deep analyzing of sector wise from financial year 2010 to 2013. These three years had lot of changes in investment preference of foreign Institutional Investor (FII) and Domestic Institutional Investor (DII). So let us study the inflow of the funds and investment made by the FII in all the three years. The table below will show figures.

Figures in Rupee crore

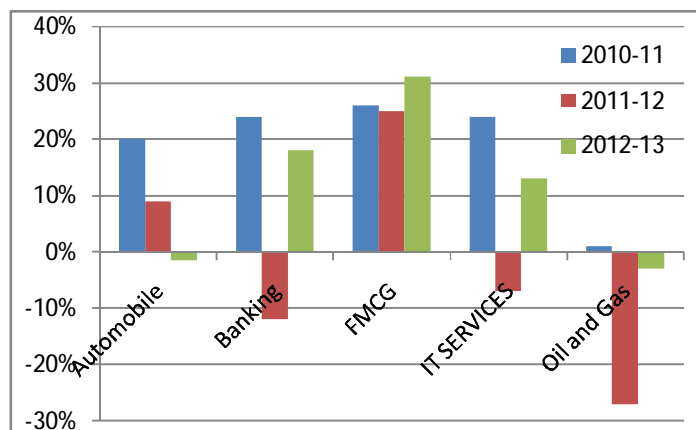
Year	FII Equity buy	FII Debt Buy	Total Investment	Growth in Net Investment Compared last Fiscal year
2010-2011	110,121	36,317	146,438	3%
2011-2012	43,738	49,988	93,726	-56%
2012-2013	140,033	28,334	168,367	79%

Sources SEBI

We can clearly observe the drastic changes in the FII investment in Indian market the over the three year. The fiscal year 2010-2011 saw a growth of 3% and next fiscal year saw a negative growth of 56%.The reason for decline in FII investment was fear of global economic slowdown, and our domestic troubles like inflation, high interest rates, falling rupee and lack of reforms by the govt.The fiscal year 2012-2013 saw a tremendous recovery in terms of FII investment which resulted in gain of index. The reason for FII to chose India among emerging nations was some reforms done by government and they were seeing some growth coming back to economy. To add it there was lot of uncertainty in European countries and FII started betting more on Indian market, them it looked less risk full. This was the highest net inflow by FII's in a single fiscal year since their entry into Indian capital markets over a decade ago in 1992-93. In the 1992-93, overseas investors had made a net investment of mere Rs 13 crore into the share market. After seeing the changing trend in the FII investment over 3 years let me take this study further into sector wise changing trend which our stock market saw over these 3 years. The FII'S, DII'S and retail investor have changed their stock preference in these 3 years. There was lot of changes and investor keep on shifting from one sector to another. There was shift of performance from one share to another. Investors changed their portfolio and we saw one sector performing after another. The shift of investment from each sector to another was evident. The shares which performed in 2007 bull run was not performing and all together there was interest shown to new shares and like wise to new sector.FII's were in total control of the market and retail or small investors had to follow their trend. Analyst and experts had to change their strategy and had to come with new stocks and ideas to recommend to their Business houses and clients. The study suggest us that there was totally innovative analyzing and research was going on the stock market. Investors were surprised with some stocks performing because all these years it had underperformed and never in investor's radar.

Let me take this study further to sector wise changing trend in performance in this three year. I have

selected top five major sectors in the stock market those are Automobile, Banking, FMCG, Oil and gas and IT services. Where we can get clear idea after analyzing them deeply how these sectors performed. The sectorial performance in this study is calculated through index returns of all the sectors yearly basis. The below graph will clearly show the performance on three year basis.



From the above graph we examine the automobile sector performed very well in 2010-11 but it declined in years to follow. On other hand Banking sector performed very well in 2010 -11 but gave negative returns in preceding year but it recovered in next fiscal year. One thing stands up in this study is FMCG sector has performed consistently and gave investor decent returns all 3 years. We can clearly say that it was one of favourite sector for the FII's.If we study IT service sector we can see in 2010-11 it gave investor's decent returns but very next year gave a negative performance but managed to recovery nicely next year. Compare to all sectors the most underperforming sector was Oil and gas all the 3 years. First year the performance was flat it gave returns of mere 1% and all next year was very negative. The third year also continued the trend of negative performance and investors could get any returns. After analyzing this graph the study shows that FII's were far from Oil and gas sector. The weight age of there investment was clearly into performing sector and that is FMCG.

## CONCLUSION

In this study we can clearly see the changing trend in the Indian stock market over 3 years which from 2010 to 2013.After the great cash of 2008 the markets went into consolidation and the FII changed their investment strategy. We can see there was change in their investment also the year 2010-2011 saw a growth of inflow just 3% and next year saw a very big decline and the last year of our study saw a robust growth inflow of 79% which was very evident. These changing trends were not only into FII's investment but if we compare sector wise performance and returns there also we can find drastic change. The 2010-2011 saw the growth of automobile, banking FMCG and IT service gave decent returns and oil and gas just gave flat returns but 2011-2012 was totally different, the automobile sector gave

consistent returns but banking gave negative returns, here the notable point was that FMCG was most consistent. IT service and Oil and gas were underperforming sectors. The last year of study year 2012-2013 again the trend was different compared to last fiscal year automobile gave a negative returns, banking gave a good returns and as predicated FMCG was the outperformer, with IT service gaining some momentum and gave investor's manageable returns. But Oil and gas sector remained concern for investor because in 2007 stock market rally this sector was an outperformer. In this study with deep analyzing we can come to a final conclusion that FII decide which sector will perform because they do the large chunk of investment. They do their intense research and investment their funds. The DII's and small retail investors fall the trend of the FII's if they want to survive in this volatile stock market. The stock markets are very difficult to predict. In years to

come I feel IT service sector will be a sector to watch and investors will get good returns if they invest in IT service.

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# Employer Branding- Beyond the Human Engagement Approach

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**Abstract:** Companies are making ever-greater efforts to develop Employer Branding techniques. These are mainly applied to capture and retain talent, but can also be a great trick for improving brand image. A brand symbolizes few messages. Just like a popular brand of customer product expresses certain qualities and images, an employer brand represents the corporate identity to its current and prospective employees, headhunters, and other stakeholders who get associated with the people side of the corporate. Employer branding has external and internal aspects. The internal factors are the culture, HR practices, and the overall employment experience that a current employee has. The external factors are what a prospective employee feels about the organization. Google is the indisputable leader, according to various rankings. The Internet search engine giant has carved out a great brand image. This paper uses the case study approach to develop an understanding of the concept of employer branding. The study attempts to propose a model for the concept of employer branding with reference to the Google case. One of its distinguishing elements has been the skill to attract and maintain talent, and to be seen as a great place to work. This has had a resoundingly positive impact on its brand image.

**Keywords:** Employer branding, Internal factors, External factors, Case study, Google

## INTRODUCTION

Highly qualified and motivated employees are the most important assets in an organization. Though employees are a key asset, yet they are increasingly very scarce in all areas – from manufacturing to service sector. In order to attract and retain the best professionals and employees it is necessary for organizations to create an employee brand. Decline in loyalty, changing of job every on and then, and keeping employees engaged in the organization is a major challenge which today's company face. Generation Y is the younger employees require inclusively, participation, empowerment and career progression and an extremely positive image of the employer.

Employer branding refers to the conscious positioning of a company as a top-class employer. The main purpose of employer branding is to attract and retain the right employees to the company.

The concept of employer brand was used in the early 1990's (Minchington 2005) defines employer brand as "the image of your organization as a great place to work". Simon Barrow and Tim Ambles defined employer brand as

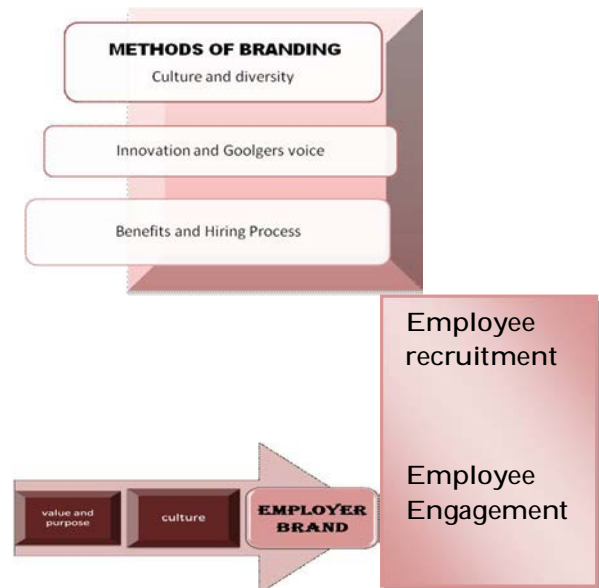
"the package of functional, economic and psychological benefits provided by employment and identified with the employing company.

The objectives of the study are to develop a model for

- 1) Employer branding considering the Google case.
- 2) To understand the various factors which influence Employer brand.
- 3) Methods by which Google develops an employer brand.
- 4) Identify the impact of employer brand on various other functions of HR.

The case study of Google is chosen as Fortune Magazine and the great place to work institute named Google "Best Company to work for 2014", the fifth time consecutively.

Google was founded in the year 1998 by Larry Page and Sergey Brin head quartered in Mountain View California (Google plex). It is today spread across 40 countries and has more than 70 offices worldwide



Google's mission is to organize the world's information and make it universally accessible and useful."

"Don't Be Evil." Founder Larry Page had this to say about the unofficial Google mission... "We have a mantra: don't be evil, which is to do the best things we know how for our users, for our customers, for everyone. So I think if we were known for that, it would be a wonderful thing."

In addition to its mission statement, Google's founders crafted a document in the early years of the company's existence which outlines the beliefs of the founders. These beliefs are referred to as "Ten Things We Know to Be True," and they are still embraced by the founders and the Google employees today. These Google Beliefs are:

- **Focus on the user and all else will follow.** - Since the beginning, the company focused on providing the best user experience possible....
- **It's best to do one thing really, really well.** - search....
- **Fast is better than slow.** - Google knows time is valuable, so when you're seeking an answer on the web you want it right away--and we aim to please.
- **Democracy on the web works.** - Google search works because it relies on the millions of individuals posting links on websites to help determine which other sites offer content of value.
- **You don't need to be at your desk to need an answer.** - The world is increasingly mobile: people want access to information wherever they are, whenever they need it...
- **You can make money without doing evil.**
- **There's always more information out there.** - Once Google indexed more of the HTML pages on the Internet than any other search service, their engineers turned their attention to information that was not as readily accessible...
- **The need for information crosses all borders.** - The company was founded in California, but their mission is to facilitate access to information for the entire world, and in every language....
- **You can be serious without a suit.** - Our founders built Google around the idea that work should be challenging, and the challenge should be fun...
- **Great just isn't good enough.** - We see being great at something as a starting point, not an endpoint..."

## CULTURE

The culture an organization cultivates as an employer is important to build a brand image. Common features in the office spread across Google are ---murals and decorations expressing local personality, pool tables, pianos, cafes and micro kitchens stocked with healthy food, white boards for brain storming.

Google hires smart and very determined people. It gives importance to people's ability over experience. It has a diverse workforce with more than 30,000 employees and

also caters to diverse group of customers .Google has an open culture where employees share their ideas and views. The office is structured to encourage open discussions and engage in conversation related to work as well as personal matters.

## WAYS OF BRAND BUILDING AT GOOGLE

### Culture and Diversity

Google works hard to bring attention to diversity and inclusion in everything they do. Google aspires to be a work place that works for everyone, in every country; in every country they operate .Googlers come from all over all over the world and from every background which brings unique experiences and perspectives to their work. Google employee Resource groups (ERGS) are grass root networks of employees with shared values of supporting diversity and inclusion within the company and community. Members can participate in activities such as education outreach programs, mentoring, professional development community service and social networking. Currently there are 18 ERGs around the globe. These come together twice a year at the annual ERG leadership Summit and network, share best practices and celebrate their work.

Diversity is the essential component of the culture at Google .Among the many celebrations like Black History, Month LGBT pride, Hispanic Heritage Month and veterans day some celebrations and traditions for googlers who are a part of ERGs .Sum of Google celebrations ,Global ERG leadership award ,Global ERG leadership Summit, Diversity inclusion in the benefits ,Equal Opportunity Employment statement, Diversity Awards are all part of diversity programs Google has.

### Innovation:

Nurturing a culture of innovation is the key to success in any organization. The eight pillars of innovation at Google are

- ✓ Have a mission that matters

Google s mission statement is to organize the world's information and make it universally accessible and useful. This simple statement is used to guide all decisions. The mission has the potential to touch many lives and first all employees feel connected to it and empowered to help achieve it

- ✓ Think big but start small.
- ✓ Striving for continual innovation and not instant perfection  
Make progress in the market by working quickly, learning faster and taking the next step
- ✓ Look for ideas Everywhere  
Google's best ideas sparked just like that when small groups take a break and talk about things that excite them.
- ✓ Share everything

Encourage discussion exchange and reinterpretation of ideas which can lead to unexpected and innovative ideas

- ✓ Spark with imagination ,fuel with data  
Blue sky thinking through 20% time –a full day a week during which engineers can work on whatever they want .Google recruits people who believe the impossible can become a reality
- ✓ Be a Platform  
There is awe inspiring innovation being driven by people all over the globe. Globe believes in open technology. They enable anyone anywhere ,to apply their unique skills ,perspective and passions to the creation of new products and features.
- ✓ Never fail to fail  
It is okay to fail as long as learning from the mistakes happen. Since the tech industry is dynamic it is necessary to take risks and move ahead.

### BENEFITS

Google offers more than the Basics and the entire benefit is designed to take care of the employee and his/her family healthy whether physically, emotionally, financially or socially.

Examples:

- ✓ Stay Healthy, save time: On site physicians and nurses, convenient medical services and a comprehensive health care coverage.
- ✓ Travel without worries: Googlers and their family members are covered with travel insurance and emergency assistance even on personal vacations.
- ✓ More time with baby: Additional leave facilities with extra spending money to welcome the new bundle of joy
- ✓ Never stop Learning: Reimburse class and degree Programs
- ✓ Legal Aid: Legal Advice at no cost

### HIRING PROCESS

Google looks for good people for a long term .While hiring they look for leadership, role related knowledge, and how an individual thinks and googleyness. There are two important factors while hiring employees to Google

- ✓ Feedback from multiple Googlers
- ✓ Independent committees of Googlers help to ensure that they are hiring for long term

### OUTCOMES OF EMPLOYER BRANDING

#### Employee recruitment

Google receives over one million resumes per year, and hires about 1,000 to 4,000 people each year, depending on economic conditions. So, in any given year, less than one half of one percent of all applicants actually get hired.

**Hiring is everyone's job** - Nearly every employee at Google has recruiting, interviewing, and hiring as part of their job responsibilities. It is part of the job, and it is measured. Employees get bonuses for referrals that get hired. Most employees do several interviews each month, and all are required to submit written feedback based on standard categories and criteria. The hiring committee looks at every piece of feedback during the decision process.

### EMPLOYEE ENGAGEMENT

Google offers its employees a workplace that combines work and play. Complete with scooter parking stalls, free late afternoon espresso shots, healthy snack bowls, and a full service gym, Google is working to provide a workspace that people appreciate and ultimately work harder for. However the investment is clearly worth it with Google stock selling at \$889 per share and consistent reports of year over year increases in growth rate.

### CONCLUSION

Google has created a brand as an employer. The values and the purpose of the organization are directed towards brand building. The culture of openness, transparency and freedom encourage to build a brand .Google has gone way ahead to build, maintain and develop an employer brand for it self Being a good employer Google has been able to increase its efficiency in recruitment and increase the employee engagement levels.

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# The Future of Cloud Computing - Issues and Challenges

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**Abstract-** Cloud computing that has become an increasingly important trend, is a virtualization technology that uses the internet and central remote servers to offer the sharing of resources that include infrastructures, software, applications and business processes to the market environment to fulfill the elastic demand. In today's competitive environment, the service vitality, elasticity, choices and flexibility offered by this scalable technology are too attractive that makes the cloud computing to increasingly becoming an integral part of the enterprise computing environment. According to Gartner, while the hype grew exponentially during 2008 and continued since, it is clear that there is a major shift towards the cloud computing model and that the benefits may be substantial. Many aspects are still in an experimental stage where the long-term impact on provisioning and usage is as yet unknown. Furthermore, plenty of as yet unforeseen challenges arise from exploiting the cloud capabilities to their full potential, involving in particular aspects deriving from the large degree of scalability and heterogeneity of the underlying resources.

**Keywords -** Cloud computing, Software as a Service, Platform as a Service, Infrastructure as a Service

## I. INTRODUCTION

Cloud computing is a model for allocating compute and storage resources on demand. Cloud computing offers new ways to provide services while, significantly altering the cost structure underlying those services. These new technical and pricing opportunities drive changes in the way businesses operate. Cloud computing is a unique combination of capabilities which include:

- A massively scalable, dynamic infrastructure
- Universal access
- Fine grained usage controls and pricing
- Standardized platforms
- Management support services

Though the concept of "clouds" is not new, it is undisputable that they have proven a major commercial success over recent years and will play a large part in the ICT domain over the next 10 years or more, as future systems will exploit the capabilities of managed services and resource provisioning further. Clouds are of particular commercial interest not only with the growing tendency to outsource IT so as to reduce management overhead and to extend existing, limited IT infrastructures, but even more importantly, they reduce the entrance barrier for new service providers to offer their respective capabilities to a wide

market with a minimum of entry costs and infrastructure requirements – in fact, the special capabilities of cloud infrastructures allow providers to experiment with novel service types whilst reducing the risk of wasting resources.

Cloud systems are not to be misunderstood as just another form of resource provisioning infrastructure and in fact, multiple opportunities arise from the principles for cloud infrastructures that will enable further types of applications, reduced development and provisioning time of different services. Cloud computing has particular characteristics that distinguish it from classical resource and service provisioning environments: (1) it is (more-or-less) infinitely scalable; (2) it provides one or more of an infrastructure for platforms, a platform for applications or applications (via services) themselves; (3) thus clouds can be used for every purpose from disaster recovery/business continuity through to a fully outsourced ICT service for an organization; (4) clouds shift the costs for a business opportunity from CAPEX to OPEX which allows finer control of expenditure and avoids costly asset acquisition and maintenance reducing the entry threshold barrier; (5) currently the major cloud providers had already invested in large scale infrastructure and now offer a cloud service to exploit it; (6) as a consequence the cloud offerings are heterogeneous and without agreed interfaces; (7) cloud providers essentially provide datacenters for outsourcing; (8) there are concerns over security if a business places its valuable knowledge, information and data on an external service; (9) there are concerns over availability and business continuity ; (10) there are concerns over data shipping over anticipated broadband speeds. Cloud computing was a buzz word for many years and it turned into reality in 2007 when IT giants Google and IBM announced a collaboration in this domain followed by "Blue Cloud" announcement by IBM. The prediction of IT advisory company Gartner says that cloud computing business will surpass \$148 billion mark by 2014 while its competitor, Forrester, says it will reach \$118 billion. Another Gartner's Survey says that the investment on services in public cloud is expected to increase 18.6% in 2012 to \$110.3B that achieves a 17.7% Compound Annual Growth Rate (CAGR) from 2011 through 2016. In general, the total market is likely to increase to \$210B in 2016 from \$76.9B in 2010. Cloud computing area looks very promising for researchers and businesses. On the other hand, its realization

brings many challenging issues that need to be carefully addressed.

## II. FIVE ESSENTIAL CHARACTERISTICS

The cloud computing must have some characteristics in order to meet expected user requirements and to provide qualitative services. These five essential characteristics can be classified as:

**On-demand self-service:** A consumer can access different services viz. computing capabilities, storage services, software services etc. as needed automatically without service provider's intervention.

**Broad network access:** To avail cloud computing services, internet works as a backbone of cloud computing. All services are available over the network and are also accessible through standard protocols using web enabled devices viz. computers, laptops, mobile phones etc.

**Resource pooling:** The resources that can be assigned to users can be processing, software, storage, virtual machines and network bandwidth. The resources are pooled to serve the users at a single physical location and/or at different physical location according to the optimality conditions (e.g. security, performance, consumer demand). The cloud gives an impression of resource location independence at lower level (e.g. server, core) but not at the higher level (e.g. datacenter, city, country).

**Rapid elasticity:** The beauty of cloud computing is its elasticity. The resources appear to users as indefinite and are also accessible in any quantity at any time. The resources can be provisioned without service provider intervention and can be quickly scale in and scale out according to the user needs in a secure way to deliver high quality services.

**Measured service:** A metering capability is deployed in cloud system in order to charge users. The users can achieve the different quality of services at different charges in order to optimized resources at different level of abstraction suitable to the services (e.g. SaaS, PaaS and IaaS).

## III. CLOUD COMPUTING MODELS

Cloud Providers offer services that can be grouped into three categories.

**Software as a Service (SaaS):** In this model, a complete application is offered to the customer, as a service on demand. A single instance of the service runs on the cloud and multiple end users are serviced. On the customers side, there is no need for upfront investment in servers or software licenses, while for the provider, the costs are lowered, since only a single application needs to be hosted and maintained. Today SaaS is offered by companies such as Google, Salesforce, Microsoft, Zoho, etc.

**Platform as a Service (Paas):** Here, a layer of software, or development environment is encapsulated and offered as a

service, upon which other higher levels of service can be built. The customer has the freedom to build his own applications, which run on the provider's infrastructure. To meet manageability and scalability requirements of the applications, PaaS providers offer a predefined combination of OS and application servers, such as LAMP platform (Linux, Apache, MySQL and PHP), restricted J2EE, Ruby etc. Google's App Engine, Force.com, etc are some of the popular PaaS examples.

**Infrastructure as a Service (IaaS):** IaaS provides basic storage and computing capabilities as standardized services over the network. Servers, storage systems, networking equipment, data centre space etc. are pooled and made available to handle workloads. The customer would typically deploy his own software on the infrastructure. Some common examples are Amazon, GoGrid, 3Tera, etc.

## IV. DEPLOYMENT MODELS

Enterprises can choose to deploy applications on Public, Private or Hybrid clouds. Cloud Integrators can play a vital part in determining the right cloud path for each organization.

**Public Cloud:** Public clouds are owned and operated by third parties; they deliver superior economies of scale to customers, as the infrastructure costs are spread among a mix of users, giving each individual client an attractive low-cost, "Pay-as-you-go" model. All customers share the same infrastructure pool with limited configuration, security protections, and availability variances. These are managed and supported by the cloud provider. One of the advantages of a Public cloud is that they may be larger than an enterprises cloud, thus providing the ability to scale seamlessly, on demand.

**Private Cloud:** Private clouds are built exclusively for a single enterprise. They aim to address concerns on data security and offer greater control, which is typically lacking in a public cloud. There are two variations to a private cloud:

**On-premise Private Cloud:** On-premise private clouds, also known as internal clouds are hosted within one's own data center. This model provides a more standardized process and protection, but is limited in aspects of size and scalability. IT departments would also need to incur the capital and operational costs for the physical resources. This is best suited for applications which require complete control and configurability of the infrastructure and security.

**Externally hosted Private Cloud:** This type of private cloud is hosted externally with a cloud provider, where the provider facilitates an exclusive cloud environment with full guarantee of privacy. This is best suited for enterprises that don't prefer a public cloud due to sharing of physical resources.

**Hybrid Cloud:** Hybrid Clouds combine both public and private cloud models. With a Hybrid Cloud, service providers can utilize 3rd party Cloud Providers in a full or partial manner thus increasing the flexibility of computing. The Hybrid cloud environment is capable of providing on-demand,

externally provisioned scale. The ability to augment a private cloud with the resources of a public cloud can be used to manage any unexpected surges in workload.

## V. ADVANTAGES

**Reduce run time and response time:** For applications that use the cloud essentially for running batch jobs, cloud computing makes it straightforward to use 1000 servers to accomplish a task in 1/1000 the time that a single server would require. For applications that need to offer good response time to their customers, refactoring applications so that any CPU-intensive tasks are farmed out to ‘worker’ virtual machines can help to optimize response time while scaling on demand to meet customer demands.

**Increased pace of innovation:** Cloud computing can help to increase the pace of innovation. The low cost of entry to new markets helps to level the playing field, allowing start-up companies to deploy new products quickly and at low cost. This allows small companies to compete more effectively with traditional organizations whose deployment process in enterprise datacenters can be significantly longer. Increased competition helps to increase the pace of innovation — and with many innovations being realized through the use of open source software, the entire industry serves to benefit from the increased pace of innovation that cloud computing promotes.

**Lower cost of entry:** There are a number of attributes of cloud computing that help to reduce the cost to enter new markets: Because infrastructure is rented, not purchased, the cost is controlled, and the capital investment can be zero. In addition to the lower costs of purchasing compute cycles and storage “by the sip,” the massive scale of cloud providers helps to minimize cost, helping to further reduce the cost of entry. Applications are developed more by assembly than programming. This rapid application development is the norm, helping to reduce the time to market, potentially giving organizations deploying applications in a cloud environment a head start against the competition.

**Minimize infrastructure risk:** IT organizations can use the cloud to reduce the risk inherent in purchasing physical servers. When pushing an application out to the cloud, scalability and the risk of purchasing too much or too little infrastructure becomes the cloud provider’s issue. In a growing number of cases, the cloud provider has such a massive amount of infrastructure that it can absorb the growth and workload spikes of individual customers, reducing the financial risk they face. Another way in which cloud computing minimizes infrastructure risk is by enabling surge computing, where an enterprise datacenter augments its ability to handle workload spikes by a design that allows it to send overflow work to a public cloud. Application lifecycle management can be handled better in an environment where resources are no longer scarce, and where resources can be better matched to immediate needs, and at lower cost.

## VI. DISADVANTAGES OF CLOUD COMPUTING

Some of the disadvantages while using a cloud are summarized as below

- Requires high speed network and connectivity constantly.
- Privacy and security is not good. The data and application on a public cloud might not be very secure.
- Disastrous situation are unavoidable and recovery is not possible always. If the cloud loses one’s data, the user and the service provider both gets into serious problems.
- Users have external dependency for mission critical applications.
- Requires constantly monitoring and enforcement of service level agreements (SLAs).

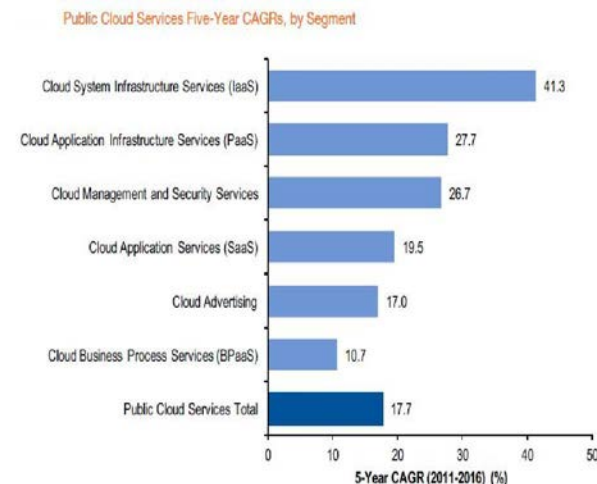
## VII. THE FUTURE

As public cloud computing gains greater adoption across enterprises, there’s an increased level of spending occurring on infrastructure-related services including Infrastructure-as-a-Service(IaaS). Enterprises are prioritizing how to get cloud platforms integrated with legacy systems to make use of the years of data they have accumulated. From legacy Enterprise Resource Planning (ERP) to Customer Relationship Management (CRM) systems, integrating legacy systems of record to cloud-based platforms will accelerate in the coming years. Gartner’s cloud computing predictions shed light on the evolution of the concept as it continues its path toward becoming more and more integral to IT. IT organizations will need to monitor developments in order to adapt their cloud strategies to the realities of tomorrow.

Gartner predicts that Infrastructure-as-a-Service (IaaS) will achieve a compound annual growth rate (CAGR) of 41.3% through 2016, the fastest growing area of public cloud computing the research firm tracks. The following graphic provides insights into relative market size by each public cloud services market segment:

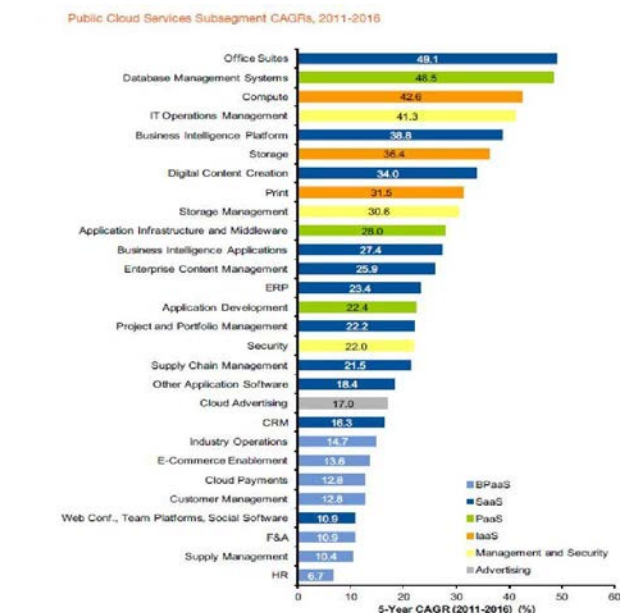


Gartner also predicts that Platform-as-a-Service (PaaS) will achieve a 27.7% CAGR through 2016, with Cloud Management and Security Services attaining 26.7% in the same forecast period. Software-as-a-Service's CAGR through 2016 is projected to be 19.5%. The following graphic illustrates the differences in CAGR in the forecast period of 2011 – 2016:



Source: Gartner (February 2013)

According to Gartner, CRM will continue to be the largest global market within SaaS, forecast to grow beyond \$5B in 2012 to \$9B in 2016, achieving a 16.3% CAGR through 2016. The highest growth segments of the SaaS market continue to be office suites (49.1%), followed by digital content creation (34.0%). The following graphic ranks orders CAGRs across all public cloud services segments from the forecast period:



Source: Gartner (February 2013)

## VIII. CHALLENGES

Although much progress has already been made in cloud computing, there are a number of research areas that still need to be explored. Issues of security, reliability, and performance should be addressed to meet the specific requirements of different organizations, infrastructures, and functions.

**Security:** As different users store more of their own data in a cloud, being able to ensure that one user's private data is not accessible to other users who are not authorized to see it becomes more important. While virtualization technology offers one approach for improving security, a more fine-grained approach would be useful for many applications.

**Reliability:** As more users come to depend on the services offered by a cloud, reliability becomes increasingly important, especially for long-running or mission-critical applications. A cloud should be able to continue to run in the presence of hardware and software faults. Google has developed an approach that works well using commodity hardware and their own software. Other applications might require more stringent reliability that would be better served by a combination of more robust hardware and/or software-based fault-tolerance techniques.

**Vulnerability to Attacks:** If a cloud is providing compute and storage services over the Internet such as the Amazon approach, security and reliability capabilities must be extended to deal with malicious attempts to access other users' files and/or to deny service to legitimate users. Being able to prevent, detect, and recover from such attacks will become increasingly important as more people and organizations use cloud computing for critical applications.

**Cluster Distribution:** Most of today's approaches to cloud computing are built on clusters running in a single data center. Some organizations have multiple clusters in multiple data centers, but these clusters typically operate as isolated systems. A cloud software architecture that could make multiple geographically distributed clusters appear to users as a single large cloud would provide opportunities to share data and perform even more complex computations than possible today. Such a cloud, which would share many of the same characteristics as a grid, could be much easier to program, use, and manage than today's grids.

**Network Optimization:** Whether clouds consist of thousands of nodes in a computer room or hundreds of thousands of nodes across a continent, optimizing the underlying network to maximize cloud performance is critical. With the right kinds of routing algorithms and Layer 2 protocol optimizations, it may become possible for a network to adapt to the specific needs of the cloud application(s) running on it. If application-level concepts such as locality of reference could be coupled with network-level concepts such as multicast or routing algorithms, clouds may be able to run applications substantially faster than they do today. By understanding how running cloud applications affects the underlying network,

networks could be engineered to minimize or eliminate congestion and reduce latency that would degrade the performance of cloud-applications and non-cloud applications sharing the same network

**Interoperability:** Interoperability among different approaches to cloud computing is an equally important area to be studied. There are many cloud approaches being pursued right now and none of them are suitable for all applications. If every application were run on the most appropriate type of cloud, it would be useful to share data with other applications running on other types of clouds. Addressing this problem may require the development of interoperability standards. While standards may not be critical during the early evolution of cloud computing, they will become increasingly important as the field matures.

**Applications:** No information technology will be useful unless it enables new applications, or dramatically improves the way existing applications are built or run. Although the effectiveness of cloud computing has already been demonstrated for some applications, more work should be done on identifying new classes of novel applications that can only be realized using cloud computing technology. With proper instrumentation of potential applications and the underlying cloud infrastructure, it should be possible to quantitatively evaluate how well these application classes perform in a cloud environment. Along these same lines, experimental software engineering research should be conducted to measure how easily new cloud-based applications can be constructed relative to non-cloud applications that perform similar functions. This research should also compare the dependability of similar cloud and non-cloud based applications running in production environments. Application-focused research will help organizations make well-informed business decisions on where to apply cloud technology, and give cloud technology developers guidance on what kinds of improvements to the technology will provide the greatest benefits to application developers and end users.

## IX. CONCLUSION

Cloud computing has been showing its impact on the industry for the past few years and it has heralded a revolutionary change giving new directions to how information technology resources can be best utilized and by reducing the cost and complexity for customers. Cloud computing is providing the technological underpinnings for new ways to collect, process, and store massive amounts of information. Based on the ongoing research efforts, and the continuing advancements of computing and networking technology, one can believe that cloud computing is poised to have a major impact on society's data-centric commercial and scientific endeavors.

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# The Performance of Mutual Fund Schemes in Changing Economic Conditions in India

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**Abstract** – Mutual Fund Schemes are hybrid securities that promise superior returns to the investors through professional management of the funds contributed by the investors. Though these schemes are professionally managed by the concerned Asset Management Companies with the help of various tools and techniques, different funds show different levels of performance in the same economy. In the changing economic conditions in India, over the past few years, this paper tries to analyse if the Mutual Funds have outperformed the market with superior returns at lesser risk.

**Keywords**- *Mutual Funds, Risk, Return, Risk Adjusted Return*

## I INTRODUCTION

Indian economy is fast changing and the changes in the economy is usually accompanied by uncertainties. The uncertainties associated with the economic changes get reflected in the risk-return profile of investments made by the investors. These result in investors searching for alternatives where they can minimise their risk without any compromise on return. The theories relating to investment and portfolio management have always propounded that there is direct relationship between risk and return in investments. Hence, the likelihood of minimising risk without compromising on return requires that the investors be able to be efficient portfolio managers. Small or retail investors generally fail to do this and hence the chances of them losing is the highest. Mutual funds have emerged as an alternative to such investors by providing a route for their investment without the requirement of portfolio management. Mutual Fund Schemes are hybrid securities that promise superior returns to the investors through professional management of the funds contributed by the investors. Though these schemes are professionally managed by the concerned Asset Management Companies with the help of various tools and techniques, different funds show different levels of performance in the same economy. In the changing economic conditions in India, over the past few years, this paper tries to analyse if the Mutual Funds have outperformed the market with superior returns at lesser risk.

## II OBJECTIVES OF THE STUDY

The objective of this study is to analyse if the mutual funds have been able to generate superior returns at lesser risk. Based on this primary objectives two sub-objectives have been deduced;

One, to analyse the risk associated with the

investment in mutual funds in India and compare the same with the risk associated in the equity investment in India.

Two, to analyse the return generated by the mutual funds for every unit of risk borne by the investors.

## III PERIOD OF STUDY AND SAMPLE

The period of study will be January 2009 to December 2013. A sample of 30 growth oriented open ended equity mutual fund schemes were selected at random for the study. The stock market index 'CNX Nifty' has been considered as the surrogate measure for market portfolio or for equity investments in India.

## IV DATA AND METHODOLOGY

### A. Data:

The study is empirical in nature. The daily Net Asset Values (NAVs) formed the basis for calculation of daily returns which is then used to calculate the annualized returns from mutual fund investment as well as the standard deviation and beta of mutual funds. Similarly daily closing values of CNX Nifty – the surrogate measure for market portfolio – is used to calculate the daily returns, annualized returns and standard deviation of return from the market portfolio. The rate of return on 364 day treasury bills has been taken as the measure for risk free return.

### B. Hypotheses:

The study will test the following two hypotheses.

H<sub>01</sub>: The variance of return from mutual fund investments is not significantly different from that of the benchmark index

H<sub>02</sub>: The return per unit of risk from mutual fund investment is not significantly different from that of the benchmark index

### C. Measures of Risk and Return

Daily return is calculated by using the relationship in Eq. 1 which is then geometrically linked as in Eq. 2 to calculate the annualized return from the investment both in the case of mutual funds and benchmark.

$$= \frac{\text{---}}{\text{---}} \quad \text{Eq. 1}$$

$$= \frac{P_1 - P_0}{P_0} \quad \text{Eq. 2}$$

– 1

Where,

P0 = beginning price

P1 = ending price

Ri= simple holding period return

RiA= annualisedRi

T = the factor for annualizing the returns (e.g., 12 for converting monthly to annual return)

t = the number of observations

The annualized return is adjusted for the risk to calculate the risk adjusted return by dividing the portfolio's return in excess of the riskless return by the standard deviation of the daily returns. This ratio as shown in Eq. 3 is known as the Sharpe Measure. This method, hence, assumes the standard deviation as the relevant measure of risk. If the investor has many investments then the market risk (systematic risk) as measured by beta provides the relevant measure of risk<sup>1</sup>. The Treynor measure (Eq. 4) adjusts excess return for systematic risk. Beta is estimated by regressing daily returns of the mutual funds on the daily returns of the benchmark.

$$= \frac{R_i - R_f}{\sigma_i} \quad \text{Eq. 3}$$

$$= \frac{R_i - R_f}{\beta_i \sigma_m} \quad \text{Eq. 4}$$

Where,

SR = Sharpe Measure

Rf = Risk free rate of return

$\sigma_i$  = Standard deviation of daily returns

TR = Treynor Measure

$\beta_i$  = Beta of the Mutual Fund

#### V EMPIRICAL RESULTS

##### A. Analysis of Risk

Daily returns have been computed for all the 30 mutual funds in the sample and of the CNX Nifty for the study period. The standard deviation of these daily returns

<sup>1</sup> Gordon J. Alexander, William F. Sharpe and Jeffery V. Bailey, Fundamentals of Investments 2013 PHI Learning Private Limited, New Delhi p 425

are calculated for both mutual funds and of CNX Nifty which were then annualized and the results are summarised in Table 1. Annualised standard deviation has ranged between 1.43% and 23.13% among the 30 sample mutual funds while the annualized standard deviation of CNX Nifty was 21.93% during the corresponding period. It can be observed that only three mutual funds have higher annualized standard deviation than that of CNX Nifty. It can also be identified that the average annualized standard deviation of sample mutual funds (18.6423%) is less than that of benchmark (21.93%) which leads to a conclusion that the mutual funds have been able to reduce the risk associated with the investment. This reduction in risk, on an average, should be analysed in comparison with the return. The reduction in risk should not reflect in the returns by means of reduction in return to make mutual funds an attractive investment avenue.

##### B. Analysis of Return

Table 1: Annualised Returns (%), Annualised Standard Deviation (%) and Beta values of the sample mutual funds, benchmark and T-bills

Sl. No.	Sample Schemes	Annualised Returns (%)	Annualised Standard Deviation (%)	Beta
	CNX Nifty	15.74	21.93	1.00
	364 day T-Bill	8.42	NA	NA
1	BOI AXA Equity Fund Eco Plan- Growth	13.06	23.13	1.02
2	CanaraRobeco Equity Diversified - Regular Plan - Growth	21.20	18.19	1.02
3	DSP BlackRock Top 100 Equity Fund - Regular Plan - Growth	16.77	18.28	0.80
4	Escorts Growth Plan- Growth Option	11.58	20.38	0.55
5	Franklin Asian Equity Fund - Growth Plan	16.41	16.38	0.38
6	Franklin India Bluechip Fund-Growth	19.10	18.06	0.80
7	HDFC Equity Fund - Growth Option	21.52	20.03	0.86
8	HDFC Top 200 Fund - Growth Option	19.94	20.26	0.90
9	HSBC Equity Fund - Growth	12.58	17.92	0.80
10	ICICI Prudential Focused Bluechip Equity Fund - Regular Plan - Growth	22.62	19.08	0.85
11	ICICI Prudential Top 200 Fund - Regular Plan - Growth	18.22	19.19	0.86
12	IDFC Equity Fund-Regular Plan-Growth	17.05	22.02	1.00

13	IDFC Imperial Equity Fund-Regular Plan-Growth	13.43	18.56	0.83
14	ING Large Cap Equity Fund-Growth Option	14.86	20.91	0.95
15	JM Equity Fund-Growth	9.75	22.88	1.01
16	JPMorgan India Equity Fund - Regular Plan - Growth Option	16.96	19.51	0.88
17	Kotak Emerging Equity Scheme - Growth	16.75	17.50	0.68
18	Kotak Equity Arbitrage Fund - Growth	7.54	1.43	-0.03
19	LIC NOMURA MF Equity Fund-Growth	13.83	21.46	0.92
20	Principal Large Cap Fund-Growth Option	20.51	18.39	0.81
21	Quantum Long-Term Equity Fund-Growth Option	23.89	16.57	0.71
22	Reliance Equity Fund-Growth Plan-Growth Option	10.36	19.27	0.83
23	Sahara Growth Fund-Growth	13.63	18.68	0.81
24	SBI Blue Chip Fund-Regular Plan Growth	18.48	19.25	0.85
25	SBI Magnum Equity Fund-Regular Plan - Growth	19.30	18.90	0.83
26	Tata Equity Opportunities Fund Plan A Growth	18.53	18.57	0.79
27	Tata Pure Equity Fund Plan A- Growth	17.69	18.46	0.81
28	Taurus Bonanza Fund-Growth Option	13.43	20.08	0.87
29	UTI - Equity Fund-Growth Option	20.35	16.55	0.73
30	UTI Leadership Equity Fund-Growth-Growth option	14.83	19.38	0.87

Table 1 shows the annualized returns of 30 sample mutual funds, of the benchmark and 364 day T-bills. Annualised returns of mutual funds have ranged between 7.54% and 23.89% during the study period. In the same period the benchmark CNX Nifty provided a return of 15.74% while the average return on T-bills in the period was 8.42%. Of the 30 sample funds 12 funds have given annualized return below that of benchmark and one mutual fund in the sample had return below that of T-bills. This analysis leads to the following hypothesis;

$H_0$ : Rate of return of mutual funds is equal to the rate of return given by the benchmark

$H_1$ : Rate of return of mutual funds is different than the rate of return given by the benchmark

T-test is used to examine the above hypotheses and the test results are summarised in Table 2.

Table 2: T-test results for equality of mean of sample annualised returns with that of benchmark

N	Mean	Std. Deviation	Std. Error Mean		
30	16.472333	4.001671	0.730601812		
Test Value = 15.74					
t	df	Sig. (2-tailed)	Mean Difference	99% Confidence Interval of the Difference	
				Lower	Upper
1.00237	29	0.324456	0.732333	-1.28149	2.746154

Table 2 reveals that the mean annualised returns of the mutual funds (16.47%) is higher than the return provided by the bench mark (15.74%) but insignificantly. Mutual funds have been able only to marginally outperform the benchmark and it cannot be concluded that the mutual funds have outperformed the market. Hence, this, leads to the conclusion that the null hypothesis cannot be rejected and therefore it can be said that the reduction in the risk that has been observed in the earlier discussion has not led to any significant difference in the return generated in comparison with the benchmark returns. This is a win-win situation for investors wherein they get returns similar to the benchmark at a lower risk. If we test against the T-bill returns we find that the mutual funds have significantly outperformed the T-bill returns.

### C. Analysis of Risk Adjusted Return

The above discussions looked into the total risk and absolute returns which will not reflect the performance of mutual funds adequately in relation to the risk undertaken and the returns may not be in synchronization with the degree of risk applicable to the investment. Risk adjusted returns are calculated and presented in Table 3 in the form of Sharpe Measure (SR) and Treynor Measure (TR) which show the excess return per unit of total risk and the excess return per unit of systematic risk (Beta) respectively.

Sharpe Ratio presented in the Table 3 shows that majority of mutual funds i.e., 66.67% have shown higher risk adjusted returns than that of the benchmark. While benchmark CNX Nifty had a Sharpe Ratio of 0.40 during the study period, sample mutual funds' Sharpe Ratio ranged between 0.12 and 1.02. Looking at the Treynor's Ratio, 63.33% of the sample mutual funds have posted better Treynor's Ratio than the benchmark. The Treynor's ratio of mutual funds ranged between -22.68 and 24.62 while the benchmark's Treynor's Ratio stood at 8.78. Only one mutual fund has shown negative Treynor's Ratio due to the negative beta of that fund. It is observed that mutual funds that failed to outperform benchmark in terms of Sharpe Ratio also

failed in terms of Treynor's Ratio which relates return to total risk and systematic risk respectively. One fund in addition to the funds that performed poor as per Sharpe Ratio showed underperformance against the benchmark as per Treynor's Ratio.

Table 3: Sharpe Measure (SR) and Treynor Measure (TR) for CNX Nifty and Sample Mutual Funds, 2009-2013

	Particulars	Sharpe Ratio	Treynor's Ratio
	CNX Nifty	0.40	8.78
1	BOI AXA Equity Fund Eco Plan-Growth	0.26	5.97
2	CanaraRobeco Equity Diversified - Regular Plan - Growth	0.78	13.94
3	DSP BlackRock Top 100 Equity Fund - Regular Plan - Growth	0.54	12.23
4	Escorts Growth Plan-GROWTH OPTION	0.23	8.36
5	Franklin Asian Equity Fund - Growth Plan	0.58	24.62
6	Franklin India Bluechip Fund-Growth	0.67	15.14
7	HDFC Equity Fund - Growth Option	0.73	16.94
8	HDFC Top 200 Fund - Growth Option	0.64	14.51
9	HSBC Equity Fund - Growth	0.31	7.04
10	ICICI Prudential Focused Bluechip Equity Fund - Regular Plan - Growth	0.82	18.39
11	ICICI Prudential Top 200 Fund - Regular Plan - Growth	0.59	13.16
12	IDFC Equity Fund-Regular Plan-Growth	0.46	10.12
13	IDFC Imperial Equity Fund-Regular Plan-Growth	0.35	7.82
14	ING Large Cap Equity Fund-Growth Option	0.38	8.33
15	JM Equity Fund-Growth	0.12	2.77
16	JPMorgan India Equity Fund - Regular Plan - Growth Option	0.51	11.40
17	Kotak Emerging Equity Scheme - Growth	0.56	14.49
18	Kotak Equity Arbitrage Fund - Growth	0.41	-22.68
19	LIC NOMURA MF Equity Fund-Growth	0.32	7.48
20	Principal Large Cap Fund-Growth Option	0.74	16.72
21	Quantum Long-Term Equity Fund-Growth Option	1.02	23.92
22	Reliance Equity Fund-Growth Plan-Growth Option	0.18	4.08

23	Sahara Growth Fund-Growth	0.36	8.21
24	SBI BLUE CHIP FUND-REGULAR PLAN GROWTH	0.60	13.59
25	SBI Magnum Equity Fund- REGULAR PLAN - Growth	0.65	14.90
26	Tata Equity Opportunities Fund Plan A Growth	0.62	14.60
27	Tata Pure Equity Fund Plan A- Growth	0.58	13.23
28	Taurus Bonanza Fund-Growth Option	0.32	7.47
29	UTI - Equity Fund-Growth Option	0.81	18.40
30	UTI Leadership Equity Fund-Growth-Growth option	0.41	9.04

#### IV CONCLUSIONS

The study identifies that there is no significant difference between the returns generated by the mutual funds and that of the benchmark (CNX Nifty) or the mutual funds have not outperformed the market in the study period. This per say indicates that there is no significant difference between investing in equities directly and through mutual funds. But the analysis of risk and risk adjusted returns show that the standard deviation (total risk) of mutual funds is less than that of the benchmark and majority, nearly 65%, of funds have shown returns commensurate with their risk class. Hence, leading to a conclusion that mutual funds are able to provide same return like that of the direct equity investment but at a lower risk. A rational investor, therefore, would prefer mutual funds' route over the direct investment in equities as the same level of return can be generated with exposure to lesser risk. It should, but, be kept in mind that nearly 35% of the mutual funds have not produced returns commensurate with their risk class, selection of mutual funds will definitely influence the investor's earnings. Hence, care should be taken in selecting the mutual funds for investment.



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# An Advanced Service Provision Model using 4G Technologies

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**Abstract** -Over the past few years, the mobile and wireless markets have become one of the fastest growing markets in the world, and are still growing at a very rapid pace. A very important issue for the introduction of 4G networks is the customization of a flexible and ubiquitous service provision. Basic factors for the achievement of this goal are the introductions of open interfaces for the service accessibility to network information and re-configurability. An advanced service provision model is proposed using 4G technology that has characteristics like customized service, interactive multimedia, voice, video, wireless internet and other broadband services with high speed, high capacity and low cost per bit. This model enables making ample room for new access technologies together with enhanced security for mobile banking services.

**Keywords**- 4G Technology, Re-configurability Interactive Multimedia, Broadband Services.

## I. INTRODUCTION

The advent of the Internet has revolutionized the way the financial services industry conducts its business, empowering organizations with new business models and new ways to offer 24 hour accessibility to their customers. In addition to voice and text messaging, users today can experience basic multimedia services, though system capabilities and services need to be greatly enhanced in order to fully exploit all the potential of advanced multimedia systems.

3G wireless technologies is committed to provide reasonably good and speedy wireless communication capable of supporting more high-end services such as data, video, multimedia in addition to the usual audio feature. 3G systems have however inherent flaws. They are not well-designed for data; they are improvements on a platform originally designed for voice. Thus, they are inefficient with the use of the available bandwidth. Systems beyond IMT-2000 (International Mobile Telecommunications-2000) are commonly referred to as the "Fourth Generation" or 4G in short. The main official guideline is the ITU-R Framework

Recommendation M.1645 [1], which delineates the research goals for system capabilities. We envision 4G is a convergence platform where wide-area. (cellular) technology, wireless metropolitan area network (WMAN) and wireless local area network (WLAN) coexists and completes [2]. Legacy systems, their evolution as well as newly developed access techniques are all embraced by the 4G network.

In this paper we have proposed new advanced service provision model using 4G Technologies consisting of four modules as customer approach module, security module, customized or personalized module and enhanced communication technology module.

## II. ADVANCED SERVICE PROVISION MODEL USING 4G TECHNOLOGY

Putting the user in the center of the development aims to guarantee a long-lasting, sound and profitable future for 4G, as more than ever we need to know what are the needs and expectations of the users before embarking on developing the relevant technical solutions [3]. Technology should be responsive to user needs, and not the other way around. We have proposed an advanced service provision model "Fig.1" formed by combining the customer module, security module, customized or personalized service module and the enhanced communication technology module.

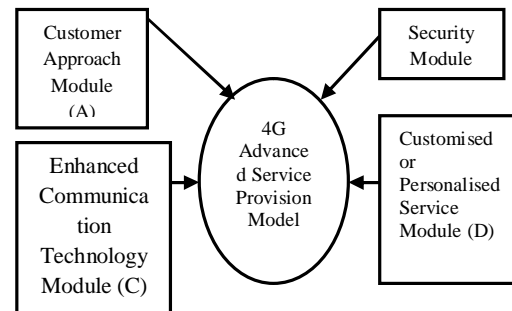


Figure 1. Advanced Service Provision Model

### A. Customer Approach Module

The Customer Approach Module proposed in this work for mobile service providers "Fig.2". Their responsibility is to retain the existing customers and acquire new customers. It is proven that acquiring new customer is difficult than retaining existing customers. This module is based on long-term strategy of acquiring, retaining, cost reduction, Enhance Network Availability, Providing Long Term benefits, and innovating services. An integrated online and offline channels can be effectively used by the service providers to acquire new customers. Websites that provide helpful information could attract prospective customers. Retention of individual customers can be enhanced as well as

the ability to identify emerging service trends that may affect many customers. The customer approach module calls for increasing sales by Enhancing Network Availability and by

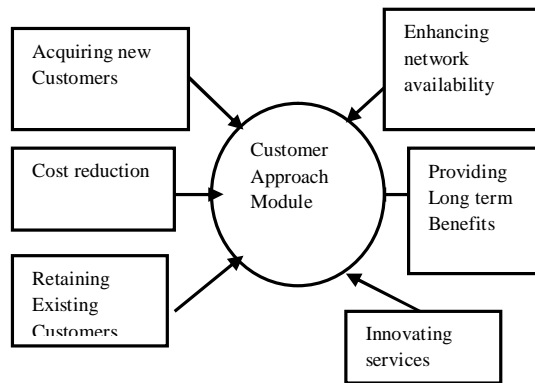


Figure 2. Customer Approach Module

providing Long term benefits. Better network availability and long term benefits increase the faith of customer on service providers. If providers are able to attract more customers then demand will be increased. Demand creates competitors. Innovative strategy helps to increase the sales, to increase customer's numbers and to achieve good profits. This automatically reduces the cost. By developing meaningful databases, monitoring consumer needs and behavior, and experimenting with different tactics, new revenue streams are likely to materialize.

## B. Security Module

Mobile personal devices, usually with a built-in display and keyboard, are well-positioned to provide a technical solution for reducing fraud and allowing the fair allocation of responsibility for damages from fraud. Some amount of security is already part of the authentication mechanism of existing mobile phones as a way to prevent call theft. Moreover, it is relatively easy and inexpensive for device manufacturers to incorporate additional mechanisms to ensure secure transaction authorization. These mechanisms help prevent most fraud and allocate responsibility fairly for any remaining fraud. For users, their value far outweighs their relatively modest cost [4].

While constructing a good security module we have to identify some security objectives. They are (i) Adequate protection of information/resources/services against misuse or misappropriation; (ii) Security features are compatible with world-wide availability; (iii) security features are standardized to ensure world wide interoperability and roaming between different providers; (iv) security features and mechanisms can be extended and enhanced as required by new threats and services; (v) Security features enable new 'e-commerce' services and other advanced applications; (vi) A very good and enhanced level of protection afforded to users and providers of services.

In this security module "Fig.3" we consider six sub modules such as Authentication, Confidentiality, Integrity, Non-repudiation, Availability and Data Freshness.

**i) Authentication:** Authentication is able to confirm that the sender has the right to send the message. When any transaction is initialized between two parties, this authentication process is performed by validating the message PIN with the receiver stored PIN. Authentication is also done by using physical biometric identification like finger print, facial recognition, hand geometry, iris scan etc.

**ii) Confidentiality:** This is achieved by encrypting the message using a symmetric secret one-time password. The one-time password is only shared between the sender and receiver. The strength of the confidentiality depends on the security strength of the passwords generation algorithm used and the strength of the ciphering algorithm used.

**iii) Integrity:** The message digest is the hashed value of the message content calculated server application and the mobile phone application. If the content is altered during transmission, the hashing algorithm will generate a different digest value at the receiver side. If the digests mismatch, the receiver will know that the integrity of the message has been compromised. The strength of the integrity checks depends on the strength of the algorithm used to generate the digest value and it also depends on the strength of the encryption algorithm used to hide the confidential data.

**iv) Non-repudiation:** Only the sender and receiver of the message are supposed to have the one-time password. Every one-time password is unique in the server's database. Each pair of one-time password and sequence number is only allowed to be used for a single user. Therefore the user cannot deny not sending the message because only that specific user has that unique pair of password and sequence number to encrypt the message. If the sender can use the same sequence-password pair to decrypt the message, then it indicates that user must have sent the message.

**v) Availability:** The availability of this protocol depends on the availability of the cellular network. The time it takes for a message to be delivered depends on the density of network operator base towers. The number of transactions that the server can handle at once depends on the hardware capability. If the server's hardware can handle multiple incoming messages then the server can perform multiprocessing to accommodate for more requests. The protocol has no restriction on the type of hardware needed. Therefore it is up to the developers to decide the hardware specifications.

### vi) Data Freshness

Data freshness suggests that the data is recent, and it ensures that no old messages have been replayed. This requirement is especially important when there are shared-key strategies employed in the design. Typically shared keys need to be changed over time. However, it takes time for new shared keys to be propagated to the entire network. In this case, it is

easy for the adversary to use a replay attack. Also, it is easy to disrupt the normal work of the mobile, if the mobile is unaware of the new key change time. To solve this problem a nonce, or another time-related counter, can be added into the packet to ensure data freshness. Nonce is a funny word that plays a serious role in a number of security implementations. We can generate a nonce by generating a random number or the current time or a combination of the two is sufficient.

### C. Enhanced Communication Technology Module

The infrastructure and the terminals of 4G will have almost all the standards from 2G to 4G implemented. The infrastructure for 4G will be only packet-based (all-IP). But there is suggestion to have an open Internet platform [5]. 4G communication system is dwell in many application of real time communication system with High speed network capacity, Fast/seamless handover across multiple networks, Wireless access technologies, and Multimedia support.

4G system communication is expected to provide a comprehensive and secure all-IP based solution where facilities such as IP telephony, ultra-broadband Internet access, gaming services and High Definition Television (HDTV) streamed multimedia may be provided to users.

Our Enhanced Communication Technology Module “fig. 4” consists of different units such as WiMax, HC-SDMA, Adaptive Modulation and coding (AMC), Adaptive Hybrid ARQ, MIMO and OFDM, Open distributed Ad- Hoc Wireless Network; Software defined Radio and Social Network

**i) WiMax :** WiMax (Worldwide Interoperability for Microwave Access) is a telecommunications protocol that provides fixed and mobile Internet access. WiMax Uses licensed or unlicensed spectrum to deliver connection to network. WiMax is collaboration of Mobile WiMax and Fixed WiMax. WiMax is similar to Wi-Fi but it can permit usage at much greater distances. WiMax is used for a number of applications including broadband connections, cellular backhaul, hotspots, etc.

**ii) HC-SDMA:** HC-SDMA (High Capacity Spatial Division Multiple Access) is a wireless broadband technology developed by ArrayComm. The HC-SDMA interface provides wide-area broadband wireless data-connectivity for fixed, portable and mobile computing devices and appliances. The protocol is designed to be implemented with smart antenna array techniques to substantially improve the radio frequency (RF) coverage. The HC-SDMA interface operates on a similar premise as GSM or CDMA2000 for cellular phones, with hand-offs between HC-SDMA cells repeatedly providing the user with a seamless wideband wireless experience even when moving at the speed of a car or train.

**iii) AMC (Adaptive Modulation and coding):** The principle of AMC is to change the modulation and coding format in accordance with instantaneous variations in

channel conditions, subject to system restrictions. AMC extends the system’s ability to adapt to good channel conditions. Channel conditions should be estimated based on feedback from the receiver. AMC allows different data rates to be assigned to different users depending on their channel condition. Receiver collects a set of channel statistics that are used by both the transmitter and receiver to optimize system parameters such as modulation and coding, signal bandwidth, signal power, training period, channel estimation filters, and automatic gain control [6].

### **iv) MIMO-OFDM (Multi in Multi out and Orthogonal Frequency Division Multiplexing):**

Increasing demand for high performance 4G broadband wireless mobile calls for use of multiple antennas at both the base station and subscriber ends. OFDM can be implemented efficiently by using fast Fourier transform (FFT) at the transmitter and receiver. At the receiver, FFT reduces the channel response into a multiplicative constant on a tone-by-tone basis. With multiple input multiple output (MIMO), the channel response becomes a matrix. Since each tone can be equalized independently, the complexity of space-time equalizers is avoided. Multi In and Multi Out and Orthogonal frequency-division multiplexing (OFDM) is chosen over a single carrier solution due to lower complexity of equalizers for high delay spread channels or high data rates [7]. A broadband signal is broken down into multiple narrowband carriers (tones), where each carrier is more robust to multipath. Multipath remains an advantage for a MIMO-OFDM system, since frequency selectivity caused by multipath improves the rank distribution of the channel matrices across frequency tones, thereby increasing Capacity [8]. This allows 4G device can be act as multi transfer and multi receiver data communication.

**v) Adaptive Hybrid ARQ:** A successful broadband wireless system must have an efficient co-designed medium access control (MAC) layer for reliable link performance over the lossy wireless channel. Automatic Repeat Request (ARQ) is an automatic retransmission and fragmentation mechanism. In ARQ the transmitter breaks up packets received from higher layers into smaller sub packets, which are transmitted sequentially. ARQ can be seen as a mechanism for introducing time diversity into the system due to its capability to recover from noise, interference, and fades. It will retain the quality of service in terms of data transmission [9].

**vi) Open Distributed AD-HOC Wireless Network:** Routing infrastructure, including handsets, utilize intelligent routing capabilities to determine best path for transmission with least power. The network nodes must be able to calculate and update routing tables to send data packets through the paths with minimal power requirements [10]. The 4G mobile system will use open Distributed AD-HOC Wireless network to implement open wireless platform architecture. The technology leads to integrate the computing network for human needs.

vii) **Software Defined Radio:** A software defined radio is one that can be configured to any radio or frequency standard

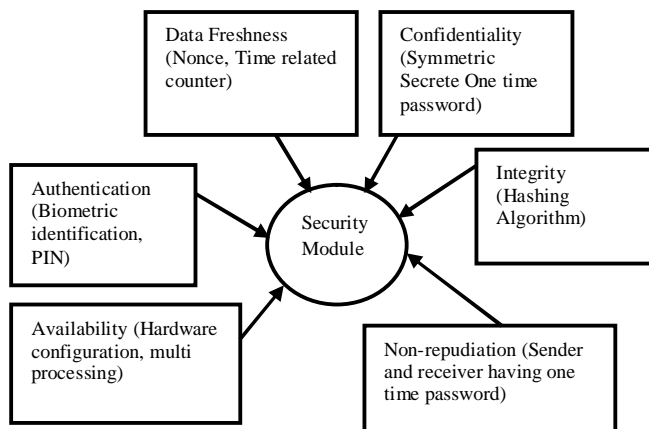


Figure 3. Security Module

through the use of software. If a new standard were to be created, the phone would be able to support that new standard with a simple software update. A software defined radio's best advantage is its great flexibility to be programmed for emerging wireless standards. It can be dynamically updated with new software without any changes in hardware and infrastructure.

viii) **Social Network System:** A social network site is a web site that Acts as a destination hub for individuals to establish relationships with co-workers and by doing so, enable them to jointly build, or expand, their professional and social networks. It includes different tools for people to interact with each other, contribute information to the site, participate in different site activities, and build a sense of community in an informal and voluntary manner. It allows the user to define an online profile (or personal), list their connections (e.g., friends and colleagues), receive notifications on the activities of those connections participate in group or community activities, control permission, preference and

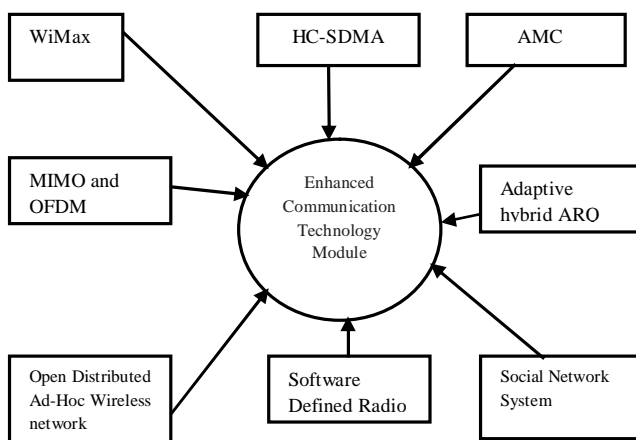


Figure 4. Enhanced Communication Technology

privacy settings

#### D. Customized or Personalized Module

Part of knowing wants and needs implies familiarity or personalization "fig.5". This requires an integration and organization of a user's preferences, perhaps initially determined through an interview, but later automatically adapted over time, also known as the user profile [11]. The other part of knowing wants and needs is sensing, which includes traditional forms of user input, as well as non-traditional forms, such as speech recognition and on-body and off-body sensor networks.

i) **Sensor Network:** A sensor network can include on- and off-body sensors. On-body examples are biometric sensors (e.g. blood pressure), while off-body examples include cameras and microphones with voice recognition. As with presentation modalities, the on-body modalities will impact the wireless communications requirements.

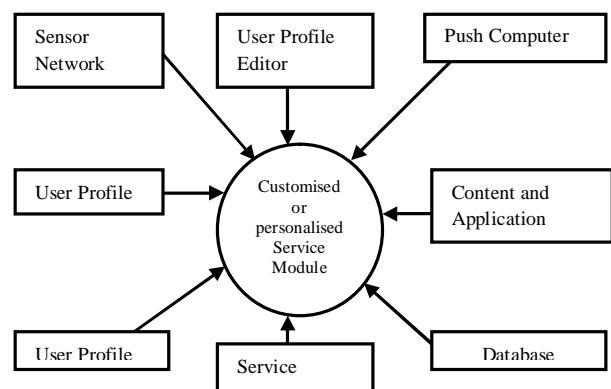


Figure 5. Customized or Personalized Service Module

ii) **User profile:** User profile will contain the user requirements or user preferences about different services.

iii) **Service provider:** Service provider task is to provide services to users. Service provider should manage overall services.

iv) **Content and application provider:** One challenge that follows from a plurality of presentation modalities is how to map the content to each modality within the set. Content producers generally provide the content in several different forms, which is unsalable and expensive ideally, a producer need to provide only one version of the content, and then an automatic process maps the content onto the modalities.

v) **Push computer:** Computer applications are classified as push, pull or a combination of both. Pull applications are conventional and are initiated by the end user. A push application is the opposite of a pull application. A push application is initiated by the application. It "engages a user at the right time by proactively pushing an interactive session to the user".

**vi) Database:** A key technology associated with the user profile and its use in providing context-aware information to the user is database management. The user profile is a database and the various types of content that may be provided to the user are in other databases. Database management is concerned with the design of efficient protocols that query or modify databases. The Push Computer determines the content or services that will be presented to the user. It bases this determination on (1) requests from the user or from push applications; (2) the subset of the user profile that has been identified by the Context-Based User profile Filter; (3) the modality availabilities and agreements; and (4) the content and service availabilities. It then requests or commands that the content or service be delivered to the user via the server

### III. CONCLUSION

4G technology is characterised by advanced personalisation, industry specific e-process models, Optimized CRM. E-marketplace is an evolving example of a true 4G business environment.

In this model the four modules-customer approach module, security module, customized or personalised module and Enhanced Communication technology module address different aspects such as mobile service provider's responsibilities, mobile network security, ubiquitous personalisation of services depending on customer needs and enhanced real time mobile communication with High speed network capacity, Fast/seamless handover across multiple networks. To penetrate such innovative new service models effectively and efficiently, service providers should involve in customer education and training to stimulate the behavioral control and intention of the customer to adapt new service and to create interest on new technology in their daily life.

This Advanced Service provision model will be able to address different challenges of mobile financial services. User will be able to access, services based on their interest regardless of time and place. This model will enable making ample room for new access technologies with enhanced security.

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#### Paper Published in National conferences:

- Presented a paper titled "**Improved Software Based Multifactor Authentication Model for Online Mobile Banking Financial Transaction**" in National conference "Manegma – 2013" organized by Srinivas Institute of Management Studies, Pandeshwar, Mangalore.

# The Gulf Migration and Economic Impact on Dakshina Kannada District

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**Abstract - The economic impact of Gulf migration with reference to Dakshina Kannada discussed in this paper. To estimate the economic impact at the place of origin, the households of the migrants have been interviewed through a structured questionnaire. 68 dependents in Mangalore Taluk and 40 dependents in Puttur Taluk were interviewed. Here the interviewed persons in most of the cases were not migrants but heads of the household. In the absence of the head of the household a responsible person in the family was interviewed. The economic impact at the individual or family level is discussed. Four indicators are used to measure the economic impact of migration. They are annual income, type of house and value of the house, type of schools preferred and hospitals preferred.**

## INTRODUCTION

This paper deals with the economic impact of the Gulf migration. To estimate the economic impact at the place of origin, the households of the migrants have been interviewed through a structured questionnaire. 68 dependents in Mangalore taluk and 40 dependents in Puttur Taluk were interviewed. Here the interviewed persons in most of the cases were not migrants but heads of the household. In the absence of the head of the household a responsible person in the family was interviewed. The economic impact at the individual or family level is discussed. Four indicators are used to measure the economic impact of migration. They are annual income, type of house and value of the house, type of schools preferred and hospitals preferred.

## OBJECTIVES OF THE STUDY

The main objective of the paper is to study the socio-economic impact of gulf migration. The specific research objectives are as follows,

1. To analyze the migrants and non migrants socio-economic condition.
2. To study the standard of living of the migrants.
3. To study the economic impact of gulf migration.

The samples are taken from the migrants and non-migrants with variables like age, sex, marital status, education and occupation. When a migrant is chosen to compare with a non-migrant care is taken to see that both have the same status. For example, if a migrant is below 30

years of age, a non-migrant is also chosen from the same age group. Similarly, if a migrant is of a Secondary School Leaving Certificate holder, the non-migrant also comes from the same educational background. If a migrant is married, a non-migrant is also taken from the married category. If a migrant is unskilled the non-migrant is also unskilled. This comparative study attempts to show how migration has affected the original place of the migrant.

The main limitation of the study that the researcher like to acknowledge broadly related to statistics or data on migration, selection of sample, communication with the selected people and availability of time. One of the disturbing handicap, a socio – economic study of this kind faces has been the acute shortage of data regarding the social categories.

Dakshina Kannada district geographically occupies a large space in the costal area comprising five taluks. Only two taluks, Mangalore and Puttur taluks are selected for the study. Even in the selected taluks all the migrants have not been approached. The sample was randomly selected and interviewed.

## ECONOMIC IMPACT ON THE FAMILY

### Annual Income

The various indicators listed give the general idea of the migrants' economic position, investment, and expenditure incurred. One of the means to assess the economic impact is, by analyzing the annual income of the migrants. The Table no. 1 gives a picture of annual income of the migrants and the non-migrants. It is assumed by this study and is also argued by other studies that higher the income greater the economic impact. Because ultimately the migrant spends his savings in his native. The data in the table show that in the category of annual income of rupees fifty thousand and below there are only 5 migrants. But the number of non-migrants is significantly more than the migrants and it is 41. Under rupees fifty thousand to one lakh category of annual income the difference between migrants and non-migrants is not so significant. In this category there are 24 migrants and 32 non-migrants. Once at the higher level the difference between migrants migrants appears to be glaring. Under one lakh to one and a half lakh category there are 37 migrants and 15 non-migrants. Under one lakh fifty thousand to two lakhs

category there are 25 migrants and 12 non-migrants. Under the category of more than two lakhs, 17 are migrants and 8 are non migrants. These figures clearly show that the migrants have a better annual income when compared with the non-migrants.

A significant finding of this study is that even though the educational qualification, occupational skill, social status of the migrant and the non-migrants are the same, difference is observed in the annual income of the migrant. Migration has brought a drastic advancement in the economic status of the migrants. The migrants agree that they would not have earned so much if they had not migrated to the Gulf countries. Economic advancement is also observed in the standard of living and the assets they possess. Economic explanation for better quality of life (salary of the migrants is more, so the migrants annual income is more) is a common one and any one could easily give. But we need to consider other factors like the life style of the migrants at the destination. The annual income of the migrant is more than that of non-migrant because the former lives alone in the destination and his family lives at the native, but the standard of living of migrants is lower in the destination than in the country of origin. Hence the migrants' earning is not spent corresponding to the living condition of the country where he stays.

In the case of the non-migrant, the earnings of the non-migrant and consumption of the family being in the context of same standard of living there is always less possibility of annual savings. The important aspect of comparison between migrant and non-migrant household is their economic status. This can be accessed through the assets owned and the annual income earned. The increase of annual income in the form of remittance is pointed out by Department of Economic and Statistics survey that "in migrant households nearly 60% of the income was received as remittances. This indicates that there is a definite increase in the income of the migrant households due to migration". The economic disparity between the migrants and non-migrants is also pointed out by Sekher T.V. He says that the migrant's asset position and standard of life are far higher than that of non-migrants .

The discussion on the annual income of the migrant and non-migrant shows that the income of the migrant is always better than that of the non-migrant, when the comparison is made with equal status in all terms between migrant and non-migrant. Even distribution of sample emigrants by monthly salary and wage level present the finding that the migrant always earned more than non-migrants. The findings of this study and also of the previous studies support the thesis that income and asset positions of the migrant have been better than that of the non-migrant. The major reason for the acceleration of migrants' income is that, the migrant works in the country where the standard of living and remuneration are higher than that of India. The analysis and comparison between migrants and non-migrants clearly shows how the migrant has materialized his

income. Thus the exodus of many skilled, semiskilled, educated or uneducated migrant workers has affected the economic condition in the micro level. The economic impact is directly observed in the consumption pattern of the migrant. They have not only increased the consumption but also have brought home consumer durables.

### **House Value**

As it is indicated earlier, the migrants have invested a good portion of their income on construction of houses. The migrants houses are not only costly, but are also filled with expensive consumer durables and have modern facilities. These data show that migration has not only improved their living condition but the facilities they have within the house are also improved. In comparison to the migrants, the facilities available in the houses of non-migrants are less in number. These things actually influence the value of respective houses. Table no. 2 depicts the value of the house possessed by the respondents. There are 50 houses of non migrants worth rupees three lakhs and below. But in this category we do not find any house belonging to the migrants. In the category of houses worth Rupees three lakhs to Rupees six lakhs we could find 19 migrant and 42 non-migrants houses. Within the range of six lakh to nine lakh 39 migrant's and 5 non-migrant's houses are found. 33 of the migrants own houses worth Rupees nine lakhs to twelve lakhs. In this category there are only 7 non-migrant's houses. When only four non-migrants own houses worth Rupees twelve lakhs and above, there are 17 migrants who own this type of house.

### **Types of Schools Preferred**

The question of medium of education is a pan Indian problem. Each state experiences a contest between its regional language and English. In this respect Karnataka is not an exception. Here also the debate on English versus Kannada medium is going on. At the same time the number of English medium schools is growing year by year. Infact that macro phenomenon is reflected in the present study also. Majority of the migrants, i.e. 93 members preferred English medium and only 15 migrants are willing to send their kids to Kannada medium schools (table no. 3). But it does not mean that in this respect non-migrants would present a contrasting picture. Even though we could find some difference the number of non-migrants who would like to send their kids to English medium schools is not less. Fifty six (56) of the non-migrants preferred their children to study in English medium schools and 52 in Kannada medium schools.

Why do the migrants prefer English Medium Schools? The most common answer received for this question in the course of field survey is related to their past experiences. The previous experience of the difficulty of mastering English language by the migrants has made them to face a number of problems while transacting or communicating with the external world. Language has been a great hurdle for the migrants in many cases to get a better

job and to communicate their ideas to others at the destination. This realization of the importance of language has made them to send their children compulsorily to the English medium schools. The migrants did not want their children to under go the suffering that they had undergone because of the language and low quality of education. This has initiated the migrants to be careful in choosing the schools for their children. It is rightly pointed out by T.V. Sekher that "many respondents confessed that they did not want their children to miss opportunities in their life, as they themselves had, due to the lack of education". The data of this study also have similar findings. The migrants want their children to be prosperous and excel in life with good education. This realization has made the migrants to be cautious in the selection of schools for their children.

### Health Issues

This section discusses two things related to health issues. One, the type of hospitals preferred and two, the money spent on health by the migrants and non-migrants. There are two types of hospitals- private and public or government hospitals. Just like the question of medium of education, the question of quality of health services is divided into two types - private and public health services. The private health service is associated with good quality whereas the public is synonymous with low quality services. Let us not dispute that all pervading value judgment on the quality of health services. Based on that hypothesis we easily infer that only rich or economically well to do people can afford private health services and those who go to public or government hospitals are the economically weak. Data in the table no. 4 gives a broad picture of the type of hospitals preferred by the migrant and the non-migrant. According to the figures of table 4 only 5 migrants go to government hospitals for treatment whereas 41 non-migrants depend on government hospitals for their health services. On the other hand, 103 migrants go to private hospitals and only 67 non-migrants could afford private health services. These figures reveal that the better economic positions enabled the migrants to go to private hospitals. However based on these findings we cannot come to any judgement on the quality of services rendered by these two sectors. At the same time these data show that there is a high level of consciousness among the migrants about health, education, and hygiene. The income received by the migrant household encouraged them to prefer such facilities. The figure indicates that majority of the migrants prefer private hospitals to government hospitals. The government hospitals in India in general do not meet the expected standard of service. Moreover, to have treatment in the private hospitals it is believed is also a prestigious issue to the migrant. Hence, in order to maintain the social respect and get the best service private hospitals have been preferred.

