Quantitative Evaluation of "e-Customer Engagement Strategies" of Millennials for Online Brands, through ABCD Analysis Framework

Suresh Raghavan¹ & Ramesh Pai²

¹ Research Scholar, Institute of Management and Commerce, Srinivas University, Mangalore-575001, Karnataka, India, Orcid ID: 0000-0002-4836-8344; E-mail: <u>suresh@sureshraghavan.in</u> ² Research Professor Institute of Management and Commerce, Srinivas University, Mangalore - 575001, Karnataka, India, Orcid ID: 0000-0003-3019 -5745; E-mail: <u>rameshpai080@gmail.com</u>

Area/Section: Business Management. Type of the Paper: Empirical Research Analysis. Type of Review: Peer Reviewed as per <u>[C|O|P|E]</u> guidance. Indexed in: OpenAIRE. DOI: <u>https://doi.org/10.5281/zenodo.7685407</u> Google Scholar Citation: <u>IJMTS</u>

How to Cite this Paper:

Raghavan, S., & Pai, R., (2023). Quantitative Evaluation of "e-Customer Engagement Strategies" of Millennials for Online Brands, through ABCD Analysis Framework. *International Journal of Management, Technology, and Social Sciences (IJMTS), 8*(1), 159-182. DOI: <u>https://doi.org/10.5281/zenodo.7685407</u>

International Journal of Management, Technology, and Social Sciences (IJMTS) A Refereed International Journal of Srinivas University, India.

CrossRef DOI: https://doi.org/10.47992/IJMTS.2581.6012.0262

Received on: 31/12/2022 Published on: 01/03/2023

© With Authors.



This work is licensed under a Creative Commons Attribution-Non-Commercial 4.0 International License subject to proper citation to the publication source of the work. **Disclaimer:** The scholarly papers as reviewed and published by Srinivas Publications (S.P.), India are the views and opinions of their respective authors and are not the views or opinions of the SP. The SP disclaims of any harm or loss caused due to the published content to any party.

Quantitative Evaluation of "e-Customer Engagement Strategies" of Millennials for Online Brands, through ABCD Analysis Framework

Suresh Raghavan¹ & Ramesh Pai²

 ¹Research Scholar, Institute of Management and Commerce, Srinivas University, Mangalore-575001, Karnataka, India, Orcid ID: 0000-0002-4836-8344; E-mail: <u>suresh@sureshraghavan.in</u>
 ²Research Professor Institute of Management and Commerce, Srinivas University, Mangalore - 575001, Karnataka, India, Orcid ID: 0000-0003-3019 -5745; E-mail: <u>rameshpai080@gmail.com</u>

ABSTRACT

Purpose: The purpose of this study is to examine the Millennial's online customer engagement strategic business model by using the strategic analysis tool under "ABCD analysis framework," and to then list the various key factors that are influencing the proposed model. The analysis is meant to identify the most influential aspects of the model in terms of its four constructs—Advantage, Benefit, Constraints, and Disadvantage—through qualitative and quantitative methods

Design: In order to analyse the model in both qualitative and quantitative ways, the research strategy includes the data collection through a focus group discussion, collecting their responses through a pre-designed response sheet and tallying up their scores according to importance and weight. Before starting to collect data, an extensive literature review was conducted on the analysis tool in question, focusing on its applicability to the business model. **Findings:** This study found that online shopping is more widely accepted with the growth of Internet, than traditional brick-and-mortar stores based on data gathered and analysed from focus groups.

Originality: This study makes extensive use of ABCD analysis framework as a business model analysis tool, and it also incorporates the findings of previous studies that have employed the ABCD analysis framework. Moreover, it identifies potential new directions for research into customer engagement on e-commerce websites by listing important factors that need to be taken into account.

Paper Type: Empirical Research Analysis

Keywords: Customer Engagement, ABCD Analysis framework, Strategic Analysis, Millennials.

1. INTRODUCTION :

With the advent of the internet and its myriad of connected devices, businesses, and consumers are able to conduct business with greater ease and convenience (Lee, J. Y., Fang, et al. (2018) [1]. E-commerce on smart phones (Chang, Y. F., & Chen, C. S. (2005) [2] has undergone a revolutionary change thanks to the convergence of cutting-edge mobile technology and ultra-fast internet. To ensure their products' continued success, businesses everywhere are racing to develop and distribute mobile apps that let customers buy them. Because of the intense rivalry in the market, it has become increasingly important to attract and keep customers through a wide range of customer engagement activities (Vohra, A., & Bhardwaj, N. (2019) [3]. The relevance of offline business through brick and mortar stores have been struggling to sustain (Issa, J. Michael (2017) [4] and started online selling also, apart from their physical stores. Home Center, Pepperfry, Shopclue, etc. a few to name.

1.1 Customer Engagement Behaviour

"Customer engagement" refers to the degree to which a customer is emotionally invested in a business or product beyond a simple transaction (Van Doorn, J, et.al (2010) [5]. Studies have shown that the

highly engaged customers exhibit more loyalty, commitment, trust and they advocate the brand and are profitable customers (Brodie, R. J., et al. (2011) [6], Kumar, et al. 2010) [7]. Hence the brand managers perpetually testing various strategies to retain the customers more of electronically, thanks to the phenomenal development of digital technology for online selling.

1.2 Millennials and their characteristics

The study accounts that Millennials are those who were born between 1980 and 1995 (Moreno (2017) [8], (Dharmesti., et al. [9], (Bateh, D. (2019) [10], since there is no authentic definition for it. The study shows that Millennials which constitute around 25% of the population, will be an unavoidable cohort who will have the most purchasing power (Moreno (2017) [8]). The millennial characteristics include (Melović, B, et al., (2017) [11] their positive inclination towards online purchases, highly demanding, less patience and less brand loyalty, 'more spend less save '. In the above context, it is vital to analyse the strategy model on millennial customers towards their e-engagement with a brand.

1.3 ABCD frame work as an Business model analytical tool

This paper attempts to analyse the electronic customer engagement strategies using ABCD analysis framework technique developed by (Aithal, P. S., et al (2015) [12] thereby evaluating the effectiveness using the four constructs of the above tool, Advantages, Benefits, Constraints and Disadvantages. Any effective Business model needs to be sustainable and test the changing time. Online markets are growing in an exponential phase and the need for analysing such models is imperative not for a strategic tool but also as a risk evaluation tool. With its four constructs (Advantages, Benefits, Constraints, and Disadvantages), ABCD analysis framework is a powerful tool (Van Doorn, J, et al [5] that can examine any business model, concept, or process and evaluate its many attributes, both qualitatively and quantitatively, from within and without, in order to determine which factors have the greatest impact on the business model being proposed. Whether or not the business decides to adopt the model depends on the results of the assessment. A number of scholars have analysed various business models in many industries.

Though there are many business model analysis tools such as SWOC/SWOT, PESTLE, Porter's Five Force model, and BCG matrix etc. (Ho, J. K. K. (2014) [13] are available, these tools primarily evaluate the internal attributes of a business giving less priority on the external attributes. Secondly, no such tool is being used as a quantitative analysis tool to understand the importance of each attribute that contributes towards the success or failure of the model nor does it isolate the most critical attribute. ABCD analysis framework (Aithal, P.S., et al (2015) [12] on the other hand, it stipulates the comprehensive listing of all its constructs and its variables and quantifies the influence on the model. This unique feature of ABCD analysis framework facilitates the decision maker to easily identify and focus on the most important aspect of the model to make it successful.

2. LITERATURE REVIEW ON ABCD ANALYSIS FRAMEWORK :

The extant of literature on ABCD analysis framework as a strategic analysis tool for Business model were comprehensively examined by the researcher for various applications in different industries. The findings of the various studies reveals the suitability of using this analysis tool as a highly effective tool for the identification of the underlying critical elements of a business models / Strategy or Concepts in the order of significance quantitatively through empirical studies. Many researchers have used ABCD analysis framework technique in order to evaluate the model qualitatively whereas, many other researchers have used the advance feature of the above tool in order to evaluate it quantitatively. The analysis tool has been used in many areas such as Aviation, Education, Banking, InfoTech, and many more. The Table 1 summarizes the qualitative ABCD analysis framework studies and Table 1, 2 summarizes the quantitative ABCD analysis framework, for various models / concepts and strategies.

2.2 Structure of ABCD Analysis

Internal and external influences on the strategic model, concept, or systems are depicted in the Fig.1 Advantages, Benefits, Constraints, and Disadvantages all refer to aspects of the external and internal environments in which a business operates. With ABCD analysis framework as a guide, it is possible to compile a comprehensive list of these elements and zero in on the key underlying determinant problems

that are most likely to govern the model. As a result of this dissection, more is understood about the underlying structure of the dependent variables, as well as the determinant issues themselves. After compiling this list, the next step is to determine the Critical Constituent Element (CCE) by assigning a weight to each factor in order of its significance. This analytical evaluation surfaces up the construct that is affecting the model /strategy/concepts