### CONCLUSION

To sum up, the economic impact can be felt only when the manpower is transformed into economic power. India, being one of the densely populated countries, it is only sensible on her part to utilize the manpower to develop its economy. In this connection the involvement and the role of Gulf migrant is remarkable. The process of migration on the whole works either at the micro or macro edge in boosting the economy of the country. The very fact that migration takes place implies that the migrant himself invites the responsibility to involve him in productivity and also creating indirectly employment at his native through the financial flow from the destination. The whole analysis presents the actual impact of migrants on the regional economy. The factors like being unprofessional, unskilled, semi-skilled, and less educated might have hindered the migrants to get better jobs in the destination. But no body could dispute the fact that even those small jobs and small payments have not stopped the migrants from sending a large part of his earnings to the native place. In comparison to the savings made by the non-migrants, the savings of the migrants are far higher. Of course a large chunk of these savings have been used for consumption purpose and also for buying modern gadgets and other consumer durable. But it is also true that some part of the savings have been invested in business, agriculture and industry. In this way savings and consumption of the migrants have enhanced the economic position of the migrants. Besides, they have played a significant role in creating employment in the regional economy.

Table No. 1: Annual Income of the Migrants and the Non Migrants Families

Income Classification		Migrants	Non migrants	Total
<50000	Count	5	41	46
	%	4.6%	38.0%	21.3%
5000 – 100000	Count	24	32	56
	%	22.2%	29.6%	25.9%
10000 – 15000	Count	37	15	52
	%	34.2%	13.9%	24.1%
150000-200000	Count	25	12	37
	%	23.2%	11.1%	17.1%
>200000	Count	17	8	25
	%	15.8%	7.4%	11.6%
Total	Count	108	108	216
	%	100.0%	100.0%	100.0%

Sources : Data from field survey

Table No. 2 Value of the House

Value of the house		Migrants	Non migrants	Total
<30000	Court	0	50	50
	%	0%	46.3%	23.1%
30000 – 600000	Count	19	42	61
	%	18.0%	38.9%	28.3%
600000 – 900000	Count	39	5	44
	%	37.0%	4.6%	20.4%
900000-1200000	Count	33	7	40
	%	30.0%	6.5%	18.5%
>1200000	Count	17	4	21
	%	15.0%	3.7%	9.7%
Total	Count	108	108	216
	%	100.0%	100.0%	100.0%

Source : Data from field survey

Table No. 3 Types of Schools Preferred

Medium of instructions		Migrants	Non migrants	Total
English medium	Court	93	56	149
	%	86.1%	51.9%	69.06%
Kannada Medium	Count	15	52	67
	%	13.9%	48.1%	31.0%
Total	Count	108	108	216
	%	100.0%	100.0%	100.0%

Source : Data from field survey

Table No. 4 Type of Hospital Preferred

Type		Migrants	Non migrants	Total
Govt	Court	5	41	46
	%	4.6%	38.06%	21.3%
Private	Count	103	67	170
	%	95.4%	62.06%	78.7%
Total	Count	108	108	216
	%	100.0%	100.0%	100.0%

Source: Data from field survey

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# Social Perception on HIV Positive people in Dakshina Kannada

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**Abstract—** Human Immuno-deficiency Virus and Acquired Immuno-Deficiency Syndrome (HIV/AIDS) is one of the most effective diseases which is associated with different terms and concept like labeling, stereo typing, separating and discriminating the people who are positive. Even though, there is a reason, causes and preventive measures of HIV/AIDS society has considered the positive people are very dangerous and treated them as useless, as social evil and God's curse etc and also discriminate them. This different attitude of publics have made them to keep themselves isolate from family, community and society. Due to this strong social stigma the positive people try the maximum part of their life in maintaining the secrecy.

The present paper deals with demographic status of HIV/AIDS positive people in Dakshina Kannada and their degree of interaction in the family, community and society and also the problems they going to face in their day to day life. The researcher had collected information from various centers, hospitals, agencies and support group. The methodology is used in this study is field survey, interview and case studies method. 25 cases have been studied in depth. The main objectives are to know the impact of HIV on the people, family and in society, and to find out perception of peoples attitude, stigma and discrimination towards the HIV positive people. Researcher also tried to give a clear picture of the feeling of the positive peoples as well as the perception of HIV positive people about their present life as well as the future life in Dakshina Kannada. To respect the right to privacy of HIV infected persons, the names of the people identified for case studies have been changed; names of villages visited and social workers contacted are not specified; the names of hospitals staff, people who were interviewed for the purpose of study are also not mentioned in this paper.

**Keywords:** HIV/AIDS, Stigma, positive and People Living with HIV/AIDS (PLHA)

## INTRODUCTION

The dimensions to the problem are on positive people on their family will affect Social, Economic, Psychological, Medical and Spiritual life. HIV positive people are stigmatized person in the society and keeping themselves being away from relationship and bond with individual and location as much as possible. The numbers of HIV/AIDS cases are increasing day by day which is very much associated with sex, blood, drugs and death evokes basic human fears and inhibitions. HIV/AIDS are dramatically reducing life expectancy, increasing the vulnerability by creating millions of orphans and diminishing the capacity of public and private sectors. HIV/AIDS begins with medical problem; this virus progressively weakens the

body's ability to fight off disease and ultimately ends up with death of the patient

## HIV/AIDS IN WORLD SCENARIO

In South and South-East Asia Region, an estimated 7.4 million are People Living with HIV/AIDS (PLHA) (as of December 2005) this region ranks second in HIV prevalence, after sub-Saharan Africa, and accounts for about 20% of new annual HIV infections globally. The epidemic in India is varied, with areas of generalized epidemic in the South and North-east, and with pockets of concentrated epidemics and highly vulnerable regions with low-levels of HIV infection. In India, HIV/AIDS epidemic is nearly three decades old. India reported its first known case of AIDS to the world health organization on 1986. It would be easy to underestimate the challenge of HIV/AIDS in India. At the end of 2004, 5.3 million Indians were estimated to be infected with HIV. A hundred and eleven districts in the country are classified as high HIV prevalence districts. Transmission of HIV is predominantly through the sexual route (86%). Other routes include injecting drug use (IDU) (2.4%), vertical transmission from mother to child (3.6%) and transfusion of blood and blood products (2%), and others (6%) as of July 2005. (UNAIDS and World Health Organization, 2005). Recently, the Indian Government stated that it was 2.5 million people affected by HIV in India (NACO 2007). In the state of Karnataka the total population is consist of around 53million. The average HIV prevalence at antenatal clinics has exceeded 1% in all recent years. Among the general population, 0.69% was found to be infected in 2005-2006. Districts with the highest prevalence tend to be located in and around Bangalore in the southern part of the state, or in northern Karnataka's "devadasi belt". Devadasi women are a group of women who have historically been dedicated to the service of Gods these days, this has evolved in to sanctioned prostitution, and as a result many women from this part of the country are supplied to the sex trade in big cities such as Mumbai. The average HIV prevalence among female sex workers in Karnataka was 8.64% in 2006, and 19.20% of men who have sex with men were found to be infected.

The district of Dakshina Kannada in state of Karnataka is not exceptional from the above mentioned facts and figures. As far as HIV/AIDS data is concerned the number of positive people in Dakshina Kannada is exceeding day by day. As per the District Aids Prevention and Controlling Unit

(DAPCU) in Dakshina Kannada from the year 2007 to 2011 is concerned the total positive cases in Dakshina Kannada district is around 5,322, where 3,440 are males and 1,882 are females.

## RESULTS AND DISCUSSION

As far as the perception of people with positive as well as negative and the public is concerned the life situation of HIV positive patients and the impact on their life is pathetic. Till death the patient undergoes numerous sufferings. It is discussed under various headings like the first one is Health, which related to physical medically illnesses. The second one is the Hope, which represents of a person's feelings like darkness, hopelessness and confusion. Third one is the Happiness, the enjoyment of life they never get it back in life again. The lastly the Home, which is usually represents environment where the patient live and spend his most of his time and done most of this things called the beautiful, peaceful family life of their dream and in the society.

Due to strongly practicing social stigma the disease makes the HIV positive patients physically ruined, socially isolated, psychologically tensed and economically poor. As a result the patient loses hope in everything in life which promotes more mental tension leading to death in life. The above mentioned conditions of patients have been discussed in detail in below case studies.

Mrs. Nagarathna: She is just 31 years old married woman with two young school going children. She is working either as a coolie or domestic labor. Now she is pregnant for her third child. With that less income she is struggling alone to looks after her family by earning very low wages. When the researcher met her and discussed few important things with regard to HIV/AIDS, even if she reluctant in the beginning to disclose matters, later she shared few very important things with the researcher. When she has been asked about her reference to ICTC center, she said that when she has gone for the general check up or pregnancy test, she was referred to ICTC centre by her doctor to meet the counselor. And when she had gone to ICTC center they conducted a HIV test, and later they proved she is HIV Positive.

And also she revealed that she got the infection from her husband. She revealed that 'my husband is a truck driver. He used to go for a long trip to longer days. Once in a week or twice in a month he used to come to my house. It is a well known factor also that he is a drunkard. He always comes with fully drunk. He not only comes with alcoholic but also comes in odd time and disturb to the whole family by beating me always for money and other unnecessary reasons'.

Mrs. Nagarathna also said that 'after long time I came to know that he is not only drunkard, he is a womanliest. He is having illegal sexual relationship with other women and spends most of his earnings for other lady. When I was in panic about my pregnancy and life of my child the counselor instructed me to go for medication to protect my baby from HIV infection. According to the instructions given to me was

that I used to go every month for ICTC and take medications without fail. So it ensures safe delivery of child without transfer of HIV infection from mother to child and it also precautions to prevent spread of HIV to the newborn baby too'.

Mr. Devappa employee in Government office of his town lives with his wife, son and daughter. Suddenly he started developing health problems like fever, cold, cough, and body pain, and he began to lose his weight too. He was admitted to a hospital and did HIV test. As a result, he was found to be a HIV positive and suffering from TB. His wife was also tested in the hospital and found herself HIV positive. They are taking ART now and supporting each other to take care of their children.

Mr. Nigappa, 28 years young unmarried male and he was working as building construction coolie worker. He lives with his parents and his younger Sister. They are belonging to BPL family with no proper accommodation, health facilities and means of livelihood. In the process of interview, researcher visited the client and build confidence in him. During his interview he revealed "I went to Hubli, Darward and Mangalore in search of job. While I was working there I had unsafe sexual relationship and contacted HIV infection. I developed fever, cold, and cough etc., and then I visited the hospital for HIV test and was found HIV positive. As I did not want to show the report to anybody, I tore the medical reports and just started taking treatment only for symptoms. Now I have registered for ART and taking the treatment regularly. I am not attending support group meetings, and wanted to keep my status in secret for some time and wanted to get marry later with positive lady to give her life and to get support for myself'.

## PERCEPTION

Human behavior is multi-dimensional and complex. Though some generalizations can be made, individuals are unique in their perception of situations and more so in their response. Further individuals vary within groups and each group varies from others. In AIDS prevention, some segments of the population are more prone to be engaged in risk behaviors than others, but it is behavior that puts a person at risk, and not their affiliation with group. For this reason, prevention and care would depend upon their ability to influence specific behaviors.

## FAMILY

Family is one of the important and primary social institutions of the society. It is primary and one of the important social agencies in socialization process. Self-rejection implying giving up on oneself, may manifest in the form of self-blame, self-pity, self-hatred, anger, violence, withdrawal from public activities, stonewalling by stop communicating with anyone. Others sense a feeling of worthlessness, manifested as feeling unproductive, impotent, and useless or not being able to contribute. Still worse others

are alienated, being forced to leave community or experiencing family disruption in the form of divorce, separation, or being abandoned or kicked out of family. Quarrels ensue within the family, with its members arguing over who is responsible for this situation and who will take care of the People living with HIV/AIDS (PLHA). Being at the receiving end their property is grabbed by relatives or even the society.

Through the case studies we can understand the perception of the family members of the family HIV/AIDS positive women Mrs. Ramani. She is a positive effected women and who is also one of the strongest support group member. She said that we always extend our whole hearted psycho-social support for the positive people in general and women in particular. She is just 29 years old women has 3 year old boy child. When her husband became seriously ill and showed symptoms of HIV/AIDS, she took her husband for a test and confirmed as HIV positive. As he had already reached the final stage of infection, he died within 4 months after treatment was started. In the hospital, Ramani was counseled to undergo HIV test and she agreed. After the confirmation of her blood report as HIV Positive, the hospital referred her to the NGO to bring her under their Care and Support programme for PLWHA. Her child is also tested and is found free from HIV infection. After her husband's death, Mrs. Ramani's in-laws were not ready to keep her with them and also refused to give any property to her. Her parents took the necessary steps to file a case in the court. After 3 years, the court ordered Mrs. Ramani's in-laws to give her Rs.3, 500/ per month for her livelihood. Ramani's in-laws decided and forced to stay separately with her child. Presently she is struggling to find an alternative income to meet expenses for the consumption of nutritious food, medical diagnosis and treatment, and to take care of her child. Her fight for her property right is also continues.

Thangamma, who is 34 years, and her son live in a temporary shelter in Mangalore with her mother and brother. It is revealed that she is migrated from North Karnataka and her husband was a sales man selling readymade garments from door-to-door. She said my husband had many illicit affairs with other women during his business period and contracted HIV/AIDS. He died recently, but the infection was already transmitted to me and to my son. Initially, my brother was reluctant to keep us in his house as he feared about his own children contracting infection". Hence, she was suffering from negligence, isolation, and depression. Besides, she was economically in a very bad condition that could not afford to have an even full meal every day. She was very shabby and unhygienic in appearance with no awareness on matters related to health. Now she is taking ART treatment and her health condition is improving. Now she runs one petty shop and receives support from support group.

The agony of discrimination goes to the extent that family members will construct a small hut, where they lay them day and night, waiting to die. Hardly anyone visited them to socialize. They would only to put food on the floor

and leave. When they are admitted in the centre which work for Positive people, they get good bath, clean clothes to wear, food to eat, good sunlight and to share their feelings which they were totally forgotten and something they had not done for months together. The centers will take care at the palliative stage, and help them to die with dignity. Some families will not accept the dead body for crimation too. Taking this illustration a step further, we can see that the family may also have had realistic fears regarding caring for their loved one.

## **SOCIETAL PERCEPTION ON HIV POSITIVE PEOPLE**

There are some social myths prevalent in the society with regard to AIDS called AIDS is an Alien Disease, Dreaded, dreadful and incurable, dirty and shameful disease. AIDS was contracted through sex with "others" such as prostitutes and other "loose character" women. It was not just that AIDS was a shameful disease, but also that it brought shame upon the infected and their families. AIDS is a disease of the promiscuous. When questioned as to how one may get AIDS? Most people say it resulted from having sex with prostitutes. AIDS was thus seen as an invited Disease and God's punishment.

Along with social myths there are numerous ways of stigma are practicing. Yet their complexity and diversity in practice, coupled with the failure to develop a greater understanding of their social roots, means they are often not addressed effectively. Stigma and discrimination are an example of where communication can be both part of the cause and the cure of social barriers. Stigma reflects existing social inequalities, since HIV is often associated with groups that are already marginalized in a way that compounds their marginalization. Communicating that HIV/AIDS need not be a death sentence and that households do not have to face them alone can be a vital source of hope. It can also make inroads into the stigma surrounding the epidemic. Reactions of denial can often be a desperate coping mechanism for caring for family or friends when their own households are near collapse.

### **1) Neighborhood perception**

The neighbors insist with the landlord, to evict the family out of rented accommodation. They stop the family or family member living with HIV (PLHA) from using the community toilet, and gossip about anyone who frequently used the communal toilet. Paradoxically, others stop visiting the affected family, but worry about being blamed for not visiting. Many neighbors stop exchanging foodstuffs with the family.

### **2) Hospital and Doctor**

Health workers, Doctors, Councilors, Technicians all are trained how to deal with HIV cases. Dr's have to take universal precautions while testing or treating the patients like all patients are HIV. And the treatment for opportunist infections is also should treat equally. But when Mr. Rajan went to the hospital for sexually transmitted disease, he was sent to specialist doctor, a lady Dr. She give him some cream.

And after two weeks the cream wasn't working and he went back to the hospital in the morning itself. Till noon he was just waiting in the hospital and nobody was seeing him and calling him to enter the Dr's chamber. He was embarrassed. He saw the doctor and asked her, and she replied please don't come to me. Please go to other hospital. The health care workers in hospital settings, practicing the discrimination in many ways; testing patients for HIV without informed consent and proper counseling; routinely informing families about a patient's HIV status; breaching patient confidentiality in whole hospital environment.

## CONCLUSION

Many positive People have taken up the issues of discrimination. They have organized anti-discrimination campaigns using diverse communication techniques. These campaigns have been designed to reduce prejudice against groups such as the gays, injection drug users, and commercial sex workers etc, Not only awareness is needed but also accepting the disease, support from spouse, even with discordant couples, family members, neighbors and society at large. They must also perceive their environment as supporting behaviour change. Also, they need easy accessibility to appropriate treatment for prevention, care and support. Treatment for sexually transmitted infection (STI), development of a supportive environment is also one that deals, at the national and community levels, with stigma, fear and discrimination.

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# Changing Trends in HRM

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**Abstract**—HRM is a process of bringing people and organizations together so that the goals of each other are met. Talent occupies the centre stage in workplace, managing and retaining talent manpower is very crucial for a successful organization. Recent changes in the demographic structures of industrialized nations pose a potentially serious threat to work organizations in terms of their ability to attract and retain high caliber personnel. HR personnel cannot ignore changes; instead they have to evolve to become strategic partner and a change mentor to the organization. This paper focuses on resolving the current issues faced by corporate in managing talented personnel so that the organizations grow towards achieving continuous learning and success.

**Keywords**—Human resource, Role of HR, Trends in HRM

## I. INTRODUCTION

Human resource management includes all the various activities performed, even before an employee joins organisation till the time he leaves the organisation. It's an essential part of every manager's responsibilities, but many organizations find it advantageous to establish a specialist division to provide an expert service dedicated to ensuring that the human resource function is performed efficiently. "People are our most valuable asset", as they can make or break a company. The only differentiating element between organisations is their human resources.

Nobel Prize-winning economist Gary S. Becker, who coined the term "human capital," says that "the basic resource in any company is the people. The most successful companies will be those that manage human capital in the most effective and efficient manner." The world of work is rapidly changing. As a part of organization, Human Resource Management (HRM) must be prepared to deal with effects of changing world of work. The role of HR managers in acquiring and retaining talented employees to meet the global requirements is very challenging at present scenario.

The present day economy has been titled as "Knowledge economy". In such an economy, it is people who make all the difference. In political economy capital or market was important. Talent occupies centre stage in the Indian workplace. In view of this, managing and retaining manpower is becoming crucial to an organization's success. To achieve this, companies across sectors are focusing on some of the more critical HR practices

## II. CHANGING ROLE OF HUMAN RESOURCE MANAGEMENT

**1. Globalisation:** Globalization of business, consequent upon the erosion of national political borders for the purpose of business, along with information technology, resulted in the formation of global village. The concept of global village resulted in exchange of cultures across the globe, location of manufacturing centers in various countries by treating the entire globe as a single country, producing the components in one country, assembling the product in the second country, market the product in the third country, the banks in the fourth country finance the operations, insurance companies in the fifth country provide insurance facilities, all the countries provide human resources and so on so forth. Thus, the global businesses employ the people from various countries and manage the people of multi-cultures and multi-skills. Human resources management policies and practices vary from a domestic company to a multinational company / transnational company. Globalization of business across the world increased in significance of HRM across the national boundaries, in addition to HRM in the subsidiaries of MNCs operating in India.

**2. Technological Advances:** With the changes dominating due to the wake of advanced technology, new jobs are created and many old jobs become redundant. There is a general apprehension of large scale unemployment. In the competitive world of today, industry cannot hope to survive for long with the old technology. The problem of unemployment resulting from modernization will be solved by properly assessing manpower needs and training of redundant employees in alternate skills. This is a difficult process and it may hurt some people but there is no escape. Thus, change and modernization have to be accepted if industry has to grow and develop. In future, organisations will be required to make use of advanced technology in accomplishing their goals while satisfying human needs. In the traditional bureaucratic model, the organisations were designed to achieve technical functions with little consideration given to the psychosocial participation of the operative levels in the management of the organisation system.

**3. Information technology (IT) Revolution:** The world has entered the information age surpassing the industrial age which has been made possible by the increasing developments in the field of information technology (IT). The way we access and assimilate information and the emergence of new methods of packaging information have given birth to a new revolution.

The IT revolution is about real time access and sharing of digital information, consisting of visual images, sound and virtual worlds, made possible by core information technologies like digital networks, information databanks and computer graphics. The information technology revolution is transforming our living and work conditions beyond our imagination. The term 'office' may become redundant in the future and there may be little need for executives to commute long distances to go to the office for predetermined time periods. His work place would be anywhere in the world and his work environment may be the work station. Time and speed would be his watch words and everyone in the organisation would see his achievements in the organisations database. His time schedule would be constantly updated with prioritization of deadlines and important tasks on the laptop. A cellular phone will link him to his colleagues and other members of the organizational hierarchy, which will also have the facility to 'wireless' access and download real time information from the organizations' database. His functions would mostly require him to be informed for rapid corrective actions.

**4. Challenge of Quality Revolution:** Quest for quality has taken the form of a revolution which has been developed around customer satisfaction as the central focal theme. As every consumer is aware about the latest innovations, economies are under pressure to open up and globalize, leading to open competition in the domestic and foreign markets. This has forced the organizations throughout the world to become conscious about quality, productivity, pricing and above all, consumer satisfaction. Products are now available that are far more superior than the earlier one in terms of quality given the same or even at lower price.

**5. Changes in political- legal Environment:** There might be greater government interference in business in the near future to safeguard the interests of workers, consumers and the public at large. Government's participation in trade, commerce and industry will also pose many challenges before management of private sector firms. The Government may restrict the scope of private sector business in certain areas for public interest or it may open the private sector in certain areas which were earlier reserved for, the public sector. Further, there may be new avenues of co-operation between the Government and the Private sector. In fact, there may be more and more joint sector enterprises in future. The Government will also like to see that the interest of workers in industrial enterprise is adequately protected. Many changes are taking place in the legal framework within which the industrial relations system in the country is now functioning. It is the duty of the human resource and industrial relations executives to fully examine the implications of these changes and bring' about necessary adjustment within the organisation so that greater utilisation of human resources can be achieved. This, indeed, is and would remain a major challenge for the human resource executives.

**6. Workforce Diversity:** An important challenge that human resource managers face involves workforce diversity, i.e., the

increasing heterogeneity of people in organisations, especially with the inclusion of workers from different groups such as physically disabled persons, retired defense personnel, and people from different background classes, and even from different part of the country. The concept of workforce diversity addresses the differences among people within the same country. For instance, more and more women are joining the organizations in India and women executives have also been occupying important positions at the middle and top levels in the organisations. This in itself is a challenge for organizations as, traditionally, the Indian society has been male dominated. It is recognized that employees don't set aside their values, beliefs, lifestyles, preference, etc. Often different management practices have to be developed for different life and work styles, etc. of the diverse groups.

With the entry of Multinational Companies (MNC's) in various geographical destinations has resulted in the appointment of refugees, political defectors and displaced local/ethnic people are increasing. Similarly, some of the MNC's are considering people with health challenges for employment on human rights or compassion grounds. Thus the composition of workforce within the organisation has changed drastically and has created both a challenge as well as an opportunity. Because of these dynamic changes in the composition of work force in terms of different nationalities, different regions, different religions, different ethnic groups, different abilities, values and beliefs, it is rightly said that today H.R. Manager is managing a totally diversified work force. Thus, workforce diversity has significant implications for the management. The managers will be required to adjust their approach from treating each group of workers alike by recognizing differences among them and following such policies so as to encourage creativity, improve productivity, reduce labour turnover and avoid any sort of discrimination. When workforce diversity is managed properly, there would be better communication, better human relations and congenial work culture in the organization.

**7. Meeting Aspirations of Employees:** There has been a rise in the proportion of employees in today's industries who belong to the younger generations whose aspirations are different from those of the earlier generations. Today's workers are more career oriented and are clear about the lifestyle they want to lead. Considerable changes have been taken place in the career orientation of the employees. They are becoming more aware of their higher level need and this awareness would intensify further among the future employees. The managers would be required to evolve appropriate techniques to satisfy the higher level needs of workers and develop plans for the career advancement of the employees.

**8. Changing Demographics of Work Force** – the basic concept and nature of work has been changing with concepts such as work from home, flexi timing, project based work assignments, virtual work desks, etc. The changed nature of work is forcing the employees to be continuous learners of new skills and new knowledge. This trend also demands that

the employees should perform contemporary knowledge and skills so that they are in the pay roll of the company.

Global competition has created a Focus for performance. The Corporate Watch Words is 'Perform or Perish.' Performance appraisal is becoming popular in every business. The concept of life time appointment, seniority based promotion and increment, permanent Job are all changing and performance based pay and promotions are becoming the realities.

Thus, the external changes in the economy has altered the internal functioning of the company and most importantly the nature of work is also fast changing to accommodate such changes taking place in and around work place.

**9. Empowerment of employees:** The proportion of professional and technical employees will more increased as compared to the blue collared employees. The present employees are knowledge workers or also known as gold class workers. Hence, they will seek greater degree of participation in goal setting and decision-making and also demands greater avenues of self fulfillment. To respond to these demand organizations will have to be redesigned or restructured to empower the employees so that they have sufficient autonomy or freedom to take decisions while performing their jobs. Empowerment involves efforts to take full advantage of organizations human resources by giving everyone more information and control over how they perform their jobs. Various techniques of empowerment range from participation in decision making to the use of self-managed teams. In future, organizations will follow team structures which will pave the way for empowerment of lower levels. Empowerment would be all the more necessary to speed up the process of decision- making, make use of environmental opportunities and to serve the customers and society better.

**10. Organizational Development:** in future, change will have to be initiated and managed to improve organizational effectiveness. Top management will become more actively involved in the development of human resources.

### **III. Techniques for adapting to the changing trends**

**1. Innovations in Recruitment:** Other than old traditional techniques of sourcing new innovative techniques such as use of social networking sites, body shopping, tele recruiting, e-recruitment should be given importance. Global recruitment policies should be implemented in order to attract talented people all over the world.

**2. Rational Selection of employees:** Psychological testing, other technical and aptitude tests should be adopted. Use of video conferencing and tele conferencing methods needs to be used to cut down costs of interviewing candidates across the globe. There should be no bias based on race, creed, culture, nationality, etc as the main aim is to focus on selecting best suited candidate across globe to match your organisations requirements.

### **3. Flexible Compensation (Cafeteria Compensation):**

Flexible Compensation plans permit employees to choose from among many alternatives in deciding how their financial compensation will be allocated. Employees are given considerable latitude in determining how much they will take in the form salary, life insurance, pension contributions & other benefits. Cafeteria plans permit flexibility in allowing each employee to determine the compensation package that best satisfies his or her particular needs.

**4. HR Policies supporting IT Revolution: HR policies such as Telecommuting** i.e. is a work arrangement whereby employees, called tele-workers or telecommuters are able to remain at home (or otherwise away from the office) and perform their work using computers and other electronic devices that connect them with their offices.

**5. Performance Appraisal** policy based on merit only and also linking rewards and incentives to employees taking initiatives in programmes like TQM , Reengineering, etc

**6. Dynamic Personnel Policies and Programmes:** The Human Resource Manager of tomorrow will not only look after personnel functions, but will also be involved in human resource policies, and programmes for the entire organisations. Similarly, human resource management is not merely going to be an exclusive job of the HR manager, but every executive in the organization would be made responsible for the effective management of people in his unit. Thus, management of human resource will receive greater attention of all managers from top to bottom. The human resource manager would play the key role in formulation of personnel policies, programmes, plans and strategies of the organisations. Functional executives will also be involved in personnel programmes. Every HRM programme will have to be properly planned and directed by the human resource manager in consultation with the other functional managers.

### **7. Building Responsive Organisation:**

The Human Resource Managers will have to contribute tremendously to the building up of responsive organizations. Creating adaptive customer oriented organization would require soliciting employees' commitment and self - control and encouraging empowerment of employees. Instead of imposing himself as the traditional boss, the future manager will have to think of himself as a 'team - leader', internal consultant and 'change facilitator'.

### **8. Contribution to Reengineering for Organisation:**

Reengineering is defined as the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical, contemporary measures of performance, such as cost, quality, service, and speed. It has been pointed out that the traditional way of organizing departments and processes around specialised tasks, is inherently duplicative, wasteful and unresponsive to the firm's customers.

The world is witnessing rapid succession of changes. There are changes in customer preferences, changes in technology leading to rapid obsolescence, changes in organization, changes in geographical realities, Changes in business environment and so on. There is emphasis on creativity, innovation, quality, cost, flexibility, etc. Business

Process Reengineering (BPR) offers the best workable solution too many problems and to meet challenging changes. Human resource professionals can contribute to reengineering process through effective team building, creating empowered jobs, emphasizing on education, focusing on results, supporting quality circles, etc.

## 9. Creating Dynamic Work - Culture:

Human Resource Managers will have to mobilise a new work ethics so as to assist the top management in setting up and enforcing quality standards. Greater efforts will be needed to achieve group cohesiveness because workers will have transient commitment to groups. As changing work ethic requires increasing emphasis on individuals, jobs will have to be redesigned to provide challenge. Flexible starting and quitting times for employees (flextime) may become necessary. Focus will shift from extrinsic to intrinsic motivation of employees. Changes will have to be initiated and managed to improve organizational effectiveness. A work culture conducive to absorption of changes in the technological environment will have to be nourished by the HR/ Personnel executives if they want to acquire higher status in industry and society. They will also -have to make top Management more actively involved in the development of human resources for meeting the challenges of environment and enhancing organisational effectiveness.

## IV. CONCLUSION

We live in the era of change, hence we need to change or else we will be outdated and outsmart by competitors. Now there is worldwide consensus on human

resource being one of the major means of increasing efficiency, productivity and prosperity of the firm. Over the years, highly skilled and knowledge based jobs are increasing while low skilled jobs are decreasing. This calls for future skill mapping through proper HRM initiatives. Organizations are also witnessing a change in systems, management cultures and philosophy due to the global alignment of organizations. There is a need for multi skill development. With the increase in competition, locally or globally, organizations must become more adaptable, resilient, agile, and customer-focused to succeed. And within this change in environment, the HR professional has to evolve to become a strategic partner, an employee sponsor or advocate, and a change mentor within the organization. In order to succeed, HR must be a business driven function with a thorough understanding of the organization's big picture and be able to influence key decisions and policies. In general, the focus of today's HR Manager is on strategic personnel retention and talent development. HR professionals will be co aches, counselors, mentors, and succession planners to help motivate organization's members and their loyalty.

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# Analytical Study on the Social Security Measures for the Industrial Labour

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**Abstract—** Social security is regarded as a crucial element in Industrialisation, economic development and growth. It includes the structure of economic and industrial programme for the protection against the contingencies of modern life, sickness, unemployment, old age dependency, industrial accidents which individual cannot protect himself and his family by his own ability or foresight. A social security benefit scheme is essentially personal service to cover persons and their dependents. For a developing country like India these are the devices to redistribute income it may divert part of the fruits of current production for the benefit of injured workers, secure minimum pensions for lower paid workers, spread the social cost of widowhood, which the industrial sector can assist in the basic health services for the country .

**Keywords—** Social Security, Articles, Act, Social Security Schemes, Social Assistance and Insurance, Contribution, Basic wage.

## I. INTRODUCTION

The concept of social security is based on ideals of human dignity and social justice. organization assures certain contingent risks, where the individual of small means cannot effectively provide by his own ability or foresight alone. A study on social security describes social insurance scheme were developed based on compulsory premium that entitled the participants to pension and sick pay (International Labour Organization 1984). State policy on social security, aims compensation, Restoration and Prevention. Compensation goes to income security, Restoration implies cure of the sick, re-employment rehabilitation, and Prevention is designed to avoid the loss of productive capacity due to sickness, unemployment or invalidity and to render the available resources which are used up by avoiding disease and idleness. The economic security provided by the society as a whole or by the institutions like families, communities, social groups, markets for the social well-being of an individual for his journey from the date of birth to the date of death .

## II. METHODOLOGY

The research methodology adopted to carry out the study is exploratory and analytical. The descriptive design was applied to explain the concept of social security measures. The present makes extensive use of secondary data gathered from content analysis, statute review, journals, policies, text books, articles, reports, etc. it is an analytical study on the Constitutional and other Social Security Legislation pertaining to Industrial Labour.

## III. CONSTITUTIONAL PRIVILEGES

Before Indian constitution being the law of the land emphasized social security to the people by Fundamental Rights, Directive Principles of State Policy and Fundamental Duties and vested state to initiate proper steps to provide social security to the people at employment and after the retirement. It aims Justice, Equality, Liberty and Fraternity to all. In part IV highlighted social security measures through Directive Principles of State Policy. The State shall assure equality before law (Article 14), it should direct its policy towards securing the right to an adequate means of livelihood (Article 39(a); and equal pay for equal work (Article 39(d). The aim is to promote justice, through free legal aid by suitable legislation or scheme (Article 39 A) it shall make effective provision for securing public assistance in case of unemployment, old-age, sickness, disablement and other cases of undeserved wants-(Article 41) securing just and humane conditions of work and for maternity relief (Article 42) secure all workers a living wage, conditions of work and decent standard of life (Art 43) promote the educational and economic interests of the weaker sections of the people and to protect them from social injustice exploitation (Article 46) raise the level of nutrition and the standard of living of its people (Article 47)

## IV. SOCIAL SECURITY LEGISLATIONS IN INDIA HISTORICAL IMPLICATION ON SOCIAL SECURITY

In India joint families, panchayats, religious and charitable institutions used to provide assistance to the needy for various common risks, misfortunes and calamities. Studied the Historical causation of social security in India (Sinha D.K 1980). Kautilya's Arthashastra and Manusmriti bear testimony to the fact that the social structure in those days was so evolved and codes so designed as to provide security to all people. India had a Joint Family system that took care of the social security needs as it had ownership of material assets like land. With the breaking down of the joint family system the need to provide greater social security particularly in the industrial and urban sectors had become all the more urgent. The social security would ultimately accelerate the progress and prosperity (Krishna Kumar Sinha 1987). In keeping with its cultural traditions, the members of the family share responsibility towards one another. References to such guilds are found in Rigveda, Upanishads and in other ancient Indian Literature. Their main purpose was collective security of life

and property, freedom from want and misery, and security against common risks. But organized social security measures in statutory form are only of recent origin.

Increasing migration, urbanization and demographic changes led to the decrease in large family units. Education and awareness emphasised the formal system of social security. Social Security is a comprehensive approach designed to prevent deprivation, assurance of a basic minimum income. The State bears the primary responsibility for developing appropriate system for providing protection and assistance to its workforce. Social security is increasingly viewed as an integral part of the development process. It helps to create a more positive attitude to the challenge of globalization and the consequent structural and technological changes. The social security legislations for industrial workers suffered from the several shortcomings which limit or even the effective access of workers to various benefits.

#### THE EMPLOYEE'S STATE INSURANCE ACT, 1948

This act introduced a compulsory integrated system for social insurance covering health, maternity, accident, sickness, employment injury benefits to employee. Employee State Insurance Scheme being contributory employer contributes 4.75 and Employee 1.75 per cent of the basic pay.

#### THE WORKMEN'S COMPENSATION ACT, 1923

The object of the act is to impose an obligation upon employers to pay compensation to workers for accidents arising out of and in the course of employment. The scheme of the act is not to compensate the workmen in lieu of wages but to pay compensation for the injury caused. The act extends to India and applies to any person who is employed in the hazardous employment specified in Schedule II of the act. . It does not apply to members of armed forces, casual workers and workers covered by employee state insurance Act 1948. Under the act compensation is payable by the employer to workmen for all personnel injuries caused to him by accident arising out of and in the course of employment which disable him for more than three days.

#### THE EMPLOYEES' PROVIDENT FUNDS & MISCELLANEOUS PROVISIONS ACT, 1952 (EPF & MP ACT)

Which applies to specific scheduled factories and establishments employing 20 or more employees. It is contributory in nature. Employer contributes 13.61 % of the basic wage of eligible employees from which 12 % will be further goes to Pension fund and remaining 3.67 % goes to Provident Fund. 1.61% will be administrative charges comprising PF Admin Charge 1.1 %, 0.5% EDLIS and remaining 0.05% to EDLIS Admin Charges and Employee contributes 12 % of his basic towards the provident fund. Whole contribution of the employee goes to the PF Fund.

#### THE MATERNITY BENEFIT ACT, 1961

The act aims at protecting the dignity of motherhood and the dignity of a new person's birth by providing for the full and healthy maintenance of the woman and her child at

this important time when she is not working. **Conditions for eligibility of benefits** Women employee Ten weeks before the date of her expected delivery, she may ask the employer to give her light work for a month. At that time she should produce a certificate that she is pregnant. She should give written notice to the employer about seven weeks before the date of her delivery that she will be absent for six weeks before and after her delivery. She should also name the person to whom payment will be made in case she cannot take it herself. She should take the payment for the first six weeks before she goes on leave. She will get payment for the six weeks after child-birth within 48 hours of giving proof that she has had a child.

#### A. Cash Benefits

Women can claim leave with average pay for six weeks before and after the delivery (Sec 5). A medical bonus of Rs 25 if the employer does not provide free medical care to the women (Sec 8). which is so less these days. In case of miscarriage, six weeks leave with average pay from the date of miscarriage (Sec9). An additional leave with pay up to one month if the women shows proof of illness due to the pregnancy, delivery, miscarriage, or premature birth (Sec 10)

#### B. Non Cash Benefits

Women Employee can request light work for ten weeks (Six weeks plus one month) before the date of her expected delivery. The employer should allow her two nursing breaks in the course of her daily work until the child is 15 months old (Sec 11). Discharge or dismissal is not permitted while she is on maternity leave (Sec 12). Employer cannot make any change to her disadvantage in any of the conditions of her employment while on maternity leave. Pregnant women discharged or dismissed may still claim maternity benefit from the employer. No deduction shall be made from the normal and usual daily wages of a woman entitled to maternity benefit (Sec 13). If a woman works after she has been permitted by her employer to absent herself for any period she shall forfeit her claim to the maternity benefit for such period. (Sec 18). If a woman entitled to maternity benefit dies before receiving such maternity benefit it should be paid to the person nominated by the woman and in case there is no such nominee, to her legal representative (Sec 7). For discharging or dismissing such a woman during or on account of her absence from work, the employer shall be punishable with imprisonment which shall not be less than 3 months, but it will extend to one year and will find, but not exceeding Rs.5, 000 (Sec 18)

#### THE PAYMENT OF GRATUITY ACT, 1972

Gratuity means an Ex-Gratia amount paid in gratitude by the employer to any employee towards his good service rendered for the company. The act applies to factories, mines, oil fields, plantation, ports, railways etc. having a minimum of 10 workers. After completing 5 years of service one may claim Gratuity at the time of separation from the organisation and it is been paid with 15 days of salary for per year of

service subject to a maximum of 20 months wages. For the seasonal employees paid with 7 days' wages for every completed year of service. Employer every month will deposit 4.81% of the basic pay towards gratuity each month. Maximum gratuity should not cross Rs 10,00,000.

## V. FINDING AND ANALYSIS

### 1) *Employee State Insurance Act 1948*

This act applies only to establishments 10/20 employees. Those earning below Rs 15,000 are covered. Security for contingencies like unemployment and old age are not covered. The employer shall pay, both the employer's contribution and the employee's contribution and entitled to recover the employee's contribution by deduction from the employee (sec 40). Dependents benefit is not payable to married daughters. The act faces limitations like The employees State Insurance Scheme neither covered all risks nor was it applicable to all the working populations. The coverage of the act need to be extended to agricultural workers and self-employed persons. The corporation should establish more dispensaries and hospitals. The sickness certificates by Insurance medical practitioners had increased absenteeism in the industries. More attention should be provided for all round improvement of the medical facilities.

### 2) *The Employees' Provident Funds & Miscellaneous Provisions Act, 1952*

The object of the act is to provide substantial security and timely monetary assistance to industrial employees and their families. Ceiling limit for calculation of provident fund is Rs 6,500 policy makers should seriously think of increasing it. Immediate withdrawal of full amount in case of retirement/superannuation after attaining the age of 55 years or in case of retrenchment, discharge on medical ground, or on permanent settlement abroad. Full withdrawal in other, provided that the member has been employed in any other establishment within a period of 6 months after leaving service of establishment. A member is also entitled to withdraw 90% of the provident fund amount after attaining the age of 54 years or within one year of actual retirement. In case of death of the member the entire P.F amount is payable to the nominees paid Rs.1,00,000/- under EDLI. The employee's pension scheme is compulsory. Minimum 10 years contributory service is required for entitlement of pension.

### 3) *The Workmen's Compensation Act, 1923*

The Employer will not be liable to pay compensation for any disablement other than death which does not continue for more than three days. An employee is disqualified from the security If the injury is caused when the workmen was under the influence of alcohol or drugs or willfully violates the rule of safety or he does not present himself for the medical examination when required and Fails to take proper medical treatment which aggravates injury or disease. Where monthly wages exceed Four Thousand rupees, his monthly wages for the compensation will be deemed to be four thousand rupees

only. All cases of fatal accidents should be brought to the notice of Commissioner for Workmen Compensation. A contract or agreement whereby the workmen relinquishes the right of compensation from the employer, for the personal injury arises in the course of employment is null and void. If compensation is not paid by the employer, the workmen or his dependents can claim the same by filling an application before commissioner within 2 years of occurrence of accident.

### 4) *The Maternity Benefit Act, 1961*

Giving birth is the right of the women and no one can interfere with this right. No employer shall knowingly employ a woman in any establishment during the six weeks immediately following the day of her delivery or her miscarriage (Sec 4). To claim maternity benefit she has actually worked for a period of not less than 160 days in the twelve months. Women can claim maternity benefit for maximum period of Six weeks only. Maternity benefit can be claimed either under this act or under ESI Act, 1948.

### 5) *The Payment of Gratuity Act, 1972*

All employees irrespective of status or salary entitled to Gratuity on completion of five years' service except in case of death or disablement (Sec 2e). An employee can nominate any other person after expiry of one year's service in Form F (Sec 6 Rule 6) who can claim gratuity after the life time of the employee. The gratuity which is due to an employee can be recovered within 30 days in Form if it is not paid 30 days of its due date (Sec 8). The employer Forfeiture of gratuity on termination of employee for moral turpitude or riotous behavior or willfully causing loss, destruction of property etc. (Sec 4 (6)). Amount received as per Gratuity Act is fully exempted from Income Tax Act.

## VI. CONCLUSION

The statutory social security schemes in India cater only for a small proportion of the population. All industrial workers from smaller establishments and those drawing salaries exceeding certain limits are excluded from the benefits. A vast majority of labour force in the unorganized and agricultural sector are beyond the benefits. It also should adapt to cope with the changing economic and political environment, including rapid inflation, high unemployment and evolving employment patterns. Budgetary pressures may lead to a reappraisal of what can be afforded out of the public purse. Priorities need to be established and resources should be used appropriately. Even then, it achieved universal acceptance. Nations with widely differing political, economic and social setting have made these programmes available to their people. Extension of coverage; higher levels of benefits; new benefits for less privileged sections; and innovative benefit provisions are the highlights of recent developments.

However, the problem of limited coverage has become a matter of concern to social security policy-makers, who recognize that the exclusion of ordinary people from modern forms of social protection is undesirable. Further,

there is absence of comprehensive social security policies which can co-ordinate different schemes and ensure that their various objectives are complementary. In spite of certain drawbacks, social security schemes can contribute towards sociaprotection if they are adequately supported with resources, carefully designed to meet local needs, and integrated into a national policy committed to providing adequate social protection to the excluded majority

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# Customer Perspective on online mobile banking in India - An Empirical Study

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**Abstract-** Advancement of technology has brought in radical changes in banking industry. Computerization and networking, core banking, automatic teller machine connecting any customer of any bank in any branch with a customer in any other bank in the country has made banks customer friendly. One of the latest introduction is mobile banking. A country with highest number of mobile users, it has enormous potential in changing the outlook of banking in India and reaching the remotous village in any part of the country. It is argued that online mobile banking system has close correspondence with ideal banking system. This paper discusses the objectives, methodology, advantages and benefits of online mobile banking facility offered by the banks to the customers. A detailed review of literature is done on development of online banking in different developed and developing countries including India to analyse the gap of online banking in India. The significance of online mobile banking in India are discussed by considering seven native reasons namely (1) Essentiality of mobile device rather than luxurious, (2) Continuously decreased price of mobile devices, (3) Low usage cost, (4) Availability of services in rural areas, (5) Integration of various service applications within a device, (6) Improved willingness to use mobile devices, and (7) Improved economic conditions of the people. An empirical study on customer acceptance of mobile banking is carried out by developing six hypotheses. Factors affecting the actual use is studies through focus group method as the qualitative data collection instrument. The factors identified in this study include demography of customers, personal banking experience & incentives, technology experience, psychology & culture, and security & trust. The hypotheses are tested using primary data collected through questionnaire method, data are analyzed and the results are discussed.

## I. INTRODUCTION

The convergence of the Internet and mobile networks has created new opportunities and applications. Considering mobile business only as an extension of the traditional internet can lead to missing out on unique and differentiable qualities for new value added opportunities. Advancement of technology has brought in radical changes in banking industry. Computerization and networking, core banking, automatic teller machine connecting any customer of any bank in any branch with a customer in any other bank in the country has made banks customer friendly. One of the latest introduction is mobile banking. A country with highest number of mobile users, it has enormous potential in changing the outlook of banking in India and reaching the remotous village in any part of the country [1-2].

Mobile banking is considered as potentially one of the most value added and important mobile services available. The technological changes in mobile networks, mobile devices, and the innovative attributes of mobile internet, advances in the theoretical framework of innovation in services allowed to develop a customer centric analysis of m-banking value proposition. It is argued that online mobile banking system has close correspondence with ideal banking system.

The critical factors in the diffusion/penetration of m-Banking, reasons for failure, and further prospects of success depends on various factors and are different for different countries. Recently, some of the Indian banks started online mobile banking channel as new distribution channel, but the acceptance of mobile banking services by the customers is not encouraging. It is necessary to find the reason for slow penetration of this value added financial service in India [3-4].

The objectives of this study are to analyze the significance of mobile business activity in terms of their usability, opportunities, and challenges in financial sector with special emphasis on banking activities in chosen cities in Karnataka State of India, to identify the target customers for mobile banking based on the demographic characteristics of users, and to compare attitudes of users and non-users with respect to number of factors such as technology experience, security & trust, psychology & culture, prior personal banking experience, and incentives from banks [5].

## II. LITERATURE REVIEW

There are numerous papers that sought to study the growth of online banking internationally, for instance, Sathye (1997) [6] surveyed the status of Internet banking in Australia. The study found that only two of the 52 banks started Internet banking services at that time. However still there was a lot of room for Internet banking to expand in Australia. Booz Allen and Hamilton Inc. (1997) [7] conducted a global survey covering 386 retail and corporate banking institutions in 42 countries to assess the strategic impact of Internet banking on the financial service industry. According to the study, there is a huge perception gap between North American/European banks and Japanese banks regarding the future of Internet banking. North American and European banks expect Internet banking to

become the most important retail channel within 10 years, but Japanese banks expect traditional branches to remain the most important channel. The study also indicates the rapid growth potential of Internet banking. Many of the banks that responded have plans to upgrade the functionality of their Internet service offerings. Egland (1998) [8] conducted the first important study that estimated the number of U.S. banks offering Internet banking and analyzed the structure and performance characteristics of these banks. They have found no evidence of major differences in the performance of the group of banks offering Internet banking activities compared to those that do not offer such services.

Furst et al., (1998) [9] a U.S. based study found out a significant shift by consumers and businesses to electronic payments. In response to developments in electronic payments and remote banking, banks have greatly increased their investment in technology, particularly in retail banking. The gains from technological advancements in banking and payments are likely to be substantial, both from the point of view of individual financial institutions and economy-wide. In this environment, banks should review and, if necessary, adjust their risk management practices in tandem with upgrading their technology activities. Diniz (1998) [10] reported a survey of web sites of banks in USA. It was found that most of the bank websites were basic and intermediate level. No website was found to be of advanced level. Furst et al., (2000) [11] presented data on the number of national banks in U.S. offering Internet banking and the products and services being offered. Only 20 percent of national banks offered Internet banking in the third quarter of 1999. However, as a group, these Internet banks accounted for almost 90 percent of national banking system assets, Banks in all size categories and 84 percent of small deposit accounts.

Sullivan (2000) [12] found that Internet banks in 10th Federal Reserve District incurred higher expenses but also generated higher fee income and concluded that the measures of profitability for Internet banks are similar to those of the non-Internet banks. Guru et al., (2000) [13] examined the various electronic channels utilized by the local Malaysian banks and also accessed the consumers reactions to these delivery channels. It was found that Internet banking was nearly absent in Malaysian banks due to lack of adequate legal framework and security concerns. However over 60 percent of the respondents were having Internet access at home and thus represented a positive indication for PC based and Internet banking in future. DeYoung (2001a) [14] investigated the performance of Internet-only banks and thrifts in the U.S. The empirical analysis found that the newly chartered Internet-only banks substantially underperform the established banks at first, but these performance gaps systematically diminish over time as new banks grow older and larger. The study suggested that the Internet-only banking model may be feasible when executed efficiently. DeYoung (2001b) [15] found that the

average one year old Internet-only bank earned significantly lower profits than the average one year old branching bank, due to low business volumes and high non-interest expenses. It supports the proposition regarding the Internet-only banks, fast growth but low (or no) profits.

Jasimuddin (2001) [16] found that within one year of the introduction of Internet service in Saudi Arabia, Saudi banks had at least decided on their Internet presence. 73 per cent of the Saudi banks possessed their own web sites and 25per cent of the web sites were offering full services over Internet. The banks viewed the Internet as a key alternative delivery channel. Furst et al., (2002) [17] provided a comparative study of Internet and non-Internet banks in U.S. and found that institutions with Internet banking outperformed non-Internet banks in profitability. Also, banks in all categories of size offering Internet banking tended to rely less on interest yielding activities and deposits than non-Internet banks do. Koedraben et al., (2002) [18] investigated, designed and developed an Internet based retail banking prototype that meets the requirements of the Thai customers. It found that more than half of the sample Internet users in Thailand are very interested in using the Internet banking services. The main features needed are balance inquiry, bill payment, fund transfer, business information, and payment for goods purchased. The prototype was then developed and validated. The survey from the executives of four Thai banks revealed that there was a potential growth for retail Internet banking in Thailand.

Corrocher (2002) [19] investigated the determinants of the adoption of Internet technology for the provision of banking services in the Italian context and also studied the relationship between the Internet banking and the traditional banking activity, in order to understand if these two systems of financial services delivery are perceived as substitutes or complements by the banks. From the results of the empirical analysis, banks seem to perceive Internet banking as a substitute for the existing branching structure, although there is also some evidence that banks providing innovative financial services are more inclined to adopt the innovation than traditional banks. Hasan (2002) [20] found that online home banking has emerged as a significant strategy for banks to attract customers. Almost 75 percent of the Italian banks have adopted some form of Internet banking during the period 1993-2000. It also found that the higher likelihood of adopting active Internet banking activities is by larger banks, banks with higher involvement in off-balance sheet activities, past performance and higher branching network.

Janice et al., (2002) [21] based on interviews with four banks in Hong Kong noted that banks view the Internet as being a supplementary distribution channel for their products and services in addition to other forms of distribution channels such as Automated Teller Machines

(ATMs), phones, mobile phones and bank branches. Basic transactions and securities trading are the most popular types of operations that customers carry out in Internet banking. Lustsik (2003) [22] based on the survey of experts of e-banking in Estonian banks found that Estonia has achieved significant success in implementation of e-banking and also on the top of the list in emerging countries. All the major banks are developing e-business as one of the core strategies for future development.

Awamleh et al., (2003) [23] found that banks in Jordan are not fully utilizing concepts and applications of web banking. In comparison to developed international markets, it is fair to say that this sector is largely undeveloped. Indeed, only two banks offered limited number of services through their web. The major challenge facing further development of web banking in Jordan is, for example, the high cost of telecommunication. Another element is the non-availability of information technologies, packages, solutions, and human resources, which facilitates optimum use of technology. The study revealed that Jordanian banks have been successful in the introductory phase of web banking. However Jordanian banks are required to move towards web banking usage with a view to conducting real financial transactions and improving electronic customer relations.

Mari Suoranta et al., (2003) [24] focused on studying diffusion and adopters of mobile banking services. The paper explores some contradictory empirical findings drawn from a mobile banking survey. The results provide an indication of the characteristics of potential subsequent adopters of mobile banking, and of differences between user segments. It also commented on the influence of certain demographic characteristics and the preferred communication mode of customers on the adoption and future usage of mobile banking services. Jukka Riivari, (2005) [25] looks at how and why financial organisations across Europe are beginning to take advantage of mobile services and in particular mobile banking as a powerful new marketing tool to build long-lasting and mutually rewarding relationships with new and existing customers. Examples show how European financial organisations are using mobile banking to improve their customer service and relationships, to reinforce their brand by literally placing it in their customer's pocket and to reduce their costs.

Mari Suoranta et al., (2005) [26] reviews recent technological advances in banking and forces that will drive or inhibit mobile banking services adoption. Drawing on the relevant literature and empirical implications of the study, the paper proposes a model that conceptualizes different affecting factors in electronic banking environment, and particularly in mobile banking. A quantitative survey sheds more light on this researched issue. The data was collected in Finland during May–July 2002.

Irwin et al., (2005) [27] explored the factors that affect Internet and Cell Phone banking adoption in South Africa. The paper also compare the differences in the perception of Internet banking and cell phone banking and the influence factors. The findings indicate that both the adoption intent and the perception of Internet banking users differ markedly from cell phone banking users.

The exploratory study of Vijayan et al., (2005) [28] seeks to examine the consumers' intention to adopt themselves to multimedia banking based on three commonly used theories known as Technology Acceptance Theories (TAT). Even though multimedia banking is well available in the market banks are generally facing immense challenges in attracting visitors to their websites. As much of these phenomena were blamed on the traditional brick and mortar type of banking, knowledge and understanding of this challenge can help bankers to fish in more clients into this new wave of banking. At the same time to stay competitive in the market banks have to develop a framework that incorporates latest technological aspects of multimedia banking.

Lee et al., (2007) [29] identified factors influencing the adoption of mobile banking service. The paper focused on perceived risk, perceived usefulness, and trust in mobile banking adoption. This study modified the concept of a technology acceptance model (TAM) within the context of mobile banking. It introduced “perceived risk” and “trust” in a proposed model to reflect consumers' needs to use mobile banking. Evidence for a composite perceived risk variable was identified. We found the strong inhibiting effect of perceived risk on trust. It is found that Trust also had stronger influence on the adoption behavior of mobile banking than perceived usefulness, which was used as an important variable in the traditional TAM variables. There are a series of papers that observe that mobile banking has revolutionized the banking industry and the banking industry is under pressure to offer new products and services. However, to succeed in today's electronic markets a strategic and focused approach is required.

In the Indian context many publications throw light over the importance of Internet banking and also its prospects for the Indian banking industry. However these papers don't identify key differences between Internet banks and non-Internet banks. Unnithan et al., (2001) [30] studied the drivers for change in the evolution of the banking sector, and the move towards electronic banking by focusing on two economies Australia and India. The paper found that Australia is a country with Internet ready infrastructure as far as telecommunication, secure protocols, PC penetration and consumers literacy is concerned. India, by comparison, is overwhelmed by weak infrastructure, low PC penetration, developing security protocols and consumer reluctance in rural sector. Although many major banks have started offering Internet banking services, the slow pace will continue until the critical mass is achieved for PC, Internet

connections and telephones. However, the upsurge of IT professionals with growing demands is pressuring the government and bureaucracy in the country to support and develop new initiatives for a faster spread of Internet Banking. The economy is classically the catch-up one, trying to develop and catch up with leading economies. Rao et al., (2003) [31] provided a theoretical analysis of Internet banking in India and found that as compared to banks abroad, Indian banks offering online services still have a long way to go. For online banking to reach a critical mass, there has to be sufficient number of users and the sufficient infrastructure in place. Agarwal et al., (2003) [32] explored the role of e-banking in e-democracy. With the development of asynchronous technologies and secured electronic transaction technologies, more banks and departments were using Internet for transactional and information medium. Initiatives such as E-SEVA and FSC's are the milestones towards achieving comprehensive e-governance.

Balwinder Singh et al., (2004) [33] made a survey of commercial banks websites, on the number of commercial banks that offer Internet banking in India and on the products and services they offer. It investigates the profile of commercial banks that offer Internet banking, using univariate statistical analysis, relative to other commercial banks with respect to profitability, cost efficiency, and other characteristics. By the end of first quarter, 2004, differences between Internet and non-Internet banks had begun to emerge in funding, in sources of income and expenditures and in measures of performance. It was also found that the profitability and offering of Internet banking does not have any significant correlation. Sakthivel, (2006), [34] conducted an extensive primary research in Bangalore, India (Silicon Valley of India) in order to identify the willingness of Internet users to buy different services over Internet. The paper aims at providing a specific focus to identify the impact of demographics in influencing Indian Internet users in consuming different services online. The outcomes would help the corporate world to understand the importance of demographics on online purchase which could be adopted and deployed for better use. Internet banking is fast becoming popular in India. However, it is still in its evolutionary stage. Now almost all the banks operating in India are having their websites but only a few banks provide transactional Internet banking (Mookerji, 1998 [35]; Pegu, 2000 [36]; Gupta, 1999 [37]; and Dasgupta, 2002 [38]).

### **III. SIGNIFICANCE OF MOBILE BUSINESS IN FINANCIAL SECTOR**

#### **Penetration of Mobile Usage in India:**

In India, the growth of mobile plateaus is at around 13,00,000 new subscribers every month. India had 14.17 million mobile phone subscribers by May 2003, about 102.8 percent more than the year 2003 and as of end October 2004, the total number of mobile subscribers in the country

was 44.51 million as compared to 43.96 million fixed line subscribers. It is also noted that the GSM industry continued to maintain its dominance in the mobile market accounting for 78 per cent of India's total mobile subscribers. Mobile phone users are grown to over 160 million by the end of the year 2006 and 220 million by the end of the year 2007. This is due to the following seven reasons :

#### ***Essentiality of mobile device rather than luxurious :***

The tight emotional attachment with the family members and friends, Indian citizens like to keep continuous contact with each other at any where any time. This attitude of Indian people is supported by the advent of less cost mobile communication technology and becoming popular in upper as well as middle class people.

#### ***Continuously decreased price of mobile devices :***

The price of mobile devices is continuously decreasing year by year and is now affordable to common people in India. In addition, the technology of mobile device is improving such as increase in screen size, improved bandwidth and internet accessibility.

#### ***Low usage cost :***

Due to high competition between mobile service providers and globalization of business, the cost per call is very small and is further decreasing substantially.

#### ***Availability of services in rural areas :***

Due to decreased cost of mobile equipments and communication services, rural people also attracted towards the usage of mobile services. Moreover, the competition between mobile service providers and hence decreased usage cost also attracted the middle class people in rural areas. Also, the additional bundled services like mobile banking, internet access facility using mobile device and mobile commerce attracted educated people in rural area which caused further penetration of mobile usage in India.

#### ***Integration of various service applications within a device :***

The bundling of various additional services like, video camera, free SMS, broad band Internet access facility at nominal charges, Downloading video games, weather report, Alarm, date and time, calculator, hot news, online banking facilities, online purchasing of various products and services attracting people to use mobile devices and services.

#### ***Improved willingness to use mobile devices :***

The attitude of the people towards the usage of mobile devices for their daily applications is changing and the willingness of the people especially youngsters towards usage of mobile devices is increasing. More and more people in urban and rural places are attracted to the advantages of mobile communication technology and willing to use them in their daily life.

#### ***Improved economic conditions of the people :***

Such an extremely high penetration rate of mobile devices, especially mobile phones coincidences applications other than communication between people, which include mobile financial applications such as mobile banking and mobile payments. This is also due to the fact that users considered their mobile phone as a personal trusted device making it to an integral part of their lives and more and more of these devices became Internet-enabled, which is suitable for banking applications.

Cellphone firms in India get ready to harvest the high growth potential of mobile phone market. With subscriber addition drying up in older cellphone markets in Western Europe and North America, the bigger players in the mobile phone industry are turning to emerging markets – India and China to keep growth rates high. World leaders Nokia and Motorola, who accounts for more than 51 per cent of the phones sold in the World today, continue to bring out cheaper and cheaper models in the market with basic features like voice, SMS and mobile banking at around Rs. 1000. Another player, Philips, less dominant in handset market but which accounts for almost 15 per cent of the

chipset business has also a plan to bring out Cellphones under Rs. 1000.

#### **IV. FACTORS AFFECTING THE CUSTOMERS ACCEPTANCE OF MOBILE BANKING**

The information obtained in this study can assist banks in determining a strategic direction to take with regard to enhance their mobile banking activities. The retail banking customer has very different needs than the corporate customer. The purpose of the qualitative phase is to gain insight into how consumers value and evaluate the mobile banking as a channel of financial transaction and as a source of banking information. The qualitative data collection instrument chosen is the focus group[5].

Four focus groups, each comprising of six young adults, are conducted. Group 1 comprised of 3 males/3 females, Group 2 consists of 2 males/4 females, and Group 3 consists of 4 males/2 females. Participants are chosen from the population of Business studies students at Srinivas Institute of Management Studies, Mangalore. A model on Factors affecting the acceptance of mobile banking services for actual use, is developed through Focus group interaction as shown in fig. 1.

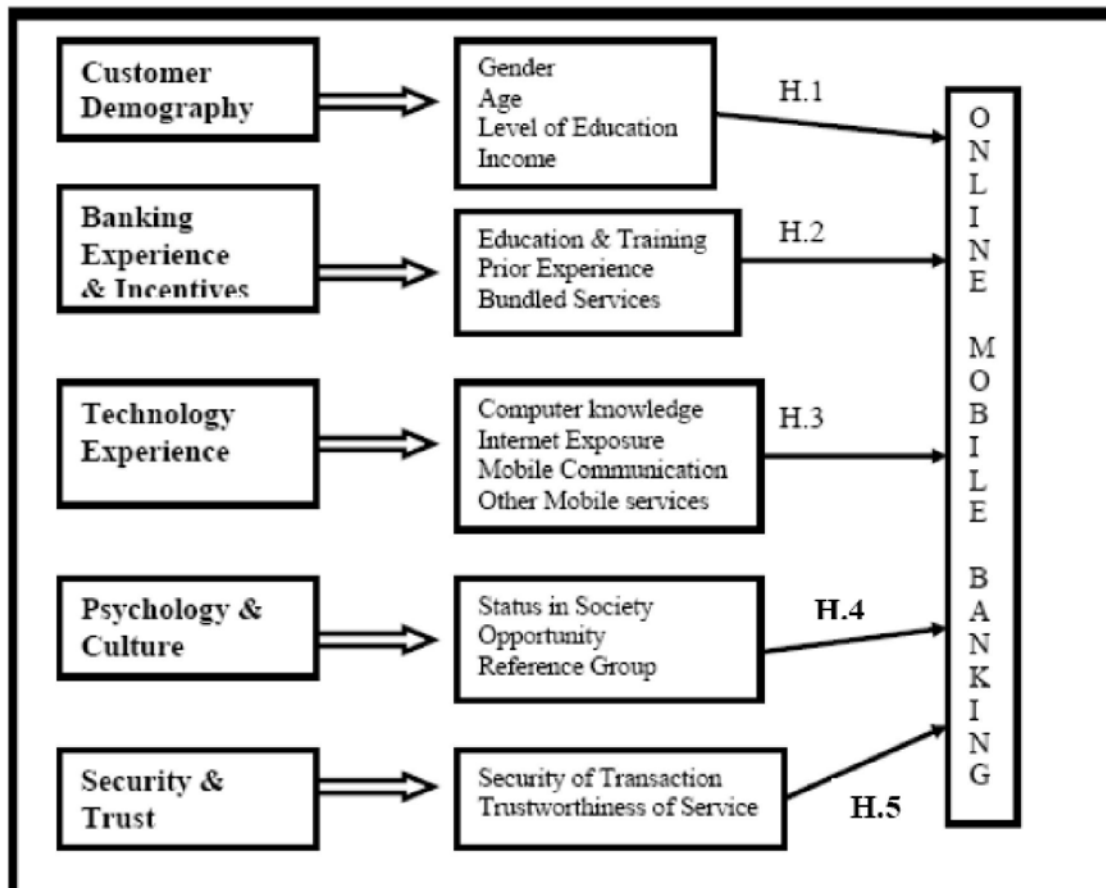


Fig. 1 : Factors affecting the actual usage : Conceptual model of online mobile banking used in this study

To support the model shown in Fig. 1, we have developed certain hypotheses and to test the hypotheses and the model, we have carried out a customer's survey using the Questionnaire [5].

### 1. Customers' Demographics

The effect of demographics has been found to be a significant determinant of behavior in various studies concerning electronic banking. High income, relatively young age, and good education have been found explaining the acceptance of electronic banking. In addition, a typical electronic banking user has been identified as a high involvement person belonging to the upper middle class or in parts as a member of the career-orientated upper middle class (Roemer and Buhl, 1996 [39]; Jayawardhena and Foley, 2000 [2]).

The technology acceptance literature points a strong relationship between age and the acceptance of new technologies, [e.g. Gattiker, (1992) [40]; Harrison et al., (1992) [41]]. Older customers are found to have problems with new technologies, and hence, are expected to have negative attitudes towards innovations. Trocchia and Janda (2000) [42], for instance, indicate that many older consumers possess more negative intention to change. However, they argue that person's overall perception of technology affects more than the age.

Gender has also been suggested as a factor of mobile banking adoption. Some studies argue that the mobile usage and internet is male dominated. In Finland the research counts that 45 percent of the Internet users are female (Statistics Finland, 2000)[43]. We are interested in examining whether demographic variables such as age, education, profession, and household income have an influence on mobile banking usage. The adoption and use of mobile banking channel depends on the personal profile of the users' Gender, age, level of education, Household Income and social class. Hence we hypothesize that :

**H1 : There is significant association between adoption and usage of mobile banking channel and personal profile of the users.**

### 2. Personal banking experience and Incentives

Consumer behavior research has also studied the relationship between a person's experiences onto his/her behavior. In general, beliefs and attitudes are largely the result of personal experiences about a given object (e.g. Fishbein and Ajzen, 1975, p.10 [44]). The satisfied bank customers have more positive perceptions also about mobile banking and, thus, are more likely to move online. A dissatisfied branch office customer may also try mobile banking, but only a satisfied customers adopt mobile banking as their regular bill payment mode. By providing education about new channel and providing training about the usage of new channel will certainly decreases the fear of using new channel. Once the customers are exposed to new channel, they will be comfortable to use it and based on

simplicity, usefulness and comparative cost efficiency they will be stimulated by new channel and adapt it for their regular transactions. Similarly, if the new channel has bundled services and service content compared to traditional branch banking then it has better attraction. Based on the observation four propositions are developed.

1. People already using traditional banking are potential customers for new channel.
  2. Proper training and education from the bank increases the usage of new channel.
  3. Potential customers who are allowed to experiment an innovation will face more comfortable with it and are more likely to adapt it.
  4. Bundled services and Increasing the service content through new channel have positive effect.
- Hence by proper training and education by the banks, Customers of traditional banking can be converted into online mobile banking customers.

Based on these propositions, we hypothesize that :

**H2 : There is significant association between adoption and usage of mobile banking channel and the banking experience of the customers.**

### 3. Technology experience

Prior technology experience, especially prior computer experience or mobile communication experience and/or internet usage experience have been found to impact consumers' beliefs about related systems and information technology (DeLone, 1988 [45]; Igarria et al., 1995 [46]). Au et al. (2000) [47] extended this idea to the observation that the more experience consumer has about technology, the better will he/she understand new technologies and their ramifications. Thus, consumer's familiarity with technologies in general facilitates his/her appreciation of the potential added value which is inherent in a technology. Trocchia and Janda (2000) [48] introduce this logic to the realm of the Internet by arguing that consumers' adoption rate of the Internet is associated with their past experiences with the technologies.

Non-users' negative experiences are suggested to have a great impact on their perceptions about the Internet. This logic is in line with the classic attitude theories of Fishbein and Ajzen (1975, p.14) [49], who claim that the more positive the person's past experience about an object is, the more positive beliefs he will hold about it. As a result, the positive beliefs create positive perceptions. It should be highlighted that some prior experience with mobile device has a positive influence on the adoption of new banking channels, since the consumer acquires skill in usage and communication using such device (Dholakia and Uusitalo 2002 [50]; Korgankar and Moschis 1987) [51]. Hirschman (1980) [52] noted that understanding of the characteristics and operation of a new device is needed before it can be adopted. In the context of M-banking, it is to be expected that consumers with more experience of usage of mobile devices should be potential candidates for adopting online

mobile banking. Based on the observation four propositions are developed.

1. Negative attitude of customer to use new technology based services prohibits the new channel usage.
2. Fear of fraud and mis-transaction decreases customer attitude of usage of new financial channels.
3. Lack of guidance in using mobile devices for financial transactions has negative affect.

4. Prior Mobile phone usage experience has positive influence on adoption of online Mobile banking channel.
- Prior Mobile phone usage experience has positive influence on adoption of online Mobile banking channel.

Based on these propositions, we hypothesize that :

**H3 : There is significant association between adoption and usage of mobile banking channel and the technology experience of the users like mobile phone and internet experience.**

#### 4. Psychology and Culture

Traditionally, all commerce has depended on trust, and that includes which is seen as complementary to traditional commerce. Although trust is of major importance and most people want it, they are wary of using the Internet technologies available for secure e-commerce transactions. Consumer behavior literature also suggests that reference groups, such as a social reference group, may impact on person's behavior (Fishbein, 1967, p.477 [53]; Fishbein and Ajzen, 1975, p.495[49]). Two competing influences have been identified on the relationship between subjective norm and behavior: conformity and dissension (Snyder and Fromkin, 1977 [54]; Simonson and Nowlis, 2000 [55]). Conformity is the result of people trying to conform to a subjective norm, thereby avoiding criticism and rejection. The research literature shows support for the role of culture on behavioral intention. For example, Mathieson (1991) [56] shows that behavioral control influences intention to use an information system. A positive relationship between control and intentions is also found in Taylor and Todd (1995) [57], who examine users in a computer resources center, and Pavlou (2002) [58] in e-commerce behavior. Overall, there is strong theoretical and empirical support for the role of perceived behavioral control on behavioral intentions. Applied to the context of online transaction intentions, behavioral control should have a positive effect on such intentions since consumers would not have fears of fraud in online financial transactions. In sum, perceived behavioral control is likely to reduce barriers to the adoption of m-business (Pavlou, 2002) [58].

Cultural differences between India and other developed countries are also relevant to perceived behavior control. These qualities are translated into the long-term orientation dimension, which also includes personal steadiness and stability. A long-term orientation means that people feel free to put off making a decision until they are comfortable with its ramifications. In essence, this gives such people more control over their actions. In contrast to

India, the developed countries ranks low on long-term orientation. Therefore, we would expect Indians to demand more control of their online financial transactions through mobile devices than other developed country customers, and rely on this control in their online transaction behavior.

The research literature shows support for the role of subjective norm on behavioral intentions. For example, in a cross-sectional comparison of pre- and post-adoption of information technology use, Karahanna et al. (1999)[59] found that top management, supervisors, and peers significantly influenced adoption intention for both potential technology adopters and actual users. In addition, they found that MIS staff and friends are important influences for potential adopters, while computer specialists played a significant role for actual users. It is expected that subjective norm will have an influence on the intentions of customers to engage in online mobile financial transactions. Subjective norm can be decomposed into (a) societal norm and (b) social influence. Societal norm refers to adhering to the larger societal fashion (large circle of influence), while social influence reflects adhering to opinions from family, friends, and peers (small circle of influence). India and the other developed countries share important cultural differences with respect to societal norm and social influence, as described below.

The consumption of banking services may be influenced by several reference groups of the customer such as the personnel of the bank and traditional ones such as friends and family. We hypothesize that *reference groups do influence the adoption of mobile banking*, and modify the hypothesis with the statement that even if mobile banking usage may be initiated by education and training provided by banking personnel, the continuance of the use of mobile banking depends more on other factors, mainly reference groups and customer's perception about technology in general. Based on the observation four propositions are developed.

1. Use of new electronic channel for financial transaction improves the customer status in the society.
2. More the bundled services provided by the banks, more the channel is used.
3. Lack of opportunities (like service area, mobile device etc) to use new channel will decrease the usage of such service channel.
4. Reference groups influence positively.

Human nature of testing new innovation, reference group influence, and status in the society, has positive effect in the usage of new electronic channel.

Based on these propositions, we hypothesize that :

**H4 : There is significant association between Human nature of testing new innovation, reference group influence and status in the society and the usage of new online mobile banking channel.**

## 5. Security challenges and Trust

One of the most significant challenges of online mobile banking has been consumers' security concerns about mobile banking. Security has been identified as one of the biggest barriers for the uptake of online banking [see e.g. Sathye, (1999) [60]. Mattila's (2001, p.129-133)] empirical study points out that Finnish Internet banking customers do not pay excessive attention to security concerns. For both developed and developing countries, consumers are of the perception that deception and risk of fraud and loss constituted one of the most important causes of the secure online financial transactions. Security and trustworthiness of usage of service is most important factor and has positive effect while switching to new service channel.

**H5 : There is significant association between Security and trustworthiness of the usage of service and user attitude to switching to new online banking channel.**

Based on empirical study of collecting 400 primary data and its statistical analysis we realized that all the above hypotheses are significant [5].

## V. FINDINGS OF CUSTOMERS PERSPECTIVE STUDY

1. Based on Focus group interaction, a new conceptual model on penetration of new technological innovation to the society is developed and is named as Theory of Customers Stimulation through Education and Training (TCSET).
2. The TCSET model is applied to customer's perspective on adoption of mobile banking service and the model is tested by means of empirical study.
3. A conceptual model is developed to determine the factors affecting the customer's decision on adoption of mobile banking. The model is tested using empirical study.
4. It is found that the awareness and training on mobile banking usage based on usefulness, cost of transaction, and easy of use, changes the customers attitude and view on usage of mobile banking services.
5. It is also found that the security aspects of financial transaction have major roll in customer's perceived decision on adopting mobile banking for actual use.
6. The various factors such as demographical profile of users, earlier banking experience, technology experience, psychology and culture, and the security challenges and trust have substantial role in customers view while adopting mobile banking channel.
7. The study identified that the enhanced security and banks actions to improve the customers trust on this channel encourages the adoptability.

## VI. CONCLUSION

This study investigated evaluated factors that are significant in determining the satisfaction of customers using mobile banking. Banks in India do not use their websites strategically to improve customer relationship or to add real value. For instance, if banks want more of their

customers to use mobile banking, they will need to provide more value add services than the ones provided by ATMs or phone banking. The study identified the factors that are significant for internet banking customer satisfaction. Security of transactions and convenience contribute significantly to satisfaction of internet banking customers. Banks while advertising their mobile banking services should emphasize these points. In the case of new users of the mobile banking service, banks should also concentrate on the independence aspect of this service. Customers can be encouraged to take advantage of online banking by providing them with incentives. For example, successful online applications of frequent flyer programs in the airline industry may be a useful benchmarking exercise for mobile banking.