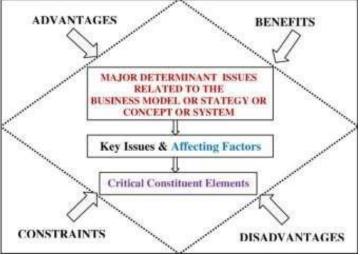


Fig. 1: Conceptual model of ABCD Analysis frame work

Source: Conceptual flow diagram for the factors affecting under ABCD Analysis Framework [14]

2.1 Scholarly Contributions and Applicability in the Current Strategic Model

2.1.1 Qualitative Analysis using ABCD analysis Frame work

S. No.	Area of Study	Determinant Issues	Analysis Outcome	References
1	Evaluation of Black Ocean Strategy	Organizational Issues, Administrative Issues Employee Issues, Business Issues, External Issues and Operational Issues	Findings show that the model supports with Advantages and Benefits supersedes the Constraints and Disadvantages	Aithal, et al., (2015). [14]
2	Finger Print Biometric Attendance System	Security Issues, Ease of Use Issues, Input Issues, Process Issues, Performance Evaluation Matrix Issue	Revealed the Advantages, Benefits, Constraints and Disadvantages of the Biometric Attendance system using ABCD Analysis technique	Prasad, (2018). [15]
3	Wealth Generation in the Bottom of the Economic Pyramid (BoP)	Stake holder Issues, Business Issues, Operational Issues, Customer Issues, Technological Issues, Environmental and Social Issues,	Evaluated the Advantages, Benefits, Constraints and Disadvantages of Wealth Generation Model and is usefulness in the Bottom of the Economic Pyramid (BoP)	Raj & Aithal, (2018). [16]

4	New Research Indices and the model evaluation	Research Organization, Researcher, Funding Agency and Industry	Through focus group method, the various factors of CPP analyzed and found it is useful for Researchers and Research Organizations	Aithal & Aithal, (2016). [17]
5	Online Campus Placement model	Recruiters Issues, Students Issues, College and Institution, Parents, Society,	Analysis explored about 158 Critical Constituent Elements satisfying the usefulness of the proposed model.	Shenoy & Aithal, (2016). [18]
6	Evaluation of Nanotechnology being used as the Green Technology	Organizational Issues, Business Issues, Consumer Issues, Environmental Issues and Social Issues	ABCD Analysis revealed 64 factors that are affecting the model and 192 Critical Constituent Elements. Analysis also support the usefulness Nanotechnology as a Green Technology that would improve the Green Environment	Aithal & Aithal, (2018). [19]
7	Evaluation of System and Technology	Organizational Issues, Business Issues, Consumer issues and Environmental Issues.	Ascertained the usefulness of ABCD analysis on Systems and Technology by evaluating the Nanotechnology as a Green Technology as a case.	Aithal, (2021). [20]
9	Organizational Aspects, Students Progression, Faculty development, Societal & Other Stake HolderIndiaIssues, Governance, Leadership and Issues on Innovations and Best Practices		Unearthed 192 Critical Constituent Elements through factor Analysis which supported the success of Private University System.	Aithal, et al., (2016). [21]
10	ABC model of Exculty Issues		Analysis found that that both Advantages and Benefits are predominantly high in the model which could further enhance the opportunities for the advancements in the career	Aithal, et al., (2016). [22]



11	Analysis of Integrated Digital marketing model	Organizational Issues, Operational Issues, Technological Issues, Employees and Employers Issues, Customer Issues, Social and Environment Issues	Explored the various Critical Constituent Elements under the four key constructs	Jeevan, (2015). [23]
12	Finger Print Hash Code Multifactor Authentication Model	Security Issues, User Friendly Issues, Input Issues, Process Issues, Performance Evaluation Matrix Issues	Analysis brought in many Critical Constituent Elements that supported the usefulness of new method	Aithal, (2018). [24]
13	Evaluation of NAAC Accreditation System	Organization Issues, Faculty Performance Issues, Student Support Progression Issues, Social /Environment/Commu nity/Engagement Issues	Analysis supported with Advantages and Benefits supersedes the constraints and disadvantages	Aithal, et.al., (2016). [25]
14	Evaluation of National Institutional Ranking System	Organizational Issues, Academic Issues, Students Issues, Faculty Issues, Issues on Administration, Infrastructure and Learning Resources	ABCD Analysis reveals that NIRF supports the Student progress	Aithal, et.al., (2016). [26]
15	Growth and Fate Analysis on Mangalore Airport	Customers, Industry, Employees etc. were examined as the determinant issues	Listed the key attributes of Advantages, Benefits, Constraints and Disadvantages Under ABCD analysis framework	Kumari & Aithal, (2020). [27]
16	Evaluation of Shortage of Healthcare Professionals	Organizational Issues, Alternative Acceptors issues, Donor Physicians Issues, Patients and Relatives Issues, Societal Issue, Country Issue	Explored 21 Key Attributes and 172 Critical Constituent Elements under 6 Determinants issues which support the Task shifting model	Aithal & Aithal, (2017). [28]
17	Elemental Analysis of Six Hat thinking	Conceptual Issues, Managerial Issues, Operational Issues, Organizational Issues, Societal and Environmental Issues,	Derived the Various Critical Constitutional Elements which supports the success of the Six hat thinking model	Aithal, et.al., (2016). [29]