The study identified the factors that are significance for mobile banking penetration and customer acceptance. It is observed that the prior banking experience, education & training on usage, and benefits of mobile banking have substantial effect on acceptance of mobile banking transactions by Indian customers. In addition, the security and incentives by the banks have also significant affect on acceptance & usage of banking services over mobile phone. The concern of customers on security of banking transaction is supported by the figures given in response to a question in Parliament of India on March 4, 2008, the total number of Banking frauds have gone up from 12,374 in 2005 (amounting Rs. 1,385.91 crores) to 21,687 in 2006 (amounting Rs. 1,200.87 crores) in 2006, and to 22,280 in 2007 (amounting Rs. 1,077.84 crores).

These studies reveals that proper education and training on availability and usage of mobile banking services channel is required in India to attract more customers towards usage of this new channel for their financial transactions along with other factors like technology experience, security & trust, psychology & culture, prior personal banking experience, and incentives from banks, studies in the model. The study also points out the requirement of new, comprehensive mobile business model for secured payment from the customers bank accounts.

In the study, it is found that the proper education and training on usage of mobile banking services has substantial effect on attracting more customers to use this new distribution channel. The study comes to the conclusion that Mobile Banking, as an interesting application in Mobile business, is winning the acceptance of the customers and enjoys sufficient demand in future days. Banks are seeing themselves increasingly forced to include Mobile Banking in their product portfolios to avoid negative differentiation against their competitors. Apart from this strategic relevance, there are other financial incentives, too. Their actual scope however depends, amongst others, on the product portfolio and the customer structure of individual

banks. The study also reveal that proper education and training should be provided on availability and usage of mobile banking services to the Customers by the banks in terms of its importance, convenience and negligible cost.

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# An analysis of Green products- Exploring a new Innovation Paradigm

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**Abstract:** Consumer marketers are trying to stand out in a growing and diverse eco-committed marketplace. Given the long-term impact of climate change and global warming, the call for the production and consumption of green products becomes even more urgent and necessary. Restoring the planet is the new mantra of today's day business organizations. Green products and green marketing is the necessity of today's organizations. Company competitiveness and profitability are inextricably linked with the achievement of sustainability objectives. It is also an economy in which consumers are a driving force. Empowered with meaningful information about products, consumers view them as a means to a solution. There's a new kind of consumer that cares more and more about purchase drivers like, is it healthy and is it environmentally safe. Cradle-to-Cradle emphasizes designing and manufacturing products that are infinitely reused. In a world where climate change, resource consumption, pollution and waste are becoming more and more critical issues, both society and companies are required to take action. Within this context, green product innovation can play a fundamental role in helping society to reach the target of environmental sustainability. This paper builds the theoretical foundation for green product with case study approach and this will help the academicians and the business houses in rethinking solutions to create green products. The paper also develops a model as to how to create an innovative sustainable green product.

**Keywords:** *green products, innovation and sustainable, case study approach, model*

## INTRODUCTION

Successful in business is only possible if we are successful in society. Better solutions and smarter designs with built-in social and environmental benefits do not have to mean extra cost and contribute to brand preference, loyalty and market position. The growing momentum to promote the use of green products only proves that people are already accepting the fact that climate change is no fad. This trend creates a huge niche for both environmentalists and entrepreneurs to come up with innovative solutions that would change people's mindset toward the environment by introducing new eco-friendly products in the market. This trend is envisaged to change human consumption in the long term, thereby instilling a paradigm shift that would enable consumers to act as environmental stewards as they patronize eco-products to help achieve environmental sustainability.

## GREEN PRODUCTS

Green products can be defined as products that strive to protect the natural environment by conserving energy

and/or resources and reducing pollution and waste in one or more phases of their life cycle, such as production, use and disposal. The relevance of green product innovation is becoming more and more widely recognized. Green products generally use eco-friendly materials and energy-efficient means of production, thereby causing less or no detrimental impact on the environment. Eco-friendly products do not contain harmful elements that might pollute the ecosystem and the production process of which does not result to any toxic by-products or negative externalities. Moreover, green products are usually biodegradable and made from recyclable materials. They also conserve energy by promoting renewable or natural energy sources and low-maintenance energy requirements.

## STATEMENT OF THE PROBLEM

Now a day's awareness on green product by the people has increased which shows the importance of green product. It is not only because of awareness; it is also because of the bad impact on health of mankind. Consumers have understood the impact of non-green products and started using or adopting green product for regular consumption. The researcher shows interest on the positive impact on green products. Thus, this particular study has been carried out.

## OBJECTIVE OF THE STUDY

1. To understand the concept of green product and its necessity
2. To examine cases where companies are adopting green strategies
3. To build a theoretical model of green product based on the case studies

## METHODOLOGY

This study is based on secondary data. The data has been collected from various published books, magazines, articles and websites. Descriptive analysis has been used to describe the collected data.

### Theoretical framework:

Business can no longer go green for the usual reasons—social responsibility. Instead, the move is imperative because it's a critical differentiating factor in competing for consumers. Companies without a strategy in place are running out of runway. An important aspect in

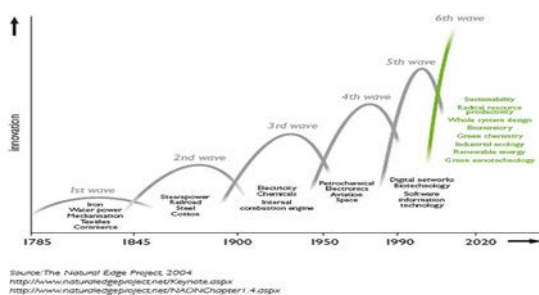
innovating is trying to find ways to reduce environmental impacts while still making money. While increasing recycling and tracking carbon emissions might be a good place to start for many companies, it is just one approach to sustainable practice. The companies have to think more holistically about their own workplaces, supply chains, packaging, and all of the other elements in their organization. They need to embed sustainability deep into their operations and strategy. It's about staying relevant in a changing world by recognising long-term trends, making connections between your business and the outside world, and responding commercially to societal needs.

In its 2010 report, "Redesigning Business Value: A Roadmap for Sustainable Consumption", the World Economic Forum outlines a new normal for the global economy in which "consumption is decoupled from negative environment and social impacts." This world, it continues, is not defined by scarcity and sacrifice, but by innovation and a new abundance.

According to Green Factor, – the first global "green" enterprise IT study released in the year 2013 green products are not only highly important for the environment, they are potentially profitable. More than 70 percent of the global respondents said they "probably" or "definitely" would increase their preference for a brand's "green" products if they were convinced of the positive impact on the environment and business. Almost 60 percent said they would expect to pay a premium for "green" products

Green products can lead to a new growth paradigm and a higher quality of life through wealth creation and competitiveness. Developing green product innovations is not only beneficial for the natural environment but also for companies. In fact, integrating the environmental dimension into product development may be a significant source of competitive advantage, since it can allow for product differentiation, enhancement of firm reputation, and low cost manufacturing (by means of increased efficiency in the use of resources, reduction of pollution and waste from production processes).

Waves of Innovation



However, several challenges are associated with the development and diffusion of green product innovations. First of all, with regard to the development process, it requires a high level of integration of competencies and knowledge about the environmental impacts of products and process among different functional areas within the company,

investments in eco-design competencies, and the adoption of life-cycle thinking. With regard to challenges for the diffusion of this kind of innovation, the lack of customers' awareness today represents one of the greatest barriers.

### Denim Industries green approach:

Denim industries is the most globally trusted brands. It is the leader in its category of products. The company is also remembered for its role as a leader in the initiative of green. The brand has been in a continuous process for more than 5 years in developing new methods of production through their cradle to cradle approach with environment being the focal point. The company uses more recycled materials, alternative fibres, less water etc.

In 2007, Levi's commissioned research into the environmental impacts of two of its products, including a pair of 501 jeans: climate, energy, water, materials, land use and bio-diversity were scrutinised. The findings showed that the greatest reduction in environmental impact could be made at the start and end of a product's lifecycle. So Levi's signed up to the Better Cotton Initiative, which focuses on reducing water and chemical use in cotton cultivation, and launched a campaign to persuade its customers and staff to wash their clothes less often.

With the goal of minimizing waste and bringing social awareness to recycling, Levi's launched its "doing more with less" commitment in 2009 where they introduced "A Care Tag for our Planet", an initiative to educate consumers on how to clean their clothes with less environmental impact. The company also launched water less initiative. This was an initiative the company undertook in the year 2010 that focused on reducing the water used in the manufacturing.

This initiative was the development of water less, a revolutionary finishing technique that uses an average of 28% less and in some cases up to 96% less water for their denim lines. This initiative was a successful one because this act saved over 360 million liters of water and proved to everyone that quality, comfort and style can be achieved by being green. The water less initiative had a huge conversational advantage about reducing the waste. It led to building up the brand image and goodwill.

In the year 2013 the brand take the path breaking step in its sustainable design initiative with the introduction of the Levi's Waste Less denim collection. In an attempt to tackle waste, Levi's has created a new denim range which uses eight plastic bottles for each pair of jeans. Plastic waste is a huge problem globally. Global bottled water consumption is more than 29 litres per person per year, and recycling rates are phenomenally low. As per the recent analysis done approximately 1 million bottles are used every 20 minutes in the developed nations. Levi's created two fashion lines – jeans and trucker jackets – that incorporate at least 20% post-consumer plastic recycled content. The idea behind this was to make the consumers think about recycling of the plastic bottles.

Made with the same quality and craftsmanship, each garment consists of 20 percent post-consumer recycle product, equaling to 3.5 million recycling bottles being re-purposed for this season's collection. This explains that the company designs the product with some purpose and one of the purposes is about being eco friendly. The company is making the consumers think about recycling and adding value to the process and ultimately to the final product. The company develops and weaves the innovative fabric that is produced from brown beer bottles, green soda bottles, clear water bottles, and black food trays. The color of the bottles used adds a beautiful undertone to the denim fabric creating a unique finish in the final product. This product is now available from Levi's retailers globally and on their website so that consumers can buy and also spread the message

The company has been investing a lot of time and effort on research and development to make this into reality. Research was needed in areas like designing, spinning techniques and sourcing waste plastic. Plastic bottles and food trays are collected from municipal sites, cleaned, sorted, crushed into flakes and made into a polyester fibre. This is blended with cotton fibre, which is finally woven with traditional cotton yarn to create the denim. The look and feel seems no different to traditional denim, apart from the colour of the inside, which varies according to the hue of the plastic used in the weave: brown, green or clear.

The results were that the company has reused more than 3.6m bottles and food trays for the 300,000 jeans and jackets produced for its spring 2013 collection, bottles that would otherwise have ended up in landfill or been burnt in incinerators. This number will grow as production increases. The company has also launched a limited edition 501 jean that combines waste less and water less technologies. This has been made for the movement 'Ekocycle' set up by musician and producer will.i.am and coca cola to make sustainable cool word.

### Green approach at Philips

Philips was one of the first companies to set a specific goal around green product revenues (30% of total turnover by 2012) back in 2007, a target that's now risen to 50% by 2015. So the company clearly believes that profit and purpose can be aligned. Philips' has set an ambitious goal of improving the lives of 3 billion people a year by 2025 and with their product portfolio. Philips aims to do the right thing commercially and for society, a commitment that stems from the founding principles of the Philips' family enterprise, which began in 1891.

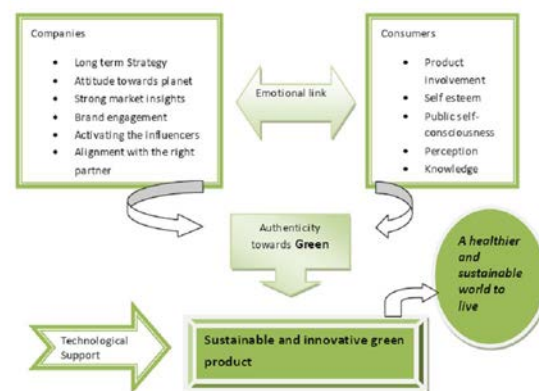
Green innovation at Philips has evolved in three distinct waves. In the 90's it started with the Ecodesign programme based on the belief that with technology we can fix everything. Focused at product level, developers spent their time searching for ways to, for example, reduce packaging or increase energy efficiency." While this was a good place to start, Philips realised that to move forward they

would need to influence consumer behaviour. And so began the second wave – thinking beyond the product, towards end-to-end solutions and customer choices. For eg. Philips studied their lighting proposition, from the social benefits of light and the implications for health and wellbeing, to how they reuse and recycle materials, the opportunities for leasing as opposed to selling materials, using renewables and incentivising business partners to increase their efficiency. The latest wave of innovation is exploring how Philips can influence systems thinking throughout the supply chain. 50 to 100 years ago it was legitimate for business to make more profits by externalising costs.

During the 2009/2010 drop in the economy, the green part of Philips' product portfolio was more resilient. In fact according to the company sources it continued to grow where non-green products declined.

### Model built based on the study:

This model is developed with the framework of successful companies incorporating green products in their portfolio of



products. The necessity of the day is for a healthier and sustainable world to live. For this the economy needs a sustainable and innovative green product. So there is a responsibility to develop an emotional link between the companies and the customers. Green products will be manufactured and consumed by staunch believers towards green. The companies long term strategy, positive attitude and concern towards the planet, with stronger market insights and customer knowledge. It also requires the right communication strategy where the brand engagement has to be established. The influencers could be used effectively by the organization creating the customer- customer interaction.

Since green products take from cradle to cradle approach the alignment of the suppliers is required and they should support the company in giving the green raw materials and other parts. The role of the customers is needed for this green product to be viable for the organization. The customers should also be concerned about the environment and the purchasing of green products should be consistent. They in turn need to have sufficient knowledge as to differentiate between green and non green products. Positive approach towards green will make

the environment more sustainable. Green products cannot be manufactured without the right research and development and technology support. It's the need of the hour to see the right economic, social and ecological benefits to be seen in one framework so that sustainable and green products are manufactured by every company and consumed by every consumer.



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## CONCLUSION

During next years to come green product innovation is destined to become more and more widespread, representing the only way for society to effectively face the challenges of resources' limitedness and waste's and pollution's increase. Product development faces huge new opportunities and challenges as consumers and B2B customers everywhere are responding to green products and processes. The opportunities are obviously huge, but then so are the challenges.

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# Impact of Securitization on Profitability of Banks

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**Abstract** - Securitization is a credit arbitrage transaction that permits for efficient management of risks by isolating a specific asset-pool from originator's balance sheet. Being distinct and different from the originator's own obligations, a well structured Asset Backed Securities (ABS) stands on its own credit rating and thus generates genuine incremental funding. The impact of such securitization on Banking system requires wide data and a descriptive approach. But it can be probed and hence taken up as a research topic.

Securitization of Debt, or Asset securitization as is more often referred to, is a process by which identified pools of receivables, which are usually illiquid on their own, are transformed into marketable securities through suitable repackaging of cash flows that they generate. Securitization, in effect, is a credit arbitrage transaction that permits for more efficient management of risks by isolating a specific pool of assets from the originator's balance sheet. Further, unlike the case of conventional debt financing, where the interest and principal obligations of a borrowing entity are serviced out of its own general cash flows, debt servicing with Asset-backed Securities (ABS) is from the cash flows originating from its underlying assets.

## IMPORTANCE OF SECURITIZATION

As Securitization effort will call for considerable investments in time and resources, it entails a sustainable growth for the commercial Banks. On a comparative cost scale it can even be somewhat more expensive than other types of debt financing that may be available to a borrower, at least in the initial stages. However, it has been demonstrated that a continuing securitization program rather than single deal often goes to reduce the costs, as economies of scale and expertise pick up over a period of time. Bearing this in mind, many securitization programs are run with a long-term strategic perspective. From the viewpoint of an originator of such paper, the following are typically the main persuasions to securitize.

**Funding Alternative:** Being distinct and different from the originator's own obligations, a well structured ABS stands on its own credit rating and thus generates genuine incremental funding. This is so, as the originator's existing creditors may invest in the ABS in addition to providing lines of credit to the originator. Further, there may also be other investors in the ABS who do not have a lending relationship with the originator. It is also possible to achieve a superior credit rating for the ABS than the originator's own through appropriate structuring and credit enhancement. This could mean accessing an investor base focusing on high grades, which otherwise may not be possible for an originator.

**Balance Sheet Management:** Fundamental benefit of a true sale, i.e., freeing up the capital of the originator would apply in the case of all securitization transactions. In response, the balance sheet gets compressed and becomes more robust; its ratios improve. Alternatively, reduction in leverage post securitized sale can be restored by adding on new assets to the balance sheet. Thus the asset through-put of the originator's balance sheet increases. Securitization can also generate matched funding for balance sheet assets. Further it also enables the disposal of non-core assets through suitable structuring.

**Re-allocation of Risks:** Securitization transfers much of the credit risk in the portfolio to the ABS investors and helps to quantify the residual credit risk that the originator is exposed to this is very useful, as the originator can then take larger exposure to individual obligors as well as provide a higher degree of comfort to his creditors. Securitization also transfers the originator's market risks, i.e., liquidity, interest rate and prepayment risks, to ABS investors and reduces risk capital requirement. This can lead to more competitive pricing of the underlying asset products.

**Operating Process Efficiency:** The extent of portfolio analysis and information demanded by securitization programs often lead to serious re-examination and consequent re-engineering of operating processes within the originator organization. Further specialist handling of various functional components, such as origination, funding, risk management and administration, often achieved through outsourcing, promotes efficiency across operating processes.

**Securitization Improves Operating Leverage:** The originator usually assumes the function of the servicer, the issuing and paying agent, and sometimes that of the credit enhancer. Fees accrue on account of all of these. Excess servicing, i.e., the difference between the assets yield and the cost of funds, is also normally extracted by the originator. These income streams can push up the operating leverage of the originator generating income from a larger asset base than what may be otherwise possible for a given capital structure.

## SECURITIZATION PROCESS

Essential features of a securitization transaction comprise the following :

**(1) Creation of Asset pool and its sale:** The originator/seller of assets creates a pool of assets and executes a legal true sale of the same to a Special Purpose Vehicle(SPV). An SPV in such cases is either a trust or a

company, as may be appropriate under applicable law, set up to carry out a restricted set of activities, management of which would usually rest with an independent board of directors.

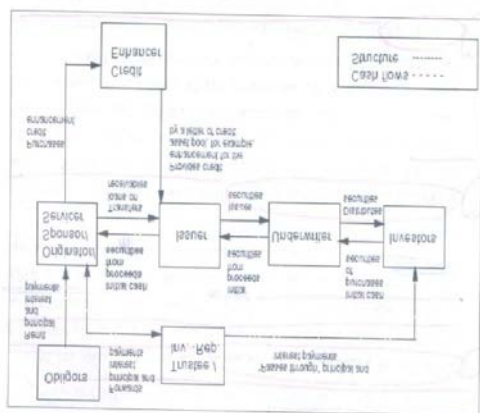
**(2) Issuance of the Securitized paper:** This activity is usually performed by the SPV. Design of the instrument however would be based on the nature of interest that investors would have on the asset pool. In the case of pass-through issuances, the investors will have a direct ownership interest in the underlying assets, while pay-through are debt issued by the SPV secured by the assets and their cash flows

**(3) Credit Risk:** It must be made abundantly clear that at the very outset that the accretions on the asset-backed security, i.e., interest, amortization and redemption payments, are entirely dependent on the performance of the pooled assets, and will have nothing to do with the credit of the originator. By the same argument, such cash flows would also be not influenced by events affecting the condition of the originator, including insolvency.

**(4) Pool Selection:** The process of selecting assets to build a securitization pool would take into careful consideration, loan characteristics that are important from a cash flow, legal, and credit points of view, such as type of asset, minimum and maximum loan size, vintage, rate, maturity and concentration limits (geographic, single-borrower etc). Cherry-picking to include only the highest quality assets in the pool should be consciously avoided. Ideal selection would be a random choice among assets conforming only to cash flow or legal criteria. Often, substitution of eligible assets in the place of original assets that mature/prepay in order to maintain the level of asset cover would also be required.

**(5) Administration:** Formal delineation of duties and responsibilities relation to administration of securitized assets, including payment servicing and managing relationship with the final obligors must be spelt out clearly through a contractual agreement with the entity who would perform those functions.

Flow diagram below indicates Securitization process:



**Key Features desired in an ideal SPV :** Based on the International practices the World Bank came to the conclusion that an SPV should satisfy following key characteristics: (1) An SPV must be capable of acquiring, holding & disposing of Assets; (2) It would be an entity, which would undertake only the activity of asset securitization and no other activity; (3) An SPV must be bankruptcy proof, i.e., it should not be capable of being taken into bankruptcy in the event of any inability to service the securitized paper issued by it; (4) An SPV must be bankruptcy-remote, i.e., the bankruptcy of the Originator should not affect the interests of holders of the instruments issued by the SPV; (5) An SPV must have an identity totally distinct from that of its promoters/sponsors/ constituents/ shareholders. Its creditors cannot obtain satisfaction from them; (6) The investors must have undivided interest in its underlying asset (as distinguished from an interest in the SPV which is a mere conduit); (7) A SPV must be tax-neutral, i.e. there should be no additional tax liability or double taxation on the transaction on account of the SPV acting as a conduit; (8) A SPV must have the capability of housing multiple securitization. However, SPV must take precaution to avoid co-mingling of assets of multiple securitization. In case of transactions involving various kinds of assets, they should restrict the rights of investors to the specific pool; (9) The SPV agreement may not release its employees or trustees from their responsibility for acts of negligence and a willful misconduct.

## RESEARCH PROBLEM DEFINITION

In the Indian context, the benefits that securitization has brought in are quite significant. In a capital-short economy, an opportunity that permits effective use of available capital hardly requires emphasis. The “Impact of Securitization on Indian Banking system” can be the topic for research, which requires wide data and a descriptive approach.

**Research Design:** The study is about the quantum of securitization Banks resort to, and the modus-operandi in which it is done in each of the Bank. A common methodology they follow is to securitize the Assets which have the greater tendency to slip into sub-standard category. The secondary data collected should have the details of the Assets like – the age of the receivables/loans, the SPV, discount percentage, with recourse/without recourse, net yield on each of the securitized Asset, whether backed by collaterals. The secondary data from different Banks on category-wise securitization to be obtained on a tabular mode, with 10% of each category of securitized asset as the sample size at random.

**Objectives of Study:** The broad objectives can be – to: (1) study the extent of Asset securitization in different Banks as percentage of Assets held by each of them at the given point of time; (2) Sector wise(priority/non priority) Assets securitized by the Banks; (3) Identify the factors which are responsible for the Banks to go in for securitization of relevant of assets; (4) Examine the impact of securitization on provisions made by Banks for sub-standard and doubtful assets (5) Study the

impact of securitizations on profitability of Banks (6) Identify the causes not resorting to securitization by Banks in case of certain types of Assets.

### **SUGGESTIONS**

This study requires secondary data from Banks from their securitization portfolio, on a random sampling basis; collecting and collating the data and applying relevant statistical tools like 'correlation' of income derived by securitized asset, if otherwise not securitized have to be ascertained. Factor Analysis can be applied to assess the overall impact of securitization in Banks on the profitability or otherwise of the different sectors of Assets.

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# Research trends in Education Data Mining

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**Abstract:** Educational Institutions collect and store different types of information about student such as personal details, their academic performance, placement details etc. This data if analyzed could provide some novel insight. Education Data mining is one such research field and it is concerned with the application of data mining, machinelearning and statistical techniques on educational data. The novel patterns generated by these methods could support learning and pedagogy. Key applications of this method include discovering relationships between student behavior, previous educational background, demographics and contextual variables in the learning environment. The objective of this paper is to survey the research done in EDM field so far to facilitate further research by interested scholars.

**Keywords:** EducationData Mining, Learning analytics, e-learning

## INTRODUCTION

Data mining(DM) is a process of finding value from volume. In any enterprise, the amount of transactional data generated during its day-to-day operations is massive in volume. Although these transactions record every instance of any activity, it is of little use in decision making [1]. Data mining attempts to extract smaller pieces of valuable information from this massive database. When concise and valuable knowledge about the system of interest is discovered, it can and should be interpreted into some decision support system, which helps the manager to make wise and informed business decision. Three disciplines which address such problems are Data Mining, Statistics and Machine Learning.

Educational Data Mining (EDM) pertains to information generated from educational sectors such as universities and colleges. It focuses on analyzing educational data to develop models for improving learning experiences and improving institutional effectiveness. At a high level, the field seeks to develop methods for exploring this data, which often has multiple levels of meaningful hierarchy, in order to discover new insights about how people learn in the context of such settings.[8] In doing so, EDM has contributed to theories of learning investigated by researchers in educational psychology and the learning sciences [8]. The field is closely tied to that of learning analytics, and the two have been compared and contrasted[10].

Learning analytics is the use of intelligent data and analysis models to discover information and social connections, and to predict and advise on learning. Quite often, this EDM data is extensive, fine-grained, and precise.

For example, several learning management systems (LMSs) track information such as when each student accessed each learning object, how many times they accessed it, and how many minutes the learning object was displayed on the user's computer screen. Moodle and Claroline are two popular open source LMS applications. Both are collaborative eLearning and eWorking platforms. As another example, Intelligent tutoring systems record data every time a learner submits a solution to a problem; they may collect the time of the submission, whether or not the solution matches the expected solution, the amount of time that has passed since the last submission, the order in which solution components were entered into the interface, etc. The precision of this data is such that even a fairly short session with a computer-based learning environment (e.g., 30 minutes) may produce a large amount of process data for analysis.

In other cases, the data is less fine-grained. For example, a student's university transcript may contain a temporally ordered list of courses taken by the student, the grade that the student earned in each course, and when the student selected or changed his or her academic major. EDM leverages both types of data to discover meaningful information about different types of learners and how they learn, the structure of domain knowledge, and the effect of instructional strategies embedded within various learning environments. These analyses provide new information that would be difficult to discern by looking at the raw data. For example, analyzing data from an LMS may reveal a relationship between the learning objects that a student accessed during the course and their final course grade. Similarly, analyzing student transcript data may reveal a relationship between a student's grade in a particular course and their decision to change their academic major. Such information provides insight into the design of learning environments, which allows students, teachers, school administrators, and educational policy makers to make informed decisions about how to interact with, provide, and manage educational resources.

While the analysis of educational data is not itself a new practice, recent advances in educational technology, including the increase in computing power and the ability to log fine-grained data about students' use of a computer-based learning environment, have led to an increased interest in developing techniques for analyzing the large amounts of data generated in educational settings. This interest translated into a series of EDM workshops held from 2000-2007 as part

of several international research conferences [4]. In 2008, a group of researchers established what has become an annual international research conference on EDM, the first of which took place in Montreal, Canada.

As interest in EDM continued to increase, EDM researchers established an academic journal, the Journal of Educational Data Mining, for sharing and disseminating research results. In 2011, EDM researchers established the International Educational Data Mining Society to connect EDM researchers and continue to grow the field.

With the introduction of public educational data repositories, such as the Pittsburgh Science of Learning Centre's (PSLC) DataShop and the National Center for Education Statistics (NCES), public data sets have made educational data mining more accessible and feasible, contributing to its growth[6].

### USERS AND STAKEHOLDERS

There are four main users and stakeholders involved with educational data mining. These include: Learners, Educators, Researchers and Administrators. Learners are interested in understanding student needs and methods to improve the learner's experience and performance. Educators attempt to understand the learning process and the methods they can use to improve their teaching methods. Researchers focus on the development and the evaluation of data mining techniques for effectiveness. Administrators are responsible for allocating the resources for implementation in institutions.

### STEPS OF EDUCATIONAL DATA MINING

As research in the field of educational data mining has continued to grow, a myriad of data mining techniques have been applied to a variety of educational contexts. In each case, the goal is to translate raw data into meaningful information about the learning process in order to make better decisions about the design and trajectory of a learning environment. Thus, EDM generally consists of four steps.

The first step of the EDM process is discovering relationships in data. This involves searching through a repository of data from an educational environment with the goal of finding consistent relationships between variables. Several algorithms for identifying such relationships have been utilized including classification, regression, clustering, factor analysis, social network analysis, association rule mining, and sequential pattern mining. Second step involves validation of relationships. Discovered relationships must then be validated in order to avoid over fitting. Validated relationships are applied to make predictions about future events in the learning environment. Predictions are used to support decision-making processes and policy decisions.

During steps 3 and 4, data is often visualized or in some other way distilled for human judgment.[9]. A large amount of research has been conducted in best practices for visualizing data.

## CURRENT RESEARCH IN EDUCATIONAL DATA MINING

### *Analysis and visualization of data:*

Suchita Borkar, K. Rajeswari conducted research using association rule mining algorithm in enhancing the quality and predicting students' performances in university result.

Their analysis revealed that student's university performance is dependent on Unit test, Assignment, Attendance and graduation percentage and student's performance level can be improved by identifying students who are poor unit Test, Attendance, Assignment and graduation and giving them additional guidance [3].

Rakesh Kumar Arora, Dr. Dharmendra Badal used association analysis algorithm to determine set of weak students in current semester by comparing the performance of students of previous semesters on the basis of marks obtained at graduate and post graduate level. They made use of Weka tool to arrive at the result[5].

Monika Goyal and Rajan Vohra in their research concluded that it is possible to improve students' performance and their life cycle management using data mining techniques such as clustering, decision tree and association [7].

Kumar and Uma (2009) analyzed students' performance in the course using data mining techniques, based on students ID and marks scored in course. They suggested that data mining process can be done by the teachers for classifying performance which helps in improving higher education system.

Md. Hedayetul Islam Shovon and Mahfuza Haque applied data mining process in student's database using k-means clustering algorithm and decision tree technique to predict student's learning activities. This work will improve student's performance by reducing failing ratio by taking appropriate steps at right time[4].

Research carried out by Ceaser Vialardi and Javier Brao helped the students to take decisions on choosing which courses to enroll on based on the data of previous years students [6].

Abeer Badr E Din Ahmed and Ibrahim Sayed Elaraby used decision tree method on student's database to predict student's performance [2]. This study will help teachers to identify students requiring special attention to reduce failing ratio and taking appropriate action at right time[2].

### CONCLUSION

This paper surveys research trends in application of data mining in education sector. Educational Institutions can apply data mining techniques for planning admission of students based on previous patterns and taking proper initiatives in improving academic performance of students.

DM techniques facilitate predicting admission of students into various courses. Student's characteristics can be classified and clustered. It would help students to identify their needs and preferences in choosing courses of their choice. This would also help in improving placement records. It would support automatic exploration of data. It would help management earn revenue by proper planning. Research questions that could be further explored are providing feedback for instructors, student modeling and detecting undesirable student behaviors by grouping students and social network analysis of student circles.

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# Impacts of Web Services in E-Business – Issues And Challenges

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**Abstract** - Web services refer to a family of technologies that can universally standardize the communication of applications in order to connect systems, business partners, and customers cost-effectively through the World Wide Web. The emerging Web services standards and technologies enable companies to provide software functions and business services over the Web to be integrated by internal business processes or with trading partners. Web services are the technology to bridge the gap between IT and business. It generates a renewed interest and excitement in B2B electronic commerce and mobile commerce, as well as enterprise application integration (EAI). Major software vendors such as IBM, Microsoft, SAP, SUN, and Oracle are all embracing Web services standards and are releasing new products or tools that are Web services enabled.

Web services will ease the constraints of time, cost, and space for discovering, negotiating, and conducting e-business transactions. As a result, Web services will change the way businesses design their applications as services, integrate with other business entities, manage business process workflows, and conduct e-business transactions. The early adopters of Web services are showing promising results such as greater development productivity gains and easier and faster integration with trading partners. However, there are many issues worth studying regarding Web services in the context of e-business.

**Keywords** - Web services, e-business, enterprise application integration

## 1. INTRODUCTION

E-Commerce or E-business generally refers to the conduct of business transactions using Internet technologies via the Web. As e-commerce models (e.g., B2C, B2B) and applications have been widely employed in today's business environment, a new movement called dynamic e-business has been urged to advance e-commerce applications to the next level by simplifying business interaction over the Web. Gisolfi (2001) defined dynamic e-business as the next generation of e-business focusing on the integration and infrastructure complexities of B2B by leveraging the benefits of Internet standards and common infrastructure to produce optimal efficiencies for intra and inter-enterprise computing. Maruyama (2002) referred to dynamic e-business as the third wave of e-business evolution (after B2C and B2B). Coupled with the technical needs of being able to externalize a company's business processes in a standard way, it is now possible to select business processes provided by outside companies and integrate these processes to dynamically form

new applications. Web services that consist of a set of standards and supporting technologies are the enablers for implementing dynamic e-businesses. Essentially, Web services propose a service-oriented paradigm for computing in which distributed, loosely coupled services collaboratively implement business processes and can be accessed via the Internet by end users.

The use of Web services over the intranet and Internet has increased rapidly. Web services are used to support application-to-application communication and to address interoperability issue for systems integration project, particularly in the context of electronic commerce and e-business. These Web services provide a standard-based approach for different software applications or components involved in supporting real-time information retrieval or presenting dynamic context-driven information to the user. The early adopters of Web services are showing promising results such as greater development productivity gains and easier and faster integration with trading partners.

## 2. WEB SERVICES STANDARDS AND INFRASTRUCTURE

Web services rely on a set of standards to support interoperability among applications developed in different languages and running on different platforms or operating systems.

Web services standards including SOAP (Simple Object Access Protocol), WSDL (Web Services Description Language), UDDI (Universal Description, Discovery, and Integration).

### 2.1 Web Services Definitions

The basic idea of Web services is the use of SOAP messaging protocol to invoke software method in remote systems that is Remote Procedure Calls (RPC) over the Internet protocols (e.g., HTTP). A SOAP message consists of an "Envelope", an optional "Header", and a mandatory "Body". The SOAP "Body" carries application-specific contents including the method name and the serialized values of the methods input or output parameters. Parameters of a Web services method can be a simple value or a compound value (structure or array). Serializing a Web services message in (pure text) XML format allows the SOAP XML to pass through Internet firewall. The Web services can be considered as a set of callable interfaces to software

programs or components, regardless of their implementations. They can be invoked remotely via SOAP messaging. Therefore, these programs can provide services to other applications using Internet protocols.

A definition of Web services by the W3C Web Service Architecture Group stated that (Austin et al., 2002):

“A Web service is a software system identified by a URI, whose public interfaces and bindings are defined and described using XML. Its definition can be discovered by other software systems. These systems may then interact with the Web service in a manner prescribed by its definition, using XML based messages conveyed by Internet protocols.”

Additional standards, WSDL and UDDI, were developed to support the description and discovery aspect of the Web services. WSDL is the equivalence of IDL (Interface Definition Language) in CORBA. A WSDL file contains service definitions for distributed systems to support the automatic creation of client-side stubs or proxies, and the binding to the Web services. WSDL is specified in XML format. It describes the interfaces to a Web services implementation in terms of format of the messages, binding of the abstract messages to a concrete protocol, and address of the endpoint.

A Web services developer usually uses a software tool to generate the WSDL file from the source code of a Web services program in which some public methods are marked as Web services operations to be accessed by Web services consumers. A Web services consumer needs to generate a Web services proxy (client) to handle the encoding and messaging of an actual Web services call. A Web services generation software tool that uses a WSDL file as the input can generate the Web services proxy. Once the proxy is generated and referenced, the client application can use the Web services program via a set of the published Web operations as if they were local procedures or objects. The Web services client proxy will handle the serialization and de-serialization between internal data types and SOAP data representation.

UDDI is a registry standard for Web services providers to publish their Web services. It may be used by a Web services consumer to discover (search) Web services developed by Web services providers. The role of UDDI as a service registry along with its relationships with service consumers and providers in the context of service-oriented architecture is depicted in Figure 1

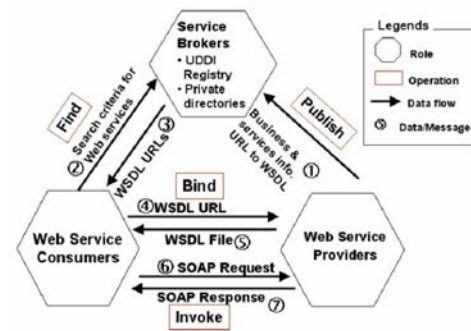


Figure 1. Web Services-Based Architecture

UDDI can store company information, services provided by a company, and the specific technical information for binding with a specific service. The technical binding information for using a Web service will be the URL reference to the WSDL file of the Web service. The structure of UDDI repository is defined in XML Schemas containing four entity types: (1) Business entity contains information about a company; (2) Business services are provided by a business entity; (3) Binding templates implement business services; and (4) "tModels" contain references to technical specifications for services.

The services registered in a UDDI repository are not limited to Web Services. However, when registering Web services, it is recommended to list the WSDL file of a Web service at the <overviewURL> entry of a tModel. There are several public UDDI-based directories and they are referred to as "UDDI Business Registry". The access to the UDDI is via Web services, such that its functionality can be embedded in an application. Browser-based tools have also been developed to allow users to submit their Web services entries or search for Web services.

From a system architecture viewpoint, UDDI is a critical component in the service-oriented architecture to support dynamic usages of Web services; i.e., a Web services consumer can search for and bind to a Web service at runtime. However, the dynamic searching and binding of a Web service rarely happens today for the following reasons:

- Currently public UDDI Business Registries contain many Web services that are developed as experiments and their quality and reliability are doubtful.
- The search of a Web service in the registry can be a hit and miss because UDDI does not provide domain specific classification information to assist the search process.
- There is no active effort of building Web services standards for specific domains or industries. Many

industry specific standards are related to XML-based document standards. The lack of such domain specific Web services standards makes it very difficult to write a Web

services that can be consumed in a dynamic plug-and-play fashion.

Companies may use public UDDI directories to register their businesses and services, or set up private UDDI systems for internal integration projects. Currently most entries at public UDDI are still at an experimental stage. Many traditional B2B marketplace operators may further refine UDDI standards to set up vertical market registries for Web services. We envision that companies may set up private UDDI-based or non-UDDI-based Web services registries to support their own Web services-based applications. Industry-specific registry may be established to store domain-specific Web services. Classification schemes as well as standards on various Web services interfaces that are common in various industries need to be developed to support domain-specific service registries.

The Service-Oriented Architecture (SOA) depicted in Figure 1 is a model for building loosely coupled software services in distributed environments. Web Services are considered an instance of an SOA. The Web services network is an application level network involving a number of participants: service providers, service consumers, and service registry operators.

## 2.2 Service-Oriented Standard Stacks

When SOAP was first developed, it was intended as a simple messaging protocol to provide remote procedure calls over the HTTP protocols. However, Web services have been gradually used to support critical business applications; therefore, additional standards, such as security and composition, have been developed to support different aspects of Web services-based applications. A Web services standards or technologies stack is shown in Figure 2 to illustrate the relationships and dependencies among various Web services standards. It can be used by standards organizations in guiding the standards development efforts and used by IT user organizations to assess deployment strategies for Web services technologies.

The bottom layer of the stack is the basic communication protocol layer for Web services including TCP/IP, HTTP, Simple Mail Transfer Protocol (SMTP), etc. XML 1.0 Specification (W3C, 2000) and XML Schema (W3C, 2001) are the definition languages used to define all the other Web services standards except the communication protocols. The basic messaging protocol is SOAP. There are several efforts, such as WS-ReliableMessaging, to enhance the functionality of SOAP via processing information placed in the SOAP header. The grand vision of Web services-oriented architecture is that Web services can be composed and invoked dynamically to support business processes within and across enterprises. Hence, the highest layer of the Web services standards stack, the Service Composition layer, has emerged. This layer consists of standards that specify how individual Web services can be composed to support business processes. A number of new standards

have been introduced to address this Web services composition issue, including BPEL4WS (Business Process Execution Language for Web Services), WSCI (Web Services Choreography Interface), and BPML (Business Process Modeling Language).

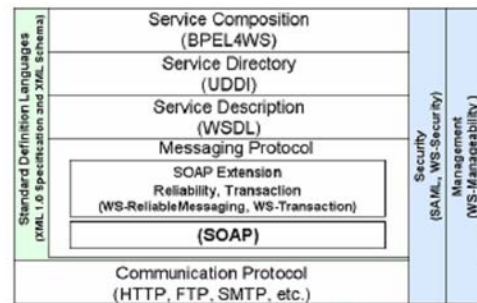


Figure 2. Web Services Standards Stack

## 3. WEB SERVICES ADOPTION

Web services, like the Internet, is less about technology but more about creating more efficient ways to do business and identifying new business opportunities. Web services will lead to major changes to business processes. Such changes will require IT organizations to evaluate their system architectures and determine how they will deliver these new business services. The experiences of early Web services adopters reflect the fundamental shift towards service-oriented architecture. Web services technology has been adopted as a mechanism for a wide variety of uses within the enterprise. The technology can be exploited as a remote-procedure-call mechanism, a component interface mechanism, an EAI-style integration mechanism, a means to standardize portal technologies, and an approach to linking businesses over the Internet.

The adoption process of Web services can be discussed in several stages. The initial Web services utilization is driven by a need to remove the binding problem on interfaces. Web services (specifically SOAP, UDDI, and WSDL) enable any compliant application to invoke any interface function. This is a unique proposition that eliminates various technology concerns for users. If any technology has the ability to invoke a Web service and expose interfaces as services, it becomes quite simple to use the technology as a means to hide platform differences.

The second stage that most organizations will undertake in their adoption of Web services will be the enabling of existing applications. Application integration requirements will foster the use of Web services interfaces on back office and legacy applications, and many existing browser-based applications will need to be enhanced to provide information in a structured form.

The third stage of the Web services adoption is the creation of generally available business services like

business components that use the Web services' technical infrastructure. These will be collections of Web services interfaces that are available to the organization. These services will be automated business functions that the organization can delegate. These services will have programmatic interfaces to execute the primary transactions and functions of the services. However, they will also likely have various services that are presented as browser-based applications as well.

Finally, the last stage of Web services development will arrive as the number and types of Web services increase in the organization. Early on, when there are few Web services, the technology that provides those services will be derived from existing application capability, or add-on solutions. As the number of services grows, the need for a central point to administer these services and to create common solutions to various technical characteristics will increase.

#### **4. IMPACT ON BUSINESS APPLICATIONS**

There has been an ongoing effort on enterprise application integration (EAI) for many companies to improve interoperability as systems can speak the same language or use the same protocols. Accenture described that EAI is a vital strategic enabler that provides a common integration framework, enabling companies to integrate program-to-program business processes, workflows, and data across disparate applications. EAI increases a company's ability to respond, adapt and collaborate with innovations quickly and relatively inexpensively. However, EAI might be too focused on the current implementation and result in locking companies into a proprietary EAI product.

Web services promote easy integration within and outside a company's boundary. Web services also increase interoperability – especially as they are added to middleware and integration products. Businesses should view the Web services evolution as a complimentary integration solution to EAI and beyond. Corporate leaders should understand and review both technologies for implementation into overall integration architecture. EAI will inexpensively support the addition of Web services into the architecture. Kreger (2003) described that Web services technologies are being developed as the foundation of a new generation of B2B and EAI architectures, as well as important parts of such "on demand" components as grid, ubiquitous, and autonomic computing.

Internet expands the geographic possibilities, making it feasible for services to be solicited and delivered from almost anywhere. Web services add another dimension where applications rather than individuals find and engage services. The interaction no longer needs to be local and no longer even needs to be performed by a human –automatic computing. For Grid computing, Gannon (2002) defined a computational Grid as a set of resources, such as computers,

networks, on-line instruments, data servers or sensors that are tied together by a set of common services which allow the users of the resources to view the collection as a seamless computing/information environment. There are several obvious ways that the Web services model can be used in Grid systems. Many more of the standard Grid services can and will be given WS interface. Standards like UDDI and WSDL provide a discovery mechanism for services that is very similar to the Grid information system model, but it is applied at the level of application services instead of Grid hardware resources. WS applications can also be enhanced by adding Grid security protocol.

#### **5. WEB SERVICES AND OUTSOURCING**

Basically, IT outsourcing describes the situation where a company contract with outside vendors to fulfill the company's IT needs. Richmond et al. (1992) defined outsourcing as the subcontracting of some or all the information systems functions by one firm to another. Willcocks and Fitzgerald (1993) described that IS outsourcing is the commissioning of third party management of IT assets, people, and /or activities to required results. As companies started to baffle the idea of maintaining full-scale applications internally, IT outsourcing initiatives started to emerge in the 1980s. Jurison (1998) summarized many reasons for considering IT outsourcing such as cost savings through economies of scale, cash infusion, reduced capital spending, faster applications development, improved service and quality, access to IT expertise and competence, access to new technologies, flexibility in managing IT resources, and elimination of a troublesome function.

Web services promote integration and ensure interoperability and compatibility between applications on multiple platforms in seamless communication by using standards. Therefore, integration of the application service providers (ASP)-provided services with customers' systems becomes much easier with implementation of Web services. As a result, Web services allow clients to connect directly to the applications making the process more efficient. It allows ASPs to tightly integrate with their customers, creating tighter bond between both entities, and no longer have to worry about making these systems compatible with each other. The services that the ASP will be able to offer to the clients will be exceedingly better than what can be offered today. Specialization will become easier due to the platform independency and the ability for easy integration by using Web services.

Despite the downfalls of economy and dot-com breakdown, IT outsourcing is still a valuable option for companies. Web services appear to be a potential solution for the critical problems of the ASP business model and could further enhance IT outsourcing future. ASPs must set up a strategy to enter the Web services market and increase the benefits to their customers. The underlying business model will not have to be changed, but new standards must

be adopted, and a strategy must be formed in order to efficiently switch from hosting proprietary applications into providing platform-independent and Web-based applications.

## 6. CONCLUSION

Web services refer to a family of technologies that can universally standardize the communication of applications in order to connect systems, business partners, and customers cost-effectively through the World Wide Web. The emerging Web services standards and technologies enable companies to provide software functions and business services over the Web to be integrated by internal business processes or with trading partners. The Web services are the technology to bridge the gap between IT and business. Beyond the hype, Web services hold the promise to handle and solve complex business problems in the foreseeable future of global competition. Major software vendors such as IBM, Microsoft, SAP, SUN, and Oracle are all embracing Web services standards and are releasing new products or tools that are Web services enabled. Web services will ease the constraints of time, cost, and space for discovering, negotiating, and conducting e-business transactions. As a result, Web services will change the way businesses design their applications as services, integrate with other business entities, manage business process workflows, and conduct e-business transactions.

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# Green Degree Appraisal: An Attitudinal and Behavioural Analysis of Indian Consumers

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**Abstract** - In the modern era of globalization, it has become a challenge to keep our natural environment safe. And this is the biggest need of the time. Environmental pollution is a buzz word in today's business environment. Consumers are also aware of the environmental issues like, global warming and the impact of environmental pollution. Green marketing is a phenomenon which has developed particularly important in the modern market and has emerged as an important concept in India and also in other developing and developed world, and is seen as an important strategy of facilitating sustainable development. Green Degree Appraisal is the process whereby the members of the company decide among their superiors, subordinates, peers and themselves in order to produce green products and evaluate the attitudes and behavior of consumers towards greener tomorrow. In this research paper, main emphasis has been made of concept, need and importance of green marketing. Besides this, a tool named- GREENDEX is introduced which explains the green status of India today compared with other countries. Data has been collected from multiple sources. Many research papers, journals, websites, news papers and books have been consulted to understand the importance of green marketing and sustainability management. The study aims at finding out what actually Green Marketing is all about and explores the main issues in adoption of green marketing practices. It describes the current Scenario of Indian market and explores the challenges and opportunities businesses have with green marketing. Why companies are adopting it? What is the future of green marketing? And it concludes that green marketing is something that will continuously grow in both practice and demand.

**Keywords** - Green Degree Appraisal, Globalization, Environmental Pollution, Green Marketing, GREENDEX, Sustainable Development.

## OBJECTIVES OF THE STUDY

1. To provide an understanding of concept, need and importance of green marketing.
2. To study the initiatives taken by Indian businesses organizations and Government agencies for green marketing.
3. To introduce the concept of Greendex among consumers and understand its utility in the evaluation for a green economy.

## I. INTRODUCTION

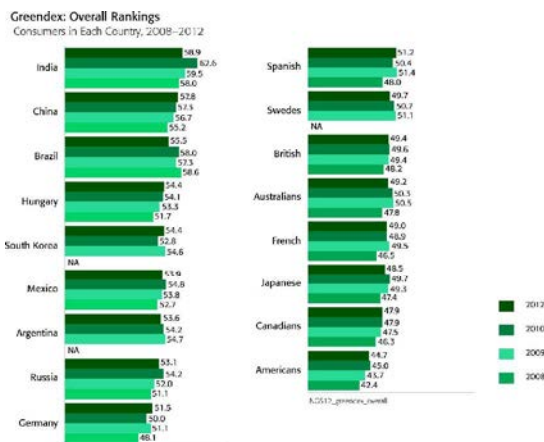
According to the scientists, the world is moving towards a environmental turmoil. The only way to save our planet is to go green on a full swing as quick as possible. For this cause economists have also been doing their parts. There is growing interest among the consumers all over the world regarding the protection of the environment. Worldwide evidence indicates people are concerned about the environment and are changing their behavior. As a result of this, green marketing has emerged which speaks for the growing market for sustainable and socially responsible products and services. As society becomes more concerned with the natural environment, business have begun to modify their behavior in an attempt to address society's "new" concerns, and this modification according to requirement of present world emerge the term "Green Marketing". National Geographic conducted its inaugural GREENDEX survey in January 2008. That first Greendex survey of 14 countries around the world ranked average consumers in those countries according to the environmental sustainability of their behavior. National Geographic replicated these studies in 2009, 2010 and now again in 2012 to track progress or the lack thereof. Consistently, consumers in the large developing economies of Brazil, India and China have scored highest, while Canadians and Americans, with their relatively massive environmental footprints as individuals, have scored lowest.

GREENDEX: "Greenery Index"

The Greendex is a comprehensive measure of consumer behavior in 65 areas relating to housing, transportation, food and consumer goods. Greendex 2012 ranks average consumers in 17 countries—up from 14 in 2008 for which changes are tracked—according to the environmental impact of their discretionary and nondiscretionary consumption patterns within these four major categories. Meanwhile, consumers in developing countries with the highest Greendex scores are the most likely to agree that they "feel guilty about the impact [they] have on the environment," despite having the lightest footprint as individuals. The research finds a positive relationship between the extent to which people feel guilty about their impact and the Greendex scores of average consumers in the same countries. Consumers with low

Greendex scores, i.e., those demonstrating the least sustainable behavior as consumers, are least likely to feel guilty about the implications of their choices for the environment. The Greendex studies have added to our collective understanding of the barriers and opportunities that people face in becoming more sustainable as consumers.

- The 2008 findings raised concerns about what economic development and the material aspirations that come with it would mean for the impact that the average consumer in rapidly growing economies has on the environment.
- In 2010, we revealed that a lack of trust in companies' environmental claims, combined with the absence of demonstrated leadership from both companies and governments were major barriers that needed addressing.
- In 2012, we have learned more about how perceptions and behavioral realities are often out of synch with each other when it comes to sustainable consumption, making the transition to sustainability all the more complicated. Greendex 2012 aims to help bridge these gaps.



## II. GREENDEX OVERALL RANKINGS

Interpretation to the above findings:

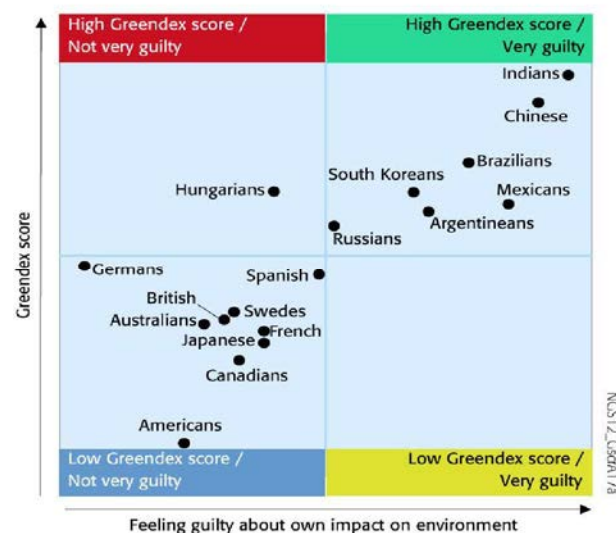
1. Consumers in countries such as Mexico, Brazil, China and India tend to be most concerned about issues like climate change, air and water pollution, species loss, and shortages of fresh water—all factors affecting the planet's ability to support life. Consumers in these large emerging economies are the most likely to report that environmental problems are having a negative impact on their health today.

2. The economy and the cost of energy and fuel elicit the most concern among American, French and British consumers.
3. Consumers registering the largest 2012 vs 2010 increases in environmentally sustainable consumer behavior are the South Koreans and Germans, followed by the Spanish and Chinese.
4. Consumers in the rapidly growing economies of India and Brazil, followed by Russia, have seen their Greendex scores decrease most since 2010.

## III. GRAPHICAL REPRESENTATION OF GREENDEX STUDY

### Greendex Score vs Feeling Guilty about One's Own Environmental Impact

Consumers in Each Country, 2012



## IV. INDIAN INITIATIVES FOR A HIGHER GREENDEX SCORE

### GREEN IT PROJECT: STATE BANK OF INDIA (SBI)

By using eco and power friendly equipment in its 10,000 new ATMs, the banking giant has not only saved power costs and earned carbon credits, but also set the right example for others to follow. SBI is also entered into green service known as "Green Channel Counter". SBI is providing many services like; paper less banking, no deposit slip, no withdrawal form, no cheques, no money transactions form all these transaction are done through SBI shopping & ATM cards. State Bank of India turns to wind energy to reduce emissions. The wind project is the first step in the State Bank of India's green banking program dedicated to the reduction of its carbon footprint and promotion of energy efficient processes, especially among the bank's clients.

### LEAD FREE PAINTS: KANSAI NEROLAC LIMITED

Kansai Nerolac Ltd. has always been committed to the welfare of society and environment and as a responsible corporate has always taken initiatives in the areas of health education, community development and environment preservation. Kansai Nerolac has worked on removing hazardous heavy metals from their paints. The hazardous heavy metals like lead, mercury, chromium, arsenic and antimony can have adverse effects on humans. Lead in paints especially poses danger to human health where it can cause damage to Central Nervous System, kidney and reproductive system. Children are more prone to lead poisoning leading to lower intelligence levels and memory loss.

#### REVA ELECTRIC CAR: MAHINDRA & MAHINDRA LIMITED

Mahindra Reva is the first –in-line of next generation global electric vehicles. Rapid urbanization rising fuel costs Pollution & congestion, Eco-conscious Cost-conscious, Tech savvy, small is big concept, the desire to strike a balance between sustainability and functionality. All these factors motivated Mahindra & Mahindra limited to produce its first electric car Reva. Consumer choice will increasingly be driven by how "clean" or green a vehicle is, from birth to use to disposal. "Clean" will be defined and broadly understood as a reflection of a clean footprint across the entire value chain from sourcing to manufacturing, to distribution, to product use and ultimately, disposal. The entire mobility chain will see the emergence of "cost-effectiveness" as a mantra for success. Large factories will be replaced by small, smart, flexible, low-cost manufacturing. Superior technology and enhanced features will increasingly become accessible to more and more consumers and "value-for-money" will become the chant by discerning consumers. Large change renewal energies will get rid of vicious circle of oil, making the purchase and use of such born green product cost effective.

#### GREEN MACHINES: WIPROTECHNOLOGIES LIMITED

Wipro Infotech was India's first company to launch environment friendly computer peripherals. For the Indian market, Wipro has launched a new range of desktops and laptops called Wipro Greenware. These products are RoHS (Restriction of Hazardous Substances) compliant thus reducing e-waste in the environment.

#### SOLAR-POWERED ATM: INDUSIND BANK

Green banking has been catching up as among the top Indian green initiatives ever since IndusInd opened the country's first solar-powered ATM and pioneered an eco-savvy change in the Indian banking sector.

#### WIND POWER: SUZLON ENERGY LIMITED

Suzlon Energy Limited is the world's fourth largest wind-turbine maker and is among the greenest and best companies in India. Tulsi and Tanti, the visionary behind

Suzlon, convinced the world that wind is the energy of the future and built his factory in Pondicherry to run entirely on wind power. Suzlon's corporate building is the most energy-efficient building ever built in India.

#### GOING GREEN MANTRA: TATA MOTORS LIMITED

Tata Motors is setting up an Eco-friendly showroom using natural building material for its flooring and energy efficient lights. Tata Motors said the project is at a preliminary stage. The Indian Hotels Company, which runs the Taj chain, is in the process of creating Eco rooms which will have energy efficient mini bars, organic bed linen and napkins made from recycled paper. But there won't be any carpets since chemicals are used to clean those. And when it comes to illumination, the rooms will have CFLs or LEDs.

#### V. FUTURE OF GREEN MARKETING

Green has become a central part of the business discussion for a lot of reasons. Companies are feeling pressure from a whole range of stakeholders, including customers, employees and vendors. Then there are tangible mega environmental pressures such as climate change and water shortages that are evolving no matter what the economic situation is. Combine all these forces, and there is no choice anymore. But there are great proactive reasons to look at the business through a green lens. It saves money, reduces risk, drives innovation for new product development and builds brand value and loyalty. Evidence indicates that successful green products have avoided green marketing myopia by following important principles:-

- Ø Know your Customer
- Ø Educating your customers
- Ø Being Genuine & Transparent
- Ø Reassure the Buyer
- Ø Consider Your Pricing
- Ø Giving your customers an opportunity to participate
- Ø Leading brands should recognize that consumer expectations have changed

#### VI. FINDINGS OF THE STUDY

- In India, around 25% of the consumers prefer environmental-friendly products, and around 28% may be considered healthy conscious.
- 23% of people are unaware of the concept of GO GREEN. 30% feel it ridiculous, time-consuming activity and a part of cheap lifestyle. 33% of them depend upon others to start so that they could feel satisfied if it works out well. The remaining 14% accept the fact they are aware, but have no enough information to be guided.

## VII. IMPLICATIONS OF THE STUDY

The concept of green marketing could be understood only when its practicality is ensured. But this is the fact that majority of Indian companies and government agencies are not concerned about the Green marketing and environmental protection. Thus we can say that Green marketing is still in its infancy and a lot of research is to be done on green marketing to fully explore its potential. It's not the responsibility of either the consumers or marketers or government only, instead their collective effort could prove a success for greener tomorrow.

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# Performance Management of Employees in the Unorganized Sector

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**Abstract** - It is easy to focus and develop organized sectors of employees than the unorganized workforce. It makes our country has to think seriously towards development of the unorganized employees force to move in a progressive path. Unorganized workforce is struggling with basic problems like education, health, poverty, gender inequality, child labour and maternal problems. This makes we have to seriously look into these aspects to improve the position of the unorganized sector. With this view we have to divert our attention to improve the life of the unorganized work force in the society. Investments in human development are justified not only on moral grounds, but also because improved health, education and social welfare are key areas to success in a more competitive and dynamic world economy. In particular, these investments should target the poor—connecting them to markets and increasing their livelihood opportunities. Poverty is an injustice that can and should be remedied by determined action. Keeping this thing in our mind we developed this paper by collecting the opinion of 60 respondents from unorganized work force to get empirical evidence for our study. Chi square analysis is used to draw conclusion from the data analyzed for the study.

**Keywords** - *progressive, investment, opportunities.*

## I. INTRODUCTION

Unorganized sector has to focus their action plan for the welfare activity of the poor employees who are finding difficult to lead their normal life in the present scenario. Understand the problems of the unorganized sector and implement good remedial measures to help them from their daily miserable life. If we glance over our country we don't have any record regarding unorganized employee sector and they don't have any union to fight for their right. So we have to remove the darkness of the unorganized employee force and bring happiness in their faces. Provide all the necessary help to get their basic needs of life and to lead a happy life in the society. Good policymaking also requires a focus on enhancing social capacities, not just individual capabilities. Individuals function within social institutions that can limit or enhance their development potential. Policies to change social norms that limit human potential, such as gender discrimination, early marriages and dowry requirements, open up opportunities for individuals to reach their full potential in the unorganized employees sector. A striking feature of the world scene in recent years is the transformation of many developing countries into dynamic economies that are doing well in

economic growth and trade and progressing rapidly on human development. During these uncertain times, they are collectively bolstering world economic growth, lifting other developing economies, reducing poverty and increasing wealth on a grand scale. They still face formidable challenges and are home to many of the world's poor. But they have demonstrated how pragmatic policies and a strong focus on human development can release the opportunities latent in their economies, facilitated by globalization. Skill building is viewed as an instrument to improve the effectiveness and contribution of workforce to the overall productivity and production. In this era of globalization and economic change we must strive to offer learning opportunities to all, throughout life, by developing and improving structures and procedure to recognize all forms of learning, particularly the outcomes of non-formal and informal learning.

## II. OBJECTIVES FOR THE STUDY

1. To understand the importance of education to the employees.
2. To improve their health in unorganized workforce.
3. To reduce the poverty in the unorganized workforce.
4. To improve the life of unorganized sector employees.
5. To develop the employees standards of life.

## III. METHODOLOGY APPLIED

**Primary Data:** The research is developed through observation and collection of data through questionnaires. Theory is developed on the basis of field visit and result of the data analyzed. The sample size is determined as 60 respondent's opinion from in and around Mangalore.

**Secondary Data :** Theory is developed on the basis of referring secondary data like books, journals and magazines.

**Statistical tool:** To analyze the data Chi square technique is used and arrived conclusion from this analysis.

## IV. AREAS TO IMPROVE THE PERFORMANCE OF UNORGANIZED SECTOR WORKFORCE

1. Educate the employees

Education is the one of the powerful weapon to empower the employees in the unorganized sector. This will

helps the employees to develop themselves in their career to achieve great result in their life. It develops maturity in their thinking and grasps the things early to take immediate decision in their workplace. Education will change the life of employees so with a help of Saksaratha mission our country playing a great role to educate the working population.

## 2. Gender equality

In the unorganized working sector we can see there is discrimination between male and female employees for the same work. Un organized sector has to solve these differences and bring revolutionary change that there should not be any gender inequality between the workforces. This will helps to create impact on the society to treat women in same manner and provide equal justice to them. In rural area we can find this type of problem is more so we have work with a direction of to solve the problem of inequality. Educate the public and build respect towards women to protect their rights in the society.

## 3. Irradiate poverty

In the rural and urban areas of our country poverty is the one of the basic problem that will curb the performance of the employees in the unorganized sector. Country has to introduce various plans to improve the standards of the employees and reduce the poverty in the society. Government has to implement all the plans to achieve sustainable growth in the economy by irradiating the poverty in the unorganized sectors of the employees.

## 4. Maintain good health

In this sector employees are not taking care of their health and this will result they are suffering from many health related problems. This will directly affect on the performance of the employees in their job. Government has to take initiative in building hospitals not only in the urban areas but also in the rural areas. This will helps the

## V. EMPIRICAL APPROACH

Note: SA- Strongly Agree, A- Agree, N- Neutral, DA- Disagree, SD-Strongly Disagree.

Table No 1. Areas to improve the performance of the employees in the unorganized sector

SL No	Statements	Gender	SA	A	N	DA	SD	X <sup>2</sup>	Accept/ Reject
1	Introduce education schemes to educate the unorganized employee sector.	M	7	9	8	4	2	1.24	Accept
		F	9	11	5	3	2		
2	Organize training program to improve the skills of the employees.	M	12	13	2	2	1	.28	Accept
		F	14	15	1	0	0		
3	Take care of the employee's health.	M	8	14	8	0	0	.70	Accept

employees to get required treatment at free of cost for all types of diseases faced by the working population. This will makes the society to create a healthy nation and make the employees medically fit to work with all of their strength in the workplace.

## 5. Take care of women employees in the time of maternity

In the company we have laws to take care of the women employees in the time of their maternity. But in the unorganized sector we don't have any type of laws to protect the women employees during the maternity period. Women have to come for work in the maternal period also to get one day food for their family. It's very horrible situation that while working itself sometimes women will give birth to the child and they are not able to get any medical facility from the local hospitals. So we have to bring some remedial measures in taking care of women employees in the unorganized sector.

## 6. Child labour

In most of the unorganized sector child labour is exploited to work in the different field. Social worker working hard to stop the child labour who are working in the various unorganized sector. Government also working hard to prevent child labour and educate them.. Schools have open door to the child labour and develop a mission in creating awareness about the child labour in the society.

## 7. Improve the standards of employees

Develop the performance of the employees with a help of organizing skill development program for the unorganized work force. It also helps in generating the employment opportunity in the society. Understand the requirement of the employees and implement development project in the unorganized work force sector to improve their capabilities. Especially self help groups taking initiative in developing skill and competency of the employees in the unorganized sector.

M = Male, F = Female.

		F	11	12	7	0	0		
4	Irradiate poverty from the society with minimum employment guarantee scheme.	M	16	14	0	0	0	.06	Accept
		F	17	13	0	0	0		
5	Prevent child labour in the workplace.	M	8	9	11	1	1	7.28	Accept
		F	9	17	1	2	1		
6	Protect the rights of women in the workplace.	M	12	17	1	0	0	.60	Accept
		F	15	14	1	0	0		
7	Maintain gender equality in the workplace.	M	12	16	4	0	0	1.66	Accept
		F	17	13	0	0	0		

Source: Primary Data

Note: Degrees of Freedom: 4. Value = 9.488 at 5% of level of significance.

From the above result it clear that all the statements are falls under acceptance region in the chi square test. This will make us that employees of the unorganized sector want to lead a better life with a help of government and society cooperation. They want to improve their performance with a help of taking part in the skill development program. They also wanted to send their child to school and not to work in the society.

#### VI. FINDINGS

1. Education will help's the employees to improve their life.
2. Provide training to the employees to improve their skill.
3. Make arrangement of hospital to keep the health of the employees.
4. Understand the requirement of the employees while designing the development plan for unorganized sector.
5. Initiate in development of minimum employment guarantee schemes for the unorganized sector.

#### VII. SUGGESTIONS

1. Protect the rights of the women employees in the workplace.
2. Avoid gender inequality while framing policies for the unorganized employees.
3. Avoid child labor in the workplace and make arrangement to get education for that child.
4. Create a good atmosphere to develop the employees without any fear in their heart.
5. Irradiate poverty by creating employment opportunity and developing the skills of the employees.

#### VIII. CONCLUSION

We have to create hope in fulfilling the dreams of the unorganized workforce to lead their life in a better manner. It will bring revolutionary change in the path of the unorganized workforce to create identity in the society. It helps the employees to overcome from the problems of their life like poverty, health, education. Women employees are treated with respect in the workplace through reducing gender inequality in the workplace. Its main mantra is bringing changes in the life of the developing and underdeveloped countries to move in a progressive path in attainment of sustainability in its operations.

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# A Discussion on the Paradigm Shift in the Beliefs of Human Resource Development... Then and Now

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**Abstract:** Organisations function on the core pillars of management namely production, finance, human resource, research and development and the other factors both internal and external which have an influence in its functioning. Since generations, organisations have been witnessing a constant factor and that is change. Any organisation that wants to survive and grow must be able to foresee the change and make changes accordingly.

Human resource management is no exception to this change factor. Over the years the area of human resource is definitely gaining a lot of significance and it is proved that it is the only asset that appreciates with time. The area of human resource became an area of research after the studies at the Hawthorne plant. At that time human resource was functioning under some belief systems. But gradually with development and new studies the beliefs have been changing and this change in the beliefs, from the past till now, is the crux of the paper.

The paper discusses how the change has taken place and how the beliefs of human resource which were anti employees have now become pro human capital. The paper concludes that the knowledge of human resource management is now devolving and the awareness to manage human resource has become universal and all need to learn it professionally irrespective of their specializations.

**Keywords:** Human Resource, Organisations, Change, Paradigm Shift.

*"Never tell people how to do things.  
Tell them what to do and they will surprise  
you with their ingenuity"*-  
General George Smith Patton, Jn

It is truism that people are an organizations most valuable asset. Organisations with the keen industry insight adopt innovative approaches to growth and know how to extract value from its human resources. Human capital being an appreciating asset can never be replicated. Human behavior is studied, analyzed and understood in theory, research and practice. The study and management of people in organization was initially termed as Personal Management, followed by Human Resource Management [HRM]. Further research proved that human resource can be developed and so the concept of Human Resource Development [HRD] came into existence. At present importance is given to Human Centered Development.

The Study of HRD is very relevant and provides insight into the development of people by providing the right environment where each individual may grow to his fullest potentialities at the macro level, mezzo level and micro level. The people- oriented concept of HRD has a recent origin, but the growth of the field is at a phenomenal rate. Human Resource Development aims at promotion and well being of individuals, families and societies. It deals with creating conditions that enables people to get the best of themselves and their lives.

## CONCEPTUAL FRAMEWORK OF HRD

Today many organisations have begun to realize that to cope with the changes taking place in the environment there is a need for developing human resources. Many organisations have either set up separate Human Resource Development (HRD) departments or have introduced HRD oriented personnel policies. Effective management of any organisations requires development of resource at the optimum level leading to the wellbeing of each employee and creates a congenial atmosphere. (Aswathappa K, 1999)

### Objectives

- ü To study the beliefs of HRD in the past
- ü To study the beliefs of HRD at present
- ü To understand the reason for the shift in beliefs
- ü To learn the future developments in the area of HRD

When the concept was being theorized, there were certain beliefs that formed the base of the HRD philosophy.

Some of the beliefs of the past are as follows-

- Ø Human resource is the most important asset in the organisation.
- Ø Unlike other resources, Human Resource can be developed and increased to an unlimited extent.
- Ø A healthy climate characterized by the values of OCTAPAC: Openness, Confrontation, Trust, Autonomy, Proaction, Authenticity and Collaboration are essential for developing human resource.
- Ø HRD can be planned and monitored in ways that are beneficial both to the individuals and the organisation.

Ø Employees feel committed to their organisation, if the organisation perpetuates a feeling of belonging.

Ø Employee commitment is increased with the opportunity to discover and use one's capabilities and potentials in one's work.

Ø It is every manager's responsibility to ensure the development and utilisation and the capabilities of subordinates to create a healthy and motivating work culture and to set examples for subordinates to follow.

Ø The higher the level of the manager, the more attention should be paid to the HRD function in order to ensure its effectiveness.

Ø The maintenance of a healthy organisational climate and the development of its human resource are the responsibility of every organisation.

There is an adage 'One is known by the Company one keeps'. With the rapid changes and the new economy, a truism has emerged: 'A company is known by the people it keeps.' Due to this tendency in organisations there are vast changes incorporated in the field of HRD. The HR practices are diversifying. These practices help gain HRD. Earlier organisational emphasis was on selection, performance appraisal, compensation, job description were given prominence. Today practices like performance based compensation, information sharing, selection and promotion based on merit are given more attention.

HRD is one of the several organisational processes evolved to cope with the changing environment and to maintain the organisation at it is effectively best. The focus is on 'development' rather than 'control'. HRD is a process by which the employees of an organisation are helped in a continuous and planned way to (Srivastava M.P., 1977)

1. acquire or sharpen capabilities required to perform various functions associated with their present or expected future roles;
2. Develop individual capabilities and exploit their inner potential, for own and / or Organisational development purposes;
3. Develop an organisational culture in which superior-subordinate relationship, teamwork, and collaboration among sub-units are strong and contribute to the professional well-being, motivation and the pride of the employees. (Rao. T.V and Pereira D.P., 1987)

The emphasis shifts from "Maximization of Performance" towards "employees' potential awareness creation" and employee's potential realization (Joseph, 1987). For the HRD system to perform effectively there has to be a clear-cut philosophy on human resources. A certain amount of willingness is necessary on the part of the executives to help their subordinates grow and develop through continuous feedback, guidance, and the opportunities for development. The HRD process tends to be

spanning over a long period of time and hence top management needs to be explicitly sensitive to the incremental changes that the HRD system brings about in short terms and use them as indicators of long term payoff to be yielded by the HRD system.

The beliefs on which the framework of HRD was built are becoming wavy. This can be compared to the event of 'seeing the elephant'. The changing economy is encountering an unequalled experience. Earlier beliefs are not firm due to changes in the globalised era. The practices like Total Quality Management, Reengineering, Employees for Lease-HR Outsourcing, Dual career couples, Human Resource Accounting, Knowledge Management, Knowledge Process Outsourcing, Ethical and Moral Standards, Women at par in the job market, E-HRM are today's mile stones in managing human resource.

The role of information technology and organisations unique ways of HRD has its own impact to the field. The concept of strategic HRD now aims at leveraging and /or aligning human resource development practices to build critical organisational capabilities that enable an organisation to achieve its goals.

The emerging present beliefs due to modernized practices of HRD can be summed up as follows:

#### Ø **Right sizing, instead of downsizing.**

Downsizing was introduced on a large scale by many organisations as they were focusing on an ideal lean organisational structure. HRD believes that downsizing may not be a potential answer as it has an adverse effect on the employee's psychological contract. On the bench / layoffs / layering or downsizing is now replaced by right sizing, and this has become a belief for the functioning of HRD. Rightsizing is a positive approach where the drain of intellectual capital is minimized in restructuring the organisation.

#### Ø **Belief in open house policy, synergy, and quality circles.**

Development starts from small improvements. An open house policy is a practice in organisations, where communication barriers are nullified. The attitudinal differences among functional groups and between management and staff could be settled amicably through the open door method. It also provides a direct access to the management and makes them feel associated with the organisation. This helps in effective organisation of activities and workers participation in management is encouraged. This results in synergy and effective functioning of the quality circles. Quality circles are voluntary associations of the workers of the same workplace and they involve in problem solving. This helps to tap their brain power effectively. The basic objective of quality circles is to develop, enhance and utilise human resources effectively. ( Rao. Subba. P, 1999.)

### Ø **Humanizing work in organisations.**

The structure, system and resources utilised at work places are modified taking into account the welfare of the human factor. The machines are made user friendly and the organisational environment is made conducive for improving employee productivity / performance.

### Ø **Enable dynamic human relationship**

Trust and openness, belief in human beings and respect for others are the basic values of organisational development. These values are internalized and are now forming a base for human bonding. Improved human relationship is now being focused through group dynamics and team functioning in organisations.

### Ø **Transformational leadership and regular training.**

Effective leaders are the major scarce resources in the economy. HRD is working to create transformational leaders. This is achieved through constant training and developmental measures. This is focused towards enabling capabilities for present and potential roles.

### Ø **Developing knowledge workers and focus on individual improvement.**

Mass customization being practiced, the present HRD practices are focusing on developing knowledge workers. As free natural resources and cheap labour are exhausted, the last untapped resource of commercial advantage is the knowledge of the people in organisations (Davenport, 1997) Industry, in future, will be managed from a knowledge perspective because we need to be more responsible with the natural resources (Betels and Savage, 1999). Knowledge management is creating knowledge roles for employees to focus on individual improvement. Examples of knowledge creation, storage and dissemination are: knowledge reporters (HP) knowledge editors (HP/ Mousanto) knowledge master (KPMG) knowledge managers (Arthur Anderson)

### Ø **To develop organisational health, culture and effectiveness.**

The organisational well being is one of the basic objectives of HRD. The HRD department is becoming an integral business activity there by contributing to better management of organisation and leading to the existence, survival and growth. All HRD plans are dovetailed with the organisational plans to create a sound and apt culture. The instrument of OCTAPAC is further developed and is now known as OCTAPACE where experimentation has made the HRD process unidirectional.

### Ø **Developing a learning organisation through continuous learning.**

A learning organisation is one that has developed the continuous capacity to adapt and change. Learning can be single loop or double loop learning. Learning and

continuous learning is a fundamental requirement for the organisations sustained existence.

### Ø **Devolvment of HRD**

Devolvment of HRD refers to the degree to which HRD practices involve and gives responsibility to the line managers rather than HRD specialist. In devolvment, it is optional to have a separate department to nurture and develop human resources. Thus devolvment views HRD as a sub- system of a larger system.

The concept of HRD aims to keep the employees of the organisation continuously competent. Thus HRD is now considered as a philosophy within which HRM should act along with the strategies of HRD.

The present beliefs of HRD are now being mobilized to develop new dimensions and HRD strategies. The HRD process is facilitated by a variety of interventions. The nature of interventions depends on the nature of change the organisation is going through or the nature of capabilities the organisation is interested to build within it.



### **Human Capital Development. (HCD)**

Human capital may be defined as the knowledge, skills, competence and other attributes embodied in individuals that are relevant to economic activity. Human capital is therefore a notion that captures the valuation of the attributes people invest in, including the know-how, capabilities, skills and expertise of the human members of the organisation. Today companies do not hire a person; they hire a person's knowledge. (Tondon Anshu, 1996) Human capital valuation is not an end in itself. It is only a tool that can be used for developing the people resource of an organisation, and for enabling a constant monitoring of the success of policies of recruitment, selection, motivation and retention of the best people.



### **E- HRM.**

Electronic aspect is embodied in all the arrears of HRM. Where there is transmission of information from one employee to another employee and from one client to another. Companies started providing online training and online executive development. Employees learn various skills by staying at the lace of their work.

Online recognition programs and the online awards systems can be connected with HR management systems or the company's enterprise resource planning systems.



### **HRD Audit.**

An audit helps an organisation to assess its current position. It helps estimate what needs to be achieved to improve the HR function. The process involves a systematic review of all aspects of the HR function, typically with a checklist, in order to ensure that regulation and corporate policies are adhered to.



### Strategic HRD.

Strategic HRD aims at leveraging and / or aligning human resource development practices to build critical organisational capabilities that enable an organisation to achieve its goals. The strategic Human Resource Development [SHRD] initiatives are in the field of Training, Performance Appraisal, Job Enrichment, Career Planning, Communication, Involvement and Empowerment.



### Self Management and Empowerment / Self Leadership.

The behaviour modification techniques that have been applied to the motivation of others can be used with equal effectiveness in the management of ourselves. The five step approach of Luthans and Kreitner- identify the behaviour, measure the frequency, functionally analyse the consequences of the behaviour, implement a modification programme and monitor the results, can be applied. Cognitive self management also involves the deciding of goals to be achieved.



### Management Development (MD)

MD is the planned process of ensuring through appropriate human resource (HR) processes and learning environment the continuous supply and retention of effective managers at all levels to meet the requirements of an organisation and enhance its strategic capacity.

- The process comprises of three essential components:
- Analysis of present and future management needs.
- Assessment of existing and potential capability of managers against those needs.
- Producing and implementing policy, strategy and plans to meet those needs.
- During the past half- century, the economy has witnessed the initiation and flourishing of measurement and evaluation in Human Resource Development. Today there appear to be more questions than answers to the challenges and opportunities in the field of HRD. It is now understood that HRD is a concept as well as an activity and it is useful at all levels.

### CONCLUSION

Thus we can conclude that a change in the founding beliefs are desired and these changes need to be documented and theorized to make HRD a modernized

wing to take human resource to new heights in the years to come.

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# A Paper on Portfolio Management Services in Mutual Funds

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**Abstract :** Investing money where the risk is less has always been risky to decide. The first factor, which an investor would like to see before investing, is risk factor. Diversification of risk gave birth to the phenomenon called Mutual Fund. By efficient we mean which reduces the risk of investor and increases return on the other hand. This paper is all about how to manage an Investor's portfolio in mutual fund. How to diversify the investments into different schemes of funds My First Phases covers mutual fund industry, current economic condition of the economy, brief introduction to portfolio Management services, investor's behavior and types, their objective, risk appetite. My Second Phase covers creation of Portfolio's as per different type of Investor, Portfolio revision and Comparison of Mutual Funds with various Performance measures.

**Keywords -** Descriptive and quantitative research where the comparison between the different mutual fund schemes is made on the basis of risk, volatility and return, to evaluate the performance of the selected mutual fund schemes, Performance of mutual fund schemes has been evaluated by using the following performance measures

- (a) Risk,
- (b) Standard Deviation,
- (c) Beta,
- (d) Jensen alpha,
- (e) Sharpe Ratio.

## 1. INTRODUCTION

Investors always look for a better way to select securities. There are two types of data analysis techniques that are available to assist investors to make better investment decision fundamental analysis and technical analysis. It studies the issuer's income and expenses, its assets and liabilities, its management, and its position in the industry, in short, focusing on the basics of the business, to arrive at the fair value of a security.

Portfolio management involves deciding what assets to include in the portfolio, given the goals of the portfolio owner and changing economic conditions. Selection involves deciding what assets to purchase, how many to purchase, when to purchase them, and what assets to divest.

Mutual Funds (MF) have become one of the most attractive ways for the average person to invest their money. It is said that Bank investment is the first priority of people to invest their savings and the second place is for investment in Mutual Funds and other avenues.

## 2. NEED FOR THE STUDY

- Ø Portfolio management services is becoming a rapidly growing area serving a broad array of investors both individual and institutional-with investment portfolios ranging in asset size from thousands to cores of rupees.
- Ø Increased market volatility- risk and return parameters of financial assets are continuously changing so your assets in the portfolio should be properly managed. Portfolio's created by portfolio manager should be as per investor's behavior and their objective, risk appetite.
- Ø Portfolio creation is important and it should be as per investor class otherwise it would not fulfill its financial needs Portfolio revision is another vital aspect in an investor's Portfolio because continuous revision is needed to gain higher returns with manageable risk.

## 3. OBJECTIVES OF THE STUDY

- Ø To evaluate investment performance of selected mutual funds in terms of risk and return.
- Ø To evaluate and create an ideal portfolio consisting the best mutual fund schemes which will earn highest possible returns and will minimize the risk.
- Ø To understand the concept of portfolio management and its relation to mutual funds.
- Ø To analyze the performance of mutual fund schemes on the basis of various parameters.

## 4. RESEARCH METHODOLOGY

### 4.1 RESEARCH DESIGN:-

- Ø Exploratory Research & Analytical Research
- Ø Quantitative research

## 4.2 DATA COLLECTION METHOD:-

**Primary data:** The study was conducted through a Survey and involved, interviewing different age group of people through the Survey, falling under three distinct Age – Brackets, being:

- ü 22- 35
- ü 35 – 50
- ü Above 50

The information gives us an overall understanding of the respondent's investment profile and helps us to understand what investment mix and which mutual fund will be appropriate, or inappropriate, in helping to achieve his financial goals.

### Secondary data:

- For data collection purpose the secondary source was used like mutual fund factsheet, books, and websites.
- This data was used To Create Portfolio's as per Investor type, Portfolio revision and comparison of mutual funds schemes.

## 4.3 SAMPLE DESIGN:-

**Sample Size:** 100 Samples

**Type of sample:** Convenience sampling

The sample size consist of clients of HDFC Bank

- Customers taken Insurance policy and mutual funds
- Customers having PMS a/c

## 4.4 NULL HYPOTHESIS: -

- Passive Management gives more return compared to Active Management.
- Ø Passive Management has better approach compared to Active

## 5. THEREOTICAL BACKGROUND

### 5.1 INTRODUCTION TO MUTUAL FUND:-

A mutual fund is just the connecting bridge or a financial intermediary that allows a group of investors to pool their money together with a predetermined investment objective. The mutual fund will have a fund manager who is responsible for investing the gathered money into specific securities (stocks or bonds).

### 5.2 INVESTMENT OPTIONS:

Savings form an important part of the economy of any nation. With the savings invested in various options available to the people, the money acts as the driver for growth of the country. Indian financial scene too presents a plethora of avenues to the investors. Though certainly not the best or deepest of markets in the world, it has reasonable options for an ordinary man to invest his savings. Let us

examine several of them:

1. Banks,
2. Post Office schemes,
3. Company Fixed Deposits,
4. Number of available options,
5. Diversification

## 5.3 WHAT IS PORTFOLIO MANAGEMENT:-

An investor considering in securities is faced with the problem of choosing from among a large number of securities. His choice depends upon the risk return characteristics of individual securities. He would attempt to choose the most desirable securities and like to allocate his funds over this group of securities. Again he is faced with problem of deciding which securities to hold and how much to invest in each. The investor faces an infinite number of possible portfolios or groups of securities. The risk and return characteristics of portfolios differ from those of individual securities combining to form a portfolio. The investor tries to choose the optimal portfolio taking into consideration the risk return characteristics of all possible portfolios.

### Phases of Portfolio Management:-

- Ø Security Analysis
- Ø Portfolio Analysis
- Ø Portfolio Selection
- Ø Portfolio Revision
- Ø Portfolio Evaluation

## 6. DATA ANALYSIS

The data collected through the Profiler provided for an Analysis of an Individual's Risk – taking capacity through the Risk – Analyzer. The Questionnaire, after being administered on the Respondents categorizes each of them on the basis of their risk – taking, as Investors of the following classes: Conservative, Balanced, and Aggressive,

### 1. Demographic Analysis:-

The data of 100 respondents included 70 males and 30 females.

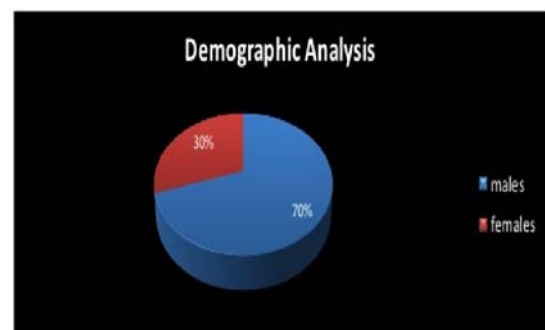


Fig 6.1 Demographics

## 2. Age Group:-

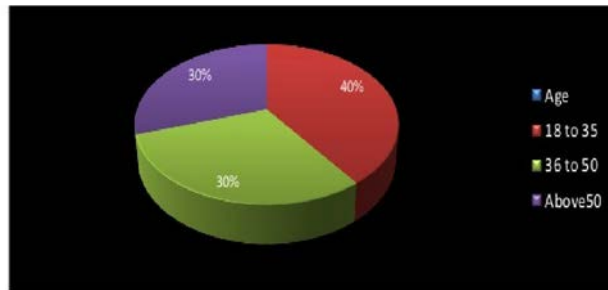


Fig 6.2 Age group

3. Income level Between 3, 00,000 to 30, 00,000

4. .What percentage of monthly income can be invested?

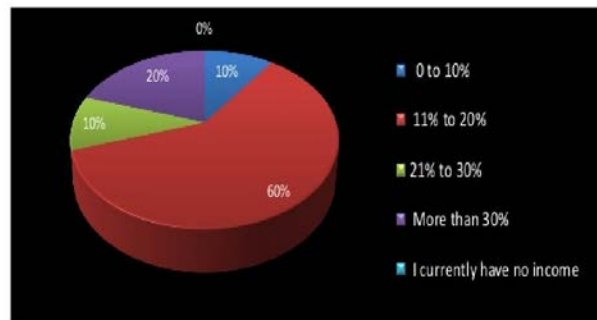


Fig 6.3: Monthly Income

5. When do you expect to liquidate your investment?

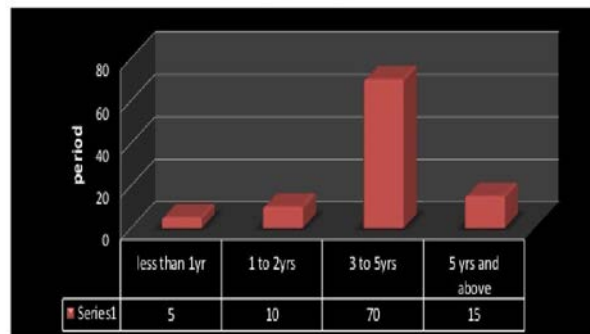


Fig 6.4 expected liquidation period

5. What is your expected rate of return from your investments?

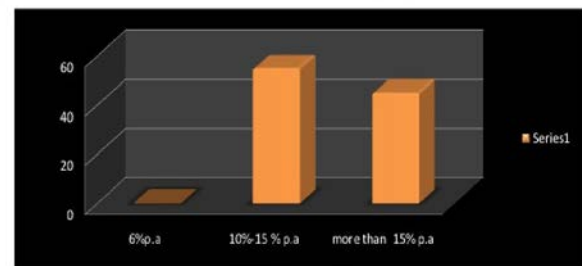


Fig 6.5: expected return

6. I would start to worry about my investments if my portfolio value falls

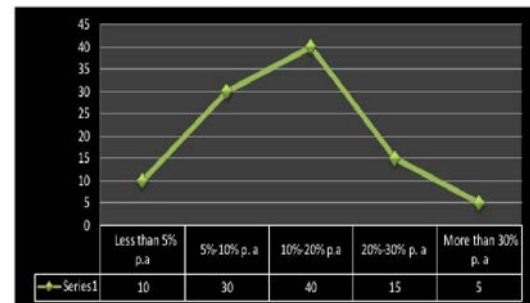


Fig 6.6: Decrease in Portfolio

7. Maximum allocation in your current portfolio pertains to

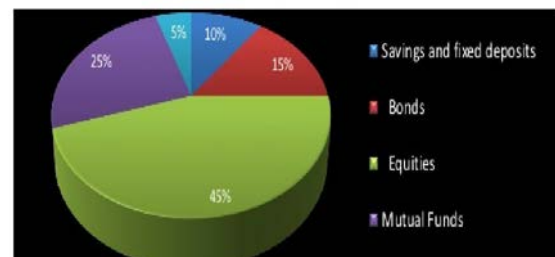


Fig 6.7: Portfolio Allocation

8. I prefer to keep capital safe rather than have high return

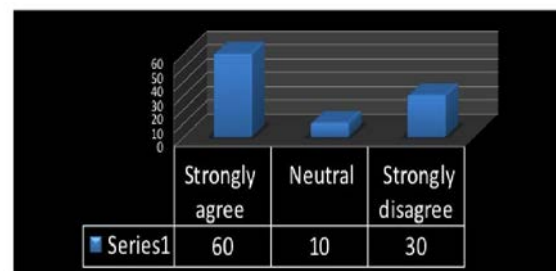


Fig 6.8: capital or return preference

## INTERPRETATION:-

- Out of 100 respondents 70 were male and 30 female with Income level between 3 lakhs to 30,00,000 Lakhs
- 60% of the respondents prefer investing monthly 11% to 20%
- 70% of the respondents are ready to liquidate their investments with range of 3 to 5 years
- 45% of the investor's portfolio consists of Equities
- Age Group of 22 to 35 young working class with limited liability prefers to take higher risk and get higher returns of 15% and more. They belong to Aggressive class of Investors. Equity funds are most preferred by them.
- Age group of 36 to 50 is those respondents who have dependents on them emphasize income over growth. They are medium risk investors. They prefer to keep capital safe rather than having high return. They belong to balanced class of Investors.
- Age groups of 50 and above are those respondents nearing retirement or have a short-term need for their investment. They are low to medium risk investors. They prefer a higher level of income than does the stable investor. They belong to Conservative class of investors. Debt Funds are most preferred by them.

## 7. PORTFOLIO CREATION

- Aggressive investor portfolio (80% equity and 20% debt),
- Conservative investor portfolio (80% debt 20% equity),
- Balanced investor portfolio (50% debt 50% equity),

## 8. PORTFOLIO REVISIONS

Portfolio revision is done in this Project is done in 3 following ways in order to find out which of give them higher returns in the span of 2 months from May 2nd 2012 to June 30th 2012 Portfolios are revised every 15 days in span of two months<sup>1</sup>. Constant Rupee Plan The objective of this plan is to balance the division between the conservative and aggressive components of the portfolio in terms of the target value. The target value could be fixed initially by the investor in a desirable proportion<sup>2</sup>. Constant Ratio Plan In this plan, we maintain a ratio between the aggressive and conservative components of a portfolio. The initial ratio is FIXED by the investor and could be, say, 1:1 or any other desirable ratio<sup>3</sup>.

## 8.1 PORTFOLIO REVISION AS PER CONSTANT RUPEE PLAN

In Constant Rupee Plan, as it is an Aggressive Investor its Equity is kept Rs 20, 00,000 and Debt is Rs 5, 00,000. Every 15th day it's revised as per constant rupee plan

- Portfolio as on may 1st 2012,
- Revised portfolio as on may 15th 2012,
- Revised portfolio as on may 31st 2012,
- Revised portfolio as on June 15th 2012,
- Portfolio As On June 29th 2012

## 8.2 PORTFOLIO REVISION AS PER CONSTANT RATIO PLAN:-

In Constant ratio Plan a fixed ratio is kept between Debt and Equity 60% and 40% Portfolio as on 2nd May 2012

### REVISED PORTFOLIO AS ON MAY 15TH 2012:-

As on May 15th 2012 Portfolio has fallen, Debt and equity has fallen. Overall Portfolio has been revised as Constant ratio Plan, fixed ratio of 60% equity and 40% debt. There Total portfolio as on May 15th 2012 i.e., Rs 24, 55,497.56 is allocated to equity 60% and Debt 40%

### REVISED PORTFOLIO AS ON MAY 31st 2012:-

As on May 31st 2012 Portfolio has fallen, Debt has increased and equity has fallen. Overall Portfolio has been revised as Constant ratio Plan, fixed ratio of 60% equity and 40% debt. There Total portfolio as on May 31st 2012 i.e., Rs 24,46,840.39 is allocated to equity 60% and Debt 40%

### REVISED PORTFOLIO AS ON June 15th 2012:-

As on June 15th 2012 Portfolio has increased, Debt equity has increased. Overall Portfolio has been revised as Constant ratio Plan, fixed ratio of 60% equity and 40% debt. There Total portfolio as on June 15th 2012 i.e., Rs 24,63,437.52 is allocated to equity 60% and Debt 40%

### PORTFOLIO AS ON JUNE 29TH 2012:-

Opting for Constant Ratio Plan would give return of 0.83% in the span of 2 month

## 8.3 PORTFOLIO REVISION AS PER VARIABLE PLAN:-

As per variable plan, the ratios are varied whenever there is a change in the economic or market index.

### REVISED PORTFOLIO AS ON MAY 15TH 2012:-

As on May 15th 2012 Portfolio has fallen, Debt has fallen by 0.31% and equity has fallen by 2.75%. Therefore Overall Portfolio has been revised given equal allocation of Portfolio to Debt and equity. There Total portfolio as on

May 15th 2012 i.e., 50% Debt Rs 1227749 and 40% equity Rs 12, 27,749.

#### REVISED PORTFOLIO AS ON MAY 31st 2012:-

As on May 31st 2012 overall Portfolio has fallen, Debt has increased by 0.004% and equity has fallen by 0.89%. Therefore Overall Portfolio has been revised given more allocation of Portfolio to Debt 70% and equity 30%. There Total portfolio as on May 31st 2012 ie, 70% Debt Rs 1470118.63 and 40% equity Rs 980079.08.

#### REVISED PORTFOLIO AS ON JUNE 15th 2012:-

As on June 15th 2012 overall Portfolio has increased, Debt has increased by 0.68% and equity has increased by 0.57%. Therefore Overall Portfolio has been revised given more allocation of Portfolio to equity 60% and Debt40% because equity is giving more returns than Debt. There Total portfolio as on May 31st 2012 i.e. Rs 24, 65,384, 40% Debt Rs 986153.8 and 60% equity Rs 1479230.67

#### PORTFOLIO AS ON JUNE 29TH 2012:-

Opting for Variable would give return of 0.90% in the span of 2months

#### 8.4 CALCULATION OF PORTFOLIO RETURNS:-

Table 8.4.1

PLAN NAME	RETURNS	RANKINGS
CONSTANT RUPEE	0.73%	3
CONSTANT RATIO	0.83%	2
VARIABLE PLAN	0.90%	1

Variable Plan gives highest returns of 0.90% compared to other two plans in span of 2months 2nd May 2012 to 29th June2012 because in variable plan continuous revision is done according to market Fluctuation. Therefore Null hypothesis of the project has been proved wrong through analysis done above. Here in variable plan active management style is adopted where continuous revision is required to get higher returns. of 0.90%.

#### 9. MUTUAL FUND COMPARISONS

The Five mutual funds taken for comparison are open ended funds and equity in nature. HDFC TOP 200 – GROWTH Objective: To generate long term capital appreciation by investing in a portfolio of equities and equity linked instruments drawn from the BSE 200 Index.

Seeks to generate long-term capital appreciation and income distribution to unit holders from a portfolio that is invested in equity and equity related securities of about 20 companies belonging to the large cap.

The primary investment objective is to seek to generate long term capital appreciation from a portfolio that is substantially constituted of equity related securities.

The primary investment objective of the Scheme is to seek to generate continuous returns by actively investing in equity and equity related or fixed income securities of companies in the banking sector.

#### RETURNS OF 5 MUTUAL FUNDS HDFC TOP 200 – GROWTH:-

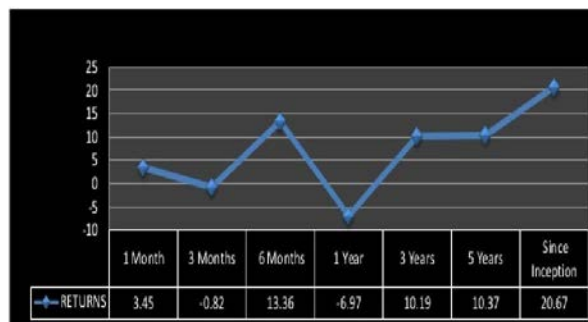


Fig 5.1

#### ICICI PRUDENTIAL FOCUSED BLUECHIP EQUITY FUND:-



Fig 5.2

#### DSP BLACKROCK SMALL AND MIDCAP FUND – GROWTH:-

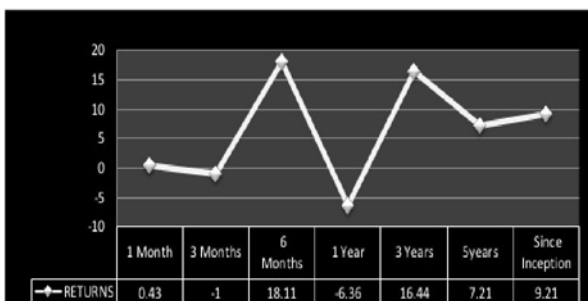


Fig 5.3

### FRANKLIN INDIA BLUECHIP – GROWTH:-

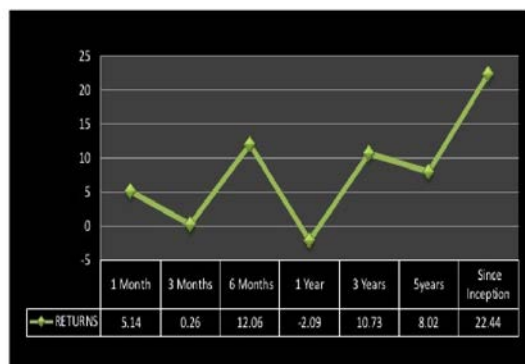


Fig 5.4

### RELIANCE BANKING FUND – GROWTH:-



Fig 5.5

### SHARPE RATIO:-

The above table shows the Sharpe ratio of various schemes for the financial year 2011-12, Sharpe ratio is a measure of the excess return per unit of risk in an investment asset of a trading strategy. The Sharpe ratio is used to characterize how well the return of an asset compensates the investor for the risk taken. Among them, DSP BLACKROCK SMALL AND MIDCAP FUND – GROWTH was considered as the best one with a ratio of 0.10. The least performance was shown by FRANKLIN INDIA BLUECHIP – GROWTH which has a ratio of 0.07. The performance of all selected mutual fund schemes was really low during the financial year 2011-2012.

### TREYNOR RATIO:-

Treynor's ratio measures the fund's performance in relation to the market's performance. The table shows the Treynor's ratio of selected mutual fund schemes for financial year 2011-12. Among them RELIANCE BANKING FUND – GROWTH was top performing fund with a maximum Treynor ratio of 0.49. It means that the scheme has a better risk adjusted performance as compared to other schemes. The least performing fund was HDFC TOP 200 – GROWTH and FRANKLIN INDIA BLUECHIP

– GROWTH with Treynor ratio of 0.31 which shows that the fund is having a low risk adjusted performance.

### STANDARD DEVIATION:-

Standard Deviation of a fund depicts, that how much the returns of the fund have deviated from the mean level. The higher the value of standard deviation, the greater will be the volatility in the fund's returns. In financial year 2011-12, RELIANCE BANKING FUND – GROWTH had standard deviation of 4.63% meaning that the funds return fluctuated in either direction (up or down) by 4.63% from its average return, whereas FRANKLIN INDIA BLUECHIP – GROWTH showed minimum deviation of 3.40%.

### RANKINGS:-

Table 10

RANK	SHARPE RATIO	TREYNOR RATIO
1	DSP BLACKROCK SMALL AND MIDCAP FUND – GROWTH	RELIANCE BANKING FUND – GROWTH
2	ICICI PRUDENTIAL FOCUSED BLUECHIP EQUITY FUND – INSTITUTIONAL I – GROWTH	DSP BLACKROCK SMALL AND MIDCAP FUND – GROWTH
3	RELIANCE BANKING FUND – GROWTH	ICICI PRUDENTIAL FOCUSED BLUECHIP EQUITY FUND – INSTITUTIONAL I – GROWTH
4	HDFC TOP 200 – GROWTH	HDFC TOP 200 – GROWTH
5	FRANKLIN INDIA BLUECHIP – GROWTH	FRANKLIN INDIA BLUECHIP – GROWTH

Table 11

Rank	STANDARD DEVIATION
1	RELIANCE BANKING FUND – GROWTH
2	DSP BLACKROCK SMALL AND MIDCAP FUND – GROWTH
3	HDFC TOP 200 – GROWTH
4	ICICI PRUDENTIAL FOCUSED BLUECHIP EQUITY FUND - INSTITUTIONAL I – GROWTH
5	FRANKLIN INDIA BLUECHIP – GROWTH

### FINDINGS:-

- ✓ Active Management of funds are far better approach than passive management of Funds because Portfolio's are continuously checked and revised to take into account the effect market fluctuations on Investors Portfolio and take appropriate measure.
- ✓ Variable plan in portfolio revision gives higher returns in short term period, Beta is useful tool in measuring risk in mutual funds.

- ✓ Less affordable by Middle class Investor as minimum investment needed is 25 lakhs.
- ✓ Sharpe and Treynor ratio are mostly preferred to ascertain the risk and values of investment, Portfolio Diversification is necessary in order to manage the risk
- ✓ Portfolio created as per Investor class and risk is more preferable.

### CONCLUSION

After studying & analyzing different portfolio's the following conclusions can be made Winning with stocks means performing at least as well as a major market index over the long haul. If one can sidestep the common investor mistakes, then one has taken the first and biggest step in the right direction. Portfolio Management services in mutual funds reduces risk without sacrificing returns. PMS involves a proper investment decision with regards to what to buy and sell. It involves proper money management. The right portfolio management service (PMS) is a prerequisite for it diversified stock portfolios have offered superior long term inflation protection. To understand stock funds, one needs to

be familiar with the characteristics of the different types of companies they hold. PMS could end up being a well paying affair if you get this one right. So if you are ready to put your nest egg & step into this world, put each step with a fine-toothed comb.

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- Ø Mutual funds in India by Nalini Prava Tripathy



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# A Review on Supplier Selection Criteria and Methods

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**Abstract** - In today's highly competitive environment, an effective supplier selection process is very important to the success of any manufacturing organization. In this context, supplier selection represents one of the most important functions to be performed by the purchasing department. Supplier selection is a multi-criterion problem which includes both qualitative and quantitative criteria. A trade-off between these tangible and intangible factors is essential in selecting the best supplier. A number of models and techniques have been developed to deal with selecting and evaluating suppliers. This paper reflects the importance of supplier evaluation process, analyzing criteria that can be used to determinate the best supplier and the different methods that help to make this decision by investigating the various work carried out by different authors that progressed in this area.

**Keywords** - *Supplier selection, Decision Making, Qualitative and Quantitative criteria, Methods.*

## I. INTRODUCTION

Supplier selection represents one of the most important decisions in a company to remain competitive, where markets are changing very fast. The purchasing activity is a significant component of the final cost of the product; therefore, supplier selection is one of the decisions which determine the long-term viability of the company. Gencer and Gurpinar [1] point out that the costs of the purchased goods and services account for more than 60% of the cost of goods sold in many firms and over 50% of all quality defects can be traced back to purchase material. The main objective of supplier selection process is to reduce purchase risk, maximize overall value to the purchaser, and develop closeness and long-term relationships between buyers and suppliers.

Consequently, a good purchasing (process, system, procedure, and coordination) and supply chain can make an important contribution to a company's result. Furthermore, continuous improvement programmes in engineering, logistics and manufacturing management require improving relationships with suppliers that result in lead-time reductions, just-in-time deliveries and zero defects on components. These relationships shall also result in improved value to the end customer [2].

## II. OBJECTIVES OF STUDY

The objective of this paper is to review some of the recent supplier selection methods and to find the key

elements of a successful supplier performance evaluation. To achieve this goal, the investigation has three main objectives:

1. To understand the importance of supplier selection and study its evolution over the recent past.
2. To investigate the criteria that is important in supplier selection process.
3. To carry out a review of the existing supplier selection methods and their application on supplier evaluation and selection.

## III. METHODOLOGY

Diverse literature such as books and journal articles, searched via Emerald or Science Direct, has been used to gather the background information to achieve the goals of this paper. Several papers from 2000 onwards have been reviewed to know the state of the art of supplier evaluation methods.

## IV. SUPPLIER SELECTION

### A. Importance of Supplier Selection

Supplier selection approach is changing since the market requirements have evolved. The market research for new suppliers is an on-going activity with high priority for all companies in order to optimize cost and upgrade the variety of their products range to match the market needs. Particularly, nowadays where product life cycle is generally very short (3 to 4 years) new designs often require new materials or new technologies [3]. Procurement department's traditional purchasing strategy considers price as the most important attribute. It also prefers a multi-supplier strategy assigning not more than 15% to 25% of the purchase orders to the same supplier, which provides the company more negotiating power, and protects the company against sudden price increases, or modifications in the delivery time. Therefore, to follow this strategy, the main effort is to find suppliers that comply with all requirements, and then select the provider based on the price (the only selection criteria).

A new approach of multi sourcing over single sourcing has emerged over last few years. Single-sourcing strategies strive for partnerships among buyers and suppliers. It encompasses many documented benefits such

as quantity discounts from order consolidation, reduced order lead times, and logistical cost reductions as result of a scaled down supplier base [4]. Moreover, single-sourcing dependency exposes the buying firm to a greater risk of supply interruption and as a result many production companies use multiple sourcing strategies. Although, managing more than one source is obviously less flexible than dealing with a single source, multiple sourcing provides greater assurance of timely delivery and greater upside volume flexibility due to the diversification of the firm's total requirements [5]. It also hedges the risks of creating a monopolistic (sole source) supply base and supplier forward integration. Bhote [6] observed that relationship management costs, in terms of time and capital, outweigh the performance enhanced benefits of single sourcing.

### B. Supplier Selection Process

In a supplier selection process there are a number of aspects to be considered. All relevant company's stakeholders must be involved in the supplier selection process. Selection criteria must be agreed among the stakeholders ensuring the right weight is allocated to each criteria based on the overall importance, and always aligned to the main objective of the company. Supplier selection process step is shown in the fig.1

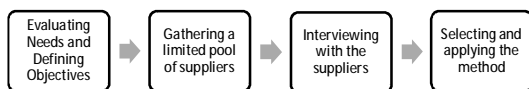


Fig.1 Steps in Supplier Selection Process

The first step is to evaluate the company needs to define the business, technical and usability requirements in order to contact the right vendors. The second step is to gather a limited group of suppliers. Sometimes there are not enough number of approved suppliers available, thus it is necessary to find new suppliers through supply market research [2]. After receiving the quotations, the procurement department makes a preliminary technical and commercial evaluation, in which all relevant aspects are reviewed [2]. Companies use different methods to evaluate and select the supplier. Finally, one supplier is selected with whom the delivery of the product or service is negotiated.

## V. SUPPLIER EVALUATION CRITERIA

Supplier or vendor selection decisions are complicated by the fact that various criteria must be considered in decision making process. The analysis of criteria for selecting and measuring the performance of suppliers has been the focus of many scientists and purchasing practitioners since the 1960's [3]. Some criteria are difficult to evaluate since they can only be measured in a qualitative way (and not quantitative). These criteria are more subjective and more people dependent.

The majority of research about supplier selection problem mentions Dickson's study [7]. It is based on a questionnaire sent to 273 purchasing agents and managers selected from the membership list of the National Association of Purchasing Managers, which include agents and managers from the United States and Canada.

Dickson's study describes the importance of 23 criteria for supplier selection which are classified with respect to their importance observed in the beginning of the sixties. At that time (1966), the most significant criteria are quality of the product, the on-time delivery, the performance history of the supplier and the warranty policy used by the supplier. The 23 criteria presented by Dickson still covers the majority of the criteria presented in the literature nowadays, but the evolution of the industrial environment modifies the ranking of these criteria or adds others criteria that are considered important too [3]. The nineteen studied sources come up with thirteen different criteria.

Quality was considered in 100% of the authors in the supplier selection process, more than 50% of the authors also point out that cost (89% of authors), performance delivery (79% of authors) and service (58% of authors) and financial strength (42% of authors) are important criteria as well. Other journal covers various criteria like technical ability, flexibility, management approach, production capacity, geographic location etc. The sources which include cost as part of the criteria include selling price, which means that when evaluating the cost, the price is evaluated as well, so these criteria can both go under cost. In conclusion, there are five main criteria: quality, performance delivery, service, cost and financial strength which are explained further in the sections.

### A. Quality

Leenders and Fearon [8] say that "Quality is a competitive tool that can give high contribution to the organization." Dober and Burt [9] define it like "one of the purchasing supplier performance management major responsibilities and product quality failures lead directly to costly difficulties that reduce productivity, profit and often market share" Weele [2] prefers to define it with the IBM's definition, "Quality is the degree in which customer requirements are met. We speak of a quality product or quality service when both supplier and customer agree on requirements and these requirements are met." There are at least eight dimensions of quality which is shown in Table 1. [8]

TABLE 1: CLASSIFICATION OF CRITERIA

Criteria	Sub Criteria
Quality	<ul style="list-style-type: none"> <li>• Performance.</li> <li>• Features.</li> <li>• Reliability.</li> <li>• Durability.</li> <li>• Conformance.</li> <li>• Serviceability.</li> <li>• Aesthetics.</li> </ul>

	<ul style="list-style-type: none"> <li>• Perceived quality.</li> </ul>
Performance Delivery	<ul style="list-style-type: none"> <li>• Order lead-time.</li> <li>• Delivery reliability.</li> <li>• Delivery certainty.</li> <li>• Information.</li> <li>• Flexibility.</li> </ul>
Service	<ul style="list-style-type: none"> <li>• Warranties and claim policies</li> <li>• After Sales</li> <li>• Response to customer complaints</li> </ul>
Cost	<ul style="list-style-type: none"> <li>• Purchase Price</li> <li>• Discount</li> <li>• Transport Cost</li> </ul>
Financial Strength	<ul style="list-style-type: none"> <li>• Financial Position</li> <li>• Credit Strength</li> <li>• Profitability</li> </ul>

#### *B. Performance Delivery*

Performance Delivery describes the efficiency rate of business operations when preparing and delivering an order to a customer [10]. The work starts with the evaluation of the processes and procedures used to receive orders from clients, schedule the production of the goods or services necessary to fulfill those orders and finally, the time necessary to deliver the goods or services to meet client expectations. The goal is to manage and pay attention on every task across the whole process chain to deliver goods and services as efficient as possible [11].

#### *C. Service*

The purpose of service is to satisfy the customers' needs and it means that service includes issues such as delivery reliability and short order lead-times. But, most of the sources that mentioned service as a criterion to measure argue that service is about giving quick response to all inquiries and requests, handle complaints efficiently, making the business easy and, of course, follow the customers' instructions [12]. Evaluating supplier's service performance is usually done by subjective judgments. Opinions need to be collected on the quality of assistance, supplier attitude and response time to requests for assistance, support staff qualifications and so on.

#### *D. Cost*

Purchasing cost is related to the total acquisition costs, including the price as is explained above [13]. In the situation with a single criterion, generally it considers the cost as the most important criterion. It computes all the direct cost, like the purchase price, the transport cost and so on, associated to each supplier and it chooses the lowest cost bidding [3]. Although, it is studied that the traditional single criterion approach based on lowest cost bidding is no longer supportive and robust enough in contemporary supply management.

#### *E. Financial Strength*

Financial strength is evaluated based on the financial position, profitability, credit purchase and its period 42% of the authors considers the financial strength as an important parameter in evaluating the suppliers. In this financial position and credit purchase is give more weightage [9].

## **VI. SUPPLIER SELECTION METHODS**

This section explains different supplier evaluation methods and reviews the literature. The goal of the methods explained below is to evaluate suppliers to select one of them. It explains the main idea of each method and it develops alternatives for each method that were proposed by different authors. It is necessary to use methods to select supplier since there are some criteria that are necessary to take into account to make this decision. Some important methods are discussed below.

### *A. Analytical Hierarchic Process (AHP)*

The Analytical Hierarchic Process (AHP) is a decision-making method for prioritizing alternatives when multiples criteria and sub-criteria must be used. It is developed by Saaty in 1980 [14]. This method allows the decision maker to structure complex problems in the form of a hierarchy or a set of integrated levels [3]. Generally, the hierarchy has at least three levels: the goal, the criteria and the alternatives. For the supplier selection problem, the goal is to select the best overall supplier. It considers multiple criteria, quantitative as well as qualitative, and allows them to integrate into a single overall score. The alternatives are the different proposals supplied by the suppliers [3].

There are some journal articles proposing AHP to deal with the supplier selection problem. Authors like Akarte [15], Muralidharan [16], Chan [17], Hou and Su [18] or Shin-Chan Ting [13] wrote about this topic and developed extensions of AHP approach to improve the model.

### *B. Analytic Network Process (ANP)*

The Analytic Network Process (ANP) is a generalization of the Analytic Hierarchy Process (AHP) and can be used to treat more sophisticated decision problem than the AHP [19]. It was developed by Saaty in 1996 [1]. ANP provides a general framework to deal with decisions without making assumptions about the independence of higher-level elements from lower level elements and about the independence of the elements within a level [1]. Therefore, ANP is represented by a network without the need to specify levels as in a hierarchy [20].

Three authors proposed ANP to solve the supplier selection problem: Sarkis and Talluri [21], Bayazit [19] and Gencer and Gurpinar [1]. Sarkis and Talluri [21] found that supplier evaluating factors would influence each other, and the internal interdependency needed to be considered in the evaluation process. The authors applied ANP to evaluate and select the best supplier with respect to organizational factors and strategic performance metrics. Bayazit [19] proposed an ANP model to tackle the supplier selection problem.

### *C. Interpretive Structural Modelling (ISM)*

Interpretive structural modelling (ISM) is a well-established methodology for identifying relationships

among specific items, which define a problem or an issue. ISM approach starts with an identification of variables, which are relevant to the problem or issue. Then a contextually relevant subordinate relation is chosen. Once transitivity embedding is complete, a matrix model is obtained. Then, the partitioning of the elements and an extraction of the structural model called ISM is derived. This methodology is interpretive as the judgment of the group decides whether and how the different elements are related.

An ISM model of vendor-managed inventory is developed by Dobler [9]. Kannan [23] analyzed Supplier Development Criteria for An Automobile Industry by ISM methodology. Various criteria for vendor selection are classified by [24] depending on their driving and dependence powers by using ISM methodology. ISM has been carried out to develop a hierarchy of criteria to be considered for selecting the vendors.

#### *D. Techniques for Order Preference by Similarity to an Ideal Solution (TOPSIS)*

The TOPSIS method is a multiple criteria method proposed by Hwang and Yoon to identify the similarity of the ideal solution from finite set of points. The basic principle is that the chosen points should have the “shortest” distance from the positive ideal and the “farthest” distance from the negative ideal solution [25].

In the literature, there are some papers that proposed TOPSIS to solve the supplier selection problems. Hosseinzadeh [25] developed an extension of the TOPSIS method for decision making problems with Fuzzy data. Markovic [26] describes the possible modifications in TOPSIS to add more advantages in the real business problems. Chen, C.T. [27] extended TOPSIS to fuzzy environment.

#### *E. Data Envelopment Analysis (DEA)*

Data envelopment analysis (DEA) is a mathematical programming method to provide a relative efficiency evaluation for a group of decision making units with multiple numbers of inputs and outputs. It is proposed by Charnes, Cooper and Rhodors [28] in 1978. It is also recognized as a non-parametric method that allows efficiency to be measured without having to specify either the form of the production function or the weights for the different inputs and outputs chosen. DEA has been suggested in the literature of some authors. Some of them are the following: Forker and Mendez [29], Talluri and

Baker [30], Wu proposed a modified DEA method for supplier selection which can operate under conditions of imprecise information. In addition, it includes the elimination of the poor discriminatory power and inability of traditional DEA to rank the efficient suppliers. Saen[31] developed a DEA method to evaluate the performance of suppliers in the presence of both quantitative and qualitative data.

#### *F. Other Methods*

Sarkar and Mohapatra [32] wrote about Fuzzy Set Theory in the supplier selection process. Barla or Huang and Kiska used SMART (Simple Multi-Attribute Rating technique) to solve the supplier selection problem. Talluri [30] developed a linear programming model to evaluate and select potential suppliers. Ghodspour and O'Brien [33] formulated a mixed integer non-linear programming model to solve the multi-criteria sourcing problem. Karpak [34] constructed a goal programming (GP) model to evaluate and select the suppliers. Narasimham and Ravindran [35] constructed a multi-objective program to select the optimal suppliers. In addition, it is possible to integrate different methods. Thereby, Talluri [30] presented an integrated AHP-GP approach; Talluri[30] also utilized an integrated DEA and multi-objective programming to develop a new method. Kirtopolous [36] applied an integrated ANP and AUGMECON to evaluate the suppliers and determine the order quantity.

## **VII. SUGGESTION**

Based on above review, it would be not irrational to suggest that the supplier selection issues need further attention in order to harmonize the combination of qualitative and quantitative criteria to develop the best decision-making. Further studies are going on in order to evaluate the multiple supplier and to determine the order quantity satisfying various objectives like minimizing the cost and maximizing the qualitative value.

The suggestion of this paper is to use the Meta Model of ISM and ANP to determine the qualitative value of multiple suppliers since ISM helps to identify the relationship among the various criteria and ANP will determine the weightage of criteria considering all the interrelationships and feedbacks. This maximum qualitative value and minimum cost objective function can be solved using various multi objective programming and it may help to determine the order quantity allocation among various suppliers.

the various suppliers. Supplier selection is getting more importance since the approach has been changing due to the changing market needs, priority of optimizing the cost and the multiple sourcing strategy over single sourcing. The issues of supplier selection have attracted the interest of researchers since the 1960s, and research studies in this area have increased. From the literature review it can be concluded that major criteria for evaluating the suppliers are

## **VIII. SUMMARY**

In this paper, an attempt has been made to review the literature for deployment of supplier evaluation criteria and methods for the supplier selection process. This literature survey serves as a comprehensive base for identifying the major criteria and provides guidance to academicians and industrialists in defining and evaluating

quality, performance delivery, cost, service and financial strength. The individual methods like AHP, ANP, ISM are considered as three precise methods for supplier selection decision making and are believed to be useful for managers due to their simplicity. The current focus is on development and use of integrated and mathematical models for the supplier and vendor evaluation.

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# Call Auction and Indian Stock Market

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**Abstract** -The Bombay Stock Exchange of India Ltd (BSE) and National Stock Exchanges of India Ltd (NSE) introduced opening Call Auction (CA) mechanism to S&P BSE Sensex stocks and NSE Nifty stocks on 18<sup>th</sup> October 2010. The opening CA introduced to increase the price discovery, reduce the volatility, and to reflect the overnight information in the prices. In this paper, we investigate the efficiency of the price discovery and liquidity provided by CA. Our sample covers 2 S&P BSE Sensex stocks and 2 S&P 100 stocks for 2 years. To test the price discovery, we use the 'adjusted R square' value as a parameter which is obtained by the market model regressions. We use Cohen et al. (1983 a, b) methodologies to measure the friction and interval ling effect of the market. The empirical results show that opening CA improves the price discovery. Further, we found less market friction and Intervalling effects in CA traded stocks compare to CEOS traded stocks.

**Keywords** - Call Auction, Price Discovery, Liquidity, Intervalling effect, Market Friction.

## 1. INTRODUCTION

The performance of the financial markets depends on efficiency of market structure, mechanisms and technology. The financial markets try to upgrade their structure and mechanism to improve their efficiency. These mechanisms impacts on, trading cost, bid-ask spread, price discovery, liquidity and market friction. In India, Call Auction was introduced on 18<sup>th</sup> October 2010 to Bombay Stock Exchange of India Ltd (BSE) and National Stock Exchanges of India Ltd (NSE) for S&P BSE Sensex stocks and NSE Nifty stocks. This was implemented based on the Securities and Exchange Board of India (SEBI) guidance. The objectives of CA are to increase the opening price discovery, liquidity and minimise the volatility in the market. The CA introduced only for opening session of the market starts from 9.00 am to 9.15 am. In this, first 8 minutes use for placement and modification of orders. Next 4 minutes allocated to match the orders in a single price and last 3 minutes system uses to buffer and transition from CA to CEOS. In CA process, trader can post both limit and market orders. In the first 8 minutes trader can modify and cancel the orders based on the 'provisional price' announce in a real time basis by the exchange. This helps to uninformed investors take the decisions and allows exchanges to achieve information symmetry. Thus, CA is

important change in the Indian stock market, it can influence in the market performance.

The large body of existing literature concerned to foreign markets and we found the mixed evidence on efficiency of CA on the market quality. Further, only less number of studies concentrated on CA of Indian stock market. These factors motivated us to investigate the Indian stock market. As discussed earlier, objectives of opening CA is to discover efficient opening price. We empirically examine the price discovery and market friction by using market model and Cohen et al. (1983 a, b) methodology which is follows event study. We use 4 stocks, out of which 2 stocks are trading in CA and 2 stocks are trading in CEOS. These two set of stock helps to compare the results and to make clear conclusions'. As proposed by the Pagano and Schwartz (2003), we use adjusted R square values to measure the price discovery provided by opening CA. We observed that the opening CA improves the price discovery for 2 BSE Sensex stocks (CA traded stocks). The found less market friction and intervalling effect in the CA traded stocks compare to CEOS stocks. This study helps to market participants to know the practicality of the opening CA and also contributes to existing literature market microstructure-CA.

The paper is ordered as follows. The next section reviews the existing literature related to CA. Section 3 discusses the data and methodology. Section 4 presents and discusses the empirical results obtained from the models and section 5 concludes the paper.

## 2. REVIEW OF LITERATURE

Madhavan(1992), Schwartz (2001) and Brooks and Moulton (2003) studied the performance of CA on the price discovery. They found that the CA discover efficient price discovery. They also pointed out that opening CA allows to information adjustments in the opening prices of the stocks. Ellul et al. (2006) examine the CA process at London Stock Exchange (LSE). They compare the CA and dealer networks works in the LSE. They observed efficient price discovery in the CA compare to dealer market. They found that uncertainly, imbalance and slow trading situations adversely effects on the CA. They pointed out that above circumstances make CA to fail in the market. Battig and Chelley-Steeley (2010) investigated the impact of the

closing CA at the LSE. They found the increased market quality in the closing sessions for liquid stocks. This noted that this also influences positively on market open. Thomas and Demarchi (2001) studied price discovery at the Paris Stock Exchange (PSE). They concluded that the price discovery at the PSE increase in the CA.

However, Camilleri and Green (2004) examine the impact of the suspension of CA (opening and closing) at NSE in 1999. They concluded that suspension of CA upsurses the market quality at NSE in India. Further, they found that CA will not impact on the illiquid stock performance. Muscarella and Piowar (2001) analyse the market quality in Paris Bourse Stock Exchange for 4 years. They compared the performance of CA and continuous trading mechanism. Based on the empirical results they found that increase market quality in the continuous trading mechanism than CA.

The above majority of the studies concentrated on foreign markets and results are in contradictory nature. The literature also suggests that financial markets growth, exclusiveness and their structure impact the price discovery and market quality. Therefore, we found the need to study the impact on CA on market quality at BSE.

### 3. DATA AND METHODOLOGY

Our study covers 4 stocks traded in BSE, in that 2 stocks namely, Tata Power Limited and Axis Bank Ltd which are trading in opening CA and remaining 2 stocks namely, Steel Authority of India and Bank of India, which trading in CEOE trading mechanism. These are highly liquid stocks in India, hence the impact of opening CA can reflect in the results of these stocks. The first set of 2 stocks is part of S&P BSE Sensex stocks and second set of 2 stocks are part of S&P BSE 100. These two sets of stocks selected to compare the results and make clear conclusions'. We obtained the data from the BSE website historical data set and Centre for Monitoring Indian Economy Pvt Ltd (CMIE) data base. Our study covers two years of data which covers one year pre and one year post-event period. The opening CA implemented on 18<sup>th</sup> October 2010, this date we choose as event day. We calculated log returns with 1 to 10 days', 15<sup>th</sup> day, and 20<sup>th</sup> day time length intervals. These 12 interval returns help to check the impact on holding period of the security. We use market model adjusted R square to measure the price discovery by the opening CA. Accordingly, we expect the increase in the adjusted R square value as increased length intervals. We run the market model regressions to obtain adjusted R square and beta (first pass beta). Following Pagano and Schwartz (2003) we employ CHMSW model which is developed by Cohen et al. (1983a) to test the intervalling effect of the market and market friction. The model specification is

$$\ln(1 + \beta) = \beta + \ln(1 + \beta) + \epsilon \quad (\text{Eq. 1})$$

Where,  $\beta$  represents first pass beta obtained from market model by considering time length intervals (T= 1, or 2, or, , , or 10 or 15 or 20 day intervals). H signifies pre

or post-event period (H=p0 if pre-event, H=p1 if post-event).  $\beta$  represents the asymptotic level of average stock beta.  $\beta$  is the estimated coefficient called as second pass beta. According to Cohen et al. (1983 b) the inverse security holding period (time length, L) regress the first pass beta in the Eq. (1), this influences the second pass beta to become negative.  $H$  is the dummy variable that assumes a value for pre-event as 0 and one for post-event period.  $\ln(1 + \beta)$  captures the time length effect of the securities holding period.  $\epsilon$  is the stochastic error term. The  $\beta$  signifies the market friction. As suggested by Pagano and Schwartz (2003), we expect the positive improvement of  $\beta$  and less than the absolute value of pre-event second pass beta ( $\beta$ ). If this happen, the market quality improves by reducing Intervalling effect and less market friction. For identification purpose, we define  $\beta$  as pre-event BETA2 and  $\beta$  as post-event BETA2.

### 4. EMPIRICAL RESULTS

This section presents the results of market model and CHMSW model. The table 1 and 2 reports the results of average adjusted R square, first pass beta. As discussed earlier, we expect positive change in the adjusted R square, and increasing in the adjusted R square as time length increase for the post-event period. The results of the opening CA traded stocks shows increase in the adjusted R square values. The percentage change is 27.34, 24.21 and 33.39 for 1, 2 and 3 days' time length intervals. For 4 to 10 day length interval adjusted R square value places around 16%, further 15 and 20 day intervals shows 24.61 and 34.32 respectively. The percentage change in the adjusted R square for CEOS stocks are 36.71, 18.01 and 27.56 for 1 to 3 days' intervals. The CEOS traded stocks experience negative adjusted R square values for 6 to 10 day intervals. This indicates that the CA traded stocks price discovery improves however, level of efficiency in the price discovery need to improve according time length intervals. The first pass beta for CA traded stocks positively changes for 1 to 10 days' intervals. However, CEOS traded stocks first pass beta decrease for 2 to 20 days' intervals. This shows that the liquidity of CA traded stocks increase with time length intervals.

Table 3 and 4 reports the BETA2 obtained from the equation 1 for CA traded stocks and CEOS traded stocks. BETA2 expected to be positive change in post-event BETA2 and less than absolute value of pre-event BETA2 to confirm reduction in the market friction and to mitigate the intervalling effect. The CA stocks BETA2 is positive and more than the absolute value of the pre-event BETA2. This shows the increase in the increasing in the intervalling effect and increase in the market friction. The CEOS traded stocks post-event BETA2 is negative. This shows that intervalling effect reverse in the market for CEOS stocks. We observe that less market friction and less intervalling effect for CA traded stocks. Generally, the CA traded stocks experience better environment compare to CEOS traded stocks.

Table. 1. Tata Power Ltd and Axis Bank Ltd – Market Model Regression with Length Intervals								
	Average Beta				Average adjusted R square			
Differencing Interval	Pre Event	Post Event	Change in Beta	Percentage Change	Pre Event	Post Event	Change in R Squared	Percentage Change
1 Day	0.9149	1.0638	0.1489	0.1628	0.3346	0.4261	0.0915	27.3453
2 Day	0.9179	1.0407	0.1228	0.1338	0.3428	0.4258	0.0830	24.2163
3 Day	0.9470	1.0612	0.1142	0.1206	0.3428	0.4572	0.1145	33.3903
4 Day	0.9621	1.0747	0.1126	0.1171	0.4076	0.4748	0.0671	16.4727
5 Day	0.9731	1.0876	0.1146	0.1177	0.4285	0.4932	0.0647	15.1029
6 Day	0.9576	1.0867	0.1291	0.1348	0.4332	0.5009	0.0678	15.6424
7 Day	0.9563	1.0987	0.1424	0.1489	0.4411	0.5073	0.0663	15.0253
8 Day	0.9471	1.1159	0.1689	0.1783	0.4452	0.5166	0.0714	16.0264
9 Day	0.9542	1.1235	0.1693	0.1774	0.4492	0.5225	0.0734	16.3413
10 Day	0.9517	1.1244	0.1727	0.1814	0.4559	0.5323	0.0764	16.7632
15 Day	0.8784	1.1452	0.2668	0.3037	0.4346	0.5415	0.1070	24.6115
20 Day	0.8438	1.2331	0.3893	0.4614	0.4481	0.6019	0.1538	34.3288

Table. 2. Steel Authority of India and Bank of India – Market Model Regression with Length Intervals								
	Average Beta				Average adjusted R square			
Differencing Interval	Pre Event	Post Event	Change in Beta	Percentage Change	Pre Event	Post Event	Change in R Squared	Percentage Change
1 Day	1.1654	1.2339	0.0684	5.8719	0.2605	0.3562	0.0956	36.7153
2 Day	1.2589	1.2276	-0.0313	-2.4863	0.3324	0.3923	0.0599	18.0126
3 Day	1.3826	1.2503	-0.1323	-9.5698	0.3324	0.4240	0.0916	27.5614
4 Day	1.4531	1.2600	-0.1931	-13.2917	0.4414	0.4453	0.0039	0.8794
5 Day	1.4701	1.2477	-0.2223	-15.1231	0.4526	0.4632	0.0106	2.3482
6 Day	1.4797	1.2197	-0.2600	-17.5734	0.4718	0.4694	-0.0024	-0.5021
7 Day	1.5101	1.1633	-0.3468	-22.9637	0.4867	0.4546	-0.0321	-6.6020
8 Day	1.5248	1.1532	-0.3716	-24.3713	0.4881	0.4498	-0.0383	-7.8444
9 Day	1.5581	1.1575	-0.4007	-25.7145	0.4872	0.4496	-0.0376	-7.7136
10 Day	1.5491	1.1723	-0.3768	-24.3233	0.4818	0.4632	-0.0186	-3.8553
15 Day	1.4799	1.2374	-0.2426	-16.3896	0.4426	0.5265	0.0839	18.9586
20 Day	1.5527	1.2965	-0.2562	-16.4987	0.4673	0.5715	0.1042	22.2897

Table 3. The Results of Second Pass Beta Coefficients for Tata Power Ltd and Axis Bank Ltd.												
INTERVALS	5			10			15			20		
Variables	Pre Event	Post Event	Differe nce	Pre Event	Post Event	Differe nce	Pre Event	Post Event	Differe nce	Pre Event	Post Event	Differe nce
BETA2	- 0.2182	0.2861	0.5042	- 0.2781	0.3667	0.6448	- 0.2762	0.3843	0.6605	- 0.2891	0.4046	0.6937

Table 4. The Results of Second Pass Beta Coefficients for Steel Authority of India and Bank of India												
INTERVALS	5			10			15			20		
Variable s	Pre Event	Post Event	Differe nce	Pre Event	Post Event	Differe nce	Pre Event	Post Event	Differe nce	Pre Event	Post Event	Differe nce
BETA2	-0.2753	- 0.1073	0.1681	- 0.2200	- 0.1917	0.0282	- 0.1018	- 0.3491	- 0.2474	- 0.1175	- 0.3622	- 0.2447

## 5. CONCLUSION

This paper analyses the impact of CA on opening on price discovery, market friction and intervallling effect. We use 2 CA traded stocks and 2 CEOS stocks for the stud. Our study covers 250 pre-event and 250 day post-event days. We use the market model and adjusted R square to measure the price discovery. To test the liquidity, we use the first pass beta as parameter. We employ the Cohel et al. (1983 a b) methodology to test the intervallling effect and market friction. Results demonstrated that opening CA improves the price discovery. The increase in the first pass beta signifies the increase in the liquidity of the CA traded stocks. However, we found the increase in the intervallling effect and increase in the market friction. The COES traded stocks intervallling reverses and market friction is more compare to CA traded stocks. Finally, we conclude that opening CA springs better environment in the Indian stock market.

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# Changing Trends in Work-Life Balance Policy and Practices

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**Abstract :** Work-Life Balance is important element for HR professionals. It is not a fashionable program, but something which is must. Juggling the demands of a career and personal life is not easy. Maintaining a healthy and balanced lifestyle became difficult, when employees were expected to work hard with fewer amenities, even if there is an improved technology and well established organisation. Work-life balance benefits both employer and employee. It increases in individual productivity, accountability and commitment, better team work, communication and also improves employee morale. Employees can dedicate more value and balance in daily life; they can understand individual's work. There will a good relationship both on and off the job. The present study aims to find out the WLB practices of top rated companies (WLB Rating 2013) and also the changing trends in WLB policy and practices. It is necessary for employees to maintain a strong balance between work and personal life. It will help them to achieve personal and professional aims and goals and also their organisation's development.

**Keywords:** *Work-Life Balance, policy and practices, profession, family, employees.*

## INTRODUCTION

"A true balance between work and life comes with knowing that your life activities are integrated, not separated"

-Michael Thomas Sunnarborg

Work-Life Balance is important element for HR professionals. It is not a fashionable program, but something which is must. A significant number of human resources seem to have dilemmas in finding the proper balance between family life and work life and this affects their personal health, the health of their families and the organisations they work for. Changes in the social, political and economic fabric of societies have influenced and continue to influence both the nature of employment and its relationship to life outside work. Work and family are connected in many subtle and not-so-subtle social, economic and psychological ways. WLB is the estrangement between work life and personal life. Considering the type of work in a classical sense, it is seem that career and personal life are interwoven. It is the margin that to create between profession, career or business and every other segment. Forming and achieving a balance between the work and personal life is considered to be a WLB issue.

## REVIEW OF LITERATURE

The basis for providing work-life balance provisions is different. Gröpel and Kohl (2009) found that satisfaction of an individual's needs in work and social domains mediate the relationship between WLB and subjective well-being. S. J. Wood et al. (2003) found that adoption of family-friendly practices was described by organisational adaption, combination of institutional pressures and competitive forces, local and technological factors, situational conditions, managerial values, and opinion regarding work and family programs. Padma and Sudhir (2013) identified that the support from family members will play a significant role in balancing personal and professional lives. Family members support is a dominant predictor of WLB and this affects the WLB of women employees. Organizations with cooperative work culture will help them to bring a suitable balance in their professional and personal life. Amanda et al. (2012) revealed that, job stress is globally has been increasing over the last few decades and because of this job stress there is a poor work-life balance and increased conflict between work and personal lives of the employees. Employee assistance programs such as stress management and flexible work arrangements, the complex nature of stress still influences employee's health and WLB negatively. Osterman (1995) identified three main reasons why organisations provide family-friendly practices; they are practical responses, links to internal labour markets, and high commitment work systems.

## OBJECTIVES

The study focused on:

1. To analyse the new changing trends in work-life balance of human resources.
2. To examine the work-life balance practices of selected corporate businesses those are in top 25 with the best Work-Life Balance (WLB).

## SIGNIFICANCE AND SCOPE

Employees have personal and family responsibilities and needs outside the work. Work-life balance is not about employers having to assist every employees wish, but it is about mutual flexibility which does not unreasonably impact on the business needs and assists the reasonable wishes and needs of employees. Implementing the policy of WLB and practicing the same

will help employees to balance their work-life, motivates them to work better and also increases the productivity. In this modern world, most of the corporate organisations implemented WLB policy and practices. This study is an attempt to know the WLB practices of top rated companies (WLB Rating 2013 by glassdoor.com) and also the changing trends in WLB policy and practices.

The study aims at to find out the WLB practices of top rated companies (WLB Rating 2013) and the scope of the present study is limited only to Five Companies out of 25 top rated companies. These five companies secured first five ranks.

## METHODOLOGY

The present study is descriptive in nature and the information collected through secondary sources. Details on planning and policies of organisation and other geographical and socio-cultural viewpoint of the study was collected from the resources such as books and journals, research papers and other sources of information transmit.

### BEST WORK-LIFE BALANCE PRACTICES OF SELECTED CORPORATE BUSINESSES

Juggling the demands of a career and personal life is not easy. Maintaining a healthy and balanced lifestyle became difficult when employees were expected to work hard with fewer amenities, even if there is an improved technology and well established organisation. WLB feeds passion for the workplace and contributes overall work environment and morale and also yields superior work and attracts the best talent in the corporate world. Here, some of the corporate businesses which are in the top 25 companies for WLB practices.

Table 1: TOP 25 COMPANIES FOR WORK-LIFE BALANCE 2013

RANK	COMPANY	2013 WLB RATING
1	SAS INSTITUTE	4.5
2	NATIONAL INSTRUMENTS	4.3
3	SLALOM CONSULTING	4.1
4	MITRE	4.1
5	ORBITZ WORLDWIDE	4.1
6	SCOTTRADE	4.1
7	MENTOR GRAPHICS	4.1
8	FACT SET	4.1
9	AGILENT TECHNOLOGIES	4.1
10	NOKIA	4.1
11	MATHWORKS	4.1
12	AUTODESK	4.0
13	AOL	4.0
14	CITRIX SYSTEMS	4.0
15	GLOBAL LOGIS	4.0

16	YAHOO	4.0
17	TIETO	4.0
18	MASTER CARD	3.9
19	MORNINGSTAR	3.9
20	SHELL OIL	3.9
21	ROBERT BOSCH	3.9
22	CHEVRON	3.9
23	REI	3.9
24	ST MICROELECTRONICS	3.9
25	NETAPP	3.9

Source: <http://www.glassdoor.com/blog/top-25-companies-worklife-balance-2013/>

### 1. SAS Institute

SAS Institute is a Cary, North Carolina- based developer of analytics software. It is one of the world's largest private software companies. Employees of SAS have good WLB policies and practices. They come up with the opinion that, SAS has “amazing workplace culture, flexible work environment, challenging/stimulating work, customer focused. Several overarching features of the work environment at SAS Institute make the company unique. SAS Institute knows the importance of leading a well balanced/managed life and meeting family needs and obligations and also enjoyment of the workplace. It offers full fledged range of benefits to help its employees, their families and retirees to achieve balance in their life and work.

Table 2: WLB Policy and Practices at SAS Institute

<b>Career Advancements</b>	Excellent working environment
	Casual dress code
	Training and development opportunities
	Career advancement opportunities
<b>Healthcare Services/Benefits</b>	Comprehensive medical, dental, vision and prescription plans
	Health Care and Dependent Care Flexible Spending Accounts
	On-site health care centre at Cary
	Short-and long-term disability plans
<b>Recreation and Fitness Centre (RFC)</b>	RFC is open to SAS employees, retirees and family members
	Local health clubs at various regional office locations
	Additional regional employee discount opportunities

<b>Work-Life Benefits of SAS</b>	Accidental Death and Dismemberment coverage
	College scholarship program for children of SAS employees
	Company-paid vacation
	Dependent care flexible spending accounts
	Domestic partner benefits
	Paid Holidays, Family medical leave and sick days
	Flexible work schedules
	Life insurance coverage
	On-site summer camp in Cary for school-age children
	Paid paternity and adoption leave, Jury duty, Military and Funeral leaves
<b>Retirement Benefits</b>	Subsidized, on-site child care centres in Cary (eligibility requirements)
	Work/Life resources available to assist employees with a variety of family-related issues
	Retirement Recognition Program
	Retiree Health Reimbursement Arrangement
	Full Retirement Benefits
<b>Voluntary Insurance Benefits</b>	Health care benefits and Life Insurance
	Enrichment opportunities
	Group Auto and Homeowners Insurance Program
	Group Term Life insurance
	Supplemental Income Protection for Long- Term Disability

Source: [http://www.sas.com/en\\_us/company-information/employee-retiree-services.html](http://www.sas.com/en_us/company-information/employee-retiree-services.html)

## 2. National Instruments

National Instruments is an Austin-based company that manufactures automated test equipment and virtual instrumentation software. Employees of National Instruments feel that the company supports personal initiatives and encourages people's many interests, both work- and hobby-related. National Instruments offers total compensation package that includes wellness, benefits and safety resources. Wellness programs help employees to evaluate, maintain and improve their personal health.

Table 3: WLB Policy and Practices at National Instruments

Competitive salary
Health Insurance plans with health care coverage
Tuition assistance
Group Life Insurance
Short- term disability
401k Retirement plan
Company performance bonus
Ownership in the company through equity programs
On-site health and fitness centres
Employee Assistance Programs for health care, legal and financial help
Flexible spending account for medical expenses.

Source: <http://www.ni.com/company/corporate-responsibility/culture/create/health.htm>

## 3. Slalom Consulting

Slalom Consulting is an American business and technology consulting firm. John Tobin, Co-Founder and President of Slalom Consulting said that, "Slalom strives to provide a supportive and flexible environment for more than 2,000 employees". Slalom believed in empowering the employees helps them to have a true balance between their work and personal life. Slalom created WLB opportunities for employees located near its regional centres.

Table 4: WLB Policy and Practices at Slalom Consulting

Flexible work environment and work schedules
Liberal work from home policy
Health Insurance (benefits)
Physical fitness options
Green living
Retirement planning

Source: <http://www.slalom.com/working-at-slalom/>

## 4. MITRE

MITRE is not-for-profit organization that operates research and development centres sponsored by the federal government. WLB is very real and everyone is encouraged to take time off and keep their work hours under control at MITRE. It provides a variety of training and educational opportunities to help employees continually improve their skills and expertise. MITRE's benefits are designed to support to its employees and their family.

Table 5: WLB Policy and Practices at MITRE

<b>Health Care Services</b>	Choice of healthcare plans
	Dental plans
	Vision care plans
	Wellness programs
	On-site fitness centres
<b>WLB Policies</b>	Flexible work arrangements
	Referral services
	Wellness programs
	On-site massage and physical therapy

<b>Time-off</b>	Paid time-off
	Civic time of upto 40 hours annually to participate in community events
	Paid holidays (8 each year)
	Leave for military duty, jury duty, bereavement and other life demands
<b>Finances</b>	Health care flexible spending accounts
	Dependent care flexible spending accounts
	Corporate discounts
	Commuter benefit
	Credit union services
	Adoption assistance
<b>Retirement</b>	Pre-tax or after-tax contributions
	Choice of over 100 investment options
	Immediate vesting of your contributions
	Flexibility to change contributions at any time
	Generous company matching contributions
	Retirement counselling
<b>Education</b>	Educational assistance, including tuition reimbursement
	Support for advanced degrees
	Bonuses for degree completion
	The MITRE Institute, offering hundreds of courses each year
<b>Insurance</b>	Life Insurance
	Accident Insurance
	Long-term care Insurance
	Medical absence coverage
	Long-term disability Insurance
	Legal, pet, homeowner and renter Insurance

Source: <http://www.mitre.org/careers/working-at-mitre>

## 5. Orbitz Worldwide

Orbitz Worldwide is a leading global online travel company that uses innovative technology to enable leisure and business travellers to search for, plan and book a broad range to travel products and services. The employees of the organisation feel that they have a better work-life balance practices at Orbitz. They told that “It is a great place to come if you are looking to learn a lot and work hard. The work life balance is great and everyone is smart and friendly”.

In the Orbitz employee’s team, there are musicians, parents, gamers, coaches, coders, readers, designers and

more. They have formed groups and clubs that give them a chance to have enjoyment with their shared interests. Some of their groups include:

Table 6: Groups at Orbitz Worldwide

Technical book club
Play station owners
Martial arts group
Green team
Working parents group

Source: <http://careers.orbitz.com/what-youll-get.html>

Orbitz’s benefits make employees life pleasant. Many perks are subsidized by Orbitz Worldwide and vary across regions.

Table 7: WLB Policy and Practices at Orbitz Worldwide

Medical, Dental and Vision Coverage
Matching 401K Retirement Program
Health care flexible spending accounts
Life, health and disability coverage for dependents
Short- and long-term disability
Travel discount program
Reward and recognition program
Discounted fitness club membership
Pre-tax transportation
Tuition reimbursement
Legal plan
Beverage service

Source: <http://careers.orbitz.com/what-youll-get.html>

## WORK-LIFE BALANCE - RECENT CHANGING TRENDS

In today's corporate world the work pressures are growing quite rapidly among the corporate employees. Work life imbalance is known as devil in today's work-life. Their productivity gets affected; unless and until they realize that they can lead a beautiful life without compromising their work effectiveness. To create a healthier lifestyle, organisations need to recognize their capabilities and responsibilities of their jobs for greater productivity. Conflict in the work-life balance will lead to absenteeism, management issues, personal problems and walkout of employees. One who has found the proper balance in wok-life will work more effectively. Therefore the role of WLB cannot be undermined, as organisational efficiency is directly correlated to employee productivity.

Work-life balance is not achieving equal balance between work and life. It varies for individuals and different businesses and changes over time. It is defined as, “Work-life balance is about people having a measure of control over when, where and how they work. It is achieved when an individual’s right to a fulfilled life inside and outside

paid work is accepted and respected as the norm, to the mutual benefit of the individual, business and society.”

The Mayo Clinic reports that the consequences of poor WLB include fatigue, lost time with family and friends and heavier workloads. It is a challenge to be successful at work and manage a happy, healthy home life. Employers can help by providing effective tools to improve work-life balance and reduce work stress for their employees (Heidi Cardenas). Jack Welch said that, “There’s no such thing as work-life balance. There are work-life choices, and you make them, and they have consequences”.

Henna Inam (2013) says that; forget work-life balance and seven paradigm shifts to work in the new normal:

- ü Move from work-life balance to work-life energy
- ü Move from rigid to personalize as work-life energy is personal and we have to identify what energizes us in work and life.
- ü Move from balance on the outside to balance on the inside because managing our mindset is a significant part of work-life balance.
- ü Move from work harder to work with passion that is, we have to identify our work and spend more time on doing that.
- ü Move from managing time to managing attention implies that, be present in the work and to have more work-life energy, we have to manage our attention on work.
- ü Move from ‘work more hours’ to ‘rest more hours’; relaxation in between our work helps to increase our creativity on work.
- ü Move from balance being an end-state to balance being a practice, it entails that work-life balance is not a destination. We have to balance our work and life by having a set of tools and principles.

Generating healthy WLB has become a tricky challenge for executives, and significant issue for HR policy. It is important and directly impacts the retention of employees. Work-life balance benefits both employer and employee. It increases an individual productivity, accountability and commitment, better team work, communication and also improves employee morale. Employees can dedicate more value and balance in daily life; they can understand individual’s work. There will be a good relationship both on and off the job. New trends in WLB policy is implemented in most of the organisation like health care services, career advancements, recreation and fitness, work-life benefits, retirement services, insurance, financial and education benefits and so on. All these new services encourage employees for better work and improve overall productivity of the business.

## SUGGESTIONS AND CONCLUSION

Work-life balance is a true balance between work and life. According to few authors it is better to change

towards work-life energy, work-life choice than work-life balance because energy and choices in work and life will help balance both work and life. With the passion, relaxation, attention in work, managing mindset, and practice with tools and techniques and choices in work-life help employees live better life. Experts say companies should see the WLB as a business proposition since progressive companies carry business forward with employees and families.

The issue of WLB is not an easy to resolve. It is not only an individual concept that varies overtime and situations and significantly impacted by workplace and personal issues. Successful employees have flexibility to meet the demands of the professional lives and also achieve personal goals outside the office. Therefore, it is necessary for employees to maintain a strong balance between work and personal life. It will help them to achieve personal and professional aims and goals and also their organisation’s development.

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# Changing Trends in Campus Recruitment

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**Abstract :** Campus Hiring is in the phase of transition. Gone are the days when companies hired in bulk from campuses. With growing business uncertainties in a challenging world economy and tighter deal pipelines new rules have emerged. Let us understand some changing recruitment trends in companies' across India. Just in time hiring, only if companies are in need of urgent manpower to meet business needs. Low Hiring, companies save people cost by recruiting less graduates and ask them to execute tasks of multiple roles. Middlemen concept, more and more agencies like First naukri, off campus conduct preliminary interview on behalf of corporate from pooled colleges and supply the best raking in commission from both colleges and corporate. Pooled strategy, where companies hire from a mother campus instead of visiting individual colleges in the territory. Automated Hiring, corporates open E-portals/Social Media Kiosks in campuses for students to update their CV, interview conducted via Skype and Aptitude tests via links and short listings communicated via email and e-offer letter generated. Such changes have now become challenge for colleges to achieve 100% student placement results due to several limitations such as IT problems in campus job portal from corporate side, slow response from Company HR Team, More number of third party consultants in campus where for actual final offer students have to travel for company location etc. Now, we could counter such challenge and change by using Simulation technique by college against the corporates for ensuring companies visit their individual campuses for discussing all above emerging trends changing the gamut of college recruitments. The result could be obtained by inviting Industry Captains and HR for a brief interaction on emerging changes with college during college festivals, seminars, conferences, Alumni Meets, guest lectures, project internships and conclaves, industry visits. Result of such simulation engagement with companies can be very positive based on a case study conducted involving a Campus and a corporate.

## INTRODUCTION

Present age is the age of slow economic growth around the globe where doing business is just another economic activity that is full of increased uncertainties caused by aftermath of recession. Every year in India, more than a million graduates pass out of their campuses in search of their job. Campus Recruitment was that initiative from the colleges that assured students of a Job Offer inside their final graduating semester which went on well focusing on 100% placement with participative co-operation from the corporate all till great world recession of 2008. Post this era, business began downsizing their units, Job cuts became order of the day, staff firing was highest and intake of new graduate headcount declined due to tightened business conditions and environment. The consequence was affected

to several Indian educational institutions that saw reduced company campus visits for job fairs and recruitments. We saw company employing their agents at campus for screening the best, no proper joining dates for graduates if selected, declining number of companies visiting campus and also reduction in average salary that is been offered. Moreover, the assessment by Wheebox, People's Strong in collaboration with Confederation of Indian Industry CII revealed that only 34% of our graduates are employable in industry and corporate which needs necessary skill set. All these factors above introduces oneself to a picture as to how corporate industry have changed their recruitment style at college campus which is turning out to be a emerging challenge for Institutes and colleges in our country and also may be around the world.

## OBJECTIVE

The Objective of this study is to determine how institutes and colleges can counter or cope with dynamic repercussions arising of such changing trends to still achieve company hiring visits to their campus and to place all their students 100 %. The Objective also steadily focuses on formulating a SOP (Standard Operating Procedure) for countering such external variables for desired placement result.

## METHODOLOGY

To achieve the objectives of study, a Simulative case study was focused on few colleges's initiatives in and around the globe that practiced Industry-Academia interaction as their religion. If the particular college succeeded in securing that company for their campus it was simulated by other colleges too for achieving their placement objectives. Now, let us discuss one of such case in detail: University of Wolverhampton, UK came up with a 2 point plan which seriously focused on Putting Students in touch with new age business model of companies and giving them edge in job markets by engaging corporate persons in the campus. The University's strong links with regional industry were recognized in 2013 in with an industry award for knowledge transfer. These links not only benefit businesses, which have access to our knowledge and facilities, they have also benefited many of our postgraduates. The Wolverhampton Business Solutions Centre is collaboration between the University of Wolverhampton, the City of Wolverhampton College, the Black Country Chamber of Commerce and Wolverhampton City Council is one such commendable initiative. By

sharing contacts and using a single customer relations management system, the centre, based at the University of Wolverhampton Science Park, has opened up partners to a much wider business community, linking academics and research to local small business organisations, supporting commercial needs, boosting skills and increasing market opportunities.