18	Stage Model in HigherOrganizational Issues, Academic Issues, Student Issues, Faculty issues, Infrastructural, Administration and Learning Resources Issue.		Analysis revealed that the Advantages and Benefits are at a higher order compared to Constraints and Disadvantages hence analysis supports the model	Aithal, et al., (2016). [30]
19	Theory 'A' on the performance of an Organization. Identification of Critical Constituent Elements through ABCD Analysis	Organizational Issues, Managerial Issues, Employee Issues, Ideological Issues, Social and Stake Holder issues	Explored the various Critical Constitutional Elements through the key influencing factors and established in support of Theory 'A' through ABCD Analysis	Aithal & Kumar, (2016). [31]
20	ABCD Analysis on "Working from home" model	Organizational Issues, Operational Issues, Technological Issues, Employers and Employees Issues	Analysis supported the Working from Home Model "since the Factors related to the Advantages and Benefits are much higher than the Constraints and Disadvantages	Reshma, et al., (2015). [32]
21	Evaluation of Dye Doped Polymers for Photonic Applications, through ABCD analytical framework	Material Property Issues, Application Issues, Commercialization Issues, Production Service Providers Issues, Customers Issues, Social /Environmental Issues.	Analysis brought about 204 Critical Constituent Elements that support the Analysis success for the proposed model	Aithal & Aithal, (2016). [33]
22	A Case Study analysis on learning of students through planned hard work Stake holders Expectations, Expectations, Students expectations, Teachers' Expectations Parents Expectations were examined		Through ABCD /SWOC analysis, various Advantages, Benefits, Constraints and Disadvantages of the various determinant issues were unearthed	Aithal & Aithal, (2016). [34]
23	Study on Student centric Curriculum design.	Current Pedagogy, Curriculum, Evaluation methods etc. were examined	ABCD analysis carried out and listing of its constructs Viz. Advantages, Benefits, Constraints and Disadvantages were exposed which	Aithal, (2016). [35]



	1			- <u></u>
			would further pay way for analyzing the proposed model and a new pedagogy was developed	
24	Evaluation of New Research Indices	No determinants since it is an evaluation paper	Explored the merits of Research Index using ABCD Frame work	Aithal, (2017). [36]
25	Direct to Consumer during epidemic through Live stream	NO determinants	Explored the various factors concerning to the Live stream	Rajasekar & Aithal, (2022). [37]
26	Case Study on Diversity & Inclusion in Wipro	No determinants considered	Under ABCD Constructs, listed various Advantages, Benefits, Constraints and Disadvantages	Pai, (2020). [38]
27	Case Study evaluation using ABCD frame work on IBM Blockchain Services and Hyper Ledger fabric	No determinants considered	Enumerated the various Advantages, Benefits, Constraints and Disadvantages of the case	Bhuvana & Aithal, (2020). [39]
28	New Analysis Technique Called ABCD (Advantages, Benefits, Constraints and Disadvantages)	No determinants considered	Development of New ABCD Analysis technique for the evaluation of Business Model & concepts	Aithal, et al., (2015). [12]
29	Comparative study of ABCD Analysis frame work against other existing strategic Analysis tools	No determinants considered	Weighed the ABCD Analysis technique Vis-à-vis existing strategic analysis tools and revealed the more comprehensiveness of it.	Aithal, et al., (2016). [40]
30	ABCD Analysis in evaluation of Case Studies of Companies	No determinants considered	Established the advantage of using ABCD Analysis framework in Company Studies compared to other strategic evaluation tools such as SWOC/SWOT, PESTLE, BCG Matrix Ex.	Aithal, (2017). [41]