Wolverhampton University is one of the top Universities in the UK for Knowledge Transfer Partnerships (KTPs) where a promising graduate works on an industrial placement, helping a business with a strategically important project. Around 70% of placements lead to paid employment with the organization as well as providing invaluable experience to help student find other positions. Associates are supported throughout the process by an academic mentor and have access to University facilities and resources for the duration of their programme. Over 70% are offered employment by their host company on a permanent basis at the end of their KTP.

### **ANALYSIS**

Now as we read the above case, a brief analysis could be made. It is absolutely clear for all top tier universities and institutes of today that Industry-Interaction activity should be made a curriculum mandate for achieving successful placements. Development of faculties is also equally important for them to endure as role of mentor. It is this mentoring provided to the students plus strong college initiatives to build a concrete relationship with Industry HR and Managers helps students to adjust to today's style of campus hiring by corporate. Further faculty coaching of students in E-age help them to take interview rounds in Company web portals, visit company premises for face to face interview and also helps companies to get Industry ready manpower for their businesses from colleges. Obviously, companies can choose institutes like university of wolverhampton for increased student placements when attempts like inviting Industry captains as Judge for Business Festivals, inaugurating Campus Promotion activities, provide part-time Student labour to the corporates plus setting up company Training classrooms in institute premises etc. Nitte College Mangalore opened up NIBF – Nitte Institute of Banking & Finance which focused on

providing Banking Industry oriented training to its students plus competent individuals so that they could be easily placed in banks after their graduation. MoU's between colleges and Corporate should be the order of the day. These should be the simulative measures which a College can take up today to counter varying style of company hiring who presently would like to engage with colleges just as they do with their business clients.

### **CONCLUSIONS**

Well, to conclude change is the order of the day and education industry is no resistant to change. Success of an Institute depends on its admission numbers which is again dependant on how the Institute's Alumni's are placed or successful in society. Hence, to achieve this objective in volatile times of today Colleges should work to empower their student community to be aligned with industries and corporate who have become the main sources of employment since the success of privatization initiatives of our Government. Gone are the days when such businesses would come to a specific college based on their name for a bulk student requirement, today's age businesses focuses on multiple colleges and hire their students on one base platform which results in recruitment of candidates with mixture of colleges. Steps like these make colleges difficult to achieve 100% placement record. So, the solution is to actively engage businesses in colleges' semester academic activities and simulate any such initiatives from your competitor colleges which results in such successful industry interaction, competition is here to stay !

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# Competitive Selling - The Banking Industry - An Empirical Study

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**Abstract:** The Indian Banking industry is dominated by a handful of very large players and atleast 27 new entrants who have applied for banking license. The industry is the fastest growing industry and according to a McKinsey Report, the Indian Banking sector is heading towards being a high – performing sector. The domestic banking industry is set for an exponential growth in the coming years with its asset size poised to touch USD 28,500 billion by the turn of the year 2025. (IBA- FICCI –BCG report, 2013)

As per census 2011, huge section of Indian population is still unbanked. The overall percentage of households actively availing banking services in India was pegged at around 59% as on 2011, which translates to the fact that still over 40% of total households, lack access to formal banking services. This is largely driven by rural areas and/or low income group (LIG) population, due to their financial illiteracy, low level of income and savings, lack of collateral and absence of verifiable credit history.

Given this scenario, more and more banks are sprouting or taking wings to encash the vast opportunity available. However, from a marketing perspective are the services being leveraged well?

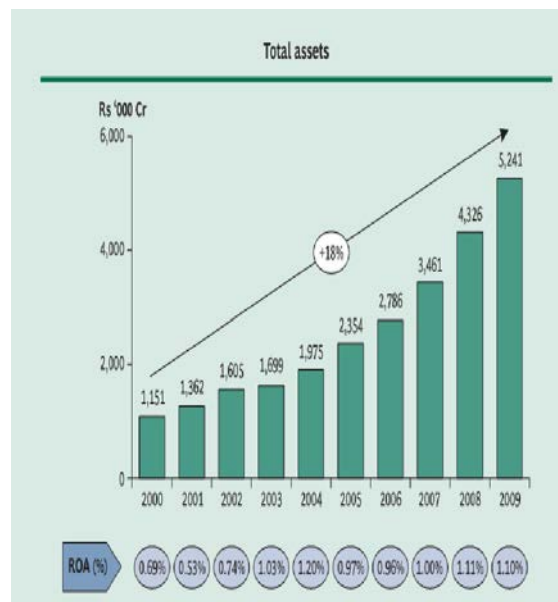
Are the new age banks focussing only on profit building or is there an attempt to make pure banking services to be made available to the masses and can this be a mechanism to earn sufficient profits.

This paper attempts to make an empirical study amongst five top public and private sector banks and understand the issue from the accounting sense of making profits which delivering the much needed pure banking services.

**Keywords:** banking, households, marketing, profits

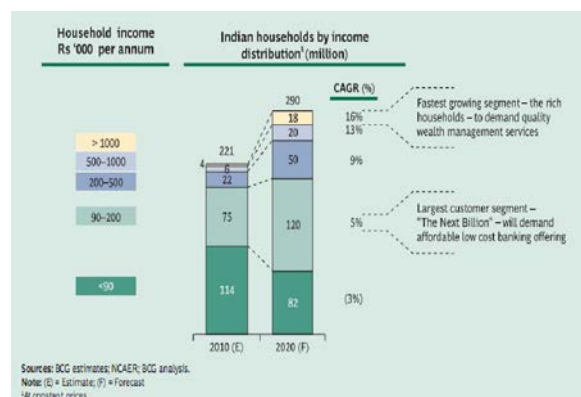
The last two decades have seen phenomenal growth in the Indian Banking industry. This momentum has been largely led by two factors - the gradual easing of the entry restrictions to foreign banks setting up offices in India and to the initiation and emergence of more and more Indian players. Most of these new entrants as well as existing commercial banks in India have performed well on parameters of growth, asset quality and profitability; the RBI's initiatives in strengthening prudential norms, enhancing payment systems and integrating regulations between commercial and co-operative banks have also helped.

The last decade saw banks profitability in India rise more than four folds –



Source: Annual Reports, BCG Report 2012

The irony of all this remains that more than at least 40% of the population still do not have a bank account. For credit and other financial products the picture is still worse –less than 15% of the population have access to it. This limited banking penetration is the result of high intermediation costs, inadequate physical reach and muted stakeholders' efforts. As per 2011, census 69% of the rural population in India has still been largely left out. A large number of banks do not view rural banking as a sustainable proposition from a medium term profitability perspective.



The sectoral share of GDP since last two decades is as under:

#### GDP – Sectoral contribution (%)

Year	Agriculture	Industry	Services*	Total
1991	29.34	19.33	51.16	100
1996	14.46	28.02	57.24	100
2000	13.96	14.01	74.02	100
2006	17.26	20.12	62.62	100
2010	17.28	16.21	66.51	100
2012	13.72	13.75	72.53	100

Source: Data Base on Indian Economy – RBI \*includes construction

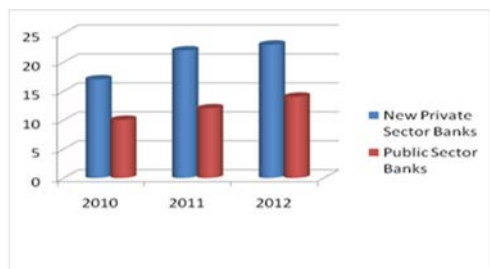
It is very clear from the above that India's growth is predominantly driven by the services sector and its share has been growing year-on-year while agriculture's share to GDP has declined from 29.34% in 1991 to 13.72% in 2012. Further, the growth rate registered in Agriculture Sector was 2.80% only while industry and service sectors growth rate stood at 3.40% and 8.90% respectively during the year 2012. This trend indicates that the economic development so far been largely limited to the urban population and is yet to widely percolate to the rural population.

While public sector banks has primarily played a bigger role in at least penetrating the rural masses to a much greater extent than the new age private sector banks, we try here to compare the private banks vis a vis the public sector banks.

Few critical parameters have been considered here –

#### 1. Capital Adequacy Ratio –

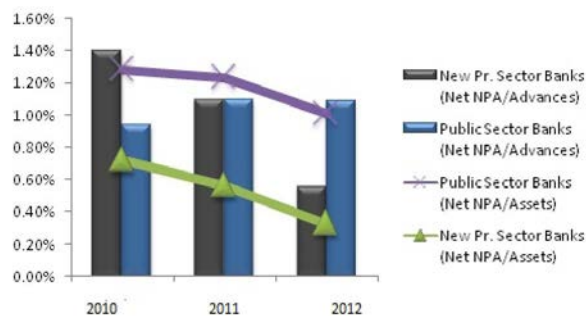
The Committee on Banking Regulations and Supervisory Practices (Basel Committee) had released the guidelines on capital measures and capital standards in July 1988 which were been accepted by Central Banks in various countries including RBI. In India it has been implemented by RBI w.e.f. 1.4.92. The core objective behind these norms was to strengthen the soundness and stability of the banking system.



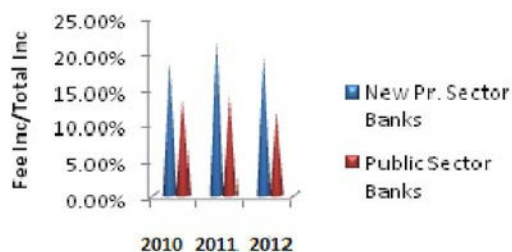
Currently the RBI, is uncomfortable with CAR of less than 8 % for public sector banks, the CAR requirement as per the Basel II norms are not less than 8% with regard to credit risk, market risk and operational risk.

2. Asset Quality – Asset quality is related to the left hand side of the bank balance sheet. The quality of the loans becomes important because they bring earnings to the bank. There could be credit risk arising out of the loan and investment portfolio as well as other off balance sheet activities.

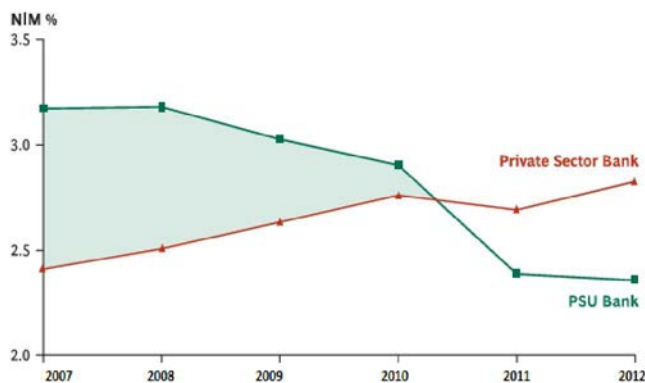
There is a dramatic turn of statistics here - while new age private sector banks have maintained a more or less healthy net NPA/Advanced ratio. Even the Net NPA/Assets is very healthy. Public sector banks have been struggling in both these fronts due to thigh NPAs. Nonetheless, in comparison to private sector banks public sector has a much deeper credit disbursement portfolio and role that is played by it in India predominantly as a governmental obligation and instruction as well.



3. Earnings Quality – The earnings quality is better among the new age private banks in comparison to public sector banks due to the non fee income which is a major component of private banks earnings. This is also where they tend to focus more o urban branches and the financial inclusion requirement is not truly taken care of. Most of the new age private sector banks earn from brokerages, commissions etc., Secondly, the interest expense is less in comparison to interest income due to better asset liability management in private sector banks which is good for banks.



4. Net Interest Margin (NIM) – Net Interest Margin becomes an important criteria for banks. Most of the banks are getting squeezed on NIM's because of increased focus on non fee income.

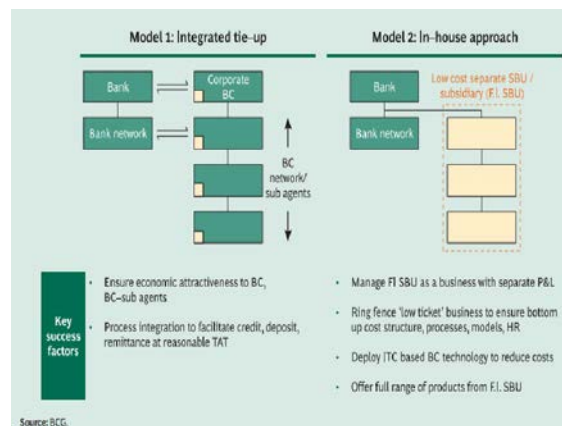


In the final analysis, new age private sector banks seem to be faring better than the public sector banks in most fronts including profitability. The primary reason being that they have started off fairly recently vis a vis the public sector banks which have built huge book sizes. Earlier on public sector banks had to look at profitability predominantly from fee income itself, they had no other avenues. If we were to compare purely on fee income the winner would definitely be public sector banks.

### CONCLUSION

The need of the hour is for the government in the light of the global perspective also as they are doing - there are two areas in which the Indian banking industry will be severely challenged to find a solution over the next decade. First pertains to the rising expectation from banks to find an economically viable solution for financial exclusion. The second pertains to human resources challenge in the public sector. While the first challenge demands unusual innovation and experimentation, the second threatens to cripple the ability of the largest segment of the banking industry from being able to innovate and stay competitive. It is unclear that the solutions to these two challenges will be identified unless the banks were to accord highest priorities to these and work in concert.

The FICCI- BCG-



The issue of financial inclusion is at the centre stage of the agenda of the government. While the expectation from banks is high, the government is also starting to look at non banking industries to come forward with a solution.

Needless to say, if the answer does not come from banking industry, non banks will be welcome to nibble at its revenue pool. It is a strategic priority given that the customer segment in question will be the largest in number over the next decade and banks stand to lose this relationship.

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# Cooperatives: A Social Enterprise model for Inclusive Growth and Development

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**Abstract-** After independence, the various transitions in the form of privatisation, globalisation, liberalisation and the myriad economic reforms initiated in 1990s have posed serious challenges in India. Although the various developmental approaches initiated by the government did show significant results in the economic growth of the country, they were not that very effective in wiping away the evils of poverty like unemployment, illiteracy, income inequality, social exclusion, discrepancies between the rich and the poor, marginalisation, and gender bias. Cooperatives in India have been addressing the needs of the disfavoured segments of the society through the process of social mobilisation and conscientization. Dairy cooperatives, fishery cooperatives, workers cooperatives, credit cooperatives have generated employment opportunities and have enabled them to be self dependent. The general purpose of this research paper is to make an evaluation as to how cooperatives have contributed in the social inclusion and have led to the socio economic development in India. Research papers on social enterprise, cooperatives have been reviewed to have a theoretical understanding of the concept.

**Keywords:** Social enterprise, cooperatives, inclusive growth, development

## I. INTRODUCTION

India's performance in the growth of economy in recent years has been very impressive. The reforms initiated since the early 1990s have resulted in many developments. India has witnessed tremendous growth and advancement in the field of information technology, bio sciences, pharmaceuticals, retail and manufacturing sector. Despite these improvements, significant level of poverty rates, unemployment and low literacy rates continue to show disturbing gender gaps, large rural urban differences and wide variation across states (Pandey, 2009). The dominance of capitalism and the repeated failures of government to address the societal problems have resulted in an increase in the frantic search of alternative approaches for development.

Cooperatives represent a unique social enterprise model. They are voluntary and democratic associations of economically weaker sections of the society (Rao, 2011). They play a silent role in alleviating poverty by organising people from marginalised sections. Development through cooperatives can be achieved through democratic participation, building social capital and trust and by bridging ethnic, religious and political divides. The main aim of this paper is to study the traits of cooperatives as a

form of social enterprise and examine its role in the inclusive growth and development in India

### A. Research methodology

The methodology used in the generation of the information and data in this study is primarily based on literature review and secondary sources from the government reports, government publications and journals.

### B. Research objectives

- To highlight the unique aspects of cooperatives as a form of social enterprise
- To provide an overview of the cooperatives in India
- To examine the role played by cooperative societies in inclusive growth and development

## II. COOPERATIVES AS A FORM OF SOCIAL ENTERPRISE

Social enterprise, a subset of social economy is a model characterised by collective entrepreneurship wherein people mobilise together and use market based ventures to achieve the agreed social goals. It is a creative endeavour that focuses on social, financial, service, employment and other community benefits. EMES (European Research Network) defines social enterprises as "organisations that aim to benefit the community, initiated by a group of citizens and in which the material interest of capital investors is subject to limits. They place a high value on their independence and on economic risk related to ongoing social economic activity". The European research network has further stated nine criteria for defining social enterprise. The economic and entrepreneurial side of criteria includes; a continuous activity producing goods or selling service, a high degree of autonomy, a significant level of economic risk, a minimum amount of paid work. The social dimensions of the criteria includes; an explicit aim to benefit the community, an initiative launched by a group of citizens, a decision making power not based on capital ownership, participatory nature, which involves the persons affected by the activity and limited profit distribution (Defourny, 2011). Cooperatives have been identified as the dominant form of an entity that replicates the characteristics of social enterprise model such as reciprocity, solidarity, democracy and trust. There have been studies that have described the cooperative movement as a well-known manifestation of

social enterprise model. Ghosh (2013) has considered cooperatives as a unique social enterprise model that have successfully organised individuals from diverse communities, playing a salient role in alleviating poverty. Based on the principles of self help, democratic control, member participation cooperatives combine social goals like empowerment with means to facilitate collective participation in economic activity. Gutberlet (2009) has discussed co-operative recycling as a form of social enterprise which helps to build human, social, financial, political and natural assets. Volkova and Baltaca (2013) have examined credit unions as one of the models of social enterprise and have empirically demonstrated the role of credit unions in Latvian society. Credit unions in Latvia were started by local communities through economic, social, democratic and mutual self help principles mainly to facilitate the necessary financial services to the marginalised. The following section therefore indulges in the discussion of cooperatives as an important form of social enterprise in the Indian scenario.

#### A. Cooperatives in India

Cooperatives emerged in the 19<sup>th</sup> century largely in the western countries as a response to the increasing social issues caused due to the industrial revolution and liberalisation of trade and economic activity. Today cooperatives have made rapid progress in developing countries and have proved to be effective instruments in improving the living standards of the marginalised sections comprising of landless farmers, artisans, fishermen and unorganised workers in factories (Patel, 2012). Cooperatives promote sustainable human development and play predominant role in combating social exclusion. They can be viewed as significant tool for the creation of decent jobs and mobilisation of resources for income generation (Sudharson, 2013). Cooperatives also contribute to increasing social integration and community cohesion when they specifically address the needs of the weakest and less privileged people in the society (Kornginnaya, 2010). In India, the principles of cooperation have been practised from time immemorial. The communities in the villages in India have throughout the ages worked together on a cooperative basis influenced by the religious, social and cultural life. However the cooperative movement with legal sanctity mainly originated in 1904 when a credit cooperative society was set up under the Indian cooperative Credit societies act. This was formed to protect the poor farmers in rural areas from indebtedness and exploitation of landlords. In the pre Independence period, Gandhi also witnessed a great virtue in cooperation as an instrument of rural development. He advocated the importance of agricultural cooperatives to prevent fragmentation of land holdings. He also encouraged the establishment of other types of cooperatives such as credit cooperatives, dairy cooperatives, weavers and spinner's cooperatives (Singh & Pundir, 2000). After India attained independence, cooperatives played significant role in socio economic development and

eradication of poverty especially in rural areas. It became an integral part of the five year plan.

Today Indian cooperative movement is one of the largest cooperative movements in the world with about 0.6 million cooperative societies involving 249 million members and covering almost 100% of the villages (Saxena, 2012).

TABLE 1: GROWTH OF INDIAN COOPERATIVE MOVEMENT

Year	Number of Societies (in thousands)	Membership (In Millions)
1984-85	315.7	142.1
1991-85	318.7	148
1994-95	411.1	197.8
1999- 2K	528.2	228.7
2004-05	583.6	242
2009-10	610.9	263.6

Source: National Resource centre

TABLE 2. OUTREACH OF COOPERATIVES IN INDIA

Particulars	Percentage (%)
Rural N/W (Villages covered)	98
Agricultural credit disbursed	16.9
Fertilizer disbursed	36
Fertilizer production	28.3
Sugar produced	39.7
Capacity Utilisation of sugar mills	44.7
Wheat procurement	24.8
Oil marketed	49
Spindle age in cooperatives	9.83
Handlooms in cooperatives	54
Fishermen in cooperatives	23
Rubber processed and marketed	18.5
Areca nut processed and marketed (3.65 lakh tonnes)	15
Direct employment generated (millions)	1.22 million
Self employment generated for persons (Millions)	16.58 million

Source: National Resource centre (NCUI)

There has been a substantial growth of cooperative societies in the diverse areas of the economy such as credit, fishing, dairy farming, housing, textile, production, processing, marketing, sugar and handlooms

#### *B. Role of cooperatives in inclusive growth and development*

Cooperatives have played a significant role in the socio economic development of the country. They provide locally needed services, employment, circulate money and resources locally and thereby contribute to a sense of community or social cohesion (Sudharson, 2013). Cooperatives stimulate the democratic structures and encourage collective entrepreneurship. They enable small artisans and producers to access markets by facilitating easy credit. In rural areas, cooperatives promote inclusive finance by providing access to banking services that are lacking in many communities.

TABLE 3. MEMBERSHIP IN COOPERATIVES

Particulars	(in Millions)
Number of cooperatives ( All level)	6,10,020
Primary Agricultural and Credit Cooperatives (All Types)	1,47,991
Primary Non Credit Cooperatives (All Types)	4,58,068
Membership of Cooperatives (Grass root coops)	249.367 Million
Membership of Primary Agricultural/Credit Cooperatives	181.150 Million
Membership primary Non Credit Cooperatives	68.216 Million

Source: National Resource centre, (NCUI)

The growth of micro credit and micro finance services offered by cooperatives in India has been successful in empowering women by encouraging them to venture into self employment resulting in financial independence. Micro entrepreneurship with easy access of finance through cooperatives has emerged as an effective strategy of combating poverty. Navodaya self help groups initiated by the South Canara District cooperative Bank, SIRI Gramodyog promoted by Shree Kshethra Dharmasthala Rural Development Project (SKDRDP) in Karnataka state, Anand milk union limited and Self employed women's association (SEWA) bank in Gujarat, Sri Mahila Griha Udyog Lijjat limited and Jawahar Mahila Cooperative Spinning mill in Maharashtra, Mulukanoor co-operative Rural Bank in Andhra Pradesh and Kudumbashree in Kerala are few of the examples of cooperatives that have been successful in empowering poor women. Dairy cooperatives, fishery cooperatives, thrift and credit cooperatives, industrial cooperatives and general cooperatives have also

generated gainful employment for women (Kornginnaya,2010). According to the Overseas Cooperative Development Council (OCDC) Report of 2010, the Dairy cooperatives in India offer best example of the impact of cooperatives in bringing grassroot farmers out of poverty and connecting them with markets. By procuring an average of 16.5 million liters of milk from 12 million farmers every day and having processed and marketed by 170 milk producers cooperative unions which in turn own fifteen state cooperative milk marketing federations, they have been successful in their endeavours of alleviating the poverty level. SEWA Bank is another note worthy example. It has promoted inclusive growth by availing loans to self employed women working in small trades and has also provided employment to 10,500 women by paying wages worth Rs. 19.7 million (Kornginnaya, 2012). Thus promoting cooperatives as a social enterprise model have proved to be one of the effective ways to successfully mobilise people and their resources for local economic development

### III. CONCLUSION

This paper is an attempt to discuss cooperatives as a social enterprise model and its role in the inclusive growth and development. The theoretical discussion is based on the various experiences of cooperatives in the Indian context. The paper has highlighted the historical emergence, growth of cooperative movement and the scope of cooperatives in various sectors in India. The various examples illustrated in the paper makes it evident that cooperatives as a form of social enterprise has become an effective instrument in alleviating poverty, empowering women and uplifting the marginalised.

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# Dynamic Hedge Ratio: A Study of Indian Derivatives Market

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**Abstract:** The modern financial market is experiencing increased volatility; adversely affecting the overall business of the financial markets. There may be several reasons behind such increased volatility; to name a few, increased technology in the market, increased speed of information transformation, increased investors' awareness and the like. Excessive volatility is unhealthy which makes the investors to lose their confidence in the market and hence the number of market participants come down and gradually market has to shut its door. Several techniques have been introduced to mitigate the unhealthy volatility over the years and derivatives like futures and options are prominent among them. Hedging through the derivative products is an innovative way to curb the excess volatility. However, the problem of optimal hedge ratio (OHR) is still debatable. Several techniques are also developed to measure the OHR which can be grouped as constant hedge ratio models and dynamic hedge ratio models. In this study, we focus on dynamic hedge ratios using three econometric techniques. We apply these techniques on Indian commodity derivatives taking an example of gold. This study uses exhaustive data sets from 2005 to 2014 and the results are more reliable.

**Keywords:** Financial Market, Volatility, Hedging, Optimal Hedge Ratio, Commodity Derivatives, Gold.

## I. INTRODUCTION

Hedging against price risk is the primary motive behind the introduction of financial derivative products. Price risk is nothing but unwanted variation in the prices of assets and in financial language this is also known as price volatility. A timid volatility in the market is necessary for the smooth functioning of the market. However, excess volatility is the matter of concern for the traders, policy makers, speculators and other market participants. Efforts have been done to keep the volatility under control and several techniques have been invented for the same purpose. Hedging through derivatives is one such technique. Hedging means taking the opposite position in the derivatives market for the positions taken in the spot market. To be more specific suppose Mr. A takes a bought position in the spot market, he has to take sold position in the derivatives market. The simple theory behind this is if the spot market prices go up as against the expectation; the reverse position taken in the derivatives market acts as a cushion. However, the central problem in hedging is deciding the exact number of positions one has to take in the derivatives market to offset the losses incurred in the spot market position due to adverse price movement. The number of conditional heteroscedasticity (ARCH), generalised auto-

regressive conditional heteroscedasticity (GARCH) etc. And many empirical works which compare the constant and dynamic hedge ratios supported that dynamic hedge ratio models provide better hedge ratio and they reduce the portfolio variance.

In this study we estimate the time varying or dynamic hedge ratio in Indian commodity derivative market using gold spot and futures contract prices from June 2005 to February 2014 from Multi Commodity Exchange of India Ltd (MCX). We use three important econometric techniques to measure the dynamic hedge ratio. The study found the hedge ratios estimated through the conditional correlation covariance GARCH (CCC GARCH) outperforms the other models in terms of maximising the returns as well as minimising variance.

The rest of the article is organised like this; in the second chapter we provide a few prominent literature reviews, third chapter explains about data, sample and methodology. In the fourth chapter we present the empirical results and chapter five concludes the paper.

## II. LITERATURE REVIEW

There is extensive research on the issue of optimal hedge ratio over many years and across many countries. As mentioned in the introduction part, optimal hedge ratio can be estimated by modelling futures prices within several frameworks. Ederington (1979) estimate the hedge ratio using the ordinary least squares (OLS) for Government National Mortgage Association (GNMA) and 90 day treasury bills. He concludes that the risk minimising hedge ratio is less than one. Baille and Myers (1991) employed bivariate GARCH model and found that the hedge ratio estimated through GARCH specification provides best hedge ratios. Lien, Tse, and Tsui (2002) examined the hedging performance of constant –correlation GARCH (CC GARCH) model by using ten different futures markets covering currency, commodity and stock index futures. This study found that GARCH hedge ratio provides better hedge ratio than the OLS model in all the markets they studied. Bystrom (2003) studies the hedging performance of electricity futures on the Nordic power exchange. In this study the traditional naive hedge and the OLS hedge are compared out-of-sample to more elaborate moving average and GARCH hedges, and the empirical results indicate some gains from hedging with futures despite the lack of straight-forward arbitrage possibilities in the electricity market. Furthermore, he found a slightly better performance

of the simple OLS hedge compared to the conditional hedges.

Empirical works related with hedge ratio and performance analysis are extensively utilizing the stock futures contract than commodity futures contract. In this category we have the studies like Kroner and Sultan (1993), Ghosh (1993), Park and Switzer (1995), Cechetti Cumby and Figlewski (1988), Lypny and Powalla (1998), Yang (2001), Pattarin and Feretti (2004), Baduri and Durai (2007) and Lagesh and Padhi (2009). These studies are mainly concentrated on the issues like the characteristics of the optimal hedge ratio estimated from a co-integrated spot and futures market and a heteroscedastic series and the effectiveness of hedge ratios obtained through different econometric models. These studies conclude that the hedge ratio obtained through the GARCH family models are best models in respect of reducing the portfolio return variance.

Summing the literature review, the studies in this area are large in number over the world. However, though Indian commodity market is one of the prominent markets in the world, the studies carried in Indian commodity market on the issue of optimal hedge ratio and hedging effectiveness are very less in number. Further, the foreign studies on the subject matter are inconclusive. The results of these studies are mixed in nature. Majority of the studied conclude that the hedge ratios estimated through the GARCH specification serves best hedge ratios in reducing the spot market risk. With this back ground we study the hedge ratio and its effectiveness in spot market return variance reduction in the Indian commodity market.

### III. DATA, SAMPLE AND METHODOLOGY

The present study investigates the optimal hedge ratio and hedging effectiveness in the Indian commodity derivatives market. We use the daily closing price data of Gold from MCX for the time period from May 2005 to February 2014. This study uses exhaustive data sets covering 2577 observations in both spot and futures price series. We use near month data and construct a time series in such a manner that on the day of expiration of each contract we jump to the next contract. We did not exclude the expiration day or expiration week, as done in literature, since excluding expiration day or week leads to data manipulation. We use the first log difference than the row data which is computed using the following formula;  

$$r_t = \ln(P_t) - \ln(P_{t-1})$$
Where  $r_t$  is return of spot or futures market,  $\ln$  is natural logarithm of closing price of day t (current day) and  $\ln$  is natural logarithm of closing price of day t-1 (previous day).

#### A. Methods of Hedge Ratio Analysis:

As most of the financial time series data possess the ARCH effect, the hedge ratio estimated should be taken care of ARCH effect. Therefore, the conventional OLS, VAR and VECM models fail to take care of ARCH effect and empirical evidence suggest the usage of ARCH family

models. The present study employs Bivariate GARCH models like DVECH-GARCH, BEKK- GARCH and CCC- GARCH to estimate the time varying hedge ratio. These models are well recognized as the model to capture the time varying nature of returns series, volatility spillover between markets or assets and conditional covariance between spot and futures market.

With considering the VECM model as mean equation Brooks, Clare and Persaud (2002) have employed a VECM (k) GARCH model to estimate time varying nature of the second moment. By assuming  $\epsilon_t \sim (0, \Sigma_t)$  and by defining  $\alpha$  as  $(\alpha_1, \alpha_2, \alpha_3, \alpha_4)$ , which denotes the vector-half operator that arrange the lower triangular elements of  $N \times N$  matrix into  $[N(N+1)/2]$  vector, the bivariate VECM GARCH can be written as;

$$\text{Vec}(\Sigma_t) = \alpha + \beta_1 \text{Vec}(\Sigma_{t-1}) + \beta_2 \text{Vec}(\Sigma_{t-2}) + \dots + \beta_p \text{Vec}(\Sigma_{t-p}) + \epsilon_t$$

This can be explained as;

$$\begin{bmatrix} \sigma_{11,t} \\ \sigma_{12,t} \\ \sigma_{21,t} \\ \sigma_{22,t} \end{bmatrix} = \alpha + \beta_1 \begin{bmatrix} \sigma_{11,t-1} \\ \sigma_{12,t-1} \\ \sigma_{21,t-1} \\ \sigma_{22,t-1} \end{bmatrix} + \beta_2 \begin{bmatrix} \sigma_{11,t-2} \\ \sigma_{12,t-2} \\ \sigma_{21,t-2} \\ \sigma_{22,t-2} \end{bmatrix} + \dots + \beta_p \begin{bmatrix} \sigma_{11,t-p} \\ \sigma_{12,t-p} \\ \sigma_{21,t-p} \\ \sigma_{22,t-p} \end{bmatrix} + \epsilon_t$$

Where  $\sigma_{11,t}$  and  $\sigma_{22,t}$  represent the conditional variance of the errors  $\epsilon_t$  from the mean equations, while  $\sigma_{12,t}$  and  $\sigma_{21,t}$  represent the conditional between spot and futures prices.

#### 1) Diagonal VECM-GARCH Model (DVECH-GARCH)

The problem with the above model is it estimates 21 parameters which may make the calculation very difficult. To overcome this problem, Bollerslev, Engle and Wooldridge (1988) have introduced a diagonal vector GARCH (DVEC-GARCH). This model assumes that the off diagonal elements are zero. The DVEC- GARCH can be expressed as;

$$\begin{bmatrix} \sigma_{11,t} \\ \sigma_{12,t} \\ \sigma_{21,t} \\ \sigma_{22,t} \end{bmatrix} = \alpha + \beta_1 \begin{bmatrix} \sigma_{11,t-1} \\ \sigma_{12,t-1} \\ \sigma_{21,t-1} \\ \sigma_{22,t-1} \end{bmatrix} + \beta_2 \begin{bmatrix} \sigma_{11,t-2} \\ \sigma_{12,t-2} \\ \sigma_{21,t-2} \\ \sigma_{22,t-2} \end{bmatrix} + \dots + \beta_p \begin{bmatrix} \sigma_{11,t-p} \\ \sigma_{12,t-p} \\ \sigma_{21,t-p} \\ \sigma_{22,t-p} \end{bmatrix} + \epsilon_t$$

In the equation () only three parameters appear in each and matrix. Here the variance and covariance equations depend on their own past squared residuals and cross product of residuals.

From the above matrix equation, the diagonal representation of the conditional variance elements  $\sigma_{11,t}$  and  $\sigma_{22,t}$  and covariance  $\sigma_{12,t}$  and  $\sigma_{21,t}$  can be reorganised as:

$$\begin{aligned} \mu_t &= \mu_1 + \mu_2 + \mu_3 \\ \sigma_t^2 &= \sigma_1^2 + \sigma_2^2 + \sigma_3^2 \\ \mu_t &= \mu_1 + \mu_2 + \mu_3 \end{aligned}$$

#### 1) Diagonal BEKK-GARCH Model:

In order to check the positive definite constraint, the present study also employs BEKK-GARCH model, proposed by Bollerslev et al (1995). The mean equation of the model can be written as:

$$\begin{aligned} \mu_t &= \mu_1 + \mu_2 + \mu_3 \\ \sigma_t^2 &\sim (0, \sigma^2) \end{aligned}$$

Where  $\mu_t = \begin{bmatrix} \mu_1 \\ \mu_2 \\ \mu_3 \end{bmatrix}$  indicates the return vector for cash and futures series.  $\mu = \begin{bmatrix} \mu_1 \\ \mu_2 \\ \mu_3 \end{bmatrix}$  indicates the vector of the constant term and  $\sigma_t^2$  shows the residual vector as  $\sigma_t^2 = \begin{bmatrix} \sigma_1^2 \\ \sigma_2^2 \\ \sigma_3^2 \end{bmatrix}$ .  $\sigma_t^2$  shows the information set and  $\sigma^2$  is the covariance matrix.

On the basis of the above information, the conditional variance equation can be stated as follows;

$$\sigma_t^2 = \sigma_1^2 + \sigma_2^2 + \sigma_3^2$$

Which can be explained as;

$$\sigma_t^2 = \sigma_1^2 + \sigma_2^2 + \sigma_3^2$$

Where  $\sigma_t^2$  is a lower triangular matrix and  $\sigma_1^2$  and  $\sigma_2^2$  are 2x2 matrices. The positive definiteness of the covariance matrix is ensured owing to the quadratic nature of the term on the right hand side of the equation.

#### 2) Constant Conditional Correlation GARCH (CCC GARCH)

Assuming the time invariant correlation  $\rho = \rho_t$  conditional covariance matrix ( $H_t$ ) the structure of CCC –GARCH model will be

$$H_t = \sigma_t^2 \rho_t \sigma_t^2$$

Where  $\sigma_t^2$  is a diagonal matrix of individual GARCH volatilities. Thus, the time varying covariance in  $H_t$  can be written as,

$$H_t = \sigma_t^2 \rho_t \sigma_t^2$$

#### 1) Performance Analysis

The performance of time varying hedge ratios estimated through three bivariate GARCH models are estimated through the hedged portfolio return and variance in the returns. The mean return of hedged and un-hedged portfolio can be written as;

$$\mu_t = \mu_1 - \mu_2$$

$$\text{And } \sigma_t^2 = (\sigma_1^2 - \sigma_2^2) - (\sigma_1^2 - \sigma_2^2)$$

Where  $\mu_1$  and  $\mu_2$  are the mean returns on the un-hedged and hedged portfolios respectively.  $\sigma_1^2$  and  $\sigma_2^2$  are the logged spot and futures prices at time period t and  $h^*$  is the optimal hedge ratio.

## IV. EMPIRICAL RESULTS

In this section we present the empirical results of the three models for hedge ratio estimation. Firstly we present the graphs of the hedge ratios. Figures 1, 2 and 3 presents the time varying hedge ratios obtained from Diagonal GARCH (1,1), CCC model GARCH (1,1) and Diagonal BEKK GARCH (1,1) models respectively.

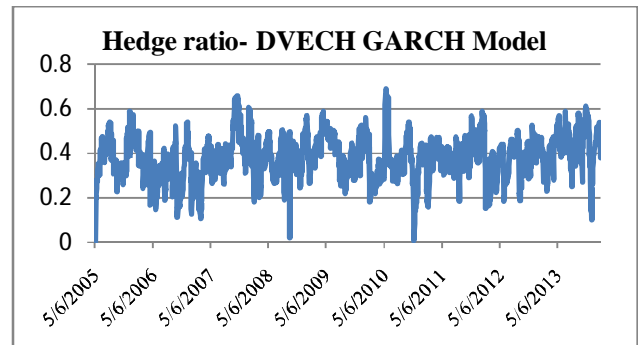


Figure 1: Hedge ratio of Diagonal GARCH (1,1) model

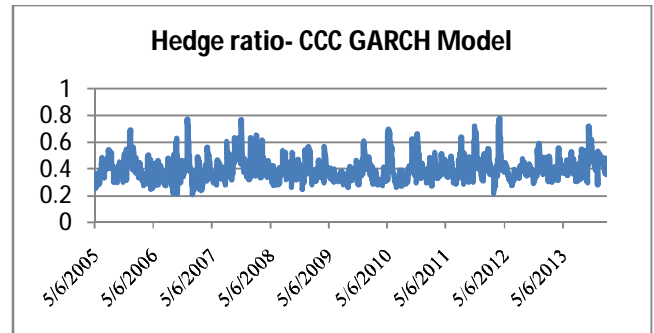


Figure 2: Hedge ratio of CCC GARCH (1,1) model

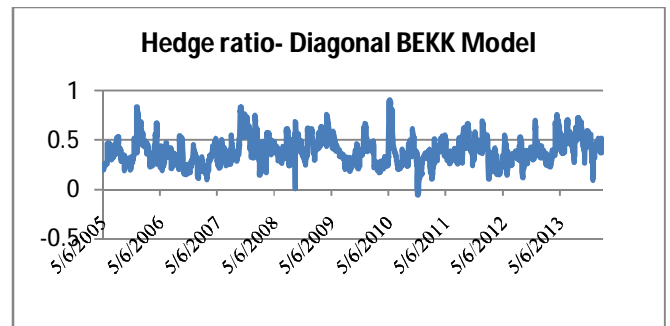


Figure 3: Hedge ratio of Diagonal BEKK GARCH (1,1) model

Table 1: Estimates of the Diagonal VEC-H-GARCH (1,1) Model

	Coefficient	Std. Error	z-Statistic	p-value
M(1,1)	0.0000014	0.0000002	8.80231	0.00000
M(1,2)	0.0000012	0.0000001	8.66973	0.00000
M(2,2)	0.0000029	0.0000003	8.70143	0.00000
A1(1,1)	0.10687	0.00638	16.74111	0.00000
A1(1,2)	0.06101	0.00422	14.45396	0.00000
A1(2,2)	0.08715	0.00586	14.86716	0.00000
B1(1,1)	0.87341	0.00634	137.77310	0.00000
B1(1,2)	0.90728	0.00554	163.63950	0.00000
B1(2,2)	0.89182	0.00624	142.99270	0.00000

Table 2: Estimates of Diagonal CCC-GARCH (1,1) Model

	Coefficient	Std. Error	z-Statistic	P. Value
M(1)	0.00000	0.00000	8.89242	0.00000
A1(1)	0.13836	0.00790	17.50961	0.00000
B1(1)	0.84488	0.00738	114.42680	0.00000
M(2)	0.00000	0.00000	8.69897	0.00000
A1(2)	0.08851	0.00610	14.50911	0.00000
B1(2)	0.89167	0.00668	133.55340	0.00000
R(1,2)	0.58475	0.01011	57.86345	0.00000

Table 3: Estimates of the Diagonal -BEKK GARCH (1,1) Model

	Coefficient	Std. Error	z-Statistic	P. Value
M(1,1)	0.00000	0.00000	8.33425	0.00000
M(1,2)	0.00000	0.00000	8.59518	0.00000
M(2,2)	0.00000	0.00000	9.17584	0.00000
A1(1,1)	0.32929	0.00937	35.14873	0.00000
A1(2,2)	0.24570	0.00697	35.26808	0.00000

B1(1,1)	0.93870	0.00305	307.33570	0.00000
B1(2,2)	0.96346	0.00157	612.07890	0.00000

Table 4: Estimation of Optimal hedge ratio (h\*)

Method	Hedge Ratio
Diagonal VEC-H-GARCH (1,1)	0.38156655
CCC-GARCH (1,1)	0.39936873
Diagonal BEKK-GARCH (1,1)	0.38412020

Table 5: Performance analysis of dynamic hedge ratios

Method	%Mean Return	Variance of Return	% change in Variance
Return of un-hedged portfolio	0.06141635	0.000110772	-
Return of Hedged portfolio with Diagonal Vech GARCH (1,1)	0.03792162	-0.000095580	-186.285
Return of Hedged portfolio with CCC GARCH (11)	0.0392997	-0.000094782	-185.564
Return of Hedged portfolio with Diagonal BEKK GARCH (1,1)	0.03772674	-0.000096876	-187.455

Table 4 represents the mean of time varying hedge ratios estimated from the three different models. All the three models provide similar hedge ratios with CCC GARCH (1, 1) model with the highest hedge ratio. This indicates that for each unit of spot market positions of the gold the investors have to hold 0.38 (approx) units of futures contracts and hence the price variations in the spot market can be encountered effectively. Table 5 presents the performance of these hedge ratios in terms of mean returns and variance of the returns. Table 5 clearly shows that the CCC GARCH provides the highest return, though the returns are less than the un-hedged portfolio. In terms of reduction in the variance of the returns, the CCC GARCH (1, 1) model performs best as well. With this note we infer that CCC GARCH model of estimation of hedge ratio outperforms other two models in terms of both maximising the return as well as reduction in the variance.

## V. CONCLUSION

Constant hedge ratios are replaced by the dynamic hedge ratios since the constant hedge ratios fail to capture the conditional volatility in the variables. In this study we

estimate the dynamic or time varying hedge ratios using three most popular econometric techniques such as diagonal vech GARCH (1, 1) model, CCC GARCH (1, 1) and diagonal BEKK GARCH (1, 1) model. We estimate the hedge ratio for the prominent commodity of Indian commodity market, i.e. Gold. We use exhaustive daily data from May 2005 to February 2014. This study found that the CCC GARCH (1, 1) provides the highest mean return as well as reduce variance than the other two models. These results are in par with the results of Kumar and Lagesh (2011) who studied the commodity indices of Indian commodity market.

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# Financial Engineering - Paradigm of Financial Innovation and Factors Responsible

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**Abstract:** Financial innovation over the past two decades has rapidly brought about revolutionary changes in financial instruments and processes. Almost daily the financial press carries yet another tombstone advertisement featuring a new security. A variety of factors, among the more important of which are increased interest rate volatility and the frequency of tax and regulatory changes, have stimulated the process of financial innovation. The deregulation of the financial services industry and increased competition within investment banking have undoubtedly placed increased emphasis on being able to design new products, develop better processes, and implement more effective solutions to increasingly complex financial problems. Financial engineering is the lifeblood of this activity. Financial engineering involves the design, the development, and the implementation of innovative financial instruments and processes, and the formulation of creative solutions to problems in finance. The term "innovative" is used here to describe a solution that is non-trivial. Innovative financial solutions may involve a new consumer-type financial instrument, such as IRA and Keogh accounts; a new security, such as money market preferred stock; a new process, such as the shelf registration process; or a creative solution to a corporate finance problem, such as the design of customized security arrangements for a project financing or a leveraged buyout.

Financial engineering is also an important tool of analysis no matter whether the financial system is dominated by governmental institutions or by private-sector ones or by a balanced mix of the two. It looks only to help find the best way to perform the financial functions for a given system at a particular point in time. If the financial system is designed with the most-up-to-date financial technology, it will be "leap-frog" over existing systems in terms of efficiency. Financial engineering will play a central role in this achievement. If the world economies worked on major changes in their financial systems, it is absolutely certain that the 21st Century will be exciting times for finance and financial engineering. From this context, in this paper we have seen the factors responsible for financial engineering, the role of financial engineering in today's world and also elementary versions of some interesting approaches to finance, which is often referred to as 'financial engineering.'

**Keywords:** *Financial innovation, financial instruments, financial processes, financial strategies/solutions.*

## FINANCIAL ENGINEERING

Finance is used by individuals (personal finance), by governments (public finance), by businesses (corporate finance) and by a wide variety of other organizations, including schools and non-profit organizations. In general,

the goals of each of the above activities are achieved through the use of appropriate financial instruments and methodologies, with consideration to their institutional setting. The process of adaptation of existing financial instruments and processes to develop new ones, in order that financial market participants can effectively cope with the changing situation, is known as financial engineering.

Financial engineering has been defined as "the design, the development, and the implementation of innovative financial instruments and processes, and the formulation of creative solutions to problems in finance" (Marshall, 1992:3).

B. Eales (2000) defined financial engineering as, "the process of financial engineering can be viewed as the "fine tuning" of an existing financial product to improve its return or risk characteristics in light of changing market conditions. It can be considered as a process which allows existing financial products to be overhauled and restructured to take advantage of changed taxation, legal or general economic climate".

Financial engineering is a cross-disciplinary field which relies on computational intelligence, mathematical finance, numerical methods and computer simulations to make trading, hedging and investment decisions, as well as facilitating the risk management of those decisions. Today no major financial institution in the world, including central banks, can function without the computer-based mathematical models of modern financial science. The financial world has become more and more mathematical. On this point the financial engineering treated as provider of potential solutions and effective performance of financial functions of all economic institutions. Thus, financial engineering is an important tool of analysis no matter whether the financial system is dominated by governmental institutions or by private-sector ones or by a balanced mix of the two. It looks only to help find the best way to perform the financial functions for a given system at a particular point in time. If the financial system is designed with the most-up-to-date financial technology, it will be "leap-frog" over existing systems in terms of efficiency. Financial engineering will play a central role in this achievement. If the world economies worked on major changes in their financial systems, it is absolutely certain that the 21st Century will be exciting times for finance and financial engineering.

## SCOPE OF FINANCIAL ENGINEERING

Corporate finance is the area of finance dealing with monetary decisions that business enterprises make and the tools and analysis used to make these decisions. The primary goal of corporate finance is to maximize shareholder value. Although it is in principle different from managerial finance which studies the financial decisions of all firms, rather than corporations alone, the main concepts in the study of corporate finance are applicable to the financial problems of all kinds of firms. The scope of financial engineering is not limited to corporate finance and its institutional applications. Most of the financial innovations which have taken place in the recent time have been directed towards retail i.e. at consumer level. In addition to corporate finance, nowadays, financial engineering has been extended to investment and money management, risk management, personal financial planning, and relationship marketing too. In the investment and money management, financial engineering is continuously focusing on risk reward trade - off by developing the high yield investment avenues for the investors. By applying the concept of repackaging and overcollateralization, financial engineer tries to transform the high risk investment instruments to low risk investment instruments.

The definition of corporate financial engineering distinguishes three types of activities. The first, securities innovation, involves the development of innovative financial instruments, including those developed primarily for consumer-type applications such as new types of bank accounts, new forms of mutual funds, new types of life insurance products, and new forms of residential mortgages. Innovative financial instruments also include those developed primarily for corporate finance applications such as new debt instruments; options, futures, and other new risk management vehicles; new types of preferred stock; new forms of convertible securities; and new types of common equity instruments.

The second branch of corporate financial engineering involves the development of innovative financial processes. These new processes reduce the cost of effecting financial transactions, and are generally the result of legislative or regulatory changes (for example, the shelf registration process), or of technological developments (electronic security trading).

The third branch involves creative solutions to corporate finance problems. It encompasses innovative cash management strategies, innovative debt management strategies, and customized corporate financing structures such as those involved in various forms of asset-based financing.

## FACTORS RESPONSIBLE FOR FINANCIAL ENGINEERING

Merton's (1992) functional decomposition identified six functions delivered by financial systems: (1)

moving funds across time and space; (2) the pooling of funds; (3) managing risk; (4) extracting information to support decision - making; (5) addressing moral hazard and asymmetric information problems; and (6) facilitating the sale and purchase of goods and services through a payment system.

The Miller, Silber, and Van Horne papers suggest that the factors responsible for financial innovation can be classified into 11 categories:

- i. Tax asymmetries that can be exploited to produce tax savings for the issuer, investors, or both, that are not offset by the added tax liabilities of the other;
- ii. Transaction costs;
- iii. Agency costs;
- iv. Opportunities to reduce some form of risk or to reallocate risk from one market participant to another who is either less risk averse or else willing to bear the risk at a lower cost;
- v. Opportunities to increase an asset's liquidity;
- vi. Regulatory or legislative change;
- vii. Level and volatility of interest rates;
- viii. Level and volatility of prices;
- ix. Academic work that resulted in advances in financial theories or better understanding of the risk-return characteristics of existing classes of securities;
- x. Accounting benefits (which may, and often do, have at best an ephemeral effect on shareholder wealth); and
- xi. Technological advances and other factors.

Product innovation through financial engineering can be done under the umbrella of traditional investment alternatives as well under the modern tools too. Global corporate sector has witnessed innovation in financial products through financial engineering, where attempts have been made to reduce the risk associated with the instruments, to change some of the basic characteristics of the instruments and to provide the good amount of return with safety. Following are the illustrations of the instruments which came into existence as a result of the process of financial engineering and the factors influenced.

Figure1: Factors responsible for financial innovations:

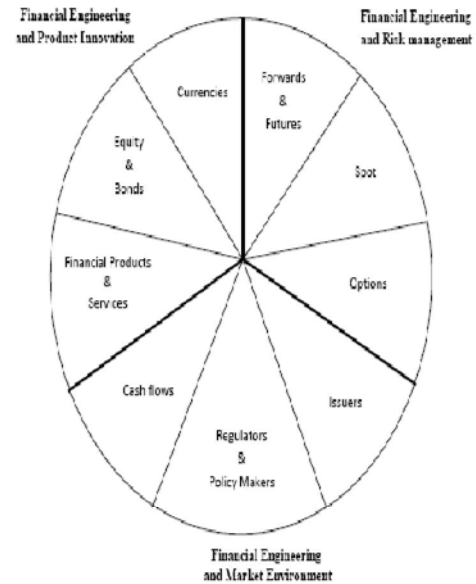
Innovation	Factors Primarily Responsible*	Innovation	Factors Primarily Responsible*
<i>Consumer-Type Financial Instruments</i>			
Broker cash management accounts	7	Money market mutual funds	6,7
Municipal bond funds	2,4,6	Money market accounts	6,7
All-saver certificates	6,7	NOW accounts	6,7
Equity access account	1,6,8	Bull/Bear CDs	2
Debit card	2,7,11	IRA/Keogh accounts	1,6
Tuition futures	4,8	Universal or variable life insurance	1,7,8
Variable or adjustable rate mortgages	7	Convertible mortgages or reduction option loans	2,7
<i>Securities</i>			
Deep discount/zero coupon bonds	1,4,7	Stripped debt securities	1,4,7
Floating rate notes	4,5,7	Floating rate, rating sensitive notes	3,4,5,7
Floating rate tax-exempt notes	4,5,7	Auction rate notes/debentures	2,3,4,7
Real yield securities	2,4,5,8	Dollar BILLS	4,7
Puttable-extendible notes	2,3,4	Increasing rate notes	3
Interest rate reset notes	3	Annuity notes	11
Extendible notes	2,4	Variable coupon/rate renewable notes	2,4,6
Puttable/adjustable tender bonds	2,4,7	Variable duration notes	4,7
Euro notes/Euro-commercial paper	2,4	Universal commercial paper	4
Medium term notes	2	Negotiable CDs	2,5
Mortgage-backed bonds	4	Mortgage pass-throughs	2,4,5
Collateralized mortgage obligations	2,4,5	Stripped mortgage-backed securities	4
Receivable-backed securities	4,5	Real estate-backed bonds	4,5
Letter of credit/surety bond credit support	4,11	Yield curve/maximum rate notes	4,6,7
Interest rate swaps	4,6,7	Currency swaps	4,6
Interest rate caps/floors/collars	4,7	Remarketed reset notes	2,3,4
Foreign-currency-denominated bonds	4,7	Eurocurrency bonds	7
Dual currency bonds	4,6	Indexed currency option notes	
Commodity-linked bonds	4,6,8	Principal exchange rate linked securities	4,6,7
Gold loans	4,8	High-yield (junk) bonds	2,5,7,9
Exchange-traded options	4,9	Foreign currency futures	4,9,11
Interest rate futures	4,7,9	Stock index futures	4,8,9
Options on futures contracts	4,7,9	Forward rate agreements	4,7
Warrants to purchase bonds	4,7	Adjustable rate preferred stock	1,4,5,6,7
Convertible adjustable preferred stock	1,4,5,7	Auction rate preferred stock	1,4,5,7
Remarketed preferred stock	1,4,5,7,11	Indexed floating rate preferred stock	1,4,5,7
Single point adjustable rate stock	1,2,4,5,7	Stated rate auction preferred stock	1,3,4,5,7
Variable cumulative preferred stock	1,2,3,4,5,7	Convertible exchangeable preferred	1,2,10
Adjustable rate convertible debt	1,10	Zero coupon convertible debt	1,11
Puttable convertible bonds	3,4,7	Mandatory convertible/equity contract notes	1,6
Synthetic convertible debt	1,10	Exchangeable auction preferred	1,2,4,5,7
Convertible reset debentures	3	Participating bonds	3,4
Master limited partnership	1	Additional class(es) of common stock	11
Americus trust	4,6	Paired common stock	4
Puttable common stock	3,4,10		
<i>Financial Processes</i>			
Shelf registration	2,6,7	Direct public sale of securities	2,6
Discount brokerage	2,6	Automated teller machines	2,11
Point-of-sale terminals	11	Electronic security trading	2,11
Electronic funds transfer/		CHIPS (same day settlement)	7,11
automated clearing houses	7,11	Cash management/sweep accounts	7,11
<i>Financial Strategies/Solutions</i>			
More efficient bond call strategies	7,9	Debt-for-debt exchanges	1,7,10
Stock-for-debt swaps	1,7,10	In-substance defeasance	1,7,10
Preferred dividend rolls	1	Hedged dividend capture	1
Leveraged buyout structuring	1,9,11	Corporate restructuring	1,9,11
Project finance/lease/			
asset-based financial structuring	4		

\* Notation: 1, tax advantages; 2, reduced transaction costs; 3, reduced agency costs; 4, risk reallocation; 5, increased

liquidity; 6, regulatory or legislative factors; 7, level and volatility of interest rates; 8, level and volatility of prices; 9, academic work; 10, accounting **benefits**; and 11, **technological developments and other factors**.

**Source :** Financial Engineering in Corporate Finance: An Overview, John D. Finnerty Published by: Blackwell Publishing

Figure2: Financial Engineering - Product Innovation, Risk Management and Market Environment



**Source :** Product Innovations through Financial Engineering, Jariwala Harsha, GFIJMR Vol. 3 July-December, 2011, Pg No.43.

These all say that, the financial engineering is not limited to product innovation and development, but it also includes introducing the new sources of fund to raise the money by issuers, introducing the trading of new securities or processes on the exchanges, and finding the new ways of managing the risk associated with the investment, and use of information technology to find out the innovative ways to distribute the financial products and/or services.

## CONCLUSION

In providing the means for pricing and risk measurement of derivative securities, finance science has contributed fundamentally to the remarkable rate of globalization of the financial system. New financial product and market designs, improved computer and telecommunications technology and advances in the theory of finance during the past quarter-century have led to dramatic and rapid changes in the structure of global financial markets and institutions. The scientific breakthroughs in financial engineering in this period both shaped and were shaped by the extraordinary flow of financial innovation, which coincided with those changes. Still, significant integration did take place.

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# Impact of Mysore One

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**Abstract:** Mysore one is an initiative of the Government of Karnataka to provide integrated services to the citizens through the use of Information and Communication Technology (ICT). The project aims to provide a single interface for the citizen-centric services of the government and the private businesses in a secured and user-friendly manner. The purpose of this study was to assess the customer's impact of use of Mysore One for using respective bill payments in one centre with a total sample size of 193 was selected using simple random sampling. The primary data was gathered using structured questionnaires and analyzed by use of basic statistical tools. Empirical results of the study indicate that effective and regular use of integrated bill payments through Mysore One has a significant positive impact from the customers. From these findings, the study concludes that there is a positive response from the customers to using Mysore One integrated services.

**Keywords:** *Mysore One, Integrated Services, Information and Communication Technology*

## I. INTRODUCTION

Government of Karnataka with a vision to provide integrated services to the citizens deploying the tools of Information and Communication Technology (ICT) launched "Mysore One" in 2009. Mysore One is one of the flag ship projects of Government of Karnataka and has been one of the best projects in India in delivering citizen services. Delivery of services with an enhanced speed, convenience, reliability and transparency has won many accolades from public.

This project is completely support with computerization and Karnataka One was initiated by Government of Karnataka, Directorate of EDCS, e-Governance Department and partners of CMS Computers Limited, Ram Informatics Limited and ING Vysya Bank.

Mysore one is the integrated services to the citizen enhance number of facilities provide to the citizens in One Stop Shop for Non Stop citizen services.

Karnataka One integrated services to the citizen were started in Nine Districts in Karnataka namely:

1. Bellary
2. Belgaum
3. Davangere
4. Gulbarga
5. Hubli Dharwad
6. Mysore
7. Mangalore
8. Shimoga

## 9. Tumkur

### Vision & Mission of Karnataka One

- The vision of the Karnataka One project is

"To provide a single interface for anytime anywhere citizen centric services of the government and private businesses in an integrated, convenient, fair, effective, secure, sustainable and citizen friendly manner using multiple delivery channels through the use of IT tools".

- The Mission of the Karnataka one project is to be "One Stop Shop for Non Stop citizen services".

The vision of Karnataka One is to eventually bring all the G2C and G2B services within the purview of Karnataka One project as a single interface so as to obviate the need for citizens and business people to visit the Government offices except for specialized and complex services.

### Objectives of Karnataka One

- Initially, to provide G2C services in a convenient and efficient manner through the Integrated Citizen Service Centers being set up in five municipal corporations of the State.
- To scale up the operations to cover eventually all the G2C services throughout the five municipal corporations.
- To become a single interface for all Government to citizen transactions.
- To enhance the accountability, transparency and responsiveness to citizen's needs.
- To provide cost-effective methods of service provision to the departments and agencies.
- To provide efficient and real-time MIS and EIS to the departments.
- To manage the service provision through partnership with a consortium of Service Providers, to be selected through a competitive bidding process.
- To ensure speed and certainty of providing the services through enforcement of a Service Level Agreement with the selected Partner.

- To enable the government departments and agencies to focus on their core functions and responsibilities by freeing them from the routine operations like collection of revenues and accounting, issuing of certificates etc, and thereby enhance the overall productivity of the administrative machinery.
- Enforce accounting, issuing of certificates etc, and thereby enhance the overall productivity of the administrative machinery
- Provide a satisfactory citizen user experience
- Improve service quality and innovation
- Provide a single long running dialogue across all business functions and customer access points for an integrated service delivery at one point.
- Provide a secure, scalable and reliable interface to the users

#### Salient Features of Karnataka One

- Services of multiple Government Departments and Private Companies available under one roof (One Stop Service) and hence expected to save time and costs.
- Services will be available from 8.00 AM to 8.00 PM on all 365 days, except on those days specially declared as holiday by E-Governance Department
- Services available on any service, any center, any counter basis and hence expected to save time and costs.

Table No. 1 Showing Payment of Bills and Avail Many More Service Offered by Mysore One Centers

Sl. No.	Contents
<b>Payment of Bills</b>	
1.	Payment of Electricity Bill
2.	Payment of Water Bill
3.	Property Tax ( City Corporation)
<b>Payment of Telephone Bills</b>	
4.	Payment of BSNL Land Line & Mobile (CellOne)
5.	Payment of Airtel Mobile & Landline
6.	Payment of Vodafone Bill
7.	Payment of Idea Bill
8.	Payment of MTS Bill
<b>Other Services</b>	
9.	PUC – photo copy, Re-totaling & revaluation
10.	Ticket Booking – KSRTC

11.	Booking of Rail Ticket
12.	RTO – RC Extract ( B – Extract)
13.	Fee for Police Verification/Clearance Certificates
14.	Forms of Services of Government Departments
15.	Registration/Application forms for Govt. Jobs
16.	Premium Payment of ING Vysya Life Insurance
17.	UIDAI
18.	EPIC Card

Table No. 2 Showing Branches of Mysore One

Sl. No.	Area
<b>1.</b>	<b>Siddhartha Layout</b> Gautham Shopping Complex, Sheela Marg, Near Shantala Vidya Peeta School, Siddhartha Layout, Ph: 0821-2470046
<b>2.</b>	<b>RamaKrishna Nagar</b> MUDA Shopping Complex, Chaduranga Road, RamaKrishna Nagar, I Block Ph: 0821-2460727
<b>3.</b>	<b>Krishnamurthy Puram</b> Corporation Zonal No.2, Near Jayanagar Railway Gate, Ph: 0821-2330042
<b>4.</b>	<b>Nazarbad</b> Shalivahana Road, Radio Park, Behind Govt. Hospital, Nazarbad
<b>5.</b>	<b>Gokulam</b> MUDA Commercial Complex Gokulam 3 <sup>rd</sup> Stage, Near Dr's. Corner Ph: 0821-2411940
<b>6.</b>	<b>New Sheshadri Iyer Road</b> New Sheshadri Iyer Road, Near R.M.C, Bus Stop, Opp. Corporation Zonal No.6, Ph: 0821-2421042
<b>7.</b>	<b>Big Bazar</b>

	Jhansi Rani Lakshmi Bai Rd, Sunnadakeri, Chamarajapuram Mohalla, Lakshmipuram, Mysore, Karnataka 570005 0821 400 0960
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### Objectives of the Study

- To understand the concept of Mysore One Services.
- To study and analyze the customer perceptions regarding integrated services.
- To analyze the effectiveness of Mysore One Services.

### RESEARCH METHODOLOGY

This study used the exploratory research design. The main goal of this type of research is to explore the data and characteristics about what is being studied. The idea behind this type of research is to study of all about a certain characteristics of customers used Government Services provided and calculation methods in this research paper involved basic statistical tools. This study mainly focused on Impact of Mysore One (Integrated citizen services project) – A Study on Mysore City. For this study collected data in Mysore City from 193 respondents. This research used simple random sampling technique involved.

### Data Collection

For this study primary and secondary data were used. For collecting primary data a well structured questionnaire is important factor. The questions that ask the respondent to select an answer from a list of options are called closed-ended questions. They provide a uniformity of response and are relatively easy to analyze. Secondary data is obtained from the published sources from related websites.

### Limitations of the Study

- The study was restricted to urban areas in Mysore City.
- Due to time constraints sample size was restricted to 193.
- Respondent's bias was another limiting factor.

Table No. 3 Showing Demographic Profile of Respondents

Sl. No.	Contents	No. of Respondents	Percentage
1	<b>Age</b>		
	Up to 30	25	12.95
	31 – 40	30	15.54
	41 – 50	45	23.32
	51 – 60	36	18.65
	61 & above	57	29.53
2	<b>Gender</b>		

3	Male	89	46.11
	Female	104	53.89
3	<b>Occupation</b>		
	Retired	57	29.53
	Business	16	08.29
	Professional	11	05.70
	Public Sector	28	14.51
	Private Sector	20	10.36
	Others	61	31.61
4	<b>Education</b>		
	Primary	19	09.84
	SSLC	41	21.24
	PUC	34	17.62
	Graduate	67	34.71
	Post Graduate & above	32	16.58

Source: Primary – Field – Survey

Table no. 3 shows that demographic profile of the respondents details on age, gender, occupation and education. All type of age groups is utilizing these services. Both male and female are using this service. Compare to male, female citizens are utilize this services. Majority of retired persons and others means housewives; students are utilizing more compare to other groups. Where coming to the education part graduate and post graduate people are more accepting these services and also other types of literate citizens also accepted these useful services and more and more in the present scenario.

### Major Findings of the Study

Table no. 4 showing reasons of using Mysore One integrated services to citizens.

Table No. 4: Reasons of using Mysore One Integrated Services  
Source: Primary Data- Survey

Sl. No.	Statement s	Strongly Agree	%	Agree	%	Moderate	%	Disagree	%	Strongly Disagree	%
1	Mysore One Integrated Service is more convenient than individual service	58	30.05	92	47.67	31	16.06	09	04.66	03	01.55
2	Mysore One is more reliable and safe than individual service	55	28.50	86	44.56	34	17.62	15	07.77	03	01.55
3	Mysore One transaction s can be done faster and safely	50	25.91	80	41.45	40	20.73	15	07.77	08	04.14
4	I Use Mysore One frequently to above listed services	60	31.09	90	46.63	33	17.10	07	03.63	03	01.55

5	I am Well Conversant with Mysore One and I found it a User-friendly system	70	36.27	100	51.81	15	07.77	05	02.60	03	01.55
6	I have a strong faith that Mysore One ICT cannot make any mistake	50	25.91	80	41.45	40	20.73	15	07.77	08	04.14
7	I am quite satisfied with the Mysore One integrated system of pay bills and many more services	62	32.12	93	48.19	30	15.54	05	02.60	03	01.55

- Mysore One Integrated Service is more convenient than individual service. In this 47.67 percent of the respondents are agree and 30.05 percent of the respondents are strongly agreed. This means 77.72 are agreed of this service and more convenient. 16.06 percent of the respondents are in moderate. 4.66 percent of respondents are disagreeing and 1.55 percent is strongly disagreeing.
- Mysore One is more reliable and safe than individual service. In this 44.56 percent of respondents are agree and 28.50 percent are strongly agreed, 17.62 percent are in moderate and 7.77 percent of the respondents are disagree and 1.55 percent of respondents are strongly disagree of more reliable and safe service.
- Mysore One transactions can be done faster and safely 25.91 percent of respondents are strongly agree and 41.45 percent of respondents are agreed means 67.36 percent of respondents are agreed of transactions faster and safe. 20.73 percent respondents are in moderate level. 07.77 percent of respondents are disagreed and 04.14 percent are strongly disagreed.
- I Use Mysore One frequently to above listed services in this 31.09 percent are strongly agree and 46.63 percent respondents are agreed means 77.72 percent of respondents are agree and 17.10 percent are in moderate level, 3.63 percent are disagree and remaining respondents are disagree which is only 1.55 percent.
- I am Well Conversant with Mysore One and I found it a User-friendly system. 36.27 percent respondents are strongly agreed and majority of 51.81 percent respondents are agree means 88.08 percent of respondents are agreed and this service is user friendly. 7.77 percent are moderate, 2.60 percent respondents are disagreed and 1.55 percent of respondents are strongly disagreed.
- I have a strong faith that Mysore One ICT cannot make any mistake in this 25.91 percent of respondents are agreed and 41.45 percent of respondents are agreed. Majority of respondents opinion is agree and 20.73

percent of respondents are moderate. 7.77 percent respondents are disagreed and 4.14 percent are strongly agreed.

- I am quite satisfied with the Mysore One integrated system of pay bills and many more services. 32.12 percent respondents are agree and 48.19 percent of respondents are strongly agreed it shows majority of 80.31 percent of respondents are agreed and also satisfied of this service. 15.54 percent of respondents are in moderate, 2.60 percent of respondents are disagree and 1.55 percent respondents are strongly disagree of this service

Table No. 5: Customer Preference regarding Mysore One Integrated Service

Service	Rank
Payment of Electricity Bill & Water Bill	1
Payment of BSNL Land Line & Mobile (CellOne), Airtel Mobile & Landline, Vodafone Bill, Idea & MTS Bill	2
Property Tax ( City Corporation)	3
Ticket Booking – KSRTC	4
Booking of Rail Ticket	5
Forms of Services of Government Departments	6
Premium Payment of ING Vysya Life Insurance	7
RTO – RC Extract ( B – Extract)	8
Fee for Police Verification/Clearance Certificates	9
UIDAI	10
EPIC CARD	11

Source: Primary Data- Survey

Table no. 5 showing customer preference regarding Mysore One integrated service to the respondents. Majority of the respondents are more preference to give payment of electricity bill & water bill in Mysore One centre because it's working hours from morning 8.00 am to evening 8.00 am. Next the respondents prefer to pay bills of telephone bills and mobile bills. Payment of property tax respondents prefers 3<sup>rd</sup> rank. Reservations of Rail and KSRTC bus preference 4<sup>th</sup> and 5<sup>th</sup> rank. Nowadays people are aware on this service and Government also implanted other service for easy transactions in one shop.

## CONCLUSION

Information and communication technology, today, has become a strategic and integral part of e governance, driving them to acquire and implement world-class systems

that enable them to provide more services at competitive cost with better risk management practices. Citizens have become demanding and Mysore One has to deliver customized integrated services in one shop without hindrances. There is a tremendous scope for the Mysore citizen to expand their e-governance services, which, in turn, enhance their image. There should not be any hindrances of security, reluctance to change, lack of awareness among the citizens. The challenges in adoption of integrated services are also large in number. However, the challenges could be overcome by adopting concerted strategies. Regulatory measures must be initiated strictly to nullify the fraudulent areas in e-governance system of the Karnataka Government and to ensure a fair deal to the citizen. The paper concludes that Mysore One is the part of Karnataka One that, citizens have also become more demanding with the passage of time. They prefer to avail e-governance services, but at the same time, they face many problems with using integrated services. On the basis of the above analysis and observation Mysore One is the integrated services to citizen for easy and fast service given to the people without any other charges of respected bill. People are slowly adopted this service and in future Mysore One will popular and people are accepted this service in excellent.

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- [www.bangaloreone.gov](http://www.bangaloreone.gov)

# Comparing forecasting accuracy of Holt-Winters and SARIMA model with respect to Indian Automotive Industry

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**Abstract :** Automotive industry is one of the key drivers of Indian economy as it provides large-scale employment and has a multiplier effect, hence understanding the behavior of the automotive industry is very critical. The main purpose of this paper is to compare the forecasting accuracy of Holt winters and Box-Jenkins auto regressive model when applied to Indian automotive industry and to suggest better model based on the findings.

**Design/methodology/approach:** This paper uses monthly sales data published by Society of Indian Automobile Manufacturers (SIAM). In this paper we compare the forecasted values of the two models and we select the best model based on the least mean square error (MSE), mean absolute error (MAE) and mean absolute percentage error (MAPE)

**Findings:** This paper has compared the performance of Holt-Winters and ARIMA models with respect to their forecasting accuracy. Analysis of accuracy measures illustrates that both models are quite accurate, however ARIMA model appears to be a more accurate model than Holt-Winters model. The relative ease of use in applying Holt-Winters models makes this model very useful in anticipating broad market trends.

**Research limitations/implications:** While there are other ways to determine the forecasting accuracy of two models, this study only considers mean square error (MSE), mean absolute error (MAE) and mean absolute percentage error (MAPE)

**Practical Implications:** The results could help the automobile companies and government bodies better understand the automotive industry. While government bodies could use the results from this study to form better policies, the auto companies could use the results for possible strategic decisions.

**Originality/value:** There is no previous study analyzing the forecasting ability of two models with respect to Indian automobile sales.

**Keywords:** Autoregressive integrated moving average (ARIMA), Forecast, Holt-Winters, Indian Automobile Industry, Mean absolute error (MAE), Mean absolute percentage error (MAPE), Mean square error (MSE), Seasonal autoregressive integrated moving average (SARIMA), Society of Indian Automobile Manufacturers (SIAM).

## 1. INTRODUCTION

In any business activity planning forms an integral part. However, for a business plan to succeed it needs objectives that are based on sales targets, which is dependent on demand forecasts. In addition, many other business decisions are also dependent on the forecasts. Thus, placing sales forecast at the heart of all planning activities. Forecasts help company maintain optimum inventory level and maintain efficient daily operations which in turn affects profits. Hence, forecast is critical to profitability of a company. Hence if accurate demand forecast are available to provide advanced warning would help companies and policy makers plan accordingly.

There are many techniques of forecasting, and they vary in complexity, ease of use, and the amount of data needed. Among the many forecasting techniques, many surveys (Sanders, 1997; Mahmoud, 1984) have found the judgmental technique to be dominant. However, many studies (Armstrong, 1986; Dunn and Wright, 1991) have found that the judgmental technique is less accurate, more biased, and more likely to lead to poor forecasts than other techniques. The choice of a suitable forecasting technique is vital to the generation of reliable forecasts (Bowerman and O'Connell, 1993; Goh, 1998). Forecasters can choose from a variety of forecasting techniques. However, each technique fits a limited set of situations, and thus methods appropriate to different situations result in the highest accuracy. This paper therefore attempts to evaluate the two models and compare the results and suggest a model for this kind of data.

## 2. RESEARCH METHODOLOGY AND DATA REQUIREMENT

Data were collected from Society of Indian Automotive Manufacturers (SIAM). There has been some debate as to the minimum number of observations required to generate an ARIMA model, with both McGough and Tsolacos (1995) and Tse (1997) recommending at least 50 observations. For the purposes of this study monthly data

from April-2008 to November-2013 have been used, thereby providing 68 observations.

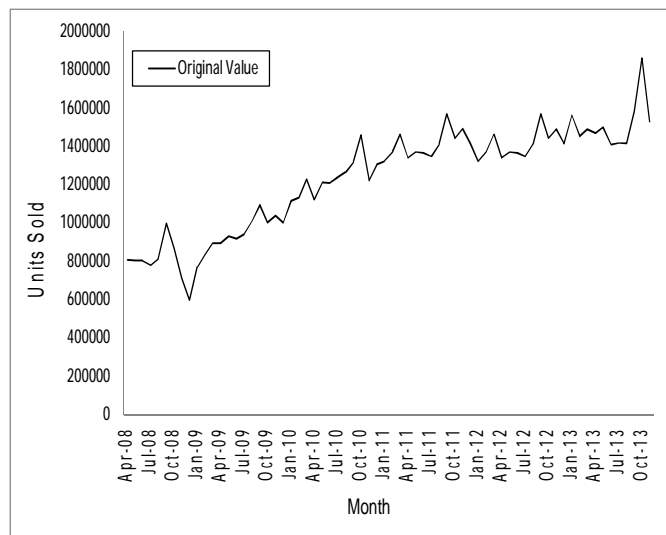


Figure 1: Indian automobile sales in units

The time series analysis was performed using a combination of largely automated analysis using R 3.0.2 software and user-directed analysis using Microsoft Excel 2010. The appropriate smoothing parameters (alpha, beta and gamma) for Holt-Winters model was selected based on least value of forecast accuracy measure like MSE, MAE and MAPE. The high gamma value indicates the presence of seasonality in the data. The trend has a negligible influence on the series.

Table 2: Holt-Winters best fit smoothing parameter values

Smoothing parameter	alpha	beta	gamma
Value	0.3536	0.002	0.4846

An ARIMA model is a univariate model that seeks to depict a single variable as an Autoregressive Integrated Moving Average process. ARIMA model has three component (p,d,q) associated with it where p is the order of the AR component, q is the order of the MA component and d is the order of differencing. If  $y_t$  is an ARIMA p,d,q process, then the series evolves according to the following specification:

$$y_t = \phi_1 y_{t-1} + \phi_2 y_{t-2} + \dots + \phi_p y_{t-p} + \theta_1 \epsilon_t + \theta_2 \epsilon_{t-1} + \dots + \theta_q \epsilon_{t-q} \quad (1)$$

Where  $\phi_0$  is a constant,  $\epsilon_t$  is the error term, q is the number of lagged terms of  $\epsilon_t$  and p is the number of lagged terms of  $y_t$ . The current series has seasonality in it; as a result we use a variant of ARIMA model called Seasonal ARIMA (SARIMA). Seasonal ARIMA (SARIMA) is used when the time series exhibits a seasonal variation. A seasonal autoregressive notation (P) and a seasonal moving average notation (Q) will form the multiplicative process of

SARIMA as (p,d,q)(P,D,Q)s. The series was tested for stationarity using the Augmented Dickey-Fuller unit root test and then differenced accordingly. The unit root test can be represented as follows:

$$y_t = a_0 + \rho y_{t-1} + \epsilon_t \quad (2)$$

ARIMA(0,1,1)(0,0,1)<sub>[12]</sub> was selected based on least Akaike Information Criterion (AIC) or the Schwartz Bayesian Information Criterion (BIC). The two selection rules may be calculated as:

$$AIC = T \ln(RSS) + 2n \quad (3)$$

$$SBC = T \ln(RSS) + n \ln(T) \quad (4)$$

Where T is the sample size, n is the number of regressors and RSS is the residual sum of squares.

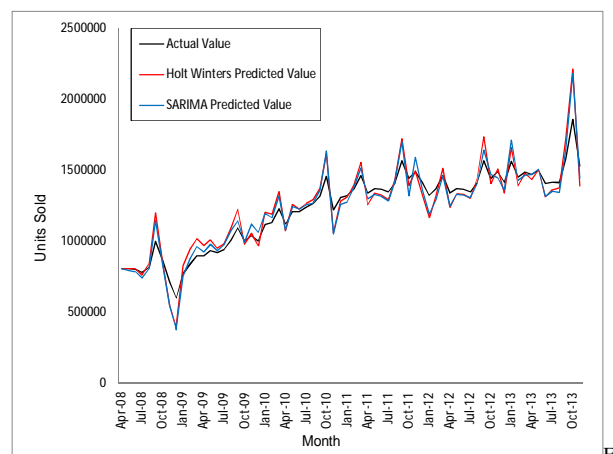


Figure 2: Best fit Holt-Winters and ARIMA model vs actual values

Figure 2 plots the movement of best fit models of both ARIMA and Holt-Winters and is compared with actual values.

### 3. ERROR MEASURE

As stated earlier ARIMA model requires a minimum of 50 observations, hence for the purpose of uniformity residual values from 51<sup>st</sup> observation (Jun-12) onwards were considered. Forecast accuracy for both the models was initially calculated using different accuracy measures: MSE, MAE and MAPE.

Table 2: Forecast accuracy measure

Error measure	MSE	MAE	MAPE (%)
Holt-Winters	$1.25 \times 10^{10}$	90,438	6
SARIMA	$0.95 \times 10^{10}$	65,988	4

Table 2 reports the forecast accuracy measure values for both models. From the table we can see that SARIMA model has the least MSE, MAE, and MAPE values when compared with Holt-Winters model.

#### 4. CONCLUSION

This paper has compared the performance of Holt-Winters and ARIMA models with respect to their forecasting accuracy. Analysis of accuracy measures illustrates that both models are quite accurate, however ARIMA model appears to be a more accurate model than Holt-Winters model. The relative ease of use in applying Holt-Winters models makes this model very useful in anticipating broad market trends. A further work is still needed to evaluate and apply other forecasting methods into

the Indian automobile sales time series in order to obtain better accuracy of forecast value.

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# Changing Trends in Information Technology: A Study on Building an Intelligent Agent for E-Learning Systems

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**Abstract :** Emerging digital technologies and increasing interest in the computerized delivery of education have led to e-learning through electronic mail, the Internet, the World Wide Web (WWW), and multimedia. An intelligent agent in an e-learning scenario is a software agent that tries to "intelligently" recommend actions to a learner based on the actions of previous learners. This recommendation could be an on-line activity such as doing an exercise, reading posted messages on a conferencing system, or running an on-line simulation, or could be simply a web resource. These recommendation systems have been tried in e-commerce to entice purchasing of goods, but haven't been tried in e-learning. This paper suggests the use of web mining techniques to build such an agent that could recommend on-line learning activities or shortcuts in a course web site based on learners' access history to improve course material navigation as well as assist the online learning process. These techniques consider integrated web mining as opposed to off-line web mining used by expert users to discover online access patterns.

**Keywords:** *e-learning, intelligent agent, web mining*

## INTRODUCTION

The use of e-learning platforms in education has been recently spreading out widely in schools and universities. The most known and used e-learning environments, such as, Moodle<sup>1</sup> and WebCT<sup>2</sup>, are involving a large set of tools and functionalities to use in online courses, like synchronous and asynchronous communication tools, evaluation modules, course content delivery tools, collaborative activities, etc. However, the task of teaching online learners having different levels of knowledge, interest and need at a massive scale, seems to be very hard and time consuming for teachers. Moreover, most educational resources are conceived and designed while respecting similar well defined pedagogic models and navigation patterns. Therefore, similar resources are generally given to learners in the same way in these e-learning environments, however the resources are not followed in the same way by different learners who are usually asking for continuous online support and guidance throughout the e-learning process. To remedy such shortcomings, several works have dealt with adaptive e-learning systems and adaptive educational hypermedia. These systems are generally based on using one or more types of knowledge (learners' knowledge, learning material knowledge, learning process knowledge, etc) to perform

personalization. Most of these systems have relied on explicit information given by a learner (demographic, questionnaire, etc) and have applied known methods and techniques of adapting the presentation and navigation. However, automatic personalization and recommendation methods have not received sufficient attention in e-learning, even though they are well known and used in other fields. In fact, Web recommender systems have been used with success in e-commerce, information filtering, information retrieval, etc, but not used enough in e-learning.

## WEB RECOMMENDER SYSTEMS

Web recommender systems are used to locate relevant items in which the user is interested. This can be done based on the user's data that is collected implicitly (Web access logs) or explicitly (ratings). Generally, it is more efficient and user-friendly to provide users with what they need automatically and without asking them explicitly for it. Web recommender systems are used frequently in e-commerce and information access in order to assist the user in locating relevant products, items or services. A number of knowledge discovery and statistical techniques are generally used in advanced recommendation systems. The latter can be divided, depending on the techniques used, into content-based filtering, collaborative filtering, and hybrids, which are summarized below.

- **Content based filtering:** Content-based filtering (or item-based filtering) systems recommend items to a given user based on the correlation between the content of these items and the preferences of the user. This means that the recommended items are considered to be similar to those seen and liked by the same user in the past. Thus, there is no notion of a community of users, rather only one user profile is considered while making recommendations.
- **Collaborative based filtering:** Collaborative filtering systems have tried to remedy for the shortcomings listed earlier. Collaborative filtering system recommends items that are liked by other users with similar interests. So, the exploration of new items, in this approach, is assured by the

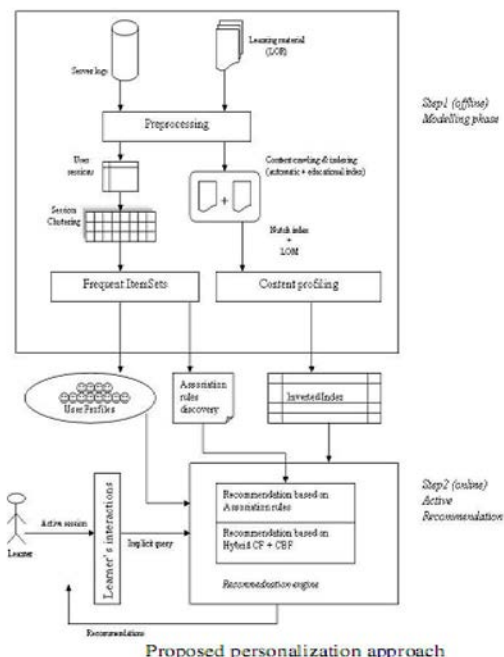
fact that other similar user profiles are also considered. Thus, the history of community of users is combined. Examples of such systems include This approach relies on a historic record of all user preferences and interests which can be obtained explicitly by asking users to give a rating on each item (product, Web page, etc) or implicitly by observing the user's behaviour when browsing a Website, for instance via their click streams.

- **Hybrids:** Hybrid recommender systems combine several recommendation strategies to provide better performance than either strategy alone. Most hybrids work by combining several input data sources or several recommendation strategies. There are many hybridization methods reported in the state of the art. Generally, content/collaborative hybrids are the most popular hybrid strategies.

## BUILDING AUTOMATED RECOMMENDER SYSTEMS ON E-LEARNING PLATFORMS

Here, the aim is to build a recommender system which, when integrated within an e-learning system, will collect and mine Web usage access logs and learning material for the user, in both usage and content profiling phases, and will later determine what to recommend to an active learner. . The latter task can be considered as the online task of e-learning personalization. This task will consist of computing a recommendation set of URLs that the active learner (current session) may visit, based on similar usage patterns and based on page content. Recommended URLs could be divided into two sets : the first set contains the most relevant URLs indicating the next pages to visit by the learner (next choice), while the second set contains a list of related links which are recommended to visit, based on similar content. The recommender system must perform the following steps:

- Preliminary offline mining of usage profiles (done offline) based on Web mining techniques.
- Preliminary offline mining of association rules
- Preliminary crawling and indexing of learning resources
- Matching a new user session (active session) to related association rules that will be used in recommendation
- Matching a new user session to previous cluster profiles to form a collaborative session



This approach basically deals with two main phases

1. Modeling phase
2. Recommendation phase

### Modeling phase:

This phase consists of two important components – user profiling and content profiling.

**User Profiling:** It represents the key process of recommendation systems. It describes the necessity of user models as follows: “Users are different: they have different background, different knowledge about a subject, different preferences, goals and interests. To individualise, personalise or customise actions, a user model is needed that allows selection of individualised responses to the user.” In our approach, we’ll apply data mining techniques to build user profiles. In fact, the prediction of the user model is accomplished using, not explicit user interaction but implicit information collected from the past usage sessions. Thus, user behavior becomes, in this case, the source of implicit prediction for his/her model. The input data for this first step is composed mainly of Web server access log files and learning object files, necessary for data preparation and pattern discovery. When dealing with Web data, we speak about Web mining (as for the case of data mining) which is one of the most important stages in the “Knowledge Discovery in Data” or KDD process. Three axes of Web mining could be explored : Web Content Mining, Web Structure Mining and Web Usage Mining. Web usage mining can be defined as the process of analyzing the user’s browsing behaviour by relying on Web access logs. In fact, in Web based systems, it is possible to

get continuous feedback detailing a learner's access and usage information since every request received by the Web server is automatically saved in a specific file called the log file.

**Content profiling:** It generally involves applying indexing and text mining (Web content mining) techniques. Of particular interest to the proposed approach is the use of the Nutch open source search engine in the content modeling phase, followed by content base filtering as a recommendation strategy. So, we will (1) automate the indexing of the learning material using crawling and indexing techniques as done in the search engine, and (2) automate the indexing of educational content based on norms and standards used in e-learning.

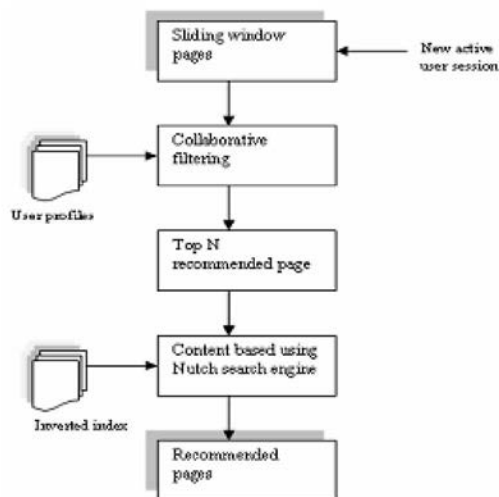
### Recommendation Phase:

The Recommendation phase is done online. The active user session is transformed into an implicit query extracted from logs and submitted to the system. The input to the recommendation system is deduced from the active user session by transforming a new user session (Fig. 2) into a query composed by the last access pages representing a short-term history for the current user. These last visited pages in the active user session are called a sliding window. The system will extract visited URLs from the Web log file from the time that the learner connects to the platform until he/she asks for recommendations.

**Prediction of next pages to visit (Type 1):** This task computes the first type of recommendations and consists of accurately computing all relevant possibilities of next pages that can be recommended to visit. We can use the discovered cluster association rules to accomplish this task. These association rules (AR) will capture the relationships among URLs based on their co-occurrence across sessions. AR discovery methods such as the Apriori algorithm (Agrawal et al., 1994) can be used directly especially when frequent item sets (pages occurring frequently together in many sessions within a given cluster) have been determined previously in the first phase of user profiling. An association rule  $r$  is an expression of the form:  $A \Rightarrow B$ , where  $A$  and  $B$  are item sets,  $r$  must satisfy a minimum confidence threshold to be involved in the recommended page set. The generated association rules will take, for example, the form: 70% of learners who accessed the Web page  $A$ , also accessed  $B$ . All rules should first be sorted by their confidence (highest to lowest) when forming the recommendations. Also, the current session window is matched against the "condition" or left side of each rule.

**Generation of related recommended links (Type 2):** This step yields the second type of recommendations, and is accomplished using hybrid recommendation strategies. Several methods of recommendation will be investigated in our work. First, we applied content based filtering approach using Nutch search engine and collaborative

based filtering approach using association rules alone to recommend related links. But, basically, the idea is to apply both of them (content based filtering and collaborative based filtering approaches) simultaneously in order to improve the recommendation quality and generate the most relevant learning objects to learners. Two approaches can be considered : Hybrid content via profile based collaborative filtering with cascaded/feature augmentation combination and Hybrid content and profile based collaborative filtering with weighted combination



Cascaded content based via collaborative profile filtering

### CONCLUSION

In this paper, we are interested in automatic personalization based on recommendation in e-learning. We have outlined the general principles of the proposed approach using recommendation strategies to perform personalization in e-learning platforms. In the modeling phase, we used Nutch's automated crawling and indexing techniques as well as standardized educational content indexing to build content profiles, and Web usage mining techniques (clustering and association rule mining) to build user profiles. Hybrid recommendations (content based filtering and collaborative based filtering) were used in the recommendation phase. In the future, we can explore in different techniques and strategies in the modeling and recommending phases.

# Impact of changes in Oil Price on Indian Stock Market

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**Abstract** - The purpose of this present paper is to contribute to the literature on stock markets and energy prices by studying the impact of oil price changes on Indian stock market returns. The study employed various statistical tools like trend analysis, correlation analysis and regression based modelling in order to try and establish a relationship between Crude Oil Prices and Indian Stock Market based on available past data. The span of this study includes data of Crude Oil Price (Brent Crude) and Indian Stock Market Index (BSE Sensex) for last 10 years (2003-12) in monthly Time Series format. As the above mentioned period (i.e. 2003-12) has witnessed various turmoils and changes in both Indian and World economy, namely the Global Recession (2008), Iraq War (2003), Arab Spring (2011), Iran Nuclear Crisis (2007), etc. Among the four last three had a significant impact on Oil Prices as they have caused political instability to major oil producing nations of the Middle East like Iraq, Iran, Libya, Bahrain, etc. Consequently, the period experienced marked fluctuations in global crude oil prices and thus, would prove to be significant for our study. The findings of the study indicate that oil prices generally follow economic principles of supply and demand in the long run. Also there exists a weak but significant relationship between oil price changes and returns on Indian stock market (BSE Sensex).

**Keywords:** *Oil price, BSE-Sensex, India.*

## INTRODUCTION

Crude Oil price is one of the most significant macroeconomic variables which affect the cost of production directly or indirectly, thus, affecting the future cash flows and profits of companies. Recent years especially after Gulf War (1990-91) and Iraq War (2003) had resulted sharp swings in oil prices, with oil price reaching as high as \$148/bbl, followed by an equal dramatic fall in prices.

Despite the fact that, based on previous research, oil price changes seem to affect equity prices in a negative manner, a deeper analysis should be done as regard the different impacts on oil exporting and on oil importing countries. In the OPEC countries and in other oil exporter countries the effect of increases in oil prices should be positive, whereas for the oil importing countries like India the impact should be negative (Asteriou, Dimitras & Lendewig, 2013).

As India is a net importer of crude oil so its economy is highly sensitive to oil prices shocks in the international crude oil market. India imported \$156.97

billion worth crude oil and products in 2012-13 and Oil imports account for 34 per cent of the total import bill and a dollar increase per barrel raises trade deficit by \$900 million (Ranjan, 01/08/2013). Thus, a rise in crude oil prices affect Indian Economy in a significant manner as the country has to produce about \$1 trillion of GDP to sustain its huge population and to do so it requires about 2.5 million barrels of oil/day which is 6.5% of world's total oil demand (Sharma, Singh et. al. 2012).

As oil prices increases cost of production and in turn affecting the required expected rate of return from the business. Since, current stock price of a company reflects the discounted future cash flows from the business, as specified by the Dividend Discount Model for Stock Valuation (Value of Stock = Dividend per share/(Discount Rate-Dividend Growth Rate)). Thus, theoretically, a rise/fall in oil price influences the required discount rate for arriving at Present Value of Future Cash Flows of a listed company which reflects in its current share price. Rising oil prices are often indicative of inflationary pressures which central banks can control by raising interest rates. Higher interest rates make bonds look more attractive than stocks leading to a fall in stock prices. The overall impact of rising oil prices on stock prices depends of course on whether a company is a consumer or producer of oil and oil related products. Since there are more companies in the world that consume oil than produce oil, the overall impact of rising oil prices on stock markets is expected to be negative (Basher & Sadorsky, 2006). Thus, this study would try to empirically test this relationship between changes in crude oil prices (Brent Crude) and its impact on Indian Stock Market (i.e. BSE Sensex).

## LITERATURE REVIEW

The trend in crude oil Market has reignited interest in the macro-economic factors that have a strong impact over equity returns and volatility in the equity market. Several studies have explore this aspect among them are **Chittedi (2011)** who have investigated long-run relationship between oil Price and Stock prices in India for the period April 2000 to June 2011. The Author applied Auto-regressive distributed lag. The finding suggested that the volatility of stock price in India have a significant impact on the volatility of oil prices and the macro-economic factors

that have a strong impact over equity returns and volatility in the equity markets.

**Imarhiabel (2010)** applied vector-error correlation modeling to study the impact of oil prices on stock prices of selected major oil producing and consuming countries (Mexico, Russia, Saudi Arabia, India, China and the US) with nominal exchange rate as additional determinant. The result showed that in all countries Variance decomposition and impulse response tests confirm existence of oil prices and exchange rates influences over stock prices.

**Onos (2010)** assessed the differences of the impact of oil price futures in stock markets or companies expected earnings among BRIC's and also an unprecedented oil price increases from 1990 to 2010. The finding indicated real oil price for India and industrial production with constants and trend for Brazil cannot be rejected. The existence of a unit-root in their levels while on the other hand Null hypothesis ( $H_0$ ) was rejected real stock price of the unit –root of 1% level in all cases. Consequently, the author believed that real stock returns responded positive to some of the oil price indicators with statistically Significance for China, India, Russia where as no Significant response was observed in the Brazilian real stock returns.

**Masih, Peter and Mello (2010)** analyzed the relationship between oil prices shocks and the Macro-economic variables by using modern time series techniques in a co-integrating framework. The findings suggested that the financial crises did not affect on the stochastic trend between  $ip$ ,  $op$ ,  $rvol$  and  $rsr$ . In addition the author believed that the oil price movements significantly affect the stock markets and analysis indicates that real stock returns are the main channel of Short-run adjustment to long-run equilibrium. (Industrial production as  $ip$ , real stock returns as  $rsr$ , interest rates as  $r$ , oil prices as  $op$ , and oil price volatility as  $rvol$ ).

Impact of crude oil prices in Indian economy growth and the relationship between oil price and inflation was studied by **Sharma et.al. (2012)** and analyzed the trend in oil price and the factors that affect the crude oil prices.

**Lis, Nebler, and Retzmann (2007)** investigated the impact of oil prices is different on the overall Market and automotive companies. In addition showed the differences in sensitivity among the continents taking Germany, USA and Japan in to account where result pictured a link between the Crude oil price and the share price of cars producing companies in every period as well as every portfolio.

**Basher and Sadorsky (2006)** examined the impact of oil price changes on a large set of emerging stock market returns and found regression for unconditional and conditional models for the relationship between risk returns differences and result showed that oil price risk impacts

stock price returns in emerging markets although the exact relationship depend upon the data frequency.

**Hale and Chang (2011)** titled the impact of oil price fluctuation on stock markets in Developed and emerging economies. Suggested that the fluctuations in oil price on stock market is not so statistically significant although the presumption of oil price –stock price relationship seen some reasonable area of Japan.

**Roselee, Samad, Fazilah, Bhat and Sonal (2009)** examined the effect of oil price movements on the stock price of oil and gas companies in three different market (US, India & UK) and found that some co-integration between oil stocks, oil prices, interest rates, industrial production and the stock index and there is a significant short-run as well as long-run relationship between them which concluded that these variables have co-integrating relationship.

**Asteriou, Dimitras, Lendewig (2013)** assessed the differences in the impact of oil price fluctuations on oil importing countries and on oil exporting countries. The result of the study showed that the oil price interact with the stock markets in a stronger manner than with the interest rates in the short –run as well as in the long-run . Furthermore, the significance of this impacts is higher on oil importing countries than on oil exporting countries. Finally the fluctuation in oil price might present different affects among different countries and a possible explanation for this can be the degree of development of the countries.

The World Economic Outlook contained an extensive discussion of the potential impact of higher Prices where IMF Research department approved by **Mussa (2000)**, on the topic “The impact of higher oil prices on the Global economy.” The researcher suggested some recent development and outlook in oil Markets & impacts on global economy and concluded that  $\frac{1}{4}$  of the GDP from global oil importers to oil exporters would be a sustained oil price increase of that size & imply a permanent transfer.

**Christensen (2011)** analyzed the impact of oil Price Shocks on Stock Markets where the author investigated linear, non-linear & asymmetric oil price shocks, where he found that all individual countries dependency on oil will have great impact on the response of the real stock returns.

**Papaetrou (2001)** studied the dynamic linkage between crude oil price and employment in Greece using industrial production and industrial employment as alternative measures of economic activity. His study was modelled in a cointegrated VAR framework and extends out by looking at the generalised variance decomposition and impulse response functions.

**Eika and Magnussen (2000)** examined the effects of the high oil prices on the Norwegian economy in the first half of the 1980s. They utilized two large scale macroeconomic

models i.e. NIGEM and KVARTS on high oil prices from 1979 to 1985. The results showed that the higher oil price had a rather persistent effect on the trading partners of Norway, which lowered the demand for Norwegian export goods and it also resulted in an increase in interest rate.

**Hamilton (2003)** investigated the nonlinear relation between oil price changes and GDP growth in the US economy. He found strong evidence supporting a nonlinear relationship between the two factors. Further results showed that an increase in oil price has a greater impact than oil price decreases, and oil prices are not much of use for forecasting of the GDP.

**Huang et al. (1996)** provided an evidence in favor of causality effects from oil futures prices to stock prices while **O'Neill et al. (2008)** found that oil price increases lead to reduced stock returns in the United States, the United Kingdom and France.

### Objectives

The research study aims to fulfil following major objectives:

1. To study the fluctuations in Crude Oil price (Brent Crude) in the last ten years (2003-12).
2. To evaluate the impact of Crude Oil price on Indian Stock market.

### Hypothesis

$H_0$  = There is no significant impact of changes in oil prices on BSE Sensex returns.

### RESEARCH METHODOLOGY

The study was empirical in nature and the total population consisted of all the global Oil Markets and various stock exchanges functioning today. Out of which only Brent Crude is selected as reference for oil price and the study is limited to Indian stock market represented by BSE Sensex. The time frame for the study was ten years beginning from 2003 till end of 2012. The sampling elements for the study were Oil price and its impact on BSE Sensex. Purposive sampling was used to complete the study and the data was collected from secondary sources through official website of NSE, BSE, Index Mundi and Yahoo Finance.

### Tools for Data Analysis

- a. Trend Analysis
- b. Correlation
- c. Regression Analysis

### RESULTS AND DISCUSSIONS

As per the framed objectives for the study, first the trend graph for the fluctuations in oil prices would be

analysed and then the results of correlation and regression analysis would be evaluated over the course of this paper.

#### 1. Trend Analysis of Oil Prices (Brent Crude).



Previous economic researches indicate that the fundamentals of supply and demand in the oil market are important to understand the short-run and long-run fluctuations. In particular, these fundamental changes allow more pricing information for investors/producers to decide which investments are profitable. Moreover, the primary source of oil price fluctuations are not from financial speculation but from oil supply, oil demand, or precautionary oil demand—expected oil supply disruptions, such as the concern about a disturbance in Iran's oil production can lead to significantly different economic effects.

Although historically there are several oil price spikes from oil supply disturbances, these disruptions are typically short-lived because of production changes around the globe to profit from price changes. However, aggregate demand shocks, such as from China and India during the 2000s, last longer. In the research, it was found that various historic global events like US subprime crisis and the following global recession had a negative effect on oil prices as the total fuel demand came down as a result of reduced production during recessionary phase. The same is indicated by sudden steep decline in oil prices in middle of 2008 after a preceding period of almost continuous rise. Similarly, global socio-political events like Iraq war (2003), Arab Spring (2011-), etc. resulted in speculative as well as real threats in possible decline in global oil production, thus, pushing the oil prices upwards in international markets.

## 2. Correlation

**Correlations**

		sensex	oil_prices
Pearson Correlation	sensex	1.000	.194
	oil_prices	.194	1.000
Sig. (1-tailed)	sensex	.	.017
	oil_prices	.017	.
N	sensex	119	119
	oil_prices	119	119

There exists a weak but significant correlation ( $r=0.194$ ,  $n=119$ ,  $p<0.05$ ) between movements in oil prices (Brent Crude) and BSE sensex. This indicates movement in Indian stock market are explained by changes in oil prices by a very small extent as there exists a very weak correlation between the two.

## 3. Regression Analysis.

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.194 <sup>a</sup>	.038	.029	.07471

**ANOVA<sup>a</sup>**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	.025	1	.025	4.564	.035 <sup>b</sup>
Residual	.653	117	.006		
Total	.679	118			

The result of regression analysis suggests that changes in the independent variable (oil price) influences the dependent variable (BSE Sensex), only up to a small yet significant extent. Thus, only a small extent of changes in dependent variable was explained by changes in independent variable. The total variance explained by the model as a whole was 3.8%,  $F(117) = 4.564$ ,  $p < .05$ . Thus it was depicted that there was significant impact of oil prices on sensex and therefore the  $H_0$  was rejected.

## CONCLUSION AND SUGGESTIONS

The aim of this study was to analyse the influence of the oil price movements on the stock markets and also to evaluate the possible causes behind oil price fluctuations over a period. Past studies into the topic have found

significant relationship between oil prices and stock market returns, however, the degree of such relationship varies from market to markets and different time periods. It is generally observed that rising oil prices tends to result in diminishing returns from the stock market and vice versa. The results of the study showed that there is significant although weak relationship between oil prices and Indian stock market returns which was in line with the studies like Le and Chang (2011) and Basher and Sardorsky (2006). The study also indicates that oil prices tend to follow the fundamental economic principles of Supply and Demand in the long run and are also affected by global socio-economic and political developments like global recession (2008), Iraq war (2003). Thus, this study doesn't not attribute all the fluctuations happening in Indian stock market to oil prices, as it is one among the large number of factors like inflation, GDP, exchange rate, etc. which impact corporate earnings. Therefore, scope of further study is still left in analysing the impact of individual as well as collective impact of other macro-economic factors affecting the value of stocks in Indian as well as global stock markets.

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# Trends in the Use of Non-Physical Modes of Accessing Banking Services in India – An Analysis

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**Abstract** – Banking sector is at the center of all the economic activities in the economy. The developments and changes in the banking sector have a great impact on the development of the economy and individual lives. Over the period of time there is a change in the way banking activities are undertaken by individuals. The physical access to the bank is not necessary today to carryout banking activities. The non-physical modes of accessing banking services through credit and debit cards, internet banking, NEFT, RTGS, ECS facilities, etc. have gained popularity in this era of information technology. This paper analyses this trend in banking in India from 2004 -05 onwards and finds that the non-physical mode is gaining importance and acceptance in India.

**Key words:** Banking, banking services, ECS, NEFT, RTGS

## I INTRODUCTION

Banking sector is at the center of all the economic activities in the economy. The developments and changes in the banking sector have a great impact on the development of the economy and individual lives. Few years ago, to access banking services, it was a must to physically be in the bank branch in which the customer has maintained the account. It was not possible to undertake any transaction unless the branch is visited by the customer or his representative. Today the situation has changed considerably. Banking services can be accessed at the convenience of the customer at any place convenient to him without depending on the location of bank.

The modes of accessing banking services can be dividing broadly into two broad categories (a.) Physical Mode – the traditional way of visiting the bank branch to avail the services and (b.) Non-Physical Modes [1] – the new generation modes of accessing the banking services without physically visiting the bank branch. This includes ATM, ECS, Debit Card, Credit Card, NEFT and RTGS transactions. This paper analyses the trends in the use of non-physical modes of accessing banking services in India.

## II PAPER BASED TRANSACTIONS VS PAPERLESS (ELECTRONIC) TRANSACTIONS

The first aspect in the analysis is the analysis of movement from paper based transaction to paperless or electronic transactions in India. The electronic transactions started replacing paper based transactions in the banking industry with the use of information technology services. In 2002-03 the volume of paper based transactions was 1,014

million as against 173 million electronic transactions. These figures changed to 12,895 Lakh and 11,300 Lakh respectively in 2005-06. Table I presents the data relating to paper based transactions vs paperless (electronic) transactions during the period 2002-03 to 2005-06.

TABLE I: PAPER BASED TRANSACTIONS VS PAPERLESS (ELECTRONIC) TRANSACTIONS

Year	Volume (In Million)					
	Paper Based Transactions	Percent age Change over previous year	Electronic Transactions	Percent age Change over previous year	Total	Percent age Change over previous year
2002-03	10139	NA	1730	NA	11869	NA
	85.42		14.58			
2003-04	10228	0.88	2152	24.39	12380	4.31
	82.62		17.38			
2004-05	11671	14.11	4200	95.17	15871	28.20
	73.54		26.46			
2005-06	12895	10.49	11300	169.05	24195	52.45
	53.30		46.70			
Year	Value (In Rs. Crore)					
	Paper Based Transactions	Percent age Change over previous year	Electronic Transactions	Percent age Change over previous year	Total	Percent age Change over previous year
2002-03	13424313	NA	37536	NA	13461849	NA
	99.72		0.28			
2003-04	11595960	-13.62	67461	79.72	11663421	-13.36
	99.42		0.58			
2004-05	10120716	-12.72	4221153	6157.18	14341869	22.96
	70.57		29.43			
2005-06	11337062	12.02	11884429	181.54	23221491	61.91

	48.82		51.18			
<b>Year</b>	<b>Value per paper transaction (Rs. per Transaction)</b>		<b>Value per electronic Transaction (Rs. per Transaction)</b>		<b>Value per total transaction (Rs. per Transaction)</b>	
2002-03	13240.27		216.97		11342.02	
2003-04	11337.47		313.48		9421.18	
2004-05	8671.68		10050.36		9036.53	
2005-06	8791.83		10517.19		9597.64	

Source: Report on Trend and Progress of Banking in India, 2005-06  
Note: Values in brackets show the percentage to total

The data presented in Table I shows that 10,139 million transactions were paper based in the year 2002-03 of the total 11,869 million transactions in the year, i.e., 85.42% of the transactions were paper based. From the value point of view 99.72% of total value of the transactions that took place in 2002-03 was paper based. From 2002-03 to 2003-04 total volume of transactions increased by 4.31% from 11,869 million to 12,380 million. In the same period the electronic transactions increased by 24.39% from 1,730 million to 2,152 million and paper based transactions increased only by 0.88%. In the next two years total transactions increased by 28.20% and 52.45% respectively and in the same period electronic transactions increased by 95.17% and 169.05% over respective previous years. The paper based transactions showed a 14.11% and 10.49% increase in the same period.

In terms of value of transactions in rupees crore from 2002-03 to 2003-04 there was a decrease of 13.36% whereas the value of electronic transactions increased by 79.72% and paper based transactions decreased by 13.62%. From 2003-04 to 2004-05 total value of transactions increased by 22.96% whereas paper based transactions decreased by 12.72% and electronic transactions increased by 6,157.18%. Similarly from 2004-05 to 2005-06 electronic transactions increased by 181.54% in value.

A comparison of volume and value of transactions indicate, although there is slight increase in the volume of paper based transactions the total value of these transactions has shown a net decline. Which has resulted in the decline in value per paper based transaction. In 2002-2003 paper based transactions had a value of Rs. 1,324.03 crore per million transactions. This decreased to Rs.879.18 crore per million transactions in 2005-06. Opposite has happened in the case of electronic transactions.

The value of electronic transactions was Rs. 21.70 crore per million transactions in 2002-03 which increased to Rs. 1,051.72 crore per million transactions in 2005-06. Thus, each electronic transaction has grown in size and paper based transactions have shrunk in size. This indicates that electronic transactions are being preferred for large value

transactions due to its conveniences such as low cost, quick settlement of transactions, safety etc.

Hence, it can be concluded safely that the customer preference has shifted to electronic mode of transactions from the traditional paper based transactions over the period of the time.

### III TRENDS IN NON-PHYSICAL PAYMENT METHODS

The increased adoption of technology in the banking sector in India has resulted in manifold increase in non-physical (electronic) payment methods such as ECS, NEFT, RTGS, credit cards and debit cards. The total electronic payments showed an increase in volume of transactions from 178 thousand transactions in 2001-02 to 1216 million transactions in 2011-12. In terms of value of transactions in 2001-02 Rs.6,123 crore worth of transactions took place in electronic mode which rose to Rs. 5,61,382 billion in 2011-12.

Table II shows the volume of transactions and Table III shows the value of transactions in electronic mode from 2004-05 to 2011-12. Table IV shows the value per electronic transactions from 2004-05 to 2011-12.

TABLE II: VOLUME OF TRANSACTIONS IN NON-PHYSICAL MODE FROM 2004-05 TO 2011-12

<b>VOLUME (In Million)</b>								
	<b>2004 - 2005</b>	<b>2005 - 2006</b>	<b>2006 - 2007</b>	<b>2007 - 2008</b>	<b>2008 - 2009</b>	<b>2009 - 2010</b>	<b>2010 - 2011</b>	<b>2011-2012</b>
<b>ECS - Credit</b>	40.05	44.22	69.02	78.37	88.39	98.10	117.00	122.00
	17.50	15.51	18.22	14.64	13.24	28.28	12.23	10.03
<b>ECS - Debit</b>	15.30	35.96	75.20	127.12	160.06	149.30	157.00	165.00
	6.68	12.62	19.86	23.75	23.97	43.04	16.41	13.57
<b>NEFT</b>	2.55	3.07	4.78	13.32	32.16	66.30	132.00	226.00
	1.11	1.08	1.26	2.49	4.82	19.11	13.79	18.59
<b>RTGS</b>	NOT AVAILABLE					33.20	49.00	55.00
						9.57	5.12	4.52
<b>Credit Cards</b>	129.47	156.09	169.54	228.20	259.56	NOT AVAILABLE		265.00
	56.56	54.76	44.77	42.63	38.87			27.69
<b>Debit Cards</b>	41.53	45.69	60.18	88.31	127.65			237.00
	18.14	16.03	15.89	16.50	19.11			24.76
<b>Total</b>	228.90	285.01	378.71	535.31	667.83	346.90	957.00	1216.00
	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: Report on Trend and Progress of Banking in India  
Note: Values in brackets show the percentage to total

The data show that the electronic mode gaining importance and acceptance in India. In terms of value

transactions in 2004-05 electronic payment method had a volume of 228.90 million transactions which rose to 1,216 million in 2011-12. In terms of value of transactions, it rose from Rs. 1,087.48 billion to Rs. 5,61,382 billion between 2004-05 and 2011-12. This indicates that customers prefer to transact through electronic media in the banking system in the recent years. Their acceptance is also indicated by the value per transaction. The value per electronic transaction rose from Rs. 4.75 thousand per transaction to Rs. 461.66 thousand per transaction. Hence, it is safe to conclude that customers have shown preference to electronic mode for their banking transactions in India. The data also shows the contribution of ECS –Credit, ECS-Debit, NEFT/RTGS, credit cards and debit cards to the electronic mode of payment in India.

#### *A. ECS-Credit:*

Under ECS-Credit one entity/company would make payments from its bank account to a number of recipients by direct credit to their bank accounts [2]. In 2004-05 ECS-Credit accounted to 17.50% of total volume of 228.90 million transactions in the year in electronic mode. In terms of value transacted, ECS-Credit had a value of Rs. 201.80 billion in 2004-05 of the total volume of Rs. 1,087.48 billion accounting for 18.56% of the total with an average of Rs. 5.04 thousand per transaction. Over the period from 2004-05 to 2011-12 the value per transactions through ECS-Credit has increased considerably. In 2011-12 it stood at Rs. 15.07 thousand per transactions with 122 million transactions accounting to 10.03% of total transactions in electronic mode and Rs. 1,838 billion in terms of transaction value taking place in ECS-Credit. It should be noted that in 2007-08 there was steep rise in ECS-Credit transactions. Rs. 7,822.22 billion was transacted through ECS-Credit in 2007-08. This steep rise in ECS-Credit was due to the refund of the oversubscription amount of IPOs floated by companies using electronic mode as mandated by the stock exchange [3]. This suggests that the convenience of electronic transactions when emphasised as a policy initiative familiarizes the customers and makes them internalise the new initiative.

#### *B. ECS-Debit:*

ECS-Debit is mostly used by utility companies, like telephone companies, electricity companies, etc. to receive the bill payment directly from the bank account of their customers [4]. In 2004-05 ECS-Debit accounted for 6.68% of total volume transacted through electronic mode amounting to Rs. 29.20 billion, value per transaction being Rs. 1.91 thousand. Over the period from 2004-05 to 2011-12 ECS-Debit transactions increased considerably. In 2011-12 the total volume of ECS-Debit transactions stood at 165.00 million with total value of Rs. 834 billion accounting for 13.57% of total volume of electronic transactions with a value of Rs 5.05 thousand per transaction.

#### *C. NEFT and RTGS:*

National Electronic Funds Transfer (NEFT) and Real Time Gross Settlement (RTGS) are the services which provide electronic mode of remittance of funds from one bank account to another. While NEFT is a near-real time system with settlement taking place at hourly intervals, RTGS is a real-time gross settlement arrangement which was operationalised on March 26, 2004. Both these systems are operated by the Reserve Bank of India. The volume and value of transactions processed through the two systems has shown an impressive growth over the years. (Though RTGS was introduced in 2004 data on RTGS transactions is available separately only from 2009-10).

In 2004-05, 2.55 million transactions took place through NEFT system which was only 1.11% of total volume of electronic transactions in that year. Over the period from 2004-05 the volume of transactions improved considerably. In 2009-10, 19.11% of total volume of electronic transactions was through NEFT system. This figure stood at 18.59% in 2011-12. In RTGS 33.20 million transactions took place in 2009-10 which rose to 55 million transactions in 2011-12. In terms of value of transactions, NEFT contributed 50.21% of total volume of electronic transactions in the year 2004-05 which results in Rs.214.21 thousand per transaction. This shows that several large value transactions took place through NEFT system. In the year 2009-10, the year from which data relating to RTGS is available separately, 98.51% of total value of electronic transactions took place through RTGS system with value per transaction of Rs.11,883.54 thousand. In 2011-12 RTGS transaction value was Rs.5,39,307 billion, which is 96.07% of total value of electronic transactions in that year with a value of Rs.9805.58 thousand per transaction.

These trends clearly show that the preference for electronic transactions among customers is increasing rapidly. More importantly, the preference is shifting towards NEFT and RTGS transactions which can be undertaken online in the convenience of home or office without requiring visiting the bank in person.

#### *D. Card Based Transactions:*

Card based transactions showed an upward trend during the study period. While credit cards had a volume of 129.47 million transactions in 2004-05, debit cards had a volume of 18.14 million transactions in 2004-05. The volume of transactions rose to 320 million transactions in credit cards and 328 million transactions in debit cards 2011-12. In terms of value credit cards had a transaction value of Rs. 256.86 billion in 2004-05 which rose to Rs. 966 billion in 2011-12. Debit card transactions had a value of Rs. 53.61 billion in 2004-05 which rose to Rs. 534 billion in 2011-12. The most important aspect that should be noted here is that the value per transaction of card based transactions increased only marginally during the period of study. Credit card transactions had a value of Rs. 1.98 thousand per transaction which increased to Rs. 3.02

thousand in 2011-12. Similarly debit card transactions had a value of Rs. 1.29 thousand per transaction which rose marginally to Rs. 1.63 thousand per transaction. This trend is in tune with the retail nature of these transactions. The excess use of card based transactions, especially credit card transactions, and increase in their value per transaction would be alarming for the economy and to the people who are habituated to card based transactions.

#### IV CONCLUSION

From the above discussion it can be concluded that nonphysical modes of accessing banking services have gained importance over the period of time. Trends clearly suggest that customers are adopting electronic or non-physical modes of accessing banking services fast and the volume and value of these transactions are increasing rapidly. While this is a welcome development we should not forget that at times physical access to banking services is a must and safe for both customers and banks like in the case of a loan account. Therefore, it is required that non-physical

modes of accessing banking services should not be overemphasized but it should receive due importance in a developing economy like that of India.

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- [1] Author defines Non-Physical Modes as the modes of accessing banking services in which the customer need not visit any bank branch to carry out the banking transaction. It does not mean the absence of physical infrastructure.
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- [4] Source: [http://www.rbi.org.in/Scripts/bs\\_viewcontent.aspx?Id=508](http://www.rbi.org.in/Scripts/bs_viewcontent.aspx?Id=508)



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# Patriarchy and Women: A Quest for Change in the Socio cultural Practices : A Socio-Psychological Perspective of Gender Disparity

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**Abstract:** Patriarchy is a social narrative favoring male rule and privilege, and entails female subordination, historically manifesting itself in the social, legal, political, and economic organization of a range of different cultures. Theoretically, patriarchy is viewed as the result of sociological constructions, and the operations of power in patriarchy are usually enacted unconsciously, which is represented in unspoken traditions and conventions performed in everyday behaviors, customs, and habits. Gender, a socially constructed discrimination between men and women, deals with power relations, domination and subordination, irrespective of class, creed, caste, culture, race, region, ethnicity etc. Culture, which is a system of shared beliefs, values, customs, behaviors, is practiced and kept alive since time immemorial, using a woman's body as the site, transmitting the cultural codes from generation to generation through learning. This had led to the construction of sexed bodies and a systematic exploitation of women, leading to gender insensitivity. Eradication of this gender disparity, towards a change for the better should be the prime quest of any civilized society.

**Keywords:** patriarchy, gender, disparity, culture, socio cultural practices, exploitation, women, change.

## I INTRODUCTION

This paper focuses on the unhealthy, socio cultural practices, which are blindly followed by people, inadvertently leading to the exploitation of females-the 'Second Sex', as Simon de Beauvoir rightly says-irrespective of their age, which in turn has filled their lives with abuse and degradation. This is not an exception but cuts across all borders of race, religion, ethnicity; affecting the rich and poor, educated and uneducated alike. The newspapers are full of the gory details of women, young girls and children being victimized, endorsed and justified by tradition and culture; the brutality ranging in degrees-from rape, domestic violence, female feticide, trafficking, prostitution and murder- making one wonder about as to when can the light of equality and tolerance dawn, mitigating gender disparity. "The infringement of women's rights is usually exercised in the name of tradition, religion, social cohesion, morality or some complex of transcendent values. Always, it is justified in the name of culture" (Afkhani: 234). According to statistics, women and children form one half of the population, globally. It is a known fact that women's bodies are disciplined to passively accept the

cultural and community expectations. "Women are always under pressure to conform to family, society and community expectations. The family becomes the site where the material body is disciplined. Cultural assumptions of womanhood are reproduced through stipulations and the female body becomes a site of social control" (Sabala et al, 2010:45).

Though women have achieved a lot since the advent of feminism, the achievements seem hollow, because a major chunk of women, belonging to the lower sections of the society, are left out of this progressive wave of emancipation. The violence and crimes that women face are further indication of their status, and, the situation has worsened on this front. The reformers sought education as a means of releasing women from the power relations of patriarchy, with an aim towards gender equality. But we have overlooked the fact that education is impossible on an empty stomach. Hunger is the biggest evil which robs one of every vestige of human dignity. The National Policy on Empowerment of Women states that gender disparity manifests itself in various forms, the most obvious being the trend of continuously declining female ratio in the population in the last few decades. The underlying causes of gender inequality are related to social and economic structures of patriarchy, which is based on informal and formal norms, and practices. Most sociologists reject predominantly biological explanations of patriarchy and contend that social and cultural conditioning is primarily responsible for establishing male and female gender roles. Sociologist Sylvia Walby has composed six overlapping structures that define patriarchy and that take different forms in different cultures and different times:

1. The state: women are unlikely to have formal power and representation
2. The household: women are more likely to do the housework and raise the children.
3. Violence: women are more prone to being abused
4. Paid work: women are likely to be paid less
5. Sexuality: Women's sexuality is more likely to be treated negatively

6. Culture: women are more misrepresented in media and popular culture

A very powerful evidence, for gender discrimination in a given society, comes from the language of that society. Each language abounds in expressions, which are indicative of society's differential treatment of women. Linguistically gender discrimination finds expressions in two forms, namely, in the language restricted in use to women, and language descriptive of women alone. In her book, "*Language and Women's place*" Robin Lakoff argues that this kind of disparities in use of parallel words can be explained by women's position in society, that women are given their identities in society by virtue of their relationship with men, not vice versa. As Lakoff (1975) has put it, "if it is indeed true that our feelings about the world color our expression of our thoughts, then we can use our linguistic behavior as a diagnostic of our hidden feelings about thoughts." Perhaps, an analogy can be drawn with psychoanalysis where one can interpret our overt actions and perceptions in accordance with our covert desires. In the same way, linguistic data can be interpreted as manifestations of hidden attitudes towards women.

Though there has been an endless talk of changing social attitudes towards women, in reality nothing much seems to have happened. Women are treated like commodities. Avarice, one of the seven deadly sins, coupled with lust, is the root cause for all the heinous crimes we see around us today. From bride burning, to dowry deaths, and all the inhuman practices of sexual exploitation are linked to this desire of becoming wealthy easily.

Global sexual exploitation is a human rights crisis for women and girls. It is also a crisis for democracy and the security of nations, extending from the individual to the state. When a state permits prostitution/trafficking to flourish, a certain portion of each generation of young women will be lost. Some might argue that prostitution is the work of women, a way of making a living unique to their gender, but in fact, prostitution is the position the dominant class puts the subordinate class into, in order to use them as they desire. Prostitution creates an underclass of women whose purpose is to sexually serve men, which is a degraded status, everywhere. No form of sexual exploitation leads to the liberation or empowerment of women, or enhances the rights or status of women. Prostitution and trafficking are extreme forms of gender discrimination and exist as a result of the powerlessness of women as a class. Sexual exploitation is more than an act; it is a systematic way to abuse and control women that socializes and coerces women and girls until they comply, take ownership of their own subordinate status, and say, "I choose this." Prostitution and trafficking restrict women's freedom and citizenship rights. If women are treated as commodities, they are consigned to second-class citizenship. No state can be a true democracy, if half of its citizens can potentially be treated as commodities. If women and girls are to live in this world with dignity and equality, their bodies and emotions

must belong to them alone. They cannot be commodities to be bought and sold. The sexual exploitation of women is justified or condemned by so many different perspectives and ideologies it is difficult to get people to see and understand the harm to women, individually and as a class (Hughes, Donna M. 2000).

In most Indian families, women do not own any property in their own names, and do not get a share of parental property. "Some of the laws discriminate against women, when it comes to land and property rights. The Hindu personal laws of 1956 (applying to Hindus, Buddhists, Sikhs and Jains) gave women rights to inheritances. Thanks to amendment of the Hindu laws in 2005, women now have the same status as men" (wiki, Women in India). The patriarchal culture, especially in India, always favors male offspring, who are seen as the legal heirs and most of the time a daughter's birth is seen as a bad omen and as unnecessary burden. This unhealthy mental attitude has led to female feticide and the abortion of female fetuses in India, which has given way to a skewed gender ratio, signaling the awful days that are yet to dawn, giving rise to serious debates and is seen as a grim social issue. The phenomenon of the 'missing women of Asia' was first noted by economist Amartya Sen, an Indian Nobel Laureate, in an essay in *The New York Review of Books* in 1990. It is a shortfall in the number of women in Asia relative to the number that would be expected if there were no Sex-selective abortion and female infanticide or if the newborn of both sexes received similar levels of health care and nutrition. Sen originally estimated that more than a hundred million women were "missing". According to an old, barbaric Arab custom - a new born baby girl was buried alive the minute it was born. One wonders where the difference is then and now, because ultimately a girl child is destroyed, what if the system is a little more sophisticated. The deed is the same, based on sex selection, killing one's own progeny. The poignancy of the fact makes one want to do something, anything, in one's powers to stop such blood-spattered customs.

Female feticide is a major social problem in India and has cultural connections with the dowry system that is ingrained in Indian culture, despite the fact that it has been prohibited since 1961, under *The Dowry Prohibition Act*. In India a strong preference for sons over daughters exists, unlike in Western cultures. Foetal sex determination and Sex-selective abortion by medical professionals has grown into a ₹1,000 crore industry (US\$244 million). It is estimated that more than 10 million female fetuses have been illegally aborted in India. Researchers for the *Lancet* journal based in Canada and India stated that 500,000 girls were being lost annually through sex-selective abortions. India's prime minister acknowledges gendercide as a national shame, however, the police and judiciaries do not implement the law because they believe in the same thing. Authorities often let the unlawful parents and doctors off with light punishment (wiki)

The root cause for this is the belief lies in this Sanskrit saying from *Manusmriti*\* - 'Aputrasyo Gatir nasti' - which literally means 'no son, no salvation' - which sanctions that only a son is capable of sending parents to heaven or in other words only through a male offspring can salvation be attained. Plus the thinking that a girl child is a burden and one has to spend a lot in dowry, during the time of marriage.

Gender bias is deeply rooted in the Indian psyche. The popular perception draws the girl child as a losing proposition-only to be married into another family. This leads to natural dislike for girls. The society looks down upon female child as a liability and male child as an asset. Discrimination against female children starts early, and is maintained as the female child grows. A critical manifestation under this discrimination is under the allocation of medicine and food to the female offspring. This gender bias in the allocation of critical life-sustaining resources appears to be the mechanism that gives rise to gender differences in mortality (Agarwal: 3).

This makes one think about the fate of a girl child in India, which doesn't even has a right to be born, in this twenty first century! We, who seem to be proud of our ancient heritage and culture, in a land where goddesses are worshipped, a female embryo is doomed to be terminated! The irony of the situation, when we are busy talking about gender equality and the arrival of twenty first century, makes one wonder afresh about the horrifying images of a future, stripped naked, without the tender touch of femininity. Since marriage is a must for girls, no matter what happens, there is undue pressure on parents having daughters of marriageable age and this thinking has led to all sorts of exhortation, sometimes even leading to criminal offense.

The practice of dowry in South Asia is a controversial subject. Dowry is a payment of cash or gifts from the bride's family to the bridegroom's family upon marriage. In India, the dowry system puts great financial strain on the bride's family. Payment of dowry is now prohibited under The 1961 Dowry Prohibition Act in Indian civil law and subsequently by Sections 304B and 498a of the Indian Penal Code (IPC). Despite anti-dowry laws in India, it is still a common illegal practice, leading to many dowry deaths (Wiki).

It is high time women thought about themselves for a change and fought for their lives, which is the birth right of all who are born free on this earth; what one must remember is that this could happen only if the family supports the female members of their families unquestioningly. What is required today is a fair chance, which is to be given without the gender coming into picture. Only then can one aspire towards equality and the trend should originate at home. Daughters too are one's own flesh

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\* An ancient Hindu text written by Manu.

and blood, with feelings. Treat them well and you will in turn be astonished by the love that engulfs you. A *new* trend is definitely about to happen, with a change in the attitude, if all mothers, who have daughters of marriageable age, placed their daughter's happiness first, as more important, not what the society or neighbor thinks. It can help save a lot of women from a grave situation of harassment, and divorce, leading to victimization of women.

Throughout history the victimization and exploitation of women have perhaps been most tragic in prostitution. Many social scientists believe that economic deprivation is the primary factor in female prostitution. Few other crimes reflect such a wide gender double standard as prostitution where women are far more likely than men to be recruited, abused, raped, killed, arrested, incarcerated, poor, and vulnerable to such diseases as AIDS. Modern sociological theories of prostitution examine it in terms of social structure, social pathology, and culture. Theories of prostitution tend to remain gender-specific, thereby creating a built-in bias towards women as prostitutes and disregarding the male prostitute and predominantly male customer. (Flowers: 171-187).

Gender differences are not natural, but they are seen as such by the cultural components of society. From a feminist perspective, there is a highly skewed gender bias, with two different laws in place, one for men and the other for women. From the point of view of historical materialism today the abuse and hostility we see around us is directly linked to the absence of security in the domain of civil society. From a socio-psychological perspective it simply shows the hypocrisy practiced in the society and the double standards of having separate rules for men and women and states the hold of patriarchy and its treatment of women.

## CONCLUSION

The quest for liberating women from a custom that has more to do with the perpetuation of the oppressive structure of patriarchy and power equations -via the sociocultural practices- should be considered as fundamental by government bodies and social reformers. "Realizing that inequality is socially constructed empowers us to be agents of change. If we choose to, we can challenge social views that accord arbitrary and unequal value to people and that limit humans' opportunities and lives" (Wood: 2). Education is the key leading towards liberation, emancipating women from their tragic classitude and revitalizing them. It is true that if you educate a woman you educate a family, and thereby contribute to build a better nation. It can be safely assumed that "the full and complete development of a country, the welfare of the world and the cause of peace require the maximum participation of women on equal terms with men in all fields" although quite general, this statement emphasizes the importance of women's role and their participation in all areas of life" (Krivenko:24). To quote William Jennings Bryan "Destiny is not a matter of chance, but a matter of choice".

To address this inconsistency, to prove that Destiny is not a matter of chance but that of a personal choice, brought about by healthy practices; which in turn leads to the full realization of the feminine potentials, should be our principal concern.

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# To Explore the Perceptual Gap Between Current Managers & Quitting Employees On Key Dimensions Of Retention, The End Objective Being To Reduce Attrition At Hp – GDIC

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**Abstract** - Retention being one of the major problems faced by today's industry needs immediate attention. In trying to stop people from jumping ship, many companies have fallen back on traditional retention practices. Traditional practices of retention are unsuited to a world where talent runs free. This study provides a modification to the traditional retention practices that can be adhered to at Hewlett Packard keeping in mind the following:

- The Goal of the Organization.
- The values & the business ethics followed by the organisation
- The retention practices currently followed by the organisation

## Statement of the problem:

Hewlett Packard is a technology solutions provider to consumers, businesses & institutions globally. The company's offerings span IT infrastructure, personal computing & access devices, global services & imaging & printing for consumers, enterprises & small & medium businesses.

The paper explores the perceptual gap existing between the reasons given by the managers & quitting employees on key dimensions of retention. It provides an in-depth knowledge of the actual reasons behind the quitting of the employees & effectively analyzes the gap that is present between the reasons stated by the employees during their exit interview & the reasons put down by their respective managers.

## Objectives:

The objective of the paper is:

- To Validate & fine-tune the existing retention practices at Hewlett Packard.
- To Initiate implementation of the recommendations made in the company to retain employees thereby reducing the attrition of the organisation.

## Research Methodology:

This Research aims to bring about a modification in the existing retention practices followed by the organisation. Hence, the Research Design adopted here is that of exploratory in nature as it basically seeks to extract various kinds of information in order to adopt the right kind of retention practice to reduce the attrition. Questionnaire & Personal Interview method is adopted for the project to find out the perceptual gap between current managers & quitting employees on key dimensions of retention

## Scope:

Under constraints of limited time & resources, the scope of the project was restricted to:

- The Global Delivery India Centre (GDIC) division at HP in Bangalore.
- Focus on core retention practices necessary for effective reduction in of attrition within HP – GDIC, Bangalore.

## CONCEPTUAL FRAMEWORK

When existing employees are asked, "Why are you leaving?" most of them are not inclined to tell the complete truth. Rather than risk burning a bridge with the former manager whose references they might need, they will just write down 'better opportunity' or 'higher pay'

It comes as no surprise that a survey reveals that 89% of managers believe that the employees leave & stay mostly for money. But the truth is that 80 – 90% of employees leave for reasons not related to money but for 'PUSH' factors like job, manager, culture or work environment.

These "push factors" are issues within the power of the organisation & the manager to control & change. These dismaying disconnect between what managers believe & the reality – the truth causes of employee disengagement & turnover has been brought out in the book **"The 7 Hidden**

**reasons Employees Leave”** authored by “ **Leigh Branham”**.

The author in this book has written about the hidden, elusive motivations that cause capable employees to start questioning their decision to join a certain company, start thinking of leaving, eventually disengage, & finally, leave.

Accordingly, the author has identified 67 reasons which were taken from exit survey responses completed by thousands of existing employees as to why employees voluntarily leave the organisation & slotted them into 7 main reasons which are as follows:

**Reason # 1** : The job or workplace wasn't as expected.

**Reason # 2** : There was a mismatch between the job & the employee.

**Reason # 3** : The employee is receiving too little coaching & feedback.

**Reason # 4** : The employee has too few growth & advancement opportunities.

**Reason # 5** : The employee feels devalued & unrecognized.

**Reason # 6** : The employee is stressed from overwork & work-life imbalance.

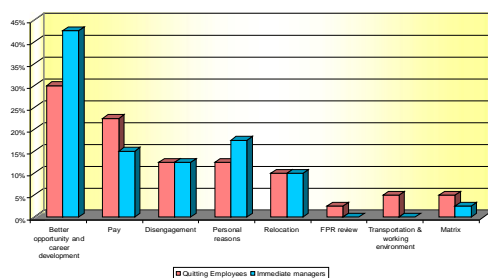
**Reason # 7** : The employee loses trust & confidence in senior leaders

#### ANALYSIS:

Trigger for leaving the company

Trigger	Employees		Managers	
	No.	percentage	No.	Percentage
Better opportunity & career development	12	30%	17	42.5%
Pay	9	22.5%	6	15%
Disengagement	5	12.5%	5	12.5%
Personal reasons	5	12.5%	7	17.5%
Relocation	4	10%	4	10%
FPR review	1	2.5%	-	-
Transportation & working environment	2	5%	-	-
Matrix	2	5%	1	2.5%
<b>Total</b>	<b>40</b>	<b>100%</b>	<b>40</b>	<b>100%</b>

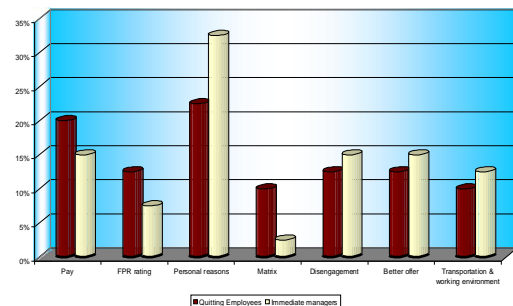
Trigger for leaving the company



Precipitating event for leaving the company

Precipitating event	Employees		Managers	
	No.	percentage	No.	Percentage
Pay	8	20%	6	15%
FRP rating	5	12.5%	3	7.5%
Personal reasons	9	22.5%	13	32.5%
Matrix	4	10%	1	2.5%
Disengagement	5	12.5%	6	15%
Better offer	5	12.5%	6	15%
Transportation & working environment	4	10%	5	12.5%
<b>Total</b>	<b>40</b>	<b>100%</b>	<b>40</b>	<b>100%</b>

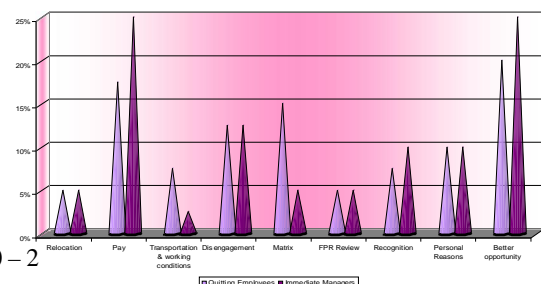
Precipitating event for leaving the job



Top 3 reasons for leaving the company

Top 3 reasons	Employees		Managers	
	No.	Percentage	No.	Percentage
Relocation	2	5%	2	5%
Pay	7	17.5%	10	25%
Transportation & working conditions	3	7.5%	1	2.5%
Disengagement	5	12.5%	5	12.5%
Matrix	6	15%	2	5%
FPR review	2	5%	2	5%
Recognition	3	7.5%	4	10%
Personal reasons	4	10%	4	10%
Better opportunity	8	20%	10	25%
<b>Total</b>	<b>40</b>	<b>100%</b>	<b>40</b>	<b>100%</b>

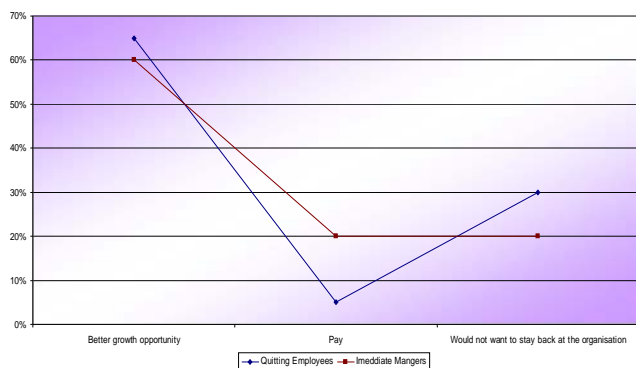
Top 3 reasons for leaving the organisation



### Single most reason that would make the employee stay back at the company

Single most reason that would make him stay back at the organisation	Employees		Managers	
	No.	percentage	No.	Percentage
Better growth opportunity	26	65%	24	60%
Pay	2	5%	8	20%
Would not stay back in the organisation	12	30%	8	20%
Total	40	100%	40	100%

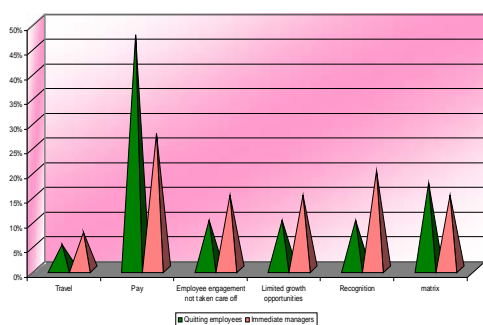
### Single most reason that would make the employee stay back at the organisation



### Reasons for such a huge attrition rate at HP

Reasons for such a huge attrition rate at HP	Employees		Managers	
	No.	percentage	No.	Percentage
Travel	2	5%	3	7.5%
Pay	19	47.5%	11	27.5%
Employee engagement not taken care of	4	10%	6	15%
Limited growth Opportunities	4	10%	6	15%
Recognition	4	10%	8	20%
Matrix	7	17.5%	6	15%
Total	40	100%	40	100%

Reasons for such a huge rate of attrition at HP



## FINDINGS & CONCLUSIONS

1. 42.5% of the managers have stated the trigger for employees quitting their jobs are due to better opportunity; where as just 30% of the employees have said so. This shows an existence of perceptual gap between the quitting employees & their managers. Employees are not being frank enough with their managers, which is why managers are assuming certain things. This existence of perceptual gap may be traced to the communication variance between the employees & the managers due to reasons like:

- ✓ Managers & employees sitting at different locations
- ✓ Changing of the team members very frequently due to which both of them are unable to build a personal rapport & maintain a good relationship
- ✓ Prejudiced view of the managers

2. The top 3 reasons given by the managers & the employees actually clears up the myth that employees are leaving due to personal reasons. The reasons given are: better opportunity, pay & disengagement.

3. The employees feel that career planning is not taken care properly. They feel that managers do not take interest in the career planning of the employees. That is the reason why many of the employees feel that they would not like to continue at the organisation at the present, but would like to come back to HP at a later point of time.

4. Employees felt that they were not given due recognition of their work, although they had received recognition from their customer on whose project they were working. This was acting as a non – motivational factor.

5. Disengagement was one of the common factors which they employee were complaining about. This was because employees were on the same project for a long period of time, or they were put on project that were not challenging & did not give them an opportunity to expose their core skills & competencies.

## RECOMMENDATIONS

1. Transparency in passing on of information:

As managers many of them are not aware when promotion can be done. That is, FPR is an annual event, but sometimes in exceptional cases promotion can be done as an interim event when the candidate is skillful & deserving, which can act as a non – monetary benefit i.e. recognition. This would not only make the employee stay in the org for a longer period of time but would also motivate him & increase his morale, thereby enabling him to perform better. If this is not done, the employees would leave the organization because they would feel under – valued.

As an organization, it should answer the following important questions:

- Is the employee being valued?

- Is the org being fair to him?
- Is he being recognized for his superior work?

#### 1. Creation & following a matrix

A candidate when being recruited must be offered a salary (which would also define the position he would be getting into) on the basis of his qualification, knowledge, skills & experience. It is very difficult to assess this based on the individuals. Hence it is necessary to create a matrix based on the above parameters which would provide for a fair recruitment process.

#### 2. Recruitment

HR team dealing with the recruitment of new hires must be rated on the number of people they retain out of the number of people they hire. This can be done on a periodic basis.

E.g.: A recruiter can be given a time frame of 2 years. In those 2 years he must be rated on the number of people he has been able to retain at the end of the 2 year period when compared to number of people he had hired at the beginning of the 2 year period.

# Current Trends for Social Workers

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**Abstract - Social work developed as a career in the late 1800 s as an offshoot of counselors who worked with those who were impoverished. Today, the social work industry has increased in sophistication and is focused on scientific research and social issues as well as personal counseling for people of all statuses. Social work has a place in the government as well, as social work planners help to develop programs that deal with societal issues head on by assisting policy makers and law makers.**

**Social workers in schools help students navigate their way through issues with alcohol and drug abuse, violence and sexual development issues. Many times, school social workers spend much of their time counseling teens by listening and offering possible solutions as well as providing referrals for those with the most severe issues.**

Social work is a rapidly developing field, responding to the current changes in economics, living standards, and education. Social work students may study a range of topics from violence to assisting impoverished children. During the last forty years, social workers have focused on a holistic approach to solving an individual's problems, looking at factors ranging from school and home environment to concerns about mental health issues. This holistic approach is allowing social workers to better respond to a client's entire environment, making evaluation and treatments more effective for the individual and the family. According to the Bureau of Labor Statistics (BLS), the social work industry is on a path for rapid expansion between now and 2014 due to the amount of Baby Boomers entering their retirement years who may be needing extra care. In addition, social workers are more in demand than ever in healthcare environments due to the changes in reimbursement, medical record requirements and shorter hospital stays.

Social work grew out of humanitarian and democratic ideals, and its values are based on respect for the equality, worth, and dignity of all people. Since its beginnings over a century ago, social work practice has focused on meeting human needs and developing human potential. Human rights and social justice serve as the motivation and justification for social work action. In solidarity with those who are disadvantaged, the profession strives to alleviate poverty and to liberate vulnerable and oppressed people in order to promote social inclusion. Social work profession addresses the barriers, inequities and injustices that exist in society. Its mission is to help people to develop their full potential, enrich their lives, and prevent dysfunction. Professional social work is focused on problem solving and change. As such, social workers are change

agents in society and in the lives of the individuals, families and communities they serve. It responds to crises and emergencies as well as to everyday personal and social problems. Social work utilizes a variety of skills, techniques, and activities consistent with its holistic focus on persons and their environments. Social work interventions range from primarily person-focused psychosocial processes to involvement in social policy, planning and development. These include counseling, clinical social, social work, group work, social pedagogical work, and family treatment and therapy as well as efforts to help people obtain services and resources in the community. Interventions also include agency administration, community organization and engaging in social and political action to impact social policy and economic development. The holistic focus of social work is universal, but the priorities of social work practice will vary from country to country and from time to time depending on cultural, historical, and socio-economic conditions.

Awareness of the impact of posttraumatic stress disorder has also increased, especially as many veterans returning from the wars in Iraq and Afghanistan struggle to reintegrate into their home life. The factors behind the change include increased efforts to build social workers' knowledge of the importance of evidence-based practice, increased demands for accountability from funders, and growing competition among agencies for resources. As evidence-based practice has become more recognized in the profession, the focus has shifted to showing social workers how to implement evidence-based practice in a way that promotes best practices.

Social workers no longer can see older adults as one homogeneous group, Moore says. Working with today's older adults requires social workers to be able to serve specific populations, such as older adults with health problems, those with mental health conditions, older adults needing end-of-life care, and older adult immigrants. In response to these trends, social workers must stay true to the profession's focus on looking at the underlying issues that influence children's behaviors. "The biggest thing is not to forget to understand the people and the families and the nuances that form who the kids are," .After years of prosperity in the mid-2000s, the recession that struck in 2007 was a blow both to people's pocketbooks and to their psychological well-being. The stress related to job loss, home foreclosures, and altered lifestyles led many people to seek behavioral health services.

Social networking has enabled different client populations, such as those battling addictions, to form online support groups with a worldwide reach. Many social workers and social service agencies use social networking to market their services and to educate clients and potential clients about topics such as mental health, substance abuse, and family dynamics.

As technology and communications make the world an increasingly connected place, social workers are becoming more aware of how global events affect the profession. Even social workers who never practice abroad recognize how global trends affect the lives of their clients, and migration patterns mean social workers are increasingly encountering clients who are immigrants or refugees.

Whether they work in hospitals, schools, private practice or other settings, social workers perform a variety of duties, from one-on-one and group mental health counseling to administering social service programs. Current social work trends have developed in response to societal factors related to education, economics, living standards and other facets that play an integral role in our day-to-day lives.

In schools, social workers deal with extraordinary issues, from child poverty to school violence. The National Association of Social Workers (NASW) indicates that in the early years of school social work professionals typically focused on emotional issues without considering a student's home life. Starting in the 1970s, however, social workers began taking a more comprehensive approach, analyzing all aspects of a student's environment, including school, home and neighborhood, as possible factors influencing the student's behavior and mental health.

### **CONCLUSION**

Today, social workers have added cultural influences to the list of environmental factors that may contribute to a student's conduct or struggles. And, according to the NASW, the latest industry trend necessitates that social workers look at schools as part of a community, rather than as separate entities—both of which continue to change as society moves forward.

As current industry trends show, social workers make a difference to the resolve and well-being of individuals, which, in turn, impacts the health and welfare of communities. Learn more about the important work that social workers perform. If a social worker career is your calling, explore social worker schools and degrees, and find the training program that matches your professional and personal goals.

# An Empirical Study of Investor Preference towards Equity and Derivatives - with Special Reference to SBICAP Securities in Mysore City

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**Abstract** - Investment is the application of funds on assets with the position of earning income or capital esteem. In the present era an extensive diversity of investment avenues are open to the investors to suit their needs and nature. The required level of return and the risk tolerance level decide the choice of the investor. Investor preference and protection is one of the important components of flourishing securities market or other financial investment institution. Investor protection focuses on making sure that security agencies should inform how to purchase through online transactions or offline transactions and how to review the status of company profits is the important factor for investor protection. The study was undertaken to know the investor preference of equity market and derivative market with consists of 129 samples which are collected from the investors of sbicap securities. The findings reveal that the investors were satisfied with the service provided by sbicap securities. Most of the investor prefer cash market because lack of knowledge about the derivative market. But still it is suggested that the investor should have through knowledge before making investment in share market.

**Keyword** - Capital Market, Investor, Investment, Equity, Derivative

## I. INTRODUCTION

Markets for buying and selling of equity and debt instruments, Capital markets channel savings and investment between suppliers of capital such as retail investors and institutional investors, and users of capital like businesses, government and individuals. Capital markets are vital to the functioning of an economy, since capital is a critical component for generating economic output. Capital markets include primary markets, where new stock and bond issues are sold to investors, and secondary markets, which trade existing securities. The investment alternatives range from financial securities to traditional non-security investments. Capital market is very wide market in all over the world. Capital market is not an easy to understand this subject. Capital fluctuates day by day and it is not a stagnant market. The Indian capital market can be broadly classified into gilt – edged market and industrial securities market. Gilt-edged market deals with government and non government securities whereas industrial securities market deals shares and debentures of company. The industrial securities market can be classified into primary market and secondary market. The financial securities may be

negotiable or non-negotiable. The negotiable securities are those financial securities which are transferable.

The negotiable securities may yield variable income or fixed income. Securities like equity shares are variable income securities. Bonds, debentures, Indra Vikas Patras, Kisan Vikas Patras (KVP), Government securities and money market securities yield a fixed income. The non-negotiable financial investment, as the name suggests, is not transferable. This is also known as non-securitized financial investments. Deposit schemes offered by the post offices, banks, companies, and non-banking financial companies are of this category. The tax-sheltered schemes such as public provident fund, national savings certificate and national savings scheme are also non-securitized financial investments.

The derivatives market is the financial market for derivatives, financial instruments like futures contracts or options, which are derived from other forms of assets. The market can be divided into two, that for exchange-traded derivatives and that for over-the-counter derivatives. The legal nature of these products is very different as well as the way they are traded, though many market participants are active in both. Before independence, the capital market was not developed due to poor industrial growth. Very few companies existed and hence the security traded was smaller. There were only few individual investors who belonged to affluent class. There were no specialized issue houses and no intermediaries to mobilize and canalize the savings. But after the independence, the capital market has broadened significantly and has been steadily improved. The government has also taken a number of steps to promote savings and to protect the interest of the investors.

In India, generally all capital market investment avenues are perceived to be risky by the investors. But the younger generation investors are willing to invest in capital market instruments and that too very highly in Derivatives segment. Even though the knowledge to the investors in the Derivative segment is not adequate, they tend to take decisions with the help of the brokers or through their friends and were trying to invest in this market. This study

was undertaken to find out the awareness level of equity and derivatives market.

## II. REVIEW OF LITERATURE

**Bhalla Surjit S (1980)** in his article suggested that there is a positive relationship between income and savings. So this relationship suggests that both the level and the distribution of income are important determinants of household savings.

**P. K. Das (2006)** in his Research paper exhibit that Proper Tax Planning is very much helpful in minimizing the burden of Income Tax for incurring expenses on children education as well as having total exemption available. He suggested that the investor should keep a proper account of all relevant expenses incurred on the education of children, during the same financial year so that planning can be made, as required, to get Deductions And Exemptions.

**Mittal M. and A. Dhade (2007)** in their research paper, Observed that risk-taking involves the selection of options that might result in negative outcomes. While present is certain, future is uncertain. Hence, all investment involves risk. Decourt (2007) indicated that the process of making investment decisions is based on the 'behavioral economies' theory which uses the fundamental aspects of the 'Prospect Theory' developed by Kahneman and Tversky (1979).

**Saptarshi Purkayastha (2008)** in his article revealed that younger investors and those with high income are willing to take more risk. According to him people do not take much risk when the question of investment of their hard-earned money comes.

**Harsh Roongta (2011)** in his article concluded that investment continues to be a push activity in India and consumers willing to pay for advice are a small percentage of the overall consumer. ULIPs will have necessarily had to be sold as long-term protection cum savings products.

## III. RESEARCH METHODOLOGY

### A. Objectives of the study

- To study the preference of investors on equity shares and derivative market.
- To evaluate the level of awareness and satisfaction of investors regarding equity shares and derivative market.
- To analyze the risk and return segment involved in equity shares and derivative market.
- To identify the hurdle analogous in both the market.

### B. Hypotheses of the study

Hypothesis testing begins with an assumption called hypothesis that we make about a population parameter .Then we collect sample data, produce sample statistics and use this information to decide how likely it is that our hypothesized population parameter is correct. In this study the following hypotheses were developed.

H1: There is a significant relationship between age group of the investors and occupation.

H2: There is a significant relationship between monthly income and term of investments.

H3: There is a significant relationship between occupation and investment decisions.

H4: There is a significant relationship between investors opinion and investment type.

H5: There is a significant relationship between category of shares and investors opinion to hold the script.

### C. Research methodology

This study used the descriptive research design. The main goal of this type of research is to describe the data and characteristics about what is being studied. The idea behind this type of research is to study of all about a certain characteristics of investors towards investment and calculation methods in this research paper involved basic statistical tools. This study mainly focused on An Empirical Study of Investor Preference towards Equity and Derivatives - with Special Reference to SBICAP Securities in Mysore City. For this study collected data from SBICAP Securities in Mysore City from 129 respondents. This research used simple random sampling technique involved.

### D. Data collection

For this study primary and secondary data were used. For collecting primary data a well structured questionnaire is important factor. The questions that ask the respondent to select an answer from a list of options are called closed-ended questions. They provide a uniformity of response and are relatively easy to analyze. Secondary data is obtained from the published sources namely, annual reports of the SEBI and publications of other relevant institutions on securities market.

### E. Limitations of the study

- The study was restricted to urban areas in Mysore City.
- Due to time constraints sample size was restricted to 129.
- Respondent's bias was another limiting factor.

## IV. DATA ANALYSIS AND INTERPRETATION

Table I: Demographic Profile

Sl. No.	Contents	No. of Respondents	Percentage
1	Age		
	Up to 25	20	15.50
	26 – 35	43	33.33
	36 – 45	31	24.03
	46 – 55	19	14.73
	56 – 60	09	06.98
	61 & above	07	05.43

<b>2</b>	<b>Gender</b>		
	Male	105	81.40
	Female	24	18.60
<b>3</b>	<b>Occupation</b>		
	Student	04	03.10
	Business	40	31.00
	Professional	26	20.16
	Public Sector	17	13.18
	Private Sector	23	17.83
	Others	19	14.73
<b>4</b>	<b>Education</b>		
	Primary	03	02.33
	SSLC	15	11.63
	PUC	19	14.73
	Graduate	52	40.31
	Post Graduate & above	40	31.00
<b>5</b>	<b>Monthly Income</b>		
	Less than 10,000	09	06.98
	10,001 – 20,000	15	11.63
	20,001 – 30,000	27	20.93
	30,001 – 50,000	34	26.36
	50,001 and above	44	34.10

Source: Primary Data - Survey

Table no.1 showing details of socio-economic profile of 129 respondents, which are from the investors of SBICAP Securities, Mysore City, in this table covered the age group, gender, profession, education and monthly income of the respondents. In this table clearly shows majority of respondents are from male category.

Table II: Investors Preference towards Equity and Derivative Market

Sl. No.	Contents	No. of Respondents	Percentage
<b>1</b>	<b>Objective of Investment</b>		
	Savings	35	27.13
	Tax Savings	24	18.60
	Wealth Management	51	39.53
	Others	19	14.73
<b>2</b>	<b>Preference of Investment</b>		
	Equity	91	70.54
	Derivative	28	21.70
	Others	10	07.76
<b>3</b>	<b>Investment opinion about Investment Decision</b>		
	Advertisement	23	17.83
	Share Brokers	31	24.03
	Friends or Relative	58	44.96
	Others	17	13.18
<b>4</b>	<b>Source of Investment Information</b>		

	Self	47	36.43
	Advertisement	10	07.75
	Friends or Relatives	14	10.85
	Share Brokers	58	44.96
<b>5</b>	<b>Investors opinion about type of market preferred</b>		
	Primary Market	38	29.46
	Secondary Market	91	70.54
<b>6</b>	<b>Important attributes for Investment Considerations</b>		
	Return	85	65.90
	Risk	22	17.05
	Liquidity	22	17.05
<b>7</b>	<b>Category of shares preferred by investors</b>		
	Category A	52	40.31
	Category B	70	54.26
	Category D	07	05.43
<b>8</b>	<b>Investors opinion to hold the script</b>		
	Short – Term	30	23.26
	Medium – Term	70	54.26
	Long – Term	29	22.48
<b>9</b>	<b>Investors opinion regarding the Investment type</b>		
	Cash Market	85	65.89
	Future Market	44	34.11
<b>10</b>	<b>Type of market where the higher risk</b>		
	Cash Market	111	86.05
	Future Market	18	13.95
<b>11</b>	<b>Type of market where the higher return</b>		
	Cash Market	101	86.05
	Future Market	18	13.95
<b>12</b>	<b>Kind of trading where the investors feel safer to trade</b>		
	Delivery	120	93.02
	Intraday	09	06.98
<b>13</b>	<b>Profit and Risk is less cash market</b>		
	Strongly Agree	26	20.16
	Agree	81	62.79
	Undecided	14	10.85
	Disagree	06	04.65
<b>14</b>	<b>Profit and Risk is less Future Market</b>		
	Strongly Disagree	02	01.55

	Strongly Agree	04	03.10
	Agree	06	04.65
	Undecided	12	09.30
	Disagree	81	62.79
	Strongly Disagree	26	20.16
<b>15</b>	<b>Segments where fluctuations affects the investors</b>		
	Cash Market	20	15.50
	Future Market	09	06.98
	Both	100	77.52
<b>16</b>	<b>Customer awareness of risk involved in cash market</b>		
	Yes	121	93.80
	No	08	06.20
<b>17</b>	<b>Customer awareness of risk involved in future market</b>		
	Yes	121	93.80
	No	08	06.20
<b>18</b>	<b>Major problem faced in equity market</b>		
	Low return of risk	31	24.03
	Selection of script	46	35.66
	Both	52	40.31
<b>19</b>	<b>Major problem faced in future market</b>		
	Restricted margin limit	40	31.00
	Heavy loss	43	33.33
	Both	46	35.67
<b>20</b>	<b>Major drawback for dealing in share market</b>		
	Government policy	42	32.56
	Market fluctuation	46	35.67
	Sector selection	41	31.77
<b>21</b>	<b>Overall preference towards market</b>		
	Equity market	102	79.07
	Derivative market	27	20.93

Source: Primary Data - Survey

## V. SUMMARY OF FINDINGS

Table no.2 showing details on perceptions regards investor's opinion, purpose and investment plan towards equity share and derivative market. In this table total 21 questions were asked to the investors with open ended and close ended questions. The main intention of this research paper is to know investors prefer which type of marked

chosen now a day. The detail major findings are given below:

- Majority of the respondents are from male category, which are 81.40 percent respondents are male respondents and 18.60 percent of the respondents are female. It shows male investors are ready to invest in capital market.
- Around 39.53% of the respondents are invested in a capital market for wealth management purpose. 27.13% of the respondents invested for savings purpose, 18.60% of the respondents are invested for the purpose of tax savings and remaining 14.73% of the respondents are invested for other purpose.
- Majority of 70.54% of the respondents is invested to the preference of investment in equity share, 21.70% respondents are invested in derivatives and only 7.76% of the respondents are invested to others.
- It exhibits 44.96% of the respondents are invested opinion about investment decision through friends or relatives opinion, 24.03% of the respondents are from share brokers, 17.83% of the respondents from advertisement and 13.18% of the respondents are invested through after attending seminars or workshop and others.
- It reveals 44.96% of the respondents are taken source of investment information from the share brokers, 36.43% of the respondents through self decision, 10.85% of the respondents from friends or relatives and 7.75% of the respondents are taken source of investment information from the advertisement.
- Majority of the respondent's opinion of secondary market which is 70.54% is going through that type of shares and 29.46% of the respondents are preferred primary market.
- 65.90% of the respondents are attributes for investment considerations on return and remaining respondents on ready to face the risk and liquidity.
- Majority of respondents which means 54.26% are preferred Category B and 40.31% of the respondents are preferred Category A.
- 54.29% of respondent's opinion to hold the script in medium term, 23.26% of respondents to hold the scripts in short term and 22.48% of the respondents are likely to hold the script in long term.
- Majority of 65.89% respondents is opinion regarding the investment type of cash market and 34.11% of the respondents are preferred future market.
- Respondents access 86.05% which means majority of cash market is higher risk compare to other and 13.95% of the respondents reveals higher risk in future market.
- Higher return is one of the primary phenomenon of all respondents in which, 86.05% of respondents agree higher return in cash market and 13.95% of respondents are expected higher return in future market.

- Majority of 93.02% of respondents is going through delivery means which feel safer to trade and 6.98% of respondents are prefer intraday trading.
- 62.79% of the respondents are agree in profit and risk in less cash market and 20.16% are strongly agree (82.95% are agreed), 10.85% respondents are undecided, 4.65% respondents are disagree and only 1.55% respondents are strongly disagreed.
- Majority of respondents is disagreed for profit and risk in less future market. 62.79% of respondents are disagree, 20.16% are strongly disagree (82.95% are disagree).
- Majority of the respondents agree segments where fluctuations affect in both cash and future market which is 77.52%. 15.50 fluctuations in cash market and 6.98% of the respondents are affected in future market.
- 93.80% of the respondents are aware the risk involved in cash market and future market and remaining 6.20% of respondents are not aware on risk involved in cash market and future market.
- 40.31% of the respondents are problem faced in equity market of low return of risk and selection of script, 35.66% of respondents are selection of scripts and 24.03% of respondents are low return of risk.
- In this aspect respondents are almost equally agreed on major problem faced in future market, 31.00% of restricted margin limit, 33.33% of heavy loss and 35.67% of problem faced bin both.
- 35.67% of the respondents are agreed market fluctuation in major drawback for dealing in share market, 32.56% of the respondents are agreed drawback faced from the government policy and 31.77% of the respondents are agreed on sector of selection.
- 79.07% of the respondents are more preferred to invest in equity market and 20.93% of respondents are preferred to invest in derivative market.

## VI. CONCLUSION

A study on investor preference towards equity and derivatives - with special Reference to SBICAP securities in Mysore city has clearly represent that there is a significant relationship between the investors age, occupation, monthly income, investors opinion and investors decision. In the present context, investing in stock markets is a paramount provocation ever for professionals. Derivatives acts as a paramount tool for reducing the risk involved in investing in stock markets for getting the best results out of it. Nevertheless the stock market is subjected to high risk, by using derivatives the loss can be minimized to an extent. Awareness about the various uses of derivatives can help investors to reduce risk and increase profits. The study reveals that majority of the respondents preferred to investment more in equity market because the investors are highly satisfied with shares having some reasons namely liquidity, low investment and capital appreciation. Investors are taken different opinions to the investments it was also an impact to the level of investment in a different category. All

those things investor education campaigns have been yielding positive results to some extent, still lot more needs to be done. After this investors have been steadily fleeing the market, despite the apparent spread of 'equity cult', which calls for immediate attention of the apex body to mount and effectively utensils the measures to protect the interests of investors, and restore their confidence in the stock market.

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# Corporate Social Responsibility (CSR) in India

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**Abstract:** In a developing economy like India, where socio-economic disparities are glaring and state social security network is also not available to all its citizens, the responsibility of public sector enterprises gets enlarged to cover a wider spectrum of stakeholders directly impacted by their business operations, like employees, consumers, shareholders, vendors, contractors, service providers and environment, as well as, even those that are not directly impacted, like interest groups, government and non-government organizations, communities and the society at large. In such situations, stakeholders expect public corporations to assume social responsibility for inclusive socio-economic growth and lend support to efforts aimed at development of backward regions, empowerment of the weaker sections, and upliftment of the deprived and marginalized communities. Social and environmental concerns tend to assume primacy over immediate business gains. In this paper, a modest attempt has been made to focus on issues, challenges and prospects of CSR on Indian economy. And to bring out in open the current status of CSR thereby giving an opportunity to understand the various initiatives undertaken by corporate and the role that is played by the government in the field.

**Keywords:** Corporate Social Responsibility, Sustainable Development, CSR initiative, CSR policy.

## I. INTRODUCTION

Corporate Social Responsibility is the responsibility which the corporate enterprises accept for the social, economic and environmental impact their activities have on the stakeholders. The stakeholders include employees, consumers, investors, shareholders, civil society groups, Government, non-government organizations, communities and the society at large. It is the responsibility of the companies to not only shield the diverse stakeholders from any possible adverse impact that their business operations and activities may have, but also entails affirmative action by the companies in the social, economic and environmental spheres as expected of them by the stakeholders, to the extent of their organizational resource capabilities. This is besides corporate legal obligation to comply with statutory rules and regulations regarding the conduct of business operations, and the duty to compensate the stakeholders in the event of any harm or collateral damage.

## II. LITERATURE REVIEW

The traditional concept of Business has come a long way since the famous economist and Nobel laureate, Milton Friedman famously proclaimed in 1970, "The business of business is to maximize profits, to earn a good return on capital invested and to be a good corporate citizen obeying the law – no more and no less". In 1984, Edward

Freeman introduced the stakeholder theory and argued that socially responsible activities helped business in building strong relationships with stakeholders, and that management must pursue actions that are optimal for a broad class of stakeholders rather than those that serve only to maximize shareholder interests. In 1989 another prominent economist, Kenneth Andrews exhorted corporate "to focus corporate power on objectives that are possible but sometimes less economically attractive than socially desirable". In 1998, John Elkington first introduced the concept of "Triple Bottom line" to emphasize that a company's performance is best measured by the economic, social and environmental impact of its activities. Philip Kotler & Nancy Lee (2005) "A commitment to improve community well-being through discretionary business practices and contributions of corporate resources". On future of CSR, Archie Carroll (2013), creator of the so-called "CSR Pyramid" and one of the earliest proponents of corporate accountability, is hopeful for the future. "There will be no dramatic transformational change but more of an 'embed and integrate' scenario. CSR will simply become a part of daily management practices." CSR should bring smile to people; not profit for companies: Sachin Pilot (Minister of corporate affairs 2013).

## III. OBJECTIVES

- To learn the evolution of corporate social responsibility in India.
- To understand the Issues, Challenges and Prospects of CSR in Indian economy and its impact on the growth of Indian economy.
- To bring out the current status of CSR in Indian economy.

## IV. METHODOLOGY

The study is based upon secondary data. The data has been collected from an exhaustive search of relevant publications like newspapers, search engines, News websites, Trade Journals, Magazines, Trade associations, Books, Industry Portals.

## V. EVOLUTION OF CORPORATE SOCIAL RESPONSIBILITY IN INDIA

This refers to changes over time in India of the cultural norms of corporations' engagement of corporate social responsibility, with CSR referring to way that businesses are managed to bring about an overall positive impact on the communities, cultures, societies and environments in which they operate. The fundamentals of

CSR rest on the fact that not only public policy but even Corporates should be responsible enough to address social issues. Thus companies should deal with the challenges and issues looked after to a certain extent by the states.

The history of CSR in India has its four phases which run parallel to India's historical development and has resulted in different approaches towards CSR. However the phases are not static and the features of each phase may overlap other phases.

#### **i. THE FIRST PHASE**

In the first phase charity and philanthropy were the main drivers of CSR. Culture, religion, family values and tradition and industrialization had an influential effect on CSR. In the pre-industrialization period, which lasted till 1850, wealthy merchants shared a part of their wealth with the wider society by way of setting up temples for a religious cause. Moreover, these merchants helped the society in getting over phases of famine and epidemics by providing food from their godowns and money and thus securing an integral position in the society. With the arrival of colonial rule in India from 1850s onwards, the approach towards CSR changed. The industrial families of the 19th century such as Tata, Godrej, Bajaj, Modi, Birla, Singhanian were strongly inclined towards economic as well as social considerations.

#### **ii. THE SECOND PHASE**

In the second phase, during the independence movement, there was increased stress on Indian Industrialists to demonstrate their dedication towards the progress of the society. This was when Mahatma Gandhi introduced the notion of "trusteeship", according to which the industry leaders had to manage their wealth so as to benefit the common man. Gandhi's influence put pressure on various Industrialists to act towards building the nation and its socio-economic development.

#### **iii. THE THIRD PHASE:**

During this period the private sector was forced to take a backseat. The public sector was seen as the prime mover of development. The policy of industrial licensing, high taxes and restrictions on the private sector led to corporate malpractices. This led to enactment of legislation regarding corporate governance, labor and environmental issues. PSUs were set up by the state to ensure suitable distribution of resources (wealth, food etc.) to the needy. However the public sector was effective only to a certain limited extent. This led to shift of expectation from the public to the private sector and their active involvement in the socio-economic development of the country became absolutely necessary.

In 1965 Indian academicians, politicians and businessmen set up a national workshop on CSR aimed at reconciliation. They emphasized upon transparency, social

accountability and regular stakeholder dialogues. In spite of such attempts the CSR failed to catch steam.

#### **iv. THE FOURTH PHASE**

In the fourth phase (1980 until the present) Indian companies started abandoning their traditional engagement with CSR and integrated it into a sustainable business strategy. In 1990s the first initiation towards globalization and economic liberalization were undertaken. Controls and licensing system were partly done away with which gave a boost to the economy the signs of which are very evident today. Increased growth momentum of the economy helped Indian companies grow rapidly and this made them more willing and able to contribute towards social cause.

### **VI. CSR INITIATIVE AND POLICY ISSUES IN INDIA**

#### **a) CSR INITIATIVE**

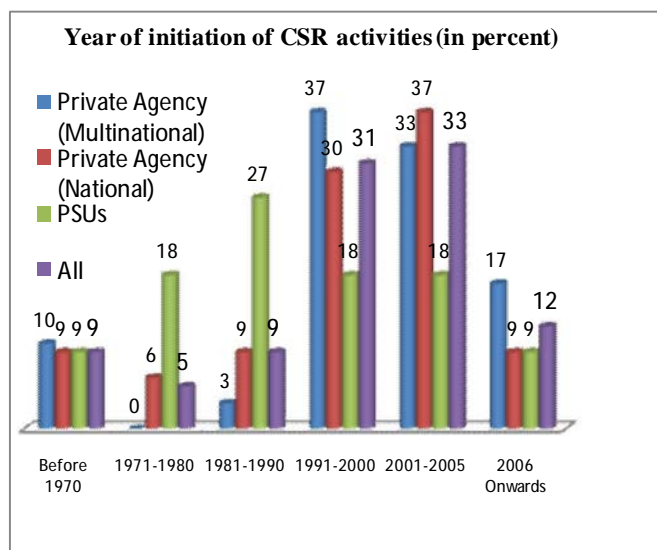
The emergence of corporate social responsibility as an important concern of business activity is the result of realization that any business conducted with the sole motive of profit maximization for the Shareholders, in disregard of societal and environmental concerns is bound to fail in the long run. With growing globalization, Corporate Social Responsibility (CSR) had been increasing in importance as it helped organizations to improve their relationships with local communities, increase brand value, and build a good corporate image for themselves. Also the socio-economic developmental activities undertaken by companies increased the purchasing power of the community, leading to an expansion in their market size.

Corporate social responsibility is not mere a responsibility of any .Individual or Industry or Government, Its development in India is not very strong. Government and Companies like Pepsi Co., TISCO, Infosys, ONGC, Ford, DLF and many are taking initiatives and are being responsible to the society. They are making efforts to save our natural resources but on the other hand, company like Coca cola which is a leader of Indian soft drink market is not being ethical to the society and is responsible of resource depletion in six regions of the country. ONGC was awarded 'Golden Peacock Award' for Excellence in corporate social responsibility in emerging economies 2006- by World Council for Corporate Governance. In 2000, TISCO won National Corporate Governance award, instituted by the union finance ministry and sponsored by the Unit Trust of India (UTI). Reliance Industries Ltd is one of the best examples which had performed tremendous efforts for the Sustainable Development of India like Jamnagar project. This is very rare that any of the above stated groups are performing their duties to the extent of their expectations like Reliance Industries Ltd. and TISCO who have ever been a landmark in performing Corporate Social Responsibility and discharging their duties ethically.

## b) YEAR OF INITIATION OF CSR ACTIVITIES:

The involvement of the corporate sector in CSR seems to have picked up after 1991 as 64 per cent of the organizations started CSR during 1991-2005. About two-third of the private multinational agencies (70 per cent) and private national agencies (67 per cent) initiated CSR during this period, and one-third of the PSUs too started their CSR programmes during this period.

Fig 1: Year of initiation of CSR activities (in percent)

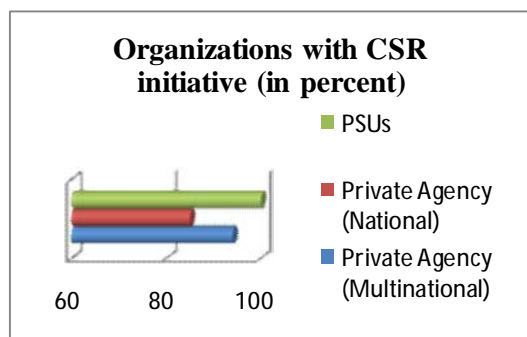


Source: Times Foundation, Corporate Social Responsibility practices in India.

## c) ORGANIZATIONS WITH CSR INITIATIVE:

There is a list of companies that are planning to minimize the risk of resource depletion in India and the World and these organizations have been realizing the bottom-line benefits of incorporating CSR into their DNA. It is beneficial for attraction and retention and it is the right thing to do. We need more of them for sustainable development in India.

Fig 2: Organizations with CSR initiative (in percent)



Source: Times Foundation, Corporate Social Responsibility practices in India.

Key findings of the survey conducted by Times Foundation, India on *Corporate Social Responsibility practices in India*, showed that 90 percent of the 82 organizations replied in affirmative on whether organization has CSR initiative. Analysis by types of organizations indicates that all the 11 PSUs, about four-fifth of the private national agencies (85 percent) and most of the multinational agencies (94 percent) are involved in CSR initiative. (Fig 2).

## d) ISSUES IN CSR POLICY:

It is now universally accepted that corporate social responsibility is not a stand-alone, one time, ad hoc philanthropic activity. Rather, it is closely integrated and aligned with the business goals, strategies and operations of the companies. There is a close integration of social and business goals of companies with relevant CSR policies. The provision (section 135) of the Companies Act 2013 shall be applicable from the financial year 2014-15 to formulate the CSR policy. Certain issues are bothering those who are responsible for formulating the CSR policy and implementing the same.

The Draft Rules state, "CSR projects/programmes of a company may also focus on integrating business models with social and environmental priorities and processes in order to create shared value." Michel Porter, the Harvard Professor, who introduced the term 'shared value' in a HBR (January-February 2011) article defines shared value as, "policies and operating practices that enhance the competitiveness of a company while simultaneously advancing the economic and social conditions in the communities in which it operates." rural reach of the company while empowering women. Can we classify 'Project Shakti' as a CSR project? Whether training expenses on Shakti entrepreneurs should be classified as CSR expenditure?

The concept of 'shared value' blurs the boundary between pure business activities and CSR activities. 'Shared value' strategies definitely serve the CSR objectives, but they are closely intertwined with the business strategy. Clarification on this issue is essential, as companies and regulators should have a common understanding on which items should be included in calculating CSR spend. The Act (schedule VII) stipulates that 'social business projects' may be included in the CSR policy. By definition, surplus from those projects are ploughed back to improve the product or service or to provide subsidy. For example, the 'agarbatti' (incense sticks) business of ITC started to provide livelihood support to retired employees and then it was extended to other members of the community located around ITC's manufacturing facilities. If ITC designates it as a 'social business project', it shall not include surplus from this business in the net profit of the company. A clarification is required on whether a part of general overheads and the cost of service provided by employees, who are employed primarily to work for the core business of

the company, but spend some time on those projects, should be considered as CSR spend.

The Draft Rules state, "Only activities, which are not exclusively for the benefit of employees of the company or their family members shall be considered as CSR activity." Companies build and operate facilities (e.g. educational institutions and health care facilities) primarily for employees and their families. Members of the local community also use those facilities. A clarification is required on whether only proportionate expenditure that can be assigned to the use of those facilities by local community members should be considered as CSR spend. Allocation of expenditure will be an issue that should be addressed by cost accountants. Activities related to 'environmental sustainability' are also classified as CSR activities. Companies undertake research projects to improve existing products or processes to make them environment friendly. A clarification is required on whether such research expenses will be considered as CSR spend. The Draft Rules state, "CSR Policy would specify that the corpus would include the following: 2% of the average net profits; any income arising there from; and surplus arising out of CSR activities." This implies that every year, companies should transfer two percent of average net profit before tax (calculated as per section 198) of the previous three years to the CSR corpus and then spend money for CSR activities from that corpus. A clarification is required on whether companies should transfer the amount to the corpus at the beginning of the financial year and invest the corpus fund outside the business to earn an income that will form a part of the corpus.

Every year, each public sector enterprise CPSE shall with the approval of its Board of Directors make a budgetary allocation for CSR and Sustainability activities / projects for the year. The budgetary allocation will be based on the profitability of the company. More specifically, it will be determined by the Profit after Tax (PAT) of the company in the previous year as shown here under: <b>PAT of CPSE in the previous year</b>	<b>Range of Budgetary allocation for CSR and Sustainability activities (as % of PAT in previous year)</b>
<b>Less than Rs. 100 Crore</b>	<b>3% - 5%</b>
<b>Rs. 100 Crore to Rs. 500 Crore</b>	<b>2% - 3%</b>
<b>Rs. 500 Crore and above</b>	<b>1% - 2%</b>

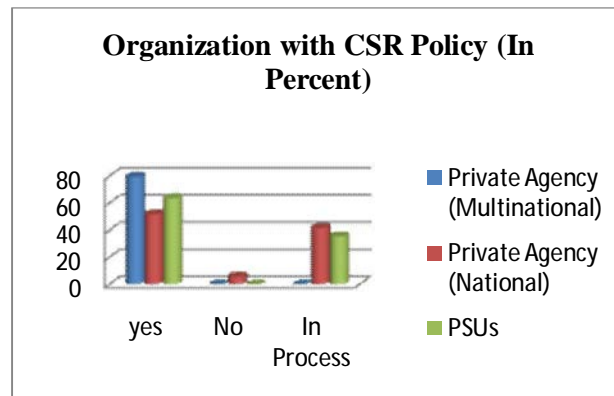
For all CPSEs having PAT above Rs. 500 Crores in the previous year, the range of budgetary allocation for CSR

and Sustainability activities has been raised to 1%-2%. All CPSEs shall strive to maximize their spending on CSR and Sustainability activities and move towards the higher end of their slabs of budgetary allocation.

#### e) EXISTENCE OF CSR POLICY:

The organizations having CSR policy includes almost two-third of the organizations (65 per cent) replied in affirmative. Four-fifth of the private multinationals (80 per cent), three-fifth of the PSUs (64 per cent) and half of the private national agencies (52 per cent) have the CSR policy according to survey findings (Fig 3).

Fig 3: Organization with CSR Policy (In Percent)



**Source:** Times Foundation, Corporate Social Responsibility practices in India.

## V. CHALLENGES TO CSR INITIATIVES IN INDIA

The survey conducted by times of India elicited responses from participating organizations about various challenges facing CSR initiatives in different parts of the country. Responses obtained from the participating organizations have been collated and broadly categorized by the research team. These challenges are listed below:

### i. LACK OF COMMUNITY PARTICIPATION IN CSR ACTIVITIES:

There is a lack of interest of the local community in participating and contributing to CSR activities of companies. This is largely attributable to the fact that there exists little or no knowledge about CSR within the local communities as no serious efforts have been made to spread awareness about CSR and instill confidence in the local communities about such initiatives. The situation is further aggravated by a lack of communication between the company and the community at the grassroots.

### ii. NEED TO BUILD LOCAL CAPACITIES:

There is a need for capacity building of the local non-governmental organizations as there is a serious dearth

of trained and efficient organizations that can effectively contribute to the ongoing CSR activities initiated by companies. This seriously compromises scaling up of CSR initiatives and subsequently limits the scope of such activities.

### **iii. ISSUES OF TRANSPARENCY:**

Lack of transparency is one of the key issues brought forth by the survey. There is an expression by the companies that there exists lack of transparency on the part of the local implementing agencies as they do not make adequate efforts to disclose information on their programmes, audit issues, impact assessment and utilization of funds. This reported lack of transparency negatively impacts the process of trust building between companies and local communities, which is key to the success of any CSR initiative at the local level.

### **iv. NARROW PERCEPTION TOWARDS CSR INITIATIVES:**

Non-governmental organizations and Government agencies usually possess a narrow outlook towards the CSR initiatives of companies, often defining CSR initiatives more donor-driven than local in approach. As a result, they find it hard to decide whether they should participate in such activities at all in medium and long run.

### **v. NON-AVAILABILITY OF CLEAR CSR GUIDELINES:**

There are no clear cut statutory guidelines or policy directives to give a definitive direction to CSR initiatives of companies. It is found that the scale of CSR initiatives of companies should depend upon their business size and profile. In other words, the bigger the company, the larger its CSR programme.

### **vi. LACK OF CONSENSUS ON IMPLEMENTING CSR ISSUES:**

There is a lack of consensus amongst local agencies regarding CSR projects. This lack of consensus often results in duplication of activities by corporate houses in areas of their intervention. This results in a competitive spirit between local implementing agencies rather than building collaborative approaches on issues. This factor limits company's abilities to undertake impact assessment of their initiatives from time to time.

## **VI. FUTURE CSR TRENDS IN INDIA**

The CSR survey conducted by Times Foundation, India on *Corporate Social Responsibility practices in India*, revealed, not surprisingly, that organizations targeted most of their activities close to home — providing services for people who live in villages, towns, and districts near where the organization operates. Education, health, and the environment are the top priorities. More than likely, these priorities will continue. There is one social trend in India that looms larger than all others —the population tsunami.

The current population of India is now over 1.1 billion. Demographers now tell us that India will overtake China by 2026 as the world's most populous nation with almost 1.5 billion people. Let us put this into perspective.

At the time of Independence in 1947, India's population was approximately 350 million. Between now and 2026, India will add almost as many people as there were in the entire nation in 1947. The implications of this are staggering. Will the additional demands for food, water, housing, education, and health care overwhelm the existing infrastructure? Or can all stakeholders work together to build a literate, healthy, capable society with enough jobs to meaningfully employ all those seeking work? The greater the challenges, the greater the ingenuity required. For CSR in India to have a meaningful impact on society in the coming decade, a 'national-local approach may be best. National in the sense that there will need to be nationwide alliances and databases in order to quickly learn best practices, share innovations, and 'scale-up' pilot programmes. Local in the sense that it will require organizations to efficiently implement programmes at the grassroots level, as well as mobilize volunteers to serve their local communities. CSR is here to stay and its future is bright. There is much to learn about building world-class CSR programmes in the Indian context.

## **VII. CURRENT OPPORTUNITIES**

At one end of the spectrum, CSR can be viewed simply as a collection of good citizenship activities being engaged by various organizations. At the other end, it can be a way of doing business that has significant impact on society. For this latter vision to be enacted in India, it will be necessary to build CSR into a movement. That is to say, public and private organizations will need to come together to set standards, share best practices, jointly promote CSR, and pool resources where useful. An alliance of interested stakeholders will be able to take collective action to establish CSR as an integral part of doing business — this is not a passing fad. Some might say that it is easy for corporate houses to support CSR when the economy is growing at 8 per cent and profits are doing well. The real test is what happens to CSR budgets during an economic downturn. That is why it is so important over the next two to three years to embed CSR into the public consciousness, as well as into the executive suite.

## **VIII. CONCLUSION**

CSR in India is in a very nascent stage. It is still one of the least understood initiatives in the Indian development sector. It is followed by a handful of public companies as dictated by the very basis of their existence, and by a few private companies, with international shareholding as this is the practice followed by them in their respective foreign country. Thus the situation is far from perfect as the emphasis is not on social good but rather on a policy that needs to be implemented. A lack of understanding, inadequately trained personnel,

non availability of authentic data and specific information on the kinds of CSR activities, coverage, policy etc. further adds to the reach and effectiveness of CSR programmes. But the situation is changing. And CSR is coming out of the purview of 'doing social good' and is fast becoming a 'business necessity'. The 'business case' for CSR is gaining ground and corporate houses are realizing that 'what is good for workers - their community, health, and environment is also good for the business'.

Corporate Social Responsibility, if discharged sincerely, is perceived to bring with it several benefits for the companies. The spin offs can be by way of improving the brand image, preparing it for risk management through public goodwill in the event of a crisis, retaining and attracting talent for the organization, winning the confidence of the investors and shareholders, improving its relations with important stakeholders, and positioning the company for competitive business advantage and financial gains in the long run.

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# A Comparative Analysis of Returns of Mutual Fund Schemes Ranked 1 by CRISIL

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*Abstract*-Mutual fund industry has experienced a drastic growth in the past two decades. Increase in the number of schemes with increased mobilization of funds in the past few years notes the importance of Indian mutual funds industry. To fulfill the expectations of millions of retail investors, the mutual funds are required to function as successful institutional investors. Proper assessment of various fund performance and their comparison with other funds helps retail investors for making investment decisions. The main aim of this paper is to evaluate the performance of mutual fund schemes ranked 1 by CRISIL and compare these returns with SBI domestic term deposit rates. Considering the interest of retail investors simple statistical techniques like averages and rate of returns are used. The results obtained from the study clearly depicts that, in most of the cases the mutual fund schemes have failed even to provide the return of SBI domestic term deposits.

*Keywords*-Performance, Mutual Funds, CRISIL, Credit Rating Agency

## I. INTRODUCTION

Mutual fund is a trust that acts as an investment vehicle, pools the savings of numerous investors to invest in various financial instruments like stocks, bonds, debentures, etc enabling investors to achieve their financial goals. SEBI (Mutual Funds) Regulation 1993, defines Mutual Fund as “Mutual Fund means a fund established in the form of a trust by a sponsor to raise money by the trustee through the sale of units to the public under one or more schemes for investing in securities in accordance with these regulations”. Mutual funds are the new financial instruments of savings and investments. The active involvement of mutual funds in economic development can be witnessed from dominant presence of mutual funds in financial markets across the globe. Investors of Mutual Funds need not worry much about the return as mutual funds are managed professionally by well trained and experienced Managers. The investments in mutual funds are well diversified and so the investors generally do not run the risk of keeping all the eggs in one basket. The other advantages of investment in mutual fund are portfolio diversification, low risk, low transaction cost, liquidity, and choice of schemes, transparency and safety.

Mutual funds are now tailor made to suit the specific needs of the investors. Mutual fund industry has already entered into the world of exciting innovations where Asset Management Companies (AMCs) are coming up with new financial products. Proper assessment of various funds performance and their comparison with other funds helps

retail investors for making investment decisions.

## II. CRISIL Mutual Fund Ranking: A Prelude

CRISIL is one among the leading rating agencies in India. CRISIL is a full-service rating agency. CRISIL rating serves lenders, investors, issuers, market intermediaries and regulators by improving availability of information and providing benchmarks. CRISIL Rating is used by investors and lenders to supplement their internal evaluation process and to benchmark credit quality across investment options.

In India, CRISIL has developed a methodology based on global best practices for ranking mutual funds. In the past decade the mutual fund ranking has gained high acceptance among investors, intermediaries, and asset management companies.

Only open ended schemes are considered for ranking and the basic criteria for including mutual fund scheme in the ranking universe are three-year NAV history (one-year for liquid, ultra short-term debt, short term income and index funds, and five years for consistent performers), assets under management in excess of cut-off limits and complete portfolio disclosure. The performance criteria covers risk adjusted returns along with portfolio characteristics like industry concentration, company concentration, liquidity, etc. to make the analysis forward looking. The present study was confined to examine and evaluate the return fetched by mutual fund schemes ranked 1 by CRISIL for the period of 5 years.

## III. REVIEW OF LITERATURE

**Ippolito R.A. (1992)** concluded that the investors prefer mutual funds which have a record of positive return in the past.

**Sapar and Narayan (2003)** evaluated the performance of 269 open ended schemes of mutual funds in a bear market using relative performance index, risk-return analysis, Treynor's ratio, Sharp's ratio, Sharp's measure, Jensen's measure, and Fama's. The results obtained advocate that most of the mutual fund schemes in the sample outperformed the investor's expectations by giving excess return over expected return based on premium for systematic risk and total risk.

**Sathya Swaroop Debasish (2009)** studied the performance of 23 schemes offered by six private sector

mutual funds and three public sector of mutual funds based on risk-return relationship models and measures it over the time period of 13 years (April 1996 to March 2009). The analysis has been made on the basis of mean return, beta risk, co-efficient of determination, Sharp ratio, Treynor ratio and Jensen Alpha. The overall analysis concludes Franklin Templeton and UTI being the best performers and Birla SunLife, HDFC and LIC mutual funds showing below-average performance when measured against the risk-return relationship models.

**Dhume and Ramesh (2011)** conducted a study to analyze the performance of the sector funds. The sectors considered were Banking, FMCG, Infrastructure, Pharma and Technology. The study used different approaches of performance measures. Findings of study revealed that all the sector funds have outperformed the market except infrastructure funds.

**Deepak Agarwal (2011)**, Mutual fund contributes to globalization of financial markets and is one among the main sources for capital formation in emerging economies. He analyzed the pricing mechanism of Indian Mutual Fund Industry, data at both the fund-manager and fund-investor levels. There has been incredible growth in the mutual fund industry in India, attracting large investments from domestic and foreign investors. Tremendous increase in number of AMCs providing ample of opportunity to the investors in the form of safety, hedging, arbitrage, limited risk with better returns than any other long-term securities has resulted in attracting more investors towards mutual fund investments.

**R. Anitha, et. al., (2011)**, in their study evaluated the performance of public-sector and private-sector mutual funds for the period from 2005 to 2007. Selected funds were analyzed using Statistical tools like Mean, Standard Deviation and Co-efficient of Variation. The performance of all funds has shown volatility during the period of study making it difficult to earmark one particular fund which could outperform the other consistently.

**Kalpesh P Prajapati and Mahesh K Patel (2012)** evaluated the performance of Indian mutual funds using relative performance index, risk-return analysis, Treynor's ratio, Sharp's ratio, Sharp's measure, Jensen's measure, and Fama's measure. The data used is daily closing NAVs from 1st January 2007 to 31st December, 2011 and concluded that most of the mutual funds have given positive return during the period of study.

**Shivani Inder and Shikha Vohra (2012)**, the paper evaluates the long run performance of the selected index fund schemes and make comparative analysis of the performance of these funds on the basis of the risk-return for the period of 6 years (January, 2005 to December, 2011). The results indicate that index funds are just the follower of market. They try to capture market sentiments, good as well as bad, and thus perform as the market performs.

**P Alekhya (2012)**, undertaken the study to evaluate the comparative performance of public and private sector mutual fund schemes. The paper focused on the performance of Mutual fund equity scheme for past 3 years from 2009 to 2011. Funds were ranked according to Sharp's, Treynor's and Jensen's performance measure.

### Gaps Identified

In the above literature very few studies have made an attempt to make a comparative analysis of Mutual fund return with bank domestic term deposit rates. In India retail investor hardly understands the performance measure tools like Sharp's, Treynor's and Jensen's models. Still very few studies have made an attempt to calculate the return on mutual funds which can be easily understandable by a retail investor.

## IV. OBJECTIVES OF THE STUDY

The following are the objectives of the study:

- To analyze the returns of mutual fund schemes ranked 1 by CRISIL.
- To compare the average returns of selected Mutual fund schemes with SBI domestic term deposit rates.
- To have a comparative analysis of various categories of selected Mutual fund schemes.

## V. RESEARCH METHODOLOGY

### Source of Data

The data for this study is mainly collected from Secondary Sources like Books, Journals, Magazines, and various websites like [www.nseindia.com](http://www.nseindia.com), [www.amfiindia.com](http://www.amfiindia.com), [www.mutualfundsindia.com](http://www.mutualfundsindia.com), [www.sebi.gov.in](http://www.sebi.gov.in) and [www.moneycontrol.com](http://www.moneycontrol.com).

### Statistical Tools

The simple statistical techniques like averages and rate of returns are used. Considering the interest of the retail investors the study has been made simple and average rate of return of mutual fund schemes ranked 1 by CRISIL has been calculated and compared with SBI domestic term deposit rates.

### Limitations of the study

Mutual fund schemes ranked 1 by CRISIL are considered for the period of 2008-2013. Hence, the findings of the study may not be generalized upon the other mutual fund schemes and for the same schemes for different periods.

The performance of a scheme can be evaluated on various parameters, but to make the study simple and understandable by a retail investor only average return of the schemes has been calculated. Income tax aspects are not considered in this study.

Axis Long Term Equity Fund - (G)	DSP BlackRock India T.I.G.E. R. Fund - Regular Plan - (G)	UTI MNC Fund (UGS 100000) - (G)	Tata Ethical Fund Plan A - (G)	Reliance Equity Opportunities Fund - (G)	Mirae Asset India Opportunities Fund - G	Birla Sun Life India Gemnext Fund - (G)	SBI Magnum Global Fund 94 - Regular Plan - (G)	SBI MSFU Emerging Businesses Fund - Regular Plan - (G)	Birla Sun Life MNC Fund - Plan B - (G)	UTI Opportunities Fund - (G)	UTI India Lifestyle Fund - (G)	Quantum Long-Term Equity Fund - (G)	BNP PARIBAS Equity Fund - (G)	Mutual Fund Scheme	Category							
																Return (%) as on July 16, 2013						
																1 month	3 months	6 months	1 year	2 yr*	3 yr*	5 yr*
477.54	1413.22	251.27	104.77	4956.08	290.23	126.14	918.23	1214.96	375.83	1846.15	350.46	161.4	121.03	Assets (Rs. Cr.)								
15.32	39.39	75.78	75.82	39.99	18.07	32.42	66.49	53.81	265.19	31.88	14.04	24.43	40.09	NAV								
2.9	-2.8	1.3	3.5	-1.5	1.5	2	1.3	-1.4	2.4	2.5	1.2	0.9	3.1	1 month								
7.8	-2.9	9.4	7.4	-3.4	2.9	7.9	4.1	-0.2	10.7	5	5.1	0.5	6.1	3 months								
3.6	-15.6	3.2	0.9	-10.5	-5.8	2.1	-3.6	-11.8	1.6	-1	-0.7	-6	-1.7	6 months								
19.6	-0.4	14.8	20.2	6.5	12.6	26.8	17.4	12.1	16.2	13	14.5	11.1	16.1	1 year								
9	-5.8	8.9	6.3	3.5	3.7	10.9	5.6	9.4	9.4	7.3	6	5	8.4	2 yr*								
9.6	-6.4	11.1	6.4	4.9	5.4	12.2	6.5	12.1	9.9	8.7	8.1	5.4	7.6	3 yr*								
NA	3.6	19.4	12.3	16.8	16.8	17.1	13.2	16.7	21	16.6	13.6	15.9	9.8	5 yr*								

<b>Average</b>	<b>Kotak Nifty ETF</b>	<b>BNP PARIBAS Tax Advantage Plan (ELSS) - (G)</b>
	<b>INDEX</b>	<b>ELSS</b>
	48.16	118.64
	605.41	16.54
<b>1.3</b>	2	2.5
<b>4.4</b>	3.6	5.7
<b>-3.3</b>	-2.4	-4.5
<b>14.3</b>	13.8	13.9
<b>6.2</b>	3.6	7.2
<b>7.0</b>	3.8	6.2
<b>14.5</b>	NA	<b>9.8</b>

LC - Large Cap, SMC - Small and Medium Cap,  
DE - Diversified Equity, TI - Thematic Infrastructure, ELSS  
- Equity Linked Saving Schemes.

Table No. 1 demonstrates the average returns on Equity mutual fund schemes ranked 1 by CRISIL. The average return for 1 month, 3 month, 6 month, and 1 year are 1.3%, 4.4%, -3.3%, and 14.3% respectively. Further the annualized return for the period of 2 year, 3 year and 5 year are 6.2%, 7.0% and 14.5% respectively.

HSBC Income Fund - Short Term - (G)	HDFC Short Term Opportunities Fund - (G)	Birla Sun Life Short Term Fund - Plan B (G)	SBI Magnum Income Fund - Regular Plan - (G)	SBI Dynamic Bond Fund - Regular Plan - (G)	IDFC Dynamic Bond Fund - Regular Plan - (G)	Mutual Fund Scheme	Fund
DST	DST	DST	DLT	DLT	DLT	Category	
729.88	1599.68	2994.48	2962.60	5238.04	2517.14	Assets (Rs. Cr.)	
19.79	12.87	44.08	29.59	14.97	14.29	NAV	
-1.4	-1.1	-0.9	-3.1	-3.2	-2.3	1 month	
0.3	0.5	0.7	0.6	0.5	0.4	3 months	
2.4	2.9	3.2	2.7	2.6	3	6 months	
7.2	7.9	8.5	10.6	10.1	10.9	1 year	
8	8.8	9.3	10.8	11	11.2	2 yr*	
7.7	8.6	8.4	9.2	10.2	9.7	3 yr*	
7.2	NA	8.3	7.7	7.2	NA	5 yr*	

	IDFC G- Sec. Fund Investme nt Plan - Regular Plan-B (G)	Reliance Money Manage r Fund - (G)	JPMorgan India Treasury Fund - Super Institutional Plan - (G)	ICICI Prudential Flexible Income Regular Plan - G	Sundaram Flexible Fund-Short Term Plan - Regular (G)	Religare Invesco Credit Opportunitie s Fund - Bonus Option
	GLT	USTD	USTD	USTD	DST	DST
	126.1	5816.17	1747.72	7398.92	317.98	487.03
	13.98	1639.73	15.66	224.02	18.87	1358.39
	-1.6	0.3	-0.1	0.3	-0.4	0.5
	1.8	1.7	1.4	1.7	1	1.9
	4.4	4	3.6	4	3.5	4.1
	12.9	8.7	8.4	8.7	8.3	9
	12.7	9.2	9.1	9.2	9.1	9.7
	10.5	8.8	8.7	8.8	8.5	9
<b>Ave rage</b>	<b>NA</b>	<b>7.9</b>	<b>NA</b>	<b>7.9</b>	<b>8.1</b>	<b>NA</b>

\* Returns over 1 year are annualized

DLT - Debt Long Term, DST - Debt Short Term, USTD - Ultra Short Term Debt, GLT - Gilt Long Term.

Table No. 2 demonstrates the average returns on Debt mutual fund schemes ranked 1 by CRISIL. The average return for 1 month, 3 month, 6 month and 1 year are -1.1%, 1.0%, 3.4%, and 9.3% respectively. Further the annualized return for the period of 2 year, 3 year and 5 year are 9.8%, 9.0% and 7.8% respectively.

Table 3 – Returns of Hybrid Mutual Fund schemes Ranked 1 by CRISIL

Fund Scheme	Category	Assets (Rs. Cr.)	Return (%) as on July 16, 2013						
			NAV	Return (%) as on July 16, 2013					
				1 month	3 months	6 months	1 year	2 yr*	3 yr*
ICICI Prudential Balanced Fund - Regular Plan (G)	B	446.68	55.84	0.4	3	-2.6	15.5	7.4	9.1
Kotak Monthly Income Plan (G)	MA	58.41	18.25	-3.2	-0.7	-0.8	7.6	7.1	6.3
SBI Magnum MIP - Regular Plan (G)	MC	241.29	23.99	-2.8	-0.1	NA	9.6	8.3	7
<b>Ave rage</b>				<b>-1.9</b>	<b>0.7</b>	<b>-1.7</b>	<b>10.9</b>	<b>7.6</b>	<b>7.5</b>
								<b>8.2</b>	<b>6.5</b>

\* Returns over 1 year are annualized

B - Balanced, MA - MIP Aggressive, MC - MIP Conservative

Table No. 3 demonstrates the average returns on Hybrid mutual fund schemes ranked 1 by CRISIL. The average return for 1 month, 3 month, 6 month and 1 year are -1.9%, 0.7%, -1.7%, and 10.9% respectively. Further the annualized returns for the period of 2 year, 3 year and 5 year are 7.6%, 7.5% and 8.2% respectively.

Table 4 – Return of Money Market Mutual Fund schemes Ranked 1 by CRISIL

Fund Scheme	Category	Assets (Rs. Cr.)	Return (%) as on July 16, 2013						
			NAV	Return (%) as on July 16, 2013					
				1 month	3 months	6 months	1 year	2 yr*	3 yr*
Axis Liquid Fund - (G)	L	2670.45	1329.28	0.4	1.8	4.0	8.6	9.2	8.7
Baroda Pioneer Liquid Fund - Plan A - (G)	L	2592.37	1374.72	0.4	1.8	4.0	8.6	9.3	8.7
ICICI Prudential Liquid - Regular Plan (G)	L	11478.09	177.51	0.5	1.9	4.1	8.7	9.3	8.7
LIC NOMUR A MF Liquid Fund (G)	L	1268.27	2174.95	0.4	1.8	3.9	8.4	8.8	8.3
<b>Average</b>				<b>0.4</b>	<b>1.8</b>	<b>4.0</b>	<b>8.6</b>	<b>9.2</b>	<b>8.6</b>
									<b>7.5</b>

\* Returns over 1 year are annualized L - Liquid.

Table No. 4 demonstrates the average returns on Money Market mutual fund schemes ranked 1 by CRISIL. The average return for 1 month, 3 month, 6 month and 1 year are 0.4%, 1.8%, 4.0% and 8.6% respectively. Further the annualized return for the period of 2 year, 3 year and 5 year are 9.2%, 8.6% and 7.5% respectively.

Table 5 - Comparative analysis of average return of Selected Mutual Fund schemes with SBI domestic term deposit rates.

Investment	Return (%) as on July 16, 2013						
	1 mon th	3 mon ths	6 mon ths	1 year	2 year *	3 year*	5 year*
Equity Mutual Fund Schemes	1.3	4.4	-3.3	14.3	6.2	7.0	<b>14.5</b>
Debt Mutual Fund Schemes	-1.1	1.0	3.4	9.3	9.8	9.0	<b>7.8</b>
Hybrid Mutual Fund Schemes	-1.9	0.7	-1.7	10.9	7.6	7.5	<b>8.2</b>
Money	0.4	1.8	4.0	8.6	9.2	8.6	<b>7.7</b>

Market Mutual Fund							
SBI Fixed Deposit Rate	0.5	1.6	3.3	8.8	8.8	8.8	8.8

\* Returns over 1 year are annualized

Table No. 5 shows the comparative analysis of average return of selected mutual fund schemes with SBI domestic term deposit rates. The above table corroborates that the mean return on equity mutual fund schemes for 1 month, 3 month, 1 year and 5 year exceeds the return of SBI domestic term deposits and other schemes. Further, the mean return on debt mutual fund schemes for 2 year and 3 year exceeds the return of SBI domestic term deposits and other schemes. Further the money market mutual fund schemes have consistently provided positive returns.

## FINDINGS OF THE STUDY

The present study reflects that, in most of the cases mean return on equity mutual fund schemes is more than the mean return on other mutual fund schemes and SBI domestic term deposit rates. Further equity mutual fund schemes have shown a remarkable return for the period of 1 year and 5 year.

Hybrid mutual fund schemes provide both income and capital appreciation while avoiding excessive risk. The mean return on hybrid mutual fund schemes has shown volatility during the study period, and served the purpose of hybrid funds only during the period of 6 months, 1 year and 5 year.

The mean return on debt mutual fund schemes were less than the SBI domestic term deposit rates for the period of less than 1 year and more than the SBI domestic term deposit rates for the period of more than 1 year. Further the mean return on money market mutual fund schemes were consistently positive and were very close to SBI domestic term deposit rates.

## CONCLUSION

This paper was an attempt to evaluate the performance of mutual fund schemes ranked 1 by CRISIL and compare the mean returns with the SBI domestic term deposit rates. The performance of all the schemes seemed volatile during the study period, as such it was quite difficult to earmark one particular scheme that outperformed consistently well during the period of study. The mutual fund schemes ranked 1 by CRISIL were considered for the study. The results obtained from the study clearly depicts that, in most of the cases the mutual fund schemes have failed even to provide the return of SBI domestic term deposits. It can also be concluded that equity mutual fund schemes have the potential to provide greater returns in long term. The investments in mutual funds is subject to market risk and the investment decision should be taken carefully, as there is no guarantee of return and the past performance

may or may not be occurred in future.

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- <http://www.moneycontrol.com/mutual-funds/best-funds/index.html>

# Foreign Direct Investment in India

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**Abstract** - This paper is an attempt to present system perspectives of Foreign direct investment (FDI) in India. Foreign direct investment (FDI) as a strategic component of investment is needed by India for achieving the economic reforms and maintains the pace of growth and development of the economy. This paper is an attempt to highlight the importance of FDI in India which plays an important role as economic catalyst of Indian economic growth. In this paper a causal loop diagram is drawn considering the Indian economy as a dependent variable.

**Keywords** - Foreign Direct Investment(FDI), Indian economy, System dynamics.

## I. INTRODUCTION

In this 21<sup>st</sup> century globalization makes this planet as a global village and people of different countries are getting closer and closer [1]. Due to immense development of technologies investors of different countries are looking forward to find business opportunities beyond the conventional territory and as a result one of the most popular and highlighted terms in modern business-“FDI” is evolving at a greater pace than ever before [1]. Foreign Direct Investment (FDI) is fund flow between the countries in the form of inflow or outflow by which one can able to gain some benefit from their investment whereas another can exploit the opportunity to enhance the productivity and find out better position through performance. Foreign Direct Investment (FDI) inflow into the core sectors is assumed to play a vital role as a source of capital, management, and technology in countries of transition economies. FDI seen as an important catalyst for economic growth in the developing countries, It affects the economic growth by stimulating domestic investment, increasing human capital formation and by facilitating the technology transfer in the host countries.

This paper is an attempt to highlight the importance of FDI in India which plays an important role as economic catalyst of Indian economic growth. An attempt has been made to draw a causal loop diagram, considering Indian economy as the dependent variable and this cause and effect diagram can be later improvised and simulations can be carried out by converting the causal loop diagram in to a stock and flow diagram. However, this paper deals with the development of cause and effect diagram only.

## II. THEORETICAL BACKGROUND

Foreign Investment in India is governed by the FDI policy announced by the Government of India and the provision of the Foreign Exchange Management Act (FEMA) 1999. The Reserve Bank of India (‘RBI’) in this regard had issued a notification, which contains the Foreign Exchange Management (Transfer or issue of security by a person resident outside India) Regulations, 2000. This notification has been amended from time to time. The Ministry of Commerce and Industry, Government of India is the nodal agency for motoring and reviewing the FDI policy on continued basis and changes in sectorial policy/ sectorial equity cap. The FDI policy is notified through Press Notes by the Secretariat for Industrial Assistance (SIA), Department of Industrial Policy and Promotion (DIPP). The foreign investors are free to invest in India, except few sectors/activities, where prior approval from the RBI or Foreign Investment Promotion Board (‘FIPB’) would be required

Starting from a baseline of less than USD 1 billion in 1990, a recent UNCTAD survey projected India as the second most important FDI destination (after China) for transnational corporations during 2010-2012. As per the data, the sectors which attracted higher inflows were services, telecommunication, construction activities and computer software and hardware. Mauritius, Singapore, the US and the UK were among the leading sources of FDI [5]. The following tables show various important facts and figures of FDI in India.

TABLE I. FDI inflows in India (from 1980-2010)

Amount of FDI	March 1980	March 1990	March 2000	March 2010
In crores	933.2	2705	18486	123378

(Source: Government of India (GOI) 2010. FDI Statistics, Ministry of Commerce & Industry, Department of Industrial Policy and Promotion)

TABLE II. Share of top ten investing countries in FDI inflows (Financial year wise)

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Ranks	Country	2008-2009	2009-2010	2010-2011	Cumulative inflow from April 2000 March 2011	Percent of total inflow in Rupees
1	MAURITIUS	50899	49633	31855	242761	42%
2	SINGAPORE	15727	11295	7730	52876	9%
3	U.S.A	8002	9230	5353	42542	7%
4	U.K	3840	3094	3434	29433	5%
5	NETHERLANDS	3922	4283	5501	25627	4%
6	JAPAN	1889	5670	7063	23958	4%
7	CYPRUS	5963	7728	4171	21948	4%
8	GERMANY	2750	2980	908	13376	2%
9	FRANCE	2098	1437	3349	10267	2%
10	U.A.E.	1133	3017	1569	8592	1%
Total FDI Inflows		123025	123120	88520	580722	-

(Source: Government of India (GOI) (2011) FDI Statistics, Ministry of Commerce & Industry, Department of Industrial Policy and Promotion)

### III. LITERATURE REVIEW

This section reviews the empirical studies on the relation between FDI and economic activities in India. One school of thought argued that FDI has a negative impact on the growth of India because FDI flows mainly towards the primary sector which basically promoted the less market value [3]. FDI can have positive effects on a host economy's development effort [3]. On this line, it has been argued that FDI can bring the technological diffusion to the sectors through knowledge spillover and enhances a faster rate of growth of output via increased labor productivity in India.

[6] Concluded that FDI is a very good means for the transfer of technology and knowhow to the developing countries. [6] said that booming foreign direct investment in post-reform India is widely believed to promote economic growth. The new economic liberalization policy in 1991 the FDI inflow in India in-depth in the last fourteen years makes the country progress in both quantity and the way India attracted FDI. The study also finds out that R&D as a significant determining factor for FDI inflows for most of the industries in India.

According to 2005, United Nations Conference on Trade and Development report on world investment prospects India has been ranked at the third place in global foreign direct investments in 2009 and will continue to remain among the top five attractive destinations for international investors 2010-11[3].

### IV. METHODOLOGY

The methodology used in this paper is System Dynamics. There are various steps in a System Dynamics approach. They are firstly the problem identification, followed by the system conceptualization, model formulation and simulation, along with the validation and policy analysis and improvement. In this paper, the study is restricted only to the formulation of a causal loop diagram.

System dynamics is an approach for thinking and simulating situations or organizations of all kinds and sizes by visualizing how the elements fit together, interact and change over time. SD is growing in popularity as more and more researchers are using SD in their research work.

SD's key differentiators:

- The model and the real world have related structures.
- The focus is on the effect of information feedback.
- Models can contain quantitative and qualitative elements.
- One can simulate the model to test hypotheses.

According [4], SD focuses on the structure and behaviour of systems composed of interconnected feedback loops. Causal loop diagram is an important tool which helps the modeller to conceptualize the real world systems in terms of feedback loops. In a causal loop diagram, the arrows indicate the direction of influence, and the plus or minus sign, the type of influence. All other things being equal, if a change in one variable generates a change in the same direction in the second variable, relative to its prior value, the relationship between the two variables is referred to as positive. If the change in the second variable takes place in the opposite direction the relationship is negative. Moreover, the loops can be classified in to reinforcing loop and balancing loops.

### V. CAUSAL LOOP DIAGRAM

From Fig 1, it can be seen that FDI depends on different variables like globalization government policies, availability of natural resources, human capital, market size & good infrastructure. The investors look at these variables before investing in host country. In India globalization, rich natural resources, cheap & skilled labor forces, huge market size has favored the flow of FDI.

The flow of FDI contributes to the transfer of technology & knowledge know-how, which in turn helps in growth of domestic firms increase their profits. The increased flow of foreign direct investment in different sectors in India has helped in the growth, development, and expansion of the sectors which creates new employment opportunities, rise in productivity, and stimulate exports.

The employment opportunities increase the standard of living of individuals which creates the market potential for flow of FDI. Growth of different sectors,

increase in exports constitutes to the development of Indian economy. Flow of FDI helps in producing foreign Exchange revenue which contributes to Indian economy.

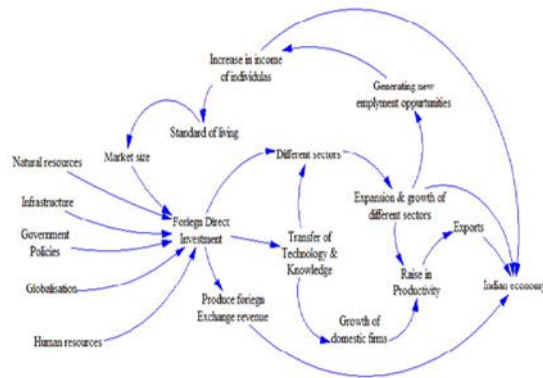


Figure 1. Causal loop diagram

## VI. CONCLUSION

FDI plays an important role in the long-term development of a country not only as a source of capital but also for enhancing competitiveness of the domestic economy through transfer of technology, strengthening infrastructure, raising productivity and generating new employment opportunities. India emerges as the fifth largest recipient of foreign direct investment across the globe and second largest among all other developing countries (World Investment Report 2010). The huge market size, availability of highly skilled human resources, sound economic policy, abundant and diversified natural resources all these factors enable India to attract FDI.

This paper discusses only the cause and effect diagram or the causal loop diagram. The causal loop presented in this paper can be extended with various other factors and then the diagram can be converted into a stock and flow diagram and equated using various mathematical equations and then the simulations can be carried out and the situation can be thoroughly studied and analyzed.

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# Recent Trends in Service Marketing

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**ABSTRACT:** Service Marketing incorporates a broad range of activities including product modification, product services etc. Yet defining service marketing is not a simple task where meanings intersect and contradict each other. Service marketing is a sub field of marketing which covers the marketing of both goods and services in the modern market. The development of service marketing has opened the door of opportunities for various companies to co-brand their products and services.

This paper describes about the recent trends in telecommunication services, its uses and adverse effects of the telecommunication services to the society with some statistical data and evidences.

## I. INTRODUCTION

Services marketing are a sub field of marketing which covers the marketing of both goods and services. Goods marketing include the marketing of fast moving consumer goods (FMCG) and durables. Services marketing typically refer to the marketing of both business to consumer (B2C) and business to business (B2B) services. Common examples of service marketing are found in telecommunications, air travel, health care, financial services, all types of hospitality services, car rental services, and professional services.

A service, according to Vargo and Lusch (2004), is 'the application of specialized competences (knowledge and skills) through deeds, processes, and performances for the benefit of another entity or the entity itself. Services are economic activities, rather than tangible products, offered by one party to another. Rendering a service to recipients, objects, or other assets depends on a time-sensitive performance to bring about the desired result. In exchange for money, time, and effort, service customers expect value from access to goods, labor, professional skills, facilities, networks, and systems; but they do not normally take ownership of any of the physical elements involved.

### Telecommunications -- A definition -- transmission of information

The term telecommunications refers to the use of personal computers to send and receive information through a communications connection, such as a telephone line. We use telecommunications specifically to refer to processes such as:

- electronic mail
- electronic bulletin boards/conferences/list serves
- research databases

- file transfers
- chatting
- games and simulations

## II. RESEARCH DESIGN

### Objectives:

#### Primary objective

- 1) To understand the new trends developed in the telecommunication services.
- 2) To know about the impacts of the telecommunication to the society

#### Secondary objective

- 1) To identify the benefits of each service provided by the telecommunication sector
- 2) To know about the new opportunities available in the telecommunication sector.

### Research Methodology:

- a) Secondary data is applied for the study.
- b) Information is collected from journals, magazines, text books and internet.

### Scope of the study:

Telecommunication sector has got a very huge market and it is one of the leading industries in India, the scope of this study is as follows.

1. The area of study is telecommunication services
2. This study is conducted for very short period of time
3. Secondary data collection method is used in the study
4. The study results will show the various trends developed in the telecommunication sector
5. It identifies the various uses of the services provides and its impact on the society.

### Limitations:

1. Questionnaire survey is not conducted in the study
2. The sample and sample size is not adopted in the study
3. The study has failed to know the opinion about the customers
4. Within short period of time the study was conducted.
5. The results shown in this study may vary with the time as technology changes from time to time.

## **The recent trends in the telecommunication services**

### **1) Good bye roaming**

It is expected that from March 2013, the Indian telecom subscribers may not have to pay roaming charges when they hop between circles. The proposition to abolish roaming charges was a part of National Telecom Policy 2012, which had received a nod from Cabinet in May 2012.

There has been some resistance from the telecom operators for implementation of this. One of the key reasons for this resistance is that currently 10 percent of revenues of telecom companies comes from roaming and they are not too happy about letting go of the same. Also the telecom companies have cited certain technical issues that need to be sorted before this becomes a reality.

Having said that, TRAI is currently in the process of reviewing this matter. It is likely that most things will be ironed out in due course of time and Indians will finally be able to kiss goodbye to roaming charges in the near future.

### **2) Mobile tariffs to go up**

It is no secret that mobile tariffs in India are amongst the lowest in the world. Most telecom operators have already shared that they are finding it difficult to sustain operations and even considering increasing the telecom tariff. Even 2012 saw increase in certain tariffs, and 2013 it is expected that there will be a marginal increase in telecom tariff during the course of 2013 as well. Considering that telecommunication sector are under pressure to introduce consumer-friendly initiatives like 'abolishing roaming', the hike in tariff may happen sooner rather than later in 2013.

### **3) 3G rates going down**

While the calling tariff may see an upward trend, the cost of using 3G data will likely get cheaper. In a bid to get more users to try the next generation 3G services telecom operators will be looking at offering better cost-effective deal to the masses. Airtel has already announced a '3G sharing plan' and one can look forward to many more innovative and pocket friendly plans being introduced in this year.

### **4) Nation wide MNP**

Mobile Number portability is the service that allows customers to switch operators and yet retain their mobile number. However, up till now this service is only available within the same circle.

Under the current provision, if a person is living in Delhi and has to shift to Pune (or any other circle apart from Delhi/NCR), then they will not be able to retain the same number. This is expected to change in 2013 as 'One Nation One Number' becomes a reality.

## **5) More thrust towards 4G services**

With consumers seeking faster Internet connections, it is expected that telecom operators will be pushing 4G services in India. Airtel is currently offering 4G (LTE) services in Kolkata, Bangalore and Pune and it is expected that it will be introducing these services to other states as well in 2013.

Additionally, there are also rumors doing the rounds that Aircel too may launch its 4G services soon. As a matter of fact, Aircel was expected to launch 4G services in Chennai by December 2012 but failed to meet the deadline.

While 4G is data-only at the moment, we will likely see voice and other services rolled out over 4G in 2013.

## **5 new trends expected to see in the year ahead , as the telecom industry continues to evolve**

### **1) Small cells**

Small cells will find its time to shine in the coming year. This technology, which can be used to handle local coverage and capacity issues arising from rapid growth in mobile data consumption, will enjoy major deployment in 2014 – enough for consumers to notice.

With small cells, consumers can expect to get better and faster service in crowded areas such as sports stadiums, subways and shopping malls. There will be fewer frustrations when it comes to data download and upload, and more reliable mobile service overall – all thanks to small cells' ability to boost coverage and user experience in busy and hard-to-reach locations. The mobile world will become sharper, more seamless and higher quality – just imagine the difference between an old analog television and high-definition TV – this is exactly what it will feel like with small cells in the game.

### **2 ) 4G deployment and LTE-Advanced**

Up until now, mass adoption of LTE has primarily been seen in North America and China, but in 2014, we expect to see usage accelerating in Europe. In fact, we can anticipate seeing a ramp-up in LTE in general.

In 2014, traffic on legacy 2G and 3G networks will begin to decline more rapidly as LTE becomes the focal point. We are seeing this realized through the growing number of LTE subscribers and the diminishing amount of spectrum allocated to legacy systems. Additionally, the volume of LTE traffic is growing substantially. (For a look at the state of 3G and 4G as of November 2013, see the info graphic below.)

This growth in traffic – coupled with the fact that people behave differently on LTE networks – will cause operators to take a closer look at their investment strategy, debating the benefits of over-investing in single radio access networks versus a “cap and grow” strategy by deploying an

LTE overlay network. In parallel, roll-out of LTE-Advanced features will start with carrier aggregation. This will enable operators to virtually “knit” their distributed blocks of spectrum in separate frequency bands into contiguous blocks to reduce waste and costs and improve service quality for subscribers.

### 3) VOLTE

As operators focus their investments on LTE access, the introduction of advanced services such as voice-over LTE will become more and more critical.

In 2014, we’ll see the realization of VOLTE, which many are claiming will lead to a revival in mobile voice services. While we have applications today like Skype and Facebook messaging, what we envision is a service offering that is much more comprehensive, of better quality and less individually compartmentalized than a mobile app. VOLTE will enable a new conversation experience, and because voice is still important to consumers, this will be a huge migration path for operators.

HD voice will be possible when calling within your own network, and operators will be quick to add additional services to VOLTE calls. Services such as Web real-time communications will be enabled – where operators and enterprises can embed rich communications services into Web applications to enhance the customer experience, while providing the peace of mind of connectivity over a secure operator’s network.

### 4) NFV/SDN

Network functions virtualization is another area in which will see increased investment during 2014. NFV technology supports the virtualization of components allowing a flexible network infrastructure that underpins the shift of applications and services to the cloud. NFV will bring agility and efficiency to networks and business operations and will allow operators to efficiently and cost-effectively support dynamic subscriber demands.

In 2014, more and more tools and professional services will be available to assist operators with the migration to NFV, making life easier for all. In time, both fixed and wireless access network elements will become virtualized, including functionality that previously resided at the customer premises (residential and enterprise). SDN techniques will play a key role here for service roll-out flexibility, and proof points will already appear in the coming year.

### 5) Wire line

Wire line is an area that should not be underestimated. As we jump into 2014, vectoring will take off in Europe as fiber reaches a critical density. Vectoring removes the “cross-talk” between a mass of copper lines and allows the true potential of VDSL2 and Fast technologies. Wire line operators will be able to maximize existing copper investments and increase broadband speeds

as they plan their fiber roll-out. Fiber roll-out will increase as a result of the growing interworking between wireless and wire line infrastructures.

## III. STATISTICAL DATA AND EVIDENCES

1) According to the Economic and social Research Council (ESRC) in the United Kingdom, the number of Britons between 25 & 44 Years who lives alone has been increased rapidly since 1971 (Williams).

2) According to the Institute for the Quantitative study of society, 60% of regular users of the internet stated that they have less time to watch TV, read news paper or go for a walk with their family since they started to use the internet.

3) According to the Pew Internet and American Life Project, 9, 60,000 American Internet users prefer to send E-cards to their friends and family in their various occasions. This huge number shows how our life has turned to written words even in our social life.

4) In 1990 there were only 11 million mobile cellular subscribers. Now there are an estimated 500 million.

5) Every day more than 250,000 people sign up for mobile cellular service.

6) “The spread of mobile communications has happened so rapidly that serious questions are being posed about the viability of expanding the fixed network, despite the fact that Cambodia has one of the lowest tele-densities in the world”, says the ITU report.

## IV. BENEFITS OF USING TELECOMMUNICATION

- 1) Telecommunications can promote meaningful and active learning.
- 2) It builds on existing Technology.
- 3) Improves Communication skills
- 4) It enhances Multilateral Education
- 5) Increases Motivation
- 6) It saves Trees
- 7) It eliminates phone tag
- 8) It provides current information
- 9) Telecommunication reduces isolation
- 10) It increases self-esteem
- 11) Telecommunication supplies faster communications
- 12) It increases access to experts
- 13) It acts as aids in administrative tasks.

### Adverse effects of telecommunications to the society:

- 1) Telephone towers create lot of environmental problems like high level of radiation effect in the atmosphere.
- 2) Increased death rate of birds sitting in the telephone tower
- 3) Increased rate of health problems like mild deafness, eye irritation and burning sensation, cancer etc.

- 4) Telecommunication services have made the children and students, addicted to mobile and internet.
- 5) Many people nowadays spend many hours sitting on a chair and looking at a screen to surf the internet. This has affected our life and social activities.
- 6) According to the Institute for the Quantitative study of society , 60% of regular users of the internet stated that they have less time to watch TV , read news paper or go for a walk with their family since they started to use the internet.
- 7) There is no real, emotional interaction and experience exchange among the people
- 8) Use of mobile phones and other electronic ways of communication is the main factor that leads to a corrupted society.
- 9) Youth will not have a strong relation with their family members which might lead them to feel emotionally detached.
- 10) Telecommunication devices has unconstructive outcome on both individuals and society.
- 11) Youths are learning more bad habits such as lying and being isolated.
- 12) A society that consists of individuals who are absorbed by their own world will have weak families and friendships.
- 13) Mobile and online communication means is one of the factors which make people behave in more materialistic way.

## **V. FINDINGS**

1. The study reveals that the Mobile and internet are the most effective media for communication..
2. According to the study report it is clear that people are changing rapidly to the technology.
3. The study reveals about the creative and unique features of the telecommunication services provided to the customers..
4. The study reveals that people are turning towards more materialistic life.
5. The study states that using Mobile phones and other electronic ways of communication might be one of the factors that lead to a corrupted society.
6. As per the statistical report 60% of regular users of the internet stated that they have less time to watch TV read newspaper or go out with their family.
7. The study reveals about the adverse effects of the telecommunication services to the society.

## **VI. CONCLUSION**

- 1 By conducting the study on the topic Recent trends in telecommunication services I would like to state that all the objectives stated in this study are achieved and along with many other unknown statistical facts and figures And various trends in

the telecommunication services is explained in detail.

- 2 I conclude that the achievements made by the various telecommunication sectors are remarkable, but the study also reveals that the human life and relationship are becoming very artificial and materialistic.
- 3 I conclude that; let us use the technology only when it is required, and let it not dominate our life and parental relation.

# Managing Diversity -Challenges, Strategies and Recommendations for managing diverse workforces

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**Abstract** - Diversity and diversity management in multicultural workforce is increasingly becoming an important issue for the business in the era of globalization. It affects the productivity and efficiency of the workforce in general. Anyone managing a workplace in today's culture might find diversity hard to ignore. The changing demography of the workforce, the global markets, accessible information and rapid communication, new laws and new organizations structures, new technologies all these phenomena influence their working environment making it more and more diverse. The workplace is becoming increasingly more diverse especially in economically developed countries as because people come from different countries for the sake of job. The extent to which demographic workforce shifts are effectively and efficiently managed. This will have an important impact on the competitive and economic outcome of organizations. A diversified workforce is like a two-edged sword. If a company knows how to harness the power of the diversified workforce, it can bring great benefits to the company. If not managed properly, it can be a great source of conflict.

Business is becoming more reliant on person-to-person contacts as a way of getting things done. The world's increasing globalization requires more interaction among people from diverse cultures, beliefs, and backgrounds than ever before. People no longer live and work in an insular marketplace; they are now part of a worldwide economy with competition coming from nearly every continent. For this reason, profit and non-profit organizations need diversity to become more creative and open to change.

Maximizing and capitalizing on workplace diversity has become an important issue for management today. With this background, this paper concentrates on effectively managing diverse workforce populations, identifying various challenges of managing a diverse workplace, and presents effective strategies and recommendations for managing diverse workforces.

**Keywords :** *Workforce Demographics, Demographic changes, Organizational change, Managing Diversity, Labour market.*

## 1. INTRODUCTION

Diversity in the workplace is now an important issue because its effective management can make a company, while improper management can mar it. In recent years, diversity has come to play a central role in organizational life, due to increased globalization, greater workforce diversity, and the increasing complexity of jobs (Williams and O'Reilly, 1998). Workplace diversity is generally regarded by many as only concerning a group of workers in a workplace with different socio-cultural

background and languages. Diversity management developed as a philosophy in the late 1980s in North America with the publication of Workforce 2000, a report indicating changing labour market demographics. In the 1990s, the concept gained popularity as a new management approach in the UK and has continued to do so because of the prevailing social and economic climate. It's now not a choice but a requisite for any successful workforce strategy because of the competitive pressures on organizations to sustain and improve economic performance and the changing expectations and aspirations of society. These pressures are forcing attention on the need to address contextual realities, which have traditionally been ignored. Labour market statistics show that the workforce of the twenty-first century is becoming more and more diverse in terms of factors such as race and ethnic origin, gender, age, sexual orientation and political and religious belief.

## 2. DIVERSITY DEFINED

Diversity exists in a group or organization when its members differ from one another along one or more important dimensions. Thus diversity is not an absolute phenomenon where in a group or organization is or isn't diverse. If everyone in the organization is exactly like everyone else, there is no or little diversity. If everyone is different along every imaginable dimension, total diversity exists. The term diversity has many interpretations. Different scholars have defined it in different way. Cox (2001) defined diversity as the variation of social and cultural identities among people existing together in a defined employment or marketing setting. While, William and O'Reilly (1998) defined diversity as the degree of heterogeneity among team members on specified demographic dimensions, their theory aims to explain how such heterogeneity affect team processes and performance. Thomas and Ely (1998) argue that diversity should be understood as the varied perspectives and approaches to work that members of different identity groups bring.

Diversity is generally defined as acknowledging, understanding, accepting, valuing, and celebrating differences among people with respect to age, class, ethnicity, gender, physical and mental ability, race, sexual orientation, spiritual practice, and public..

According to **Norton and Fox**

“The term **Diversity** is used to describe the variability in the composition of the workforce. Authors define differences such as age, gender, and race as primary diversity dimensions. Secondary dimensions include differences such as educational background, job status or title, geographic location, personal values, and type of work.”

### 3. REASONS FOR INCREASING DIVERSITY

Organizations today are becoming increasingly diverse along many different dimensions. Although several different factors account for these trends and changes, four of the more important ones are given below

1. Changing demographics in the labour force
2. Increased awareness that diversity improves the quality of the workforce
3. Legislation and legal action
4. The globalization movement

One factor contributing to increased diversity is **changing demographics in the labour force**. As more women and minorities enter the labour force, for example, the available pool of talent from which organizations hire employees is changing in both size and composition. If talent within each segment of the labour pool is evenly distributed (for example, if the number of very talented men in the workforce as a percentage of all men in the workforce is the same as the number of very talented women in the labour force as a percentage of all women in the workforce), it follows logically that, over time, proportionately more women and proportionately fewer men will be hired by an organization.

A related factor contributing to diversity is the **increased awareness by organizations that they can improve the overall quality** of their workforce by hiring and promoting the most talented people available from the different segments of the society.

Another reason for the increase in diversity is that **legislation and legal actions** have forced organizations to hire more broadly. In earlier times organizations in US were essentially free to discriminate against women, blacks, and other minorities. Thus most organizations were dominated by white males. But over the last thirty years or so, various laws have outlawed discriminations against these and other groups.

A final factor contributing to increase diversity in organizations is the **globalization movement**. Organizations that have opened offices and related facilities in other countries have had to learn to deal with different customs, social norms, and more. As employees and managers move from assignments to assignments across national boundaries, organizations and their subsidiaries within each country thus become more diverse.

### 4. CHALLENGES OF DIVERSITY IN THE WORKPLACE

A benefit of a diverse workforce is the ability to tap into the many talents which employees from different backgrounds, perspectives, abilities and disabilities bring to the workplace. Many companies, however, still face challenges around building a diverse environment. The long-term success of any business calls for a diverse body of talent that can bring fresh ideas, perspectives and views and a corporate mindset that values those views.

Some of those challenges are:

- **Discrimination:** Due to varying levels and kind of discrimination, diversity is not accepted in an organization. Various discrimination which exists in organizations are gender, race, sexuality, religion, disability, economic class or cultural background.
- **Communication:** Ineffective communication in an organization results in confusion, lack of teamwork, and low morale. Miscommunication due to cultural differences will occur in a diverse workplace. One such challenge is the lack of understanding that is likely to occur between two people, or two groups of people working within the same organization, find difficulties understanding one another. This may be due to various reasons, ranging from language barriers to the level of one's education. Perceptual, cultural and language barriers need to be overcome for diversity programs to succeed.
- **Exclusion:** In order for diversity initiatives to be successful, you need to eliminate organizational tendency to exclude people for reasons which have nothing to do with the job.
- **Stereotypes and preconceptions.** When people assign an identity to an entire group, rather than judging each individual on their own merits, this presents challenges because these conceptions are typically inaccurate and are based off wrongful stereotypes.
- **Absenteeism.** This is another problem which afflicts organizations who lack diversity initiatives; this ends up being expensive because morale goes down which results in less productivity due to low spirits and absenteeism.
- **Resistance to change -** There are always employees who will refuse to accept the fact that the social and cultural makeup of their workplace is changing.
- **Implementation of diversity in the workplace policies –** Organization Should build and

implement a customized strategy to maximize the effects of diversity in the workplace.

## **5. MANAGING DIVERSITY IN ORGANIZATION- STRATEGIES AND RECOMMENDATIONS**

Diversity in the workplace is now an important issue. Managing diversity in the workplace requires setting out goals and objectives of what is to be achieved from proper management of workers of diverse background and qualities. Without the support of management, diversity is only a concept and a word. To make diversity work, identifying obstacles and solving these issues must be a priority. Because of the tremendous potential that diversity holds for competitive advantage, as well as the possible consequences of diversity related conflict, much attention has been focused in recent years on how individuals and organizations can better manage diversity. The challenges of workplace diversity can be turned into strategies for placing an organization in a vintage position over and above its competitors.

### **5.1 Strategies.**

- There should be a manager, whose role is to manage the workers of diverse background. Workers with diverse socio-cultural background should be allowed to mingle and mix through meetings and regular retreats. Managers must understand that cultural factors cause people to behave in different ways and that these differences should be accepted. The manager needs to be a role model for all of the employees to embrace different cultures in the workplace.
- Training should be organised to foster appreciation of different culture of workers and language barriers should be broken through training of workers in the official language of the organization. In today's context, employers prefer to recruit workers who can speak in more than one international language. Classes can be organised for workers to adopt another popular language.
- A final individual approach dealing with diversity is communication. Problems often get magnified over diversity issues because people are afraid or otherwise unwilling to openly discuss that relate to diversity. Workers should also communicate freely with each other, in an informal way, irrespective of their age difference. This attitude breeds intimacy and 'open-mindedness'.
- People in an organization should try to understand the perspective of others. When a new employee joins an organization others maybe a little self-conscious as how to act toward the new member and maybe interested in making employee feel comfortable and welcome. They need to be welcomed and give them a sense of belonging. Focus on the positives of each individual. The manager needs to let

everyone know they are valued. A good way is to involve them in projects, rather than waiting for them to ask.

- Organizations should establish corporate culture which will be enshrined in the workplace. By building relationships with individuals with different backgrounds, One can learn about the talent and knowledge which are the key ingredients for an organization.
- Workers should be allowed to share their experiences of working in the organization during meetings and retreats.
- There should be challenges for the workers to work as sub-groups. Sub-grouping a team for tasks execution has been proved to be helpful in achieving results. Through sub-grouping and mock sessions of organisations, qualities of different workers can be identified. Regularly, depending on the size of the organization, teams of different sizes should be swapped to encourage interaction.
- The manager should carry out opinion survey of all members on how employees feel working in each group and their preferred leader/s. The leadership identification exercise after a long period of time will ensure there is easy delegation of leadership roles and succession.
- The manager can introduce awards in the teams for good works and innovations.

### **5.2 Recommendations.**

Some of the steps which have been found successful in top companies of the world are:

- People from diverse background should not be treated differently on the basis of race, religion, gender etc. But it's easier said done. There must be deliberate attempt to treat people equally and after some period of time, diversity differences will automatically come down.
- Regardless of the position of the employee, he must know the area in which he has bias towards people. Then he will be in a better position not repeat his previous judgmental errors
- A good senior employee should try to bring out his juniors full potential and provide training and mentoring. Still there will be differences in the output of all employees due to each one's capacity and ability to learn.
- Another good practice is to have a strong morale among employees. This can be developed by treating everyone with dignity and respect and not by having favourites among employees

- Government rules also help to reduce diversity differences. Organizations must adhere to the rules laid down by the government and must see through that each employee sticks to such rules and regulations. If there is a case of discrimination, it must be investigated immediately without delay.
- Knowing each employee personally fosters good environment at the workplace and sets an example for others to follow. Everyone should look at diversity as an opportunity to grow.

The following measures can be adopted to bridge diversity gaps.

- **Assessment of diversity in the workplace** – Diversity issue needs to be addressed properly and in a systematic manner. Assessment of diversity helps in such cases. Assessment can be at two levels: for managers and for employees. Managers must make a self assessment of themselves and satisfaction survey can be undertaken for employees. The results can be used to set up some guidelines that manager and employees must follow. Reassessment helps to identify gaps and corrections can be made.
- **Development of diversity in the workplace plan**– A good survey will be key to bridge diversity gaps. Hence care must be taken while taking satisfaction survey based on which workplace plan is developed.
- **Ward off change resistance with inclusion** – Resistance due to diversity can be minimized with inclusion that is involving every employee possible in formulating and executing diversity initiatives in the workplace.
- **Foster an attitude of openness in your organization** – Employees must be allowed to express their feelings freely.
- **Promote diversity in leadership positions** – This practice provides visibility and realizes the benefits of diversity in the workplace.
- **Comprehensive reporting** – Results must be used to develop and execute successful diversity in the workplace policies. Globalization has led to companies recruiting diverse workforce. Organizational success and competitiveness will depend on the ability to manage diversity in the workplace effectively. Hence it is important for every organization to have a less diversity gaps.

## CONCLUSION

**Diversity is a reality and a must....**

- Companies should use diversity to create a competitive advantage.

- Diversity needs a change in mindset.
- Diversity- A process creates greater wealth through increased creativity and productivity.
- Efficient and effective communication is key.

In order to reap the benefits of a diverse workforce, we must first look through our differences, and learn to accept them. The challenges of diversity must be faced, and faced swiftly. Only then can we be a truly united, yet diverse workforce, and such is important in the world of today. If you manage yourself properly, diversity in the workplace will be a benefit to your personal growth. The sharing of ideas, and cultures is rewarding. Enjoy your workplace with its diverse population, and contribute to a smoothly running work environment.

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# Relationship between Futures and Spot Market: A Study of Indian Stock Market

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**Abstract** -The study of the relationship between the spot and derivatives market is very important from point of view of investors, policy makers, exchanges and other stake holders. Derivatives products were introduced with the objectives of minimising the price variations in the spot market through improving the speed and accuracy of information flow from derivatives market to spot market. Hedging against price risk is another important function of derivatives market. The decision of optimal hedge is depends upon the speed of information that the investor s receives from the derivatives market. Theoretically, spot market prices and derivatives market price should move together and on the day of expiration derivatives prices should converge with the spot prices. However, due to several market frictions there will significant lead-lag relationship between the two markets. In this paper we study the relationship between the spot and futures market in India taking an example of CNX Nifty Index future and its derivatives. We use Johansen's co-integration test and pair-wise Granger causality test and the results of this revealed that spot market leads the futures market.

**Keywords:** *Derivatives Market, Hedging, Lead-Lag Relationship, Co-integration.*

## I. INTRODUCTION

Indian stock market is as old as any oldest stock market of the world and it is one of the largest stock exchanges in the world. It offers wide variety of financial instruments like stocks, stock futures, stock options, index futures, index options etc. The purpose of a derivative contract is to reduce the volatility by increasing the speed of flow of information between the spot market and derivative market. Still, an ambiguous situation exists in terms of which market is a leading market, whether the spot market is leading the derivative market or vice versa. Here, leading market means the market that generates the price of an asset. The vital issue of a market for derivative products of any asset class is the further information content that may be extracted from the prices evolving in this market. Thus, in addition to traditional role of risk reduction, futures markets also assume a greater role in the aggregation of information and price discovery. Price discovery is a process through which spot and futures markets congregate towards the efficient price of the underlying asset.

Theoretically, when two markets encounter the same information simultaneously, the two markets should react in a similar fashion at that moment. The divergence between

the reactions forces one market to play a leading role over the other market. The leading market is considered as contributing a price discovery function and a lead-lag relation emerges in case of price adjustments. The futures market, which is considered to be more responsive to the new information than the spot market, serves as a price discovery vehicle for investors in the spot market. Due to trading cost advantage, greater liquidity and fewer restrictions, the futures market reacts faster to information and is expected to play a dominant role in price discovery. Therefore, a lead-lag relation between futures and spot market returns is of interest to academics, professionals and regulators for a variety of reasons. First, this issue is related to market efficiency since in efficient markets, informed investors are indifferent between trading in either market. Furthermore, empirical evidence indicates that the futures market provides the function of price discovery which means futures prices should contain useful information about the subsequent spot price. The present study tries to explore the issue of relative contributions of spot and futures markets to the process of price discovery. The purpose of this study is to examine the relationship between the S&P CNX Nifty and its corresponding futures. The study applies the Johansen's co-integration test and Granger causality test to verify the relationship and to identify the relative contributions of the spot and futures markets in the price discovery process. This study found that there exists a bidirectional relationship between the spot and derivatives market in India.

## II. LITERATURE REVIEW

There is an extensive amount of literature examining the impact of derivatives trading on the return as well as volatility of underlying spot market, giving special importance to the lead-lag relationship between the spot and derivatives market all over the world. In this regard very early study is of Gardbade and Silber (1982) who studied the lead-lag relationship and price discovery process for four agricultural storable commodities using daily closing prices. Correlation of basis of the previous time period with spot or futures prices of the current time period was empirically tested. For wheat, corn and orange juice they found the dominating role of futures market over the spot market, but for oats the study did not provide any clear result. Oellermann and Farris (1985) investigated lead-lag relation between futures and spot market for live beef cattle between 1966 and 1982. Based on Granger causality test

they found leading role of futures market. They found that the spot market responded to change in futures market within one trading day. Kawaller, Koch and Koch (1987) employed time-series regression analysis and used minute to minute data to investigate the lead-lag relationship between the S&P 500 index future and the S&P 500 stock index. The authors examined and compared the stock and futures price relationship on expiration days of the S&P 500 index future and on days prior to expiration. The results of the analysis indicated that S&P 500 index future leads S&P 500 index by twenty to forty-five minutes, while movements in the index have an effect on futures within one minute. Schroeder and Goodwin (1991) studied the price discovery for live stock contracts and found that the futures markets capture the information first and then transfer it to the spot markets. Chan (1992) investigated the intraday lead-lag relationship between Major Market (MM) cash index and MM futures index and S&P futures returns under different situations. Their results confirmed the leading role of the futures market even against all the component stocks. They have also empirically proved the leading role (to a greater degree) of the futures market for the release of any market wide information. Brockman and Tse (1995) studied the price discovery process of four agricultural commodities futures market of Canada. They used methods like co-integration, vector error correction model and the Hasbrouck (1995) information model and their study found the leading role of futures market over the spot market for all four commodities.

Koutmos and Tucker (1996) examined how volatility of S&P 500 index futures affected the S&P index volatility using VECM and ECM-EGARCH (1,1) models. They reported that volatility in both markets is an asymmetric function of past innovations and volatility spillover effects between the two markets are bidirectional. Fortenberry and Zapata (1997) examined the lead-lag relationship between futures and spot markets in US for cheddar cheese, ammonium phosphate and anhydrous ammonia by using co-integration technique. They found that futures and spot prices of ammonium phosphate and anhydrous ammonia are co-integrated but not that of cheddar cheese. Jong and Nijman (1997) have confirmed that even in the presence of significant contemporaneous correlation among the spot, futures and the options market, the futures price changes lead both the changes in the cash index and index option by five to ten minutes. But, among the cash and the options market, the relations are largely symmetrical and neither market consistently leads the other. Min (1999) has investigated the possible lead-lag relationships in returns and volatilities between cash and futures markets. Their results have suggested that unlike the lead-lag relationship in the returns of spot and futures markets, there is significant but time dependent bidirectional causality between the markets, as far as the volatility interaction among the markets is concerned. Frino, Walter and West (2000) examined the temporal relationship among the spot and the futures market around the release of different types of

information. They have found that the lead of the futures market strengthens significantly around the release of macroeconomic information, while, the leading role of the futures market weakens around stock-specific information release. Therefore, according to them the disintegration in the relationship between the two markets is mainly driven by noise associated with trading activity around the release of different types of information.

Floros and Vougas (2007) examined the relationship between futures and spot market in Greece over the period from 1999 to 2001. Employing a Bivariate GARCH model and by using daily observations they examined the lead-lag relation between stock index futures contracts and the spot index of FTSE/ASE-20 and FTSE/ASE Mid 40. The results of their investigation demonstrated that futures market plays a price discovery role, implying that futures prices enclose valuable information about stock prices. Azzizan, Ahmad and Shannan (2007) investigated the return and volatility spillovers in the Malaysian crude palm oil futures market using bivariate ARMA (p, q)-EGARCH (p, q) models. They used daily price data of crude palm oil futures and spot markets and found bidirectional information transmission between futures and spot markets for both returns and volatility. Ge, Wand and Ahn (2008) examined the interactivity of Chinese cotton markets with the US market and found that futures prices of cotton in China and the US are co-integrated.

In India, the issue of lead-lag relationship and price discovery had drawn the attention of investors and researchers of late in the last decade. Karande (2006) studied the relationship between castor seed futures and spot market using co-integration test. This study showed that futures market for castor seed of Mumbai and Ahmedabad are co-integrated, indicating the existence of unidirectional causality from futures to the spot market. Praveen and Sudhakar (2006) studied the price discovery between spot and futures of Nifty index of National Stock Exchange of India Ltd (NSE) and gold of Multi Commodity Exchange of India Ltd (MCX). This study found no relationship between Nifty spot index and futures. However, for gold futures market price have clear influence over the prices of spot gold. Kailash and Sham (2007) investigated the casual relationship between spot and futures market by employing Johansen's co-integration test and VECM model. This study concluded that future markets play an important role for price discovery. In addition to these models Shankar and Jaiswal (2007) used generalized impulse response analysis and concluded that futures market is a usual price discovery vehicle. Karmakar (2009) investigated the lead-lag relationship between the S&P CNX Nifty and the Nifty Futures. This study conducted Multivariate Co-integration tests on the long-run relation between these two markets. The daily price discovery process by exploring the common stochastic trend between the S&P CNX Nifty and the Nifty future based on vector error correction model (VECM) was

also investigated. Further, he examined the volatility spillover mechanism with a bivariate BEKK model. Finally, this study also captured the effects of recent policy changes in the Indian stock market. His results revealed that the Nifty futures dominate the cash market in price discovery and the bivariate BEKK model shows that although the persistent volatility spills over from one market to another market bi-directionally, past innovations originating in future market have the unidirectional significant effect on the present volatility of the spot market. Author concluded that the Nifty future is more informationally efficient than the underlying spot market. Srinivasan (2009) studied the price discovery in the NSE spot and futures market of India and found that there exists a bidirectional relationship between these two markets. Iyer and Pillai (2010) examined whether futures markets play a dominant role in the price discovery process. The rate of convergence of information from one market to another is analyzed to infer the efficiency of futures as an effective hedging tool using threshold vector autoregression (TVAR) and a two-regime threshold autoregression for six commodities. This study found evidence for price discovery process happening in the futures market in five out of six commodities. Mallikarjunappa and Afsal (2010) studied the lead-lag relationship between spot and futures markets in the Indian context by using high frequency price data of twelve individual stocks, observed at one-minute interval. The study applies the concept of co-integration and establishes the spot-futures relationship using VECM represented by EGARCH framework. The study found that there is a contemporaneous and bi-directional lead-lag relationship between the spot and futures markets.

To conclude the literature review, the empirical research on the issue of lead-lag relationship and price discovery is relatively limited in number in India. Majority of the studies in India concentrated on stock market than the commodity market. Karande (2006), Kumar and Sunil (2005), Roy and Kumar (2007) and, Iyer and Pillai (2010) are some important studies on commodity market. With this back drop our study concentrates on stock index derivatives and spot market in India. This study examines the temporal relationship in spot and futures market of Gold of NSE Nifty cash and futures by employing Johansen's co-integration test, and the Granger causality test.

### III. DATA, SAMPLE AND METHODOLOGY

#### A. Data and Sample

NSE is the largest stock exchange in India in terms of volume and number of scrips trading. NSE Nifty is the indicator of the NSE which contains fifty most liquid stocks. NSE Nifty is one of the economic indicators of India. NSE provides platform for variety of financial instruments. The futures and options (O&F) segment of NSE contributes more than 90 percent to the total trading value (Appendix Table). In this study we use daily closing price of CNX Nifty index futures and spot market from 2<sup>nd</sup> January, 2013 to 26<sup>th</sup> December, 2013. In total 246 data points are used for

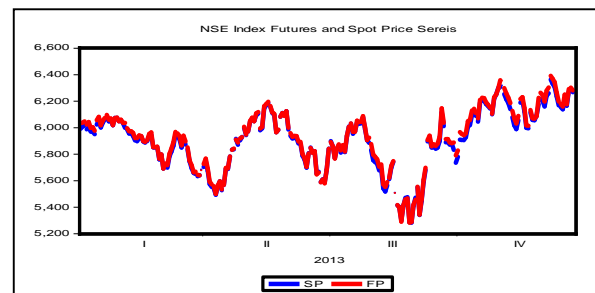


Figure 1: Data structure of Closing price series

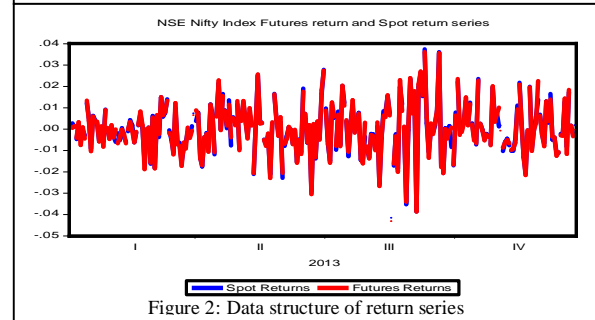


Figure 2: Data structure of return series

the analysis. We construct a time series taking the near month data. Overall, our sample covers for about one year and this time period is free from any major financial incident such as stock market crash, recession etc. The structure of the data is graphically shown in figure 1 and 2.

#### B. Methodology

##### a) Johansen's Co-integration Test

Johansen proposed an alternative model for testing co-integration using maximum likelihood approach. This test is considered as most powerful test to ascertaining the long term relationship between the variables. The test for co-integration between the two series is done by considering the rank of the matrix via its eigenvalues. In Johansen's procedure, the eigenvalues are arranged in descending order.

1 2 3 .....

Where 1 largest value and is the smallest one.

There are two test statistics for co-integration under the Johansen approach using maximum likelihood statistics:

##### 1. The Lamda Max ( ) Test

This test examines the null hypothesis that the co-integration rank is equal to  $r$  against the alternative hypothesis that the co-integration rank is equal to  $r + 1$ . The test statistic is calculated as follows:

$$(\lambda_{r+1} + 1) = - \ln \left( \frac{|\Sigma|}{|\Sigma_r|} \right) + 1$$

where  $\lambda_{r+1}$  is the eigenvalue. The test is repeated for  $r = 1, \dots, k$  until one fails to reject the null hypothesis.

##### 2. The Lamda Trace ( trace) Test

This test examines the null hypothesis that the co-integration rank is equal to  $r$  against the alternative hypothesis that co-integration rank is  $k$  or greater than  $r$ . The

test is conducted in inverse sequence that is  $r = k, k - 1, k - 2, \dots, 0$ . The test statistic is computed as follows:

$$\text{trace}(r) = -T \ln(1 - i)$$

In the above two equations,  $i$  is the number of co-integration vectors and  $\lambda_i$  is the estimated value for the  $i^{\text{th}}$  ordered eigenvalue from the matrix. The test of cointegration basically examines whether there exists a stationary linear combination of non-stationary variables. If such a combination is found, it is inferred as an equilibrium relationship between the variables.

### 3. Granger Causality Test

A statistical approach proposed by Clive W. J. Granger (1969) to infer the cause and effect relationship between two (or more) time series is known as Granger Causality. Granger Causality is based on the simple logic that effect cannot precede cause. The Granger Causality test is based on the bivariate regression model:

$$y_t = \alpha_0 + \alpha_1 y_{t-1} + \alpha_2 y_{t-2} + \dots + \alpha_k y_{t-k} + \epsilon_t$$

$$y_t = \beta_0 + \beta_1 y_{t-1} + \beta_2 y_{t-2} + \dots + \beta_k y_{t-k} + \epsilon_t$$

Where  $\epsilon_t$  and  $\epsilon_t$  are the error terms which are assumed to be uncorrelated.

Particulars	Spot Returns	Futures Returns
Mean	0.0002	0.0002
Median	0.0000	0.0000
Maximum	0.0374	0.0361
Minimum	-0.0417	-0.0432
Std. Dev.	0.0115	0.0117
Skewness	-0.0981	-0.0992
Kurtosis	4.4078	4.2908
Jarque-Bera	20.6263	17.4093
Probability	0.0000	0.0002
Sum	0.0466	0.0396
Sum Sq. Dev.	0.0321	0.0334
Observations	245	245

Table 1: Descriptive Statistics of return series

#### Appendix Table:

Table 1-1: Trading Value of Different market segments (Rs. Crores)

Segment/Y ear	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Capital Market	1,945,287	3,551,038	2,752,023	4,138,024	3,577,412	2,810,893	2,708,279

Equity Futures & Options	7,356,242	13,090,478	11,010,482	17,663,665	29,248,221	31,349,732	31,533,004
Wholesale Debt Market	219,106	282,317	335,952	563,816	559,447	633,179	688,788
Currency F&O	--	--	162,272	1,782,608	3,449,788	4,674,990	5,274,465
Interest Rate Futures	--	--	--	2,975	62	3,959	0.22
Total	9,520,635	16,923,833	14,260,729	24,151,088	36,834,929	39,472,753	40,204,536

The table 1 indicates that the mean returns of the two markets are positive. The maximum, minimum returns are almost equal in both the markets. The deviation from mean is also more or less same in two markets showing signals of very close relationship between the spot and futures market. Both the series are negatively skewed. The Skewness, Kurtosis and Jarque-Bera statistics indicate the non-normality of the return series.

## IV. EMPIRICAL RESULTS AND DISCUSSIONS

	Trace Statistics	P.Value	Max-Eigen Value	P. Value
None (r = 0)	112.9671	0.0001	67.65197	0.0000
At Most 1 (r = 1)	45.31517	0.0000	45.31517	0.0000

Table 2: Unit root (Stationarity) test results

In the initial stage of any time series analysis, the properties of the time series must be examined for the presence of stationarity. Since this article deals with time series data, the biggest issue with the time series data is non-stationarity. In the absence of stationarity, hypothesis test results will be spurious. In order to check the presence of unit root and determining the order of differencing required to bring stationarity, we use popular unit root tests such as the Augmented Dickey-Fuller test (ADF) and Phillips-Perron (PP) test. In table 2 we present the results of stationarity (unit root) test and it is very clear from the table that the price series are non-stationary and the return series are stationary. Therefore, we can use the return series rather than price series for further analysis.

## V. SUMMERY AND CONCLUSION

In this article we study the relationship between the spot and derivatives market in India with an example of NSE Nifty cash and index futures market. We use popular econometric models such Johansen's co-integration test and Granger causality test for understanding the nature and direction of relationship. Before estimating the above econometric models we check the properties of data under study through descriptive statistics, graphical analysis and stationarity tests. Graph and descriptive statistics provided us the early symptoms of close relationship between the markets. Stationarity test concludes that the price series are non-stationary and the return series (first log difference) are stationary. Co-integration test showed that there exists the long run relationship between the markets. The Granger causality test clears that there exists a bi-directional relationship between the spot and futures market.

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# India as an Emerging Economy

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**Abstract -** The performance of India under the reforms carried out in the last two decades shows a mixed picture of notable achievements and weaknesses. Before the recent financial year India's average annual GDP growth rate was 8%, armed with the population strength of more than a billion people, India is now 11<sup>th</sup> largest economy in the world. Forming, 'I' in the BRICS group of nations. India plays a very important role in leadership of the emerging markets and developing economies boost the culture of entrepreneurship and innovations. Indians manufacturing sector grew quickly after the early 1990s, the stand out growth was seen in services. As India's large population of well trained English speaking engineers were able to adapt western business model to lower cost environment. services export rose from 2% to 8% during the period between 1994-2011. What began outsourcing of simple tasks of like customer services and software programming has broadened to development of new business processes and software, handling routine legal and medical issues. India has also found a niche in other knowledge intensive industries.

However Over the past few years Reforms have largely taken a back seat and Challenges in the area of rural development, infrastructure, human development, poverty eradication, unemployment and in equality in the economy and fluctuating foreign direct investment as a result economic structure has become more and more unbalanced. With this background this paper aims at following objectives:

- 1) To examine the impact of reforms on reducing poverty.
- 2) To analyse Indian experience with reforms and
- 3) To suggest the way how India can be emerging economy

To sustain reforms growth need to be made more inclusive India needs to move towards an economic structure that better balances domestic and external demand, as well as

*Keywords: economic reforms, Changes, impact, suggestions*

## I. INTRODUCTION

The performance of India under the reforms carried out in the last two decades shows a mixed picture of notable achievements and weaknesses. Before the recent financial year India's average annual GDP growth rate was 8%, armed with the population strength of more than a billion people, India is now 11<sup>th</sup> largest economy in the world. Forming, 'I' in the BRICS group of nations. India plays a very important role in leadership of the emerging markets and developing economies boost the culture of entrepreneurship and innovations. Indians manufacturing sector grew quickly after the early 1990s, the stand out growth was seen in services. As India's large population of well trained English speaking engineers were able to adapt western business model to lower cost environment. services export rose from 2% to 8% during the period between 1994-2011. What began outsourcing of simple tasks of like customer services and software programming has

broadened to development of new business processes and software, handling routine legal and medical issues. India has also found a niche in other knowledge intensive industries. However Over the past few years Reforms have largely taken a back seat and Challenges in the area of rural development, infrastructure, human development, poverty eradication, unemployment and in equality in the economy and fluctuating foreign direct investment as a result economic structure has become more and more unbalanced. With this background this paper aims at following objectives.

## II. OBJECTIVES

- 1) To examine the impact of reforms on reducing poverty.
- 2) To analyse Indian experience with reforms and
- 3) To suggest the way how India can be emerging economy.

**Methodology:** The study is based on secondary data collected from journals, news papers, research articles and annual reports of government, non government institutions.

## III. DISCUSSION

The success of any economic reform process should be judged by the social and economic objectives it achieves. In country like India reducing poverty level is the most important manifestation of socio-economic progress. It signifies improvement in standard of living and thereby a better health and education. Labour force of improved standard contributes more to the economic well being by producing more/better. An impoverished worker. Skilled or unskilled, is not likely to perform as well as a worker who is well-fed/off. Poverty level, therefore affects all spheres of economic activities, and hence deserves more attention than any other aspect of economic reforms. Over the last decade, poverty has witnessed a consistent decline with the levels dropping from 37.2% in 2004-05 to 29.8% in 2011-12. The number of poor is now estimated at 269.3 million, of which 216.5 million reside in rural India. While the trend is not surprising, the extent of the decline has opened up a debate on the factors that have led to it. The numbers themselves may be debatable but they are reflective of a broader trend. One theory is that this is the outcome of the trickle-down impact of the record growth witnessed in the first decade of the new millennium. According to the release from the Planning Commission, 25.7% of people in rural areas were below the so-called poverty line and 13.7% in urban areas. This is comparable with 33.8% and 20.9%, respectively, in 2011-12, and 42% and 25.5%, respectively, in 2004-05.

**Indian experience with reforms :** India launched its economic reforms in 1991 under the pressure of economic crises and socially intolerably high rates of inflation that were building up in 1980s climaxed in 1990-91. In India post 1991 economic reforms have been revolutionary and incremental in nature. Despite slow pace of implementation of the economic reforms with certain hiccups and delays caused by the compulsions of democratic politics, the performance of the economy under reforms carried out in the last two decades shows a mixed picture of notable achievements and weakness. The first round of reforms lifted restrictions on manufacturing and trade. Licensing requirements were lifted across many industries. Tariffs fell and Indian financial market began to open to the world. Financial inflows rose from almost nothing in the early 1990s to 8% of the GDP in 2007, last year before the global financial crises. While India's manufacturing sector grew quickly after the early 1990s. The stand out growth was seen in services, as India's large population of well trained English speaking engineers were able to adapt western business models to a lower cost environment. Service export rose from 2% to 7.5 of the GDP between 2007- 2011. What began as simple tasks like customer service and software programming broadened to development of news processes and software handling of routine legal and medical issues and other services? India has also found a niche in other knowledge- intensive industries.

**Changes in composition of Domestic Product:** Change in composition of domestic product or change in national income by industry of origin refers to change in relative significance (share) of different sectors of the economy. Generally, an economy is divided into three major sectors viz. primary, secondary and tertiary sectors. Primary sector includes agricultural and allied activities, secondary sector includes manufacturing industries and tertiary sector includes services. With the development process, significance of primary sector declines while that of secondary and tertiary sectors increases.

The share of primary sector in GDP at factor cost (at 1999-2000 prices) which was 56.5 per cent in 1950-51 declined to 34.6 per cent in 1990-91 and then to 19.7 per cent in 2007-08. The secondary sector's share in GDP was 13.6 per cent in 1950-51 increased to 23.2 per cent in 1990-91 and further to 27.6 per cent in 2011-12. Tertiary sector's share in GDP increased from 29.9 per cent in 1950-51 to 51.1 per cent in 2011-12, and in 2009-10 it was over 7 per cent.

**Growth of Basic Capital Goods Industries:** When country attained independence, the share of basic and capital goods industries in the total industrial production was roughly one-fourth. Under the second plan, a high priority was accorded to capital goods industries, as their development was considered a pre-requisite to the overall growth of the economy. Consequently, a large number of basic industries which produce capital equipment and useful raw materials

have been set up making the country's industrial structure pretty strong.

**Expansion in Social Overhead Capital:** Social overhead capital broadly includes transport facilities, irrigation systems, energy production, educational system and organisation and health facilities. Their development creates favourable conditions for growth and also for better human living. The transport system in India has grown both in terms of capacity and modernisation. The railways route length increased by more than 9 thousand kms and the operation fleet practically doubled. The Indian road network is now one of the largest in the world as a result of spectacular development of roads under various plans. India has also seen growth in Life- expectancy and Literacy.

**Progress in the Banking and Financial Sector:** Since independence, significant progressive changes have taken place in the banking and financial structure of India. The growth of commercial banks and cooperative credit societies has been really spectacular and as a result of it the importance of indigenous bankers and money-lenders has declined.

Since nationalisation, these banks have radically changed their credit policy. Now more funds are made available to priority sectors such as agriculture, small-scale industries, transportation, etc.

**Challenges faced by Indian Economy:** Indian economy has progressed structurally when we consider the growth of capital goods industries, expansion of the infrastructure, performance of the public sector, etc. These factors over the years are believed to have created an element of dynamism in the country's economy and one can now hopefully say that it would sustain development in the future. However, Indian economy faces enormous challenges' in the areas of rural development, urban sustainability, national infrastructure and human capital. The UN human development Report places India far below down in the list of global economic development. Rural development Agriculture and rural economy has not witnessed any significant changes. In fact the agriculture sector is almost untouched by spate of reforms. Adequate water for Irrigation is still a mirage. Power shortage has also affected the agricultural production. Farming is not yet a profitable enterprise due to lack of adequate support prices to the farmers. Unlike other developing economies, India has a very large workforce engaged in farming and the productivity of this huge workforce remains very low.

In India a vibrant service sector has given the country something highly unusual among emerging economies, many world beating private companies in high value added areas. Companies like Infosys, Wipro, and TCS compete at the top rank of information technology services around the world. But information technology employment in India is estimated to cover only 2.5 million people over less than half a percentage of the working age population. As India's working age population grows rapidly over the

coming decades, more people than ever will enter the labour force. Providing them with good job opportunities will require a host of reforms. Education and health care will have to be improved, and regulations of labour intensive industries especially manufacturing will have to be overhauled.

It is true that the rate of growth is still good compared to that most other countries in the world. This growth is also comparable to India's historical growth rate is not comparable with that prior to 1991 because that was not creating inequality and unemployment which the current marginalising growth has been doing. Post -1991, growth has been fuelled by the private corporate sector with highly capital intensive technology which does not generate much employment and also increases inequality in the economy. Most of the gains have been cornered by a few leaving little to trickle down to others. This is true for the marginalised sections like agriculture.

**Suggestions and Conclusions:** Constraints on the growth from inadequate port capacity and overcrowded roads to clumsy allocation of mining rights electrical blackout –will have to be addressed. Improving the business climate by simplifying rules, removing red tap and lowering barriers to foreign trade is also crucial and the financial system will have to be improved so more people have the ability to save and borrow and so corporation can undertake more long term investments. Here are a few macro-level actions to fix the situation, to arrest the fall and to reverse the depressing escalation:

First, policies and institutions for restoring global business confidence in India and ensuring ease of operations for business are a must. While it is good to have the attention of the opposition on issues of corruption, social security, and inclusion, it is equally obligatory on its part to extend cooperation to create a dynamic economic eco-system that can speed up growth.

A Business Advisory Council comprising business leaders, management experts and economists is needed urgently to work on policy issues only along the lines of National Advisory Council.

Second, reforms for doing business and sustaining business are needed on a continuous basis to balance foreign investments. A focussed annual reform plan needs to be introduced. This will help in introducing reforms and managing the developments in the domain. Infrastructure, manufacturing and the supply chain should have an annual execution plan to create a great eco-system.

Third, India needs to get started on the path of economic diplomacy besides focussing on the diplomacy of terrorism and security. The fact is developed markets have influence today, but emerging markets will influence tomorrow; so we need to better our relationship with emerging markets. The US diplomatic corps in India is bigger than the Indian diplomatic corps globally. India's

diplomatic capability is disproportionate to its responsibility.

Fourth, the government should give bigger responsibility to chambers of commerce and the chambers need to share their research and opinions with the government as a bridge between the government and industry. They also have to take up larger responsibility in marketing the nation on behalf of the government and building Brand India.

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# Cultural Care in Nursing – A Changing Scenario in Health Care

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**Abstract:** Today world has turned out to be a single market for business players where they can reach their products and services to every nook and corner of the world. This possibility is well termed as Globalisation. To get into more intense exploration, we can justify the presence of this mighty force in every field or sector. No matter be it manufacturing, agriculture, education or even health care sector, the impact of globalisation is very evidently seen. As a result of globalisation there are even other emerging areas of concern in business such as culture, culture competence, and diversity and so on.

In the present scenario the health care industry is one of the most massive and sensitive sector which needs utmost care in terms of managing talent especially the nurses who are exposed to the changes in dealing their clients. Amidst this, the hospitals also have to divert their attention on bringing up strategies to manage their clients who are diverse group of people, unique from one to another in terms of their background, family status, culture, perceptions, belief, attitude, and language and overall from different communities. This change and necessity is seen in current scenario in the market and in the community to be served poses multiple challenges to nurses in giving utmost care.

Through this paper, the author tries to explore on the massive change which has taken place in healthcare and why there is prominence for cultural competence in health sector in managing cross cultural clients, different theories for cultural care, positive impact on productivity of hospitals the strategies the hospitals can implement in attending their clients effectively in midst of change and diversity.

**Keywords:** *cultural competence, health care, change*

## I. INTRODUCTION

As our nation gets diverse so do the population which is catered by the hospitals also gets diverse. Due to this lightning speed diversified group of people the staff especially the nurses who interact with patients more individually have to be equipped with necessary measures to give utmost care without any failure. The hospitals can no longer expect people of one segment alone the staff as well as the hospital as a whole have to be ever ready to attend groups of patients from different segments who can largely differ from one to another. In spite of these uncertainties how nurses can give complete care to the patients is the matter which needs to be considered by every hospital. More over with regard to the impact on performance, health care sector is very closely associated with the performance of their staff. Ultimately the health care sectors have to also consider to develop all those capabilities which will allow the staff to identify and recognise the cultural norms,

viewpoint and their by adjust their behavior in order to render maximum care.

## II. NEED OF CULTURAL COMPETENT HEALTH CARE

The major challenge the hospital sector facing in the current days are aging workforce as an impact there is a heavy dread for staff to cater to the growing population. By being culturally competent healthcare can not only prepare their staff for facing the uncertainty but also can solve the problem of staff requirements. It is argued that the field of cultural competent is just picking up its prominence in this sector but when we visualize its impact on long-term, we can expect its continuous success it can contribute on health outcomes as well as wellbeing.

In health care being cultural competent, cultural sensitive will fetch the sector long term success because in this field even the simple concepts such as health, illness, sufferings, care mean different things to different people as they are culturally different. Keeping this in view by being aware of the customs and culture enables health care providers to be more prepared and thereby provide better care and avoid miscommunication and misunderstanding between the staff and patients. It is being observed that the cultural competent health care has some benefits to offer such as; More inflow of patients, Fewer diagnostic errors, Increase in health care seeking behavior, act as a role model for other players in the sector.

## III. FORMULA FOR GOOD CROSS CULTURAL CARE

- **Respect:** Respecting the person whom you are treating is the main formula for achieving good cross cultural care. If you are unable to treat your patient by respecting and accepting the fact that they are from different culture then you have failed in rendering good cross cultural care.
- **Self Reflection:** This can be also termed as self awareness of knowing your own culture. Before you try to know and understand others culture, diversities, it is better for nurse to understand and know their own culture to which they belong to. By following this formula, health care providers will be in a situation to acknowledge their culture, beliefs, and their values which will facilitate them to adjust to the requirements of the patients.

- **Understanding the culture and not being judgmental:** When the culture of the patient differs from the health care providers, it is advisable to understand the culture on other hand and remain non judgmental. When people ask for consultation for any of the health issue, one of the best ways to address them is to explicitly state your views and opinions and ask for theirs.
- **Do not complain:** Do not complain about the patient. Usually it is seen that doctors or health providers feel that patients are not understanding or following their orders. Instead of complaining about the patient, it is better to make them understand in a right and positive way and make them understand the same.
- **Use interpreters carefully:** Health care providers when they have to consult with patient who is not confident and who is not aware of global language then they look for interpreters to whom they can consult with. At this junction, intense care has to be taken in choosing the interpreters as there may be challenges in some situations such as; confidential issue, difficult to make them understand.
- **Consider the social factors:** Understanding the social factors such as gender, age, socio economic factors plays prominent role in cultural care.
- **Communicate effectively:** Communicating effectively is a ruling formula in cross cultural context. Communication skill refers to an ability to overcome cultural and linguistic barriers in order to achieve shared understanding and convey information.

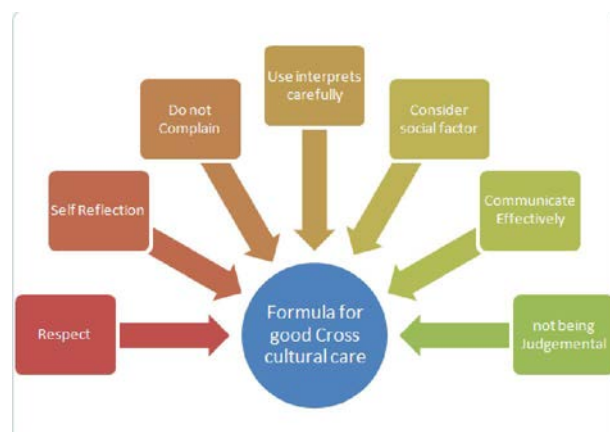


Fig 1. Formula for good cross cultural care

#### IV. GUIDING THEORIES FOR CULTURAL COMPETENCE IN HEALTH CARE SECTOR

There are several theories and models developed by players in health care sector to contribute in enhancing their cultural competence in dealing diverse group of people. Among the theories and models Madeleine Leininger's theory is the most popular one. Leininger's

theory is termed as Trans cultural nursing theory. This particular theory is depicted as sunrise enabler in order to discover cultural care. Altogether this contribution has turned out to be mother of all other contributions as it has turned out to be symbol of hope in generating new knowledge for nursing. Leininger has identified some factors that have in turn influenced clients in health care sector. The factors are such as; Technological factors, religious and physiological factors, Kinship and social factors, cultural factors, economic and education factors. The entire perspective of giving cultural awareness care is based on some assumptions such as 1) care is the essence in hospital sector 2) Even though there are differences in culture, some universality are expected. Based and considering these assumptions Leininger emphasises nurses not only to be mediator or broker but also have to be very knowledgeable about the client's culture and diverse factors influencing the needs and lifestyle. So to provide cultural competent care the nurses should understand and gain the knowledge of patients cultural values, beliefs and practices. By executing cultural assessment the nurses get closer to the world of the patients and thereby will be successful in giving excellent service.

#### V. GIGER AND DAVIDHIZAR MODEL

This was developed with a vision to provide care for patients that were culturally diverse. In this model Giger and Davidhizar has identified six cultural situations that differ from one to another as culture are not same they are quite different. These are environment, biological variations, social organisation, communication, space and time. These phenomena serve to present diversity in the cultural groups. This model was developed to assist in assessing the clients from differing culture in order to be aware of differences and thereby plan strategies.

#### VI. MODEL OF CULTURAL COMPETENCE

This model gives a different perspective where the cultural competence is not viewed as a onetime event but as a process, in which one constantly and continuously strives to achieve the ability to work efficiently and effectively within the framework of diverse cultural background. This model identifies the constructs to be considered for cultural competence care. The five constructs are ; Cultural awareness, cultural knowledge, cultural skills, cultural encounters, and cultural desires. It also concludes that these constructs are interlinked or interdependent and must be addressed carefully. Overall this model makes the nurses to consider each and every patient by instilling the thinking that all clients belongs to one single human race with same sets of needs which are expressed differently.

These above stated are some studies which have acted as a light to the steps of nurses in rendering positive care amidst of culturally diverse group of people.

## VII. CHALLENGES FACED BY ORGANISATION IN PROVIDING CULTURAL COMPETENT CARE

Hospitals have faced and have undergone tremendous changes in order to provide cultural competent care some of the challenges are as follows:

- **Failure of diversity seen among the workforce of health care:**  
One of the factors to be considered under this challenge is the possibility of getting diversity in the workforce. Hospitals find it very difficult to have effective staffing with staff with desired linguistic and cultural competency.
- **Failure of communication between health care provider and patients:**  
In order to provide cultural competent care, there is a need to develop a good rapport between the health care provider and patients. When the health care provider fails to understand the cultural differences between them and patients, the communication between the two will suffer. This in turn will impact on the performance and thereby paving a way to patient dissatisfaction.
- **Failure of sophisticated systems of care:**  
The way the patients are taken care of will also matter in the success and failure of providing cultural competent care. The way data or information is collected, stored and used matters a lot. Most of the hospitals have failed in developing such system whereby things are handled systematically.
- **Failure of leadership:**  
There is a dearth for leadership in the field of providing centralized program with sophisticated reporting system in order to coordinate services relating to language as well as culture.
- **Failure to train staff:**  
Hospitals should give prominence in rendering ongoing in service training on various ways to meet the requirements of patient population in midst of diversity.

## VIII. STRATEGIES FOR ROOTING OUT THE CHALLENGES

- **Good reporting system-** Hospitals who are into rendering diverse linguistic and cultural care should attempt to establish an effective reporting system with executive level reporting in order to coordinate with the services.
- **Overall support from the hospital-** Hospitals should provide complete support and motivation to the staff or nurses to provide and improve care provided to diverse group of population.
- **Incentives to be introduced –** Hospitals should think of introducing incentives to the staff supporting cultural competencies.

- Increase or encourage cultural awareness by decreasing and slowly eliminating the race of ethnocentrism among the staff serving the clients directly.
- Promote leadership in recommending the recruitment, promotion and retention standards in ensuring diverse staff and leadership at all levels.
- **Lunch and Learn opportunities-** Hospitals can invite speakers from diverse communities to talk about the best choices the hospitals can encourage staff to work with culturally diverse group of people.
- Redesign the policies and procedures ensuring effective cross cultural nursing practice.
- Provide necessary support by ensuring right structure and resource necessary to evaluate and meet the cultural and language needs to meet diverse clients.
- Establish multicultural work force in health care settings.

## CONCLUSION

People belonging to different culture have altogether different needs and requirements. This fact is very much accepted in every field of business. Service based organisations also ensure to consider this reality in executing their business. Becoming aware and planning proactively is the major action which the hospitals now have to consider as they are the ones dealing very closely with the clients comparing other industries. Hospitals initially had to just provide remedies for sickness encountered by the patients but now it is not only the remedy but how well you have taken care of the clients do really matter. By taking culture care in nursing will enable the staff of the hospitals to take care of overall requirements of their customers. Today cultural care has turned out to be a competitive edge for the health care sectors.

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# Parallel Programming Model on Multi-Core Systems for High Performance Computing

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**Abstract** - In computer software, a **Parallel Programming Model** is a model for writing parallel programs which can be compiled and executed in multi core systems for high performance computing. Classifications of parallel programming models can be divided broadly into two areas: **Process Interaction** and **Problem Decomposition**. Consensus on a particular programming model is important as it enables software expressed within it to be transportable between different architectures. **Shared Memory** concepts yield better performance under tightly coupled multiprocessor architectures at the cost of some cache coherence latency. **Message Passing** concepts will exhibit a better performance under **Distributed Architecture**, where CPU and memories are distinct.

**Keywords:** *Parallel Programming, Multi Core, Process Interaction, Shared Memory, tightly coupled, Distributed Architecture.*

## Process Interaction

Process interaction relates to the mechanisms by which parallel processes are able to communicate with each other. The most common forms of interaction are shared memory and message passing. In a shared memory model, parallel tasks share a global address space which they read and write to asynchronously. This requires protection mechanisms such as locks, semaphores and monitors to control concurrent access. In a message passing model, parallel tasks exchange data through passing messages to one another. These communications can be asynchronous or synchronous.

## Problem Decomposition

Any parallel program is composed of simultaneously

In computers, a **Parallel Programming Model** is a model for writing parallel programs which can be compiled and executed in multi core systems for high performance computing. Classifications of parallel programming models can be divided broadly into two areas: **Process Interaction** and **Problem Decomposition**.

## Process Interaction

Process interaction relates to the mechanisms by which parallel processes are able to communicate with each other. The most common forms of interaction are **shared memory** and **message passing**.

executing processes, problem decomposition relates to the way in which these processes are formulated. This classification may also be referred to as algorithmic skeletons or parallel programming paradigms.

## Data parallelism

A data-parallel model focuses on performing operations on a data set which is usually regularly structured in an array. A set of tasks will operate on this data, but independently on separate partitions. In a shared memory system, the data will be accessible to all, but in a distributed-memory system it will be divided between memories and worked on locally.

## Task parallelism

A task-parallel model focuses on processes, or threads of execution. These processes will often be behaviourally distinct, which emphasises the need for communication. Task parallelism is a natural way to express message-passing communication. The implementation of a programming model can take several forms such as libraries invoked from traditional sequential languages, language extensions, or complete new execution models.

Consensus on a particular programming model is important as it enables software expressed within it to be transportable between different architectures. The value of a programming model is usually judged on how well a range of different problems can be expressed and how well they execute on a range of different architectures.

## Shared Memory

Shared Memory refers to a block of random access memory (RAM) that can be accessed by several different (CPUs) in a multiple-processor computer system. A shared memory system is relatively easy to program since all processors share a single view of data and the communication between processors can be as fast as memory accesses to a same location. The issue with shared memory systems is that many CPUs need fast access to memory and will likely cache memory, which has two complications:

CPU-to-memory connection becomes a bottleneck. Shared memory computers cannot scale very well. Most of

them have ten or fewer processors.

**Cache coherence:** Whenever one cache is updated with information that may be used by other processors, the change needs to be reflected to the other processors, otherwise it results with incoherent data. Such coherence protocols can, when they work well, provide extremely high-performance access to shared information between multiple processors. Mean while they can sometimes become overloaded and become a bottleneck. Technologies like crossbar switches, Omega networks, HyperTransport or Front-side bus can be used to dampen the bottleneck-effects.

The alternatives to shared memory are distributed memory and distributed shared memory, each having a similar set of issues.

In computer software, shared memory is either a method of inter-process communication (IPC), i.e. a way of exchanging data between programs running at the same time. One process will create an area in RAM which other processes can access, or a method of conserving memory space by directing accesses to what would ordinarily be copies of a piece of data to a single instance instead, by using virtual memory mappings or with explicit support of the program in question. This is most often used for shared libraries. Since both processes can access the shared memory area like regular working memory, this is a very fast way of communication . On the other hand, it is less powerful, as for example the communicating processes must be running on the same machine, and care must be taken to avoid issues if processes sharing memory are running on separate CPUs and the underlying architecture is not cache coherent.

Dynamic libraries are generally held in memory once and mapped to multiple processes, and only pages that had to be customized for the individual process are duplicated, usually with a mechanism known as copy-on-write that transparently copies the page when a write is attempted, and then lets the write succeed on the private copy.

## Message Passing

Message passing is a technique for invoking a program on a computer. In contrast to the traditional technique of calling a program by name, message passing uses an object model to distinguish the general function from the specific implementations. The invoking program sends a message and relies on the object to select and execute the appropriate code. The justifications for using an intermediate layer essentially falls into two categories: **Encapsulation** and **Distribution**.

**Encapsulation** is the idea that software objects should be able to invoke services on other objects without knowing or

caring about how those services are implemented. Encapsulation can reduce the amount of coding logic and make systems more maintainable.

**Distributed message passing** provides developers with a layer of the architecture that provides common services to build systems made up of sub-systems that run on separate computers in different locations and at different times. When sending a distributed object a message the messaging layer can take care of issues such as-Finding the appropriate object, including objects running on different computers, using different operating systems and programming languages, at different locations from where the message originated. Saving the message on a queue if the appropriate object to handle the message is not currently running and then invoking the message when the object is available. Also, storing the result if needed until the sending object is ready to receive it. Controlling various transactional requirements for distributed transactions, e.g. ensuring ACID properties on data.

## Synchronous and Asynchronous message passing

One of the most important distinctions among message passing systems is whether they use synchronous or asynchronous message passing. Synchronous message passing occurs between objects that are running at the same time. With asynchronous message passing it is possible for the receiving object to be busy or not running when the requesting object sends the message. Synchronous message passing is what typical object-oriented programming languages such as Java use. Asynchronous message passing requires additional capabilities for storing and re transmitting data for systems that may not run concurrently.

The advantage to synchronous message passing is that it is conceptually less complex. Synchronous message passing is analogous to a function call in which the message sender is the function caller and the message receiver is the called function. Function calling is easy and familiar. Just as the function caller stops until the called function completes, the sending process stops until the receiving process completes. This alone makes synchronous message unworkable for some applications. For example, if synchronous message passing would be used exclusively, large, distributed systems generally would not perform well enough to be usable. Such large, distributed systems may need to continue to operate while some of their subsystems are down; subsystems may need to go offline for some kind of maintenance, or have times when subsystems are not open to receiving input from other systems.

## Problem Decomposition

Deals with the decomposition of a task into various sub tasks. There is no single recipe that works for all

problems. The commonly used techniques that apply to a broad classes of problems are:

- Recursive Decomposition
- Data Decomposition
- Exploratory Decomposition
- Speculative Decomposition

Recursive Decomposition is generally suited to problems that are solved using the divide and conquer strategy. A given problem is first decomposed into a set of sub problems and these sub-problems are recursively decomposed further until a desired granularity is reached. In Data Decomposition, identify the data on which computations are performed, and partition data into sub-units. Data can be input, output or intermediate for different computations. Data partitioning induces one or more decomposition of the computation into tasks. In Exploratory Decomposition, the decomposition of the problem goes hand-in-hand with its execution. These problems typically involve the exploration (search) of a state space of solutions. Problems in this class include a variety of discrete optimization problems, theorem proving, game playing, etc. Speculative Decomposition is used when the dependencies between tasks are not known a-priori. For such applications, it is impossible to identify independent tasks. There are generally two approaches to dealing with such applications: conservative approaches, which identify independent tasks only when they are guaranteed to not have dependencies, and, optimistic approaches, which schedule tasks even when they may potentially be erroneous. Conservative approaches may yield little concurrency and optimistic approaches may require roll-back mechanism in the case of an error

## CONCLUSION

The implementation of a programming model can take several forms such as libraries invoked from traditional sequential languages, language extensions, or complete new execution models. Consensus on a particular programming model is important as it enables software expressed within it to be transportable between different architectures. Shared Memory concepts yield better performance under tightly coupled multiprocessor architectures at the cost of some cache coherence latency. Message Passing concepts will exhibit a better performance under Distributed Architecture, where CPU and memories are distinct. Problem Decomposition and Data Partition approach will be a better alternative in case of the problems where dependency among the tasks could be inferred in priori. The value of a programming model is usually judged on how well a range of different problems can be expressed and how well they execute on a range of different architectures.

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# Big Data & E-Commerce - An Executive Look

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*Abstract* - After e-Commerce and Social Networking started to rule the IT world, Bigdata is sounds like Humming Bird. Combined with cloud computing, Big Data is technologically spectacle the data centres to significantly mange the data and it plays substantial role next coming years.

Big data is unique and can create controlled architecture to handle the systems, storage and software infrastructure. Unlike business solutions, Big data is having real time capability of control critical business intelligence that can change the shape and speed of enterprise.

Hence, the way in which e-Commerce infrastructure is connected and distributed warrants a fresh and critical analysis.

This paper provides a general overview Big Data in e-Commerce. It explains basics and importance of Big Data in today's e-Commerce business. This document assumes little to no background in big data or horizontally scaled query infrastructure, but rather it represents a starting point for the big data journey. Ultimately, the goal is to endorse the Big Data in e-Commerce. Every journey begins with a single step, and this document is the first step in recognizing the importance of the big data process in e-Commerce.

## I. INTRODUCTION

Big Data denotes to gigantic volumes of unstructured data, the magnitude and multiplicity of which are beyond the dealing outskills of traditional data management tools to capture, manage, and evaluate in a timely manner. Big Data comes from all over the place.

Common sources include:

- Machine-generated data from sensors, devices, RFID, machine logs, cell phone GPS signals, And more
- Digital media proliferation (both online and off-line) and social media sites
- Sub-transactional records of online transactions
- Online transactions
- Ecommerce Applications

Study analysis, unstructured data accounts for more than 90 percent of the data in today's organizations, stored in email messages, documents, notes fields, and Web content.

This Unstructured data doubles every three months and seven million Web pages are added every day. Big Data also includes structured data that exists in colossal records.

### **Wal-Mart is a good example:**

More than 1 million online shopper transactions take place every hour, generating more than 2.5 PB of

data—equivalent to 167 times the information contained in all the books in one big university Library.

Online Businesses today generate enormous volumes of data, exclusively with the abnormal growth in digitization and predominant public media experiences. Besides trying to manage this huge volume and variety of data of varying complexity, organizations are passionately hunting advanced technology initiatives such as Big Data analytics to capture and decrypt covered patterns and unidentified associations. This will relief in better business decisions to energies the revenue growth.

It offers businesses the chance to expect movements, finding meaningful insights from scattered unstructured data and make substantial business conversions. With data growing from terabytes to zettabytes, e Commerce firms are now seeking suitable tools that can help them fix the optimal pricing points for millions of stock keeping units, finding the customer segment to pursue, or pinpoint the exact customer touch points to make the best offers, as well as uncover other obscure business insights.

Data is basically categorized into structured data like name, address, preferences, etc. and unstructured data such as tweets, clicks and videos, etc.

The challenge lies in reading major, actionable visions from unstructured data. It is projected that the conventional data deposited will be more amorphous than planned and the real value derived is from analysing this unstructured data.

So this Paper analysis the is Big Data, its applications in e-Commerce, and its importance in e-Commerce. And also this information assumes little to no background in big data or horizontally scaled query infrastructure, but rather it represents a starting point for the big data journey. Ultimately, the goal is to endorse the Big Data in e-Commerce. Every journey begins with a single step, and this document is the first step in recognizing the importance of the big data process in e-Commerce.

## II. WHAT IS BIG DATA?

“Big Data” is a term encompassing the use of techniques to capture, process, analyse and visualize potentially large datasets in a reasonable timeframe not accessible to standard IT technologies. By extension, the platform, tools and software used for this purpose are collectively called “Big Data technologies”.

In recent years the internet players like Google, amazon, Facebook and twitter Generating gigantic amount of data across the grid. In addition, data is constantly being generated, not only by use of internet, but also by companies generating large amounts of information coming from sensors, computers and automated processes. This phenomenon has recently accelerated further thanks to the increase of connected devices (which will soon become the largest source of data) and the worldwide success of the social platforms.

This was the starting point of the current Big Data trend as it was a relatively cheap solution for businesses confronted with similar problems. Meanwhile, two parallel breakthroughs have further helped accelerate the adoption of solutions for handling Big Data:

- The cloud based solutions has radically lowered the cost of storage, amplified by the use of commodity hardware. Virtual systems, either open source or vendor specific, helped transition from a managed infrastructure to a service based approach.
- While working with large volumes of data it is very important to distribute data and workload across the grid. For managing data in efficient manner new designs of databases like noSql and Hadoop are used.

**The table below summarizes the main features and problems connected to handling different types of large data sets, and explains how Big Data technologies can help solve them.**

Aspect	Characteristics	Challenges and Technology responses
Volume	The most visible aspect of Big Data, referring to the fact that the amount of generated data has increased tremendously the past years. However, this is the less challenging aspect in practice.	The natural expansion of internet has created an increase in the global data production. A response to this situation has been the virtualization of storage in data centres, amplified by a significant Decrease of the cost of ownership through the generalization of the cloud based solutions. The noSQL database approach is a response to store and query huge volumes of data heavily Distributed.
Velocity	This aspect captures the growing data production Rates. More and more data are produced and must be collected in shorter time frames.	The daily addition of millions of connected devices (smartphones) will increase not only volume but also velocity. Real-time data processing platforms are now considered by global companies as a requirement to get a competitive edge.

Variety	With the multiplication of data sources comes the explosion of data formats, ranging from structured information to free text.	The necessity to collect and analyse non-structured or semi-structured data goes against the traditional relational data model and query languages. This reality has been a strong incentive to create new kinds of data stores able to support flexible data Models
Value	This highly subjective aspect refers to the fact that until recently, large volumes of data were recorded (often for archiving or regulatory Purposes) but not exploited.	Big Data technologies are now seen as enablers to create or capture value from otherwise not fully exploited data. In essence, the challenge is to find a way to transform raw data into information that Has value, either internally, or for making a business out of it.

Building end-to-end platforms that can efficiently process data of all dimensions is a challenge on its own and new business opportunities appeared for:

- Traditional IT vendors who want to provide integrated, industrial grade solutions
- Small- and medium sized businesses who can offer specialized products or services around opensource software
- Professional services companies who can provide training and missing skills like “data scientists”

All IT and service vendors have facing hitches and one or other way they jumped on to the big data movement as they feel it is emerging and important in market.

### III. USES OF BIG DATA IN E-COMMERCE

Big Data can be most useful in evaluating a customer's shopping and purchasing practice, which can help a business in the following four ways.

#### Become more efficient

by alerting you to merchandising efforts that are ineffective, and products that are not selling, such as an apparel product may be selling well only in two colors while your offer five.

#### Increase conversion rates

by better identification of successful sales transactions.

#### Encourage more purchases

by presenting existing customers with complementary items to what they've purchased previously.

#### Enhance inventory management

by eliminating slow-moving items and increasing the supply of fast-moving merchandise.

## Extracting Superior Information from Data

The fact is that there is so much data out there that present methods of analysis seem inadequate to derive valuable and actionable information from them. But if an ecommerce professional has a strong conceptual understanding of big data then it is possible to use analytics to extract stones of information where none were obvious.

## Making Pricing, Promotions, Placement, and Other Important Decisions

Instead of pulling critical numbers from thin air, wouldn't it be great to be able to base important management decisions on actual information? This too is something that big data can help with.

## Overcoming the Scourge of Impersonal Ecommerce

There are several disadvantages of ecommerce, but in my mind, the greatest disadvantage is that it depersonalizes the shopping experience. The communication on an ecommerce website is generic, if not cookie-cutter. But if you are able to analyze data effectively, you can create a unique buying experience for each visitor. And I do not only mean stuff like, "People who bought this also bought..."

## IV. CHALLENGES OF BIG DATA IN E-COMMERCE

**Big data is about more than Hardtop and a bunch of fancy technology: there are some very real organisational barriers too.**

It's a bit of a mirage. As soon as you get your head around it, it ceases to exist. Big Data is clearly trending amongst the tech analysts, and it's doing so for good reasons. The volume of data we're handling is growing dramatically, Social media, the internet of things. The mass of data produced by smart electric grids, intelligent traffic systems, etc. 90% of the data ever created has been created in the last two years...

And yes, it's not just about size. Gartner's "3Vs" (Volume, Velocity, Variety) are all growing. It has been asked to process data ever more quickly so we can respond to events as they happen, and that data is coming from an ever wider array of channels, sensors and formats. Our data is fast and complex as well as big.

We layout at least six things that are going to get in the way of Big Data in the typical organisation:

### 1. Infrastructure

Big Data requires a lot of technical infrastructure, storage, bandwidth, CPU, etc. And it generates highly variable workloads as it does so. You need lots of infrastructure at some times, very little at others. Fortunately, the Cloud is made for this. The challenge isn't technical so much as it's one of finding a reliable cloud vendor, and of getting the economic model right. Just don't underestimate how challenging that can be in the current, rather opaque market for cloud services.

### 2. Applications

The application stack behind Big Data is complex. Some of it is immature. The ClouderaHadoop distribution, for example, contains a dozen applications, and some of these are still pretty new.

This creates several challenges: you need to get up several learning curves at once, integrate many tools with your existing application stack, and build a stable operating environment out of these disparate pieces.

### 3. Skills

You need a deep stack of skills to do Big Data. As well as business specialists (to ask the right questions) and technologists (to tame the infrastructure and applications), you need "data scientists". These are the people who understand the statistical algorithms, can drive the visualisation tools, etc. They're not easy to find. And once you've found them, you need to integrate them with the rest of your team, build appropriate reward and reporting structures, and so on.

### 4. Attitude

Big Data projects operate on a different cycle to traditional ones. It's not so much "plan then do" as "experiment, learn and evolve". It requires a mindset that's attuned to research as much as delivery, yet which is able to temper research with business objectives.

**5. Good Big Data teams will be very tolerant of "failure".** (If 50% of your experiments don't fail, then you're probably not testing the boundaries.) And they'll allocate plenty of capacity to exploring the horizon and trying new stuff.

### 6. Fragmentation

Most organisational data is highly fragmented. The web team has a bunch of logs. Sales owns some of the customer data. Operations owns some more.

This creates challenges at several levels: syntactic (defining common formats), semantic (agreeing definitions) and political (negotiating ownership and responsibilities).

It also creates data quality problems as no-one's responsible for the complete picture, so no-one ensures that data is correct, consistent and up to date.

**Big Data needs to face all these challenges head on.** (As data warehousing did before it. But Big Data has the added complications of semi-structured data and rapidly changing data definitions.)

### 7. Valuation

You can only do this effectively if you can **assign clear value to the outcomes**, otherwise you have no way to prioritise activity across your portfolio of experiments and investments.

Yet few organisations are able to put clear valuations on their current data, let alone on the fuzzy web that Big Data exposes.

Right now, many Big Data projects are merely playing with the data, exploring the tools and shifting data around within its silos. If we could build some stable, cross-functional teams and focus them on business-led experimentation, then we'd probably begin to find real value in the data we have stashed away. And along the way, we'd start to break down some of the silos that have grown around our data.

**As ever, the real challenge isn't the technology. It's shifting our organisations to address the opportunities that Big Data creates.**

## V. IMPORTANCE OF BIG DATA IN E-COMMERCE

The ringtone surrounding Big Data is far from being unwarranted. Not only does it allow merchants to gain deeper insights into customer behaviour and industry trends, but it also lets them make more perfect decisions to improve just about every part of the industry, from marketing and advertising, to merchandising, operations, and even customer retention.

Below are a few more points that deeper explain the impacts of Big Data in the e-Commerce land. From improving customer experience to developing better products or marketing campaigns, it's no question that Big Data is the next big thing for online businesses.

### More Organized Data

The biggest challenge for most e-Commerce businesses is to collect, store and organize data from multiple data sources. There's certainly a lot of data waiting to be analyzed and it is a Daunting ask for some E-commerce businesses to make sense of it all. Big Data paves the way for more organized data and enables business owners or marketing managers to track and better understand a variety of information from many different sources (i.e. inventory management system, CRM, AdWord/AdSense analytics, email service provider statistics, etc.).

### Data-Driven Decisions

Perhaps the most powerful impact that Big Data has on businesses is that it allows merchants to make more informed decisions. Since these choices are based on data insights, as opposed to mere hunches or incomplete information, business owners can take the guessing out of these decisions and prevent unnecessary spending, expensive trials, or even mistakes.

For instance, a client of ours who is in the business of selling bidets leveraged our solution and found that his customers are not as social media savvy as he thought they were. Our findings indicated that email and phone calls were his most effective marketing channels. As a result, he was able to make a data-driven decision and

focused his marketing efforts on running email campaigns and offers, instead of blindly investing his budget on social network ads.

### Custom-made Offers

Big Data also lets e-commerce businesses create more personalized offers and communications. Big Data enables merchants to track each user's behaviour and connect the dots to determine the most effective ways to convert one-time customers into repeat buyers.

A good example of this comes from another one of our clients, Bikeberry.com. The online store collected numerous customer data, including browsing patterns, login counts, past purchases and more. BikeBerry.com then used that information to create 5 different offers, namely free shipping, 5% off, 10% off, 15% off, and \$30 off new products. Each of their customers received an individual 1 y-tailored offer, which is determined by our Customer Profiling Engine to be more relevant to their preferences and past behavior.

## CONCLUSION

We live in an electrifying period, when the gage and space of value that data can bring is coming to an inflection point, set to expand greatly as the readiness of Big Data converges with the skill to reasonably connect it. Hidden in the immense volume, variety and velocity of data that is produced today is new information – facts, relationships, indicators and pointers -- that either could not be virtually discovered in the past, or simply did not exist before. This new information, effectively captured, managed, and analysed, has the power to change every industry including e-Commerce, cyber security, healthcare, transportation, education, and the sciences.

Within this report, we have outlined about the Big Data its uses in e-Commerce, challenges of Big Data in e-Commerce, importance of Big Data in e-Commerce.

Because of the importance of Big Data in the digital economy, it is very important to manage the data, capturing the data in effectively and analyse the data proper manner.

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# Street Food – An Emergent Model of Branding

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**Abstract:** Urban population has resulted in the rise in the number of street food vendors in almost every city today. Migration from rural to urban areas has created a need among many working people to eat outside the home. Additionally, people prefer more of this street food to cater to the variety sought by the palate.

However, when we have an urban population that is so obsessed with branded items in various other products, they seek out unbranded street food.

This paper attempts to study the absolute lack of any type of branding and marketing efforts in selling street food but the success of it. It tries to identify and create customer branding.

**Keywords:** branding, marketing, customer branding.

## THE RISING DEMAND FOR STREET FOOD

Urban population growth has resulted in the dramatic rise in the number of street food vendors in India. The demand for relatively inexpensive, ready to eat food has increased as people, especially women, have less time to prepare meals. In a country such as India, there demographics have shifted to include a vast majority of youth.

In some parts of Europe and North America, street foods which originated in Asia, Latin America and Africa, has become an integral part of the local food scene as in India. There is a more or less, almost equal demand for street food (especially fast food) as well as the Americanized fast food available at upmarket eateries.

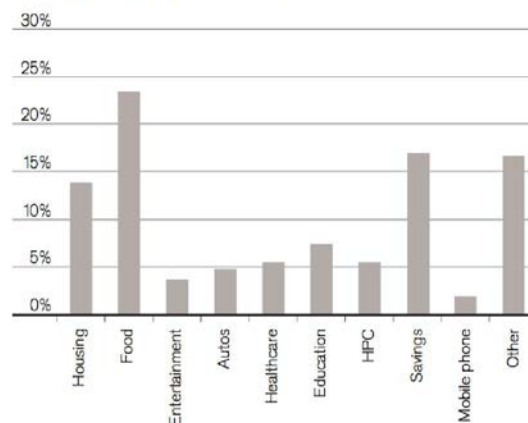
The term “street foods” itself describes a wide variety of ready to eat cuisine and beverages sold and sometimes prepared in public places, most of the times, streets. The final preparation of the street food might occur when the customer orders the meal which can be consumed there itself or could be taken away. Street foods are low in cost as compared to restaurant meals, they serve the purpose of being quick, easy and filling and are an easy alternative to home cooked food. Apart from just fast foods such as the famous pani puris, vada pavs, pav bhaji's, chaats etc., street food vendors in most of the urban cities also provide hot and tempting parathas, pulao's, idli sambhar, noodles, fried rice etc which also form a part of the staple meals for the working community. As per statistics, in Africa and Asia, urban households spend 15- 40% of their food budgets on street foods.

Consumer spending maps tell us more than how we spend. They reveal the DNA of an economy. Developing countries spend as much as five times more on food.

Figure 55

### Monthly spending by category (%)

Source: Credit Suisse Emerging Consumer Survey



The figures for India is appalling considering we are spending more than 25% of our earnings on food and food inflation itself being high, it tends to squeeze the consumer pockets very hard. This is also one of the reasons why there has been a growing demand for street food.

On the part of the street vendor again, this is a relatively significant figure considering that most of the earnings are generated locally and thereby promote economic self sufficiency. In India, the estimated number of street traders (including street food vendors) exceeds 3.1 million (unofficial estimates suggest these are close to 10 million). Some years back it was thought that this informal sector symbolized a lack of economic development and would disappear with modernization. However, this phenomenon continues to last, thrive and contribute in a larger way to the economic well being of the classes of population creating it and sustaining it.

Relatively low capital expenditure of street food business is a major attraction. Vendors have flexible work hours that they can choose to operate, lesser constraints on mobility and are self employed.

## BRANDED STREET FOOD?! NON EXISTENT...

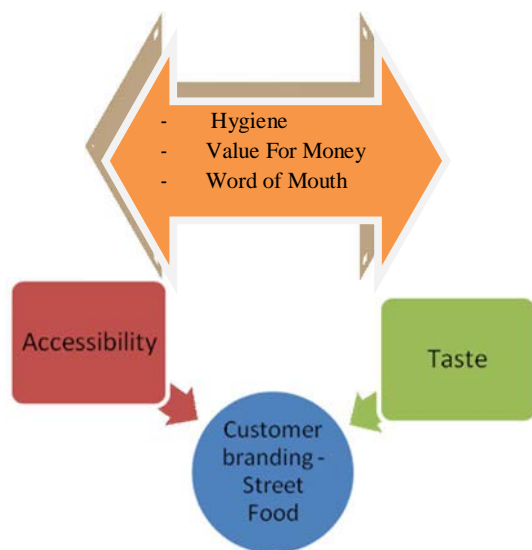
Branding is basically how customers perceive a product or service. When we talk of brand building we try

and draw out things such as create a logo, the visual content that distinguishes you from your counterparts, an image that stays in customers mind etc., it is an ongoing effort and perceived as a huge marketing effort. And, every customer interaction is said to strengthen or tear down the brand.

And, the masses savour all varieties of street food without any need for brand building promotional efforts, fancy logos, and trendy taglines. They keep coming back to the same vendors day after day without any need for any of this.

So what is it that sustains street food even amongst stiff competition from restaurants (which offer all the frills of supposed hygiene, ambience, service, comfort etc) Street food cost would only be marginally less than some of the lower end restaurants available in the vicinity.

Customer branding becomes significant here. Customers create a lasting image in their minds and they do this for street food primarily on the basis of the below created model of street food customer branding -



Customers by and large would classify street food on two broad parameters –

1. **Accessibility** – Statistics reveal that most of the consumption of street food happens predominantly on the basis of accessibility. It could either be in the vicinity of their place of work or place of stay.
2. **Taste** - We realised that the second most important criteria is taste. Customers react to taste more often than anything else. A not so good taste definitely drives them away.

While these two are primary components the other factors influencing customer demand and paving the way towards branding are-

- **Hygiene** – the look and feel around the place of food preparation and sale has to be adequately clean and tidy. Customers more or less have broad parameters they would have set in terms of cleanliness and the street food outlet has to adhere to this. Albeit, this is not made explicit to the vendors.
- **Value for Money** - Value for money, though not heavily priced, the food has to provide value for the money that they charge. The same customer might be willing to pay a fancy price charged by a fancy restaurant but when he visits a street food vendor he would have created a mental ceiling on the price and rates the food by the perceived value for the money given by him.
- **Word of Mouth** - Thirdly, the referrals by friends, colleagues, neighbours all work in creating a perceived customer brand.

## CONCLUSION

With rising food inflation in countries such as India and a growing working population obviously street food is here to stay. As envisaged earlier it will not shrink but grow with the growth in the economy. Why not as it is a win-win situation for the vendors as well as the consumers. This model explicitly puts forward all factors that create the customer branding of street food. This is a topic that can be further researched and is open to newer vistas being probed and developed.

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