31	Examined the impact of Online on higher education	No determinants considered	Comprehensively listed the Advantages, Benefits, Constraints and Disadvantages of the impact on online higher education using ABCD analysis framework	Aithal, & Aithal, (2016). [42]
32	Impact of Sustainable finance on MSME thereby promoting green growth	No determinants considered	Listed the Various Advantages, Benefits, Constraints and Disadvantages through ABCD analysis framework	Mahesh, et al., (2022). [43]
33	Evaluation of Smart Library for future generation through ABCD analytical framework	No determinants considered	Listed the Various Advantages, Benefits, Constraints and Disadvantages through ABCD analysis framework	Aithal, (2016). [44]
34	Ideal software and its realization scenario ABCD Evaluation	No determinants considered	Listed the Various Advantages, Benefits, Constraints and Disadvantages of Ideal Software, Using ABCD Technique	Aithal & Pai, (2016). [45]
35	Comparative Analysis (SWOC & ABCD) Choice Based Credit System in Higher Education	No determinants considered	Comparative Analysis revealed that ABCD Analysis framework is more comprehensive and applicability both from external and internal affecting factors' perspective	Aithal & Kumar, (2016). [46]
36	Strategies for Green Education Vis-à-vis the Conventional Education	No determinants considered	Listed the various Advantages, Benefits, Constraints and Disadvantages within the ABCD analysis framework	Aithal & Rao, (2016). [47]
37	Evaluated the Students' Performance and Learning outcome in Srinivas University using ABC methodology	No determinants considered	Listed the Advantages and Benefits of the model and established the significance of students performance in Srinivas University	Aithal & Kumar, (2016). [48]



2.1.2 Quantitative Analysis Using ABCD Analysis Framework

Table 2:	ABCD	Analysis	framework	for	various	Business	Concepts	/Models	/Systems	and	their
Quantitativ	ve outco	mes									

S. No.	Area	Determinant Issues	Analysis Outcome	Ref. No.
1	ABCD Analysis on IEDRA Model for Placement Determination	Model Schedule, Model Flexibility, ModelAdministration, Overall Model Relevance and Applicability	Quantitative Analysis through ABCD analysis Frame work revealed the Higher score for the Advantage and Benefits compared to the Constraints and Disadvantage, hence support the model	Shenoy & Aithal, (2017). [49]
2	Analysis on Online Food Delivery model	Supplier Issues , Food Delivery Partner, Customer Issues, Technology Issues	Analysis finding revealed that the advantages and benefits support the model since the Advantages and Benefits Mean Score way higher than the Constraints and Disadvantage, Hence supporting the model	Frederick & Bhat, (2022). [50]
3	Sustainability Reporting in Higher Education Institutes	Institution Issues, Administrative Issues, Faculty Member Issues, Student Issues. Employer Issues, Society and Other Stake Holder Issues.	Analysis supported the introduction of Sustainability reporting in Higher Education Institutions curriculum	Nayak & Kayarkatte, (2022). [51]
4	Assessment of Attractiveness and feasibility for business in Bottom of the Economic Pyramid	Stake Holder Issues, Business Issues, Operational Issues, Customer Issues, Technological Issues, Environmental and Social Issues	Both Qualitative and Quantitative analysis were carried out through ABCD analysis framework and revealed that the Score for Advantage and Benefits are far higher than the Constraints and Disadvantages Constructs thereby supporting the model evaluation	Raj & Aithal, (2021). [52]
5	5 Evaluation of Online Shopping model through ABCD Analytical Frame work Merchant Issues, Logistic Issues, Customer Issues, Technological Issues, Centralized Financial Issues		Qualitative and Quantitative analysis reveals that the combined score of Advantages and Benefits are much higher than the combined score of the Constraints and Disadvantages. Hence the model analysis through ABCD support the online shopping model.	Frederick et.al., (2021). [53]



6	Analysis on Work Stress in Airline Industry	Irregular working hours, Work hassles, Social Isolation, Burnout	Model supports the Stress Coping mechanism in Airlines Industry since the Advantage + Benefit score is much higher than the Constraints and Disadvantage thereby supporting the model evaluation	Kumari & Aithal, (2022). [54]
7	Purchase Intention of Organic food	Consumers Issues, Company Issues, Society Issues, Farmers Issues, Cooperative Society Issues, Suppliers Issues	Benefit Factors support more than the advantage factors. However, the score of both put together is more than the combined score of Constraints and Disadvantages hence support the model evaluation	Mendon & Aithal, (2022). [55]

3. OBJECTIVES OF THE STUDY :

- (1) To investigate the usefulness of ABCD analysis framework as a strategic evaluation tool for customer engagement in online platforms.
- (2) To explore the extant of literature available on ABCD analysis framework and its contributions
- (3) To enumerate the ABCD (Advantages, Benefits, Constraints and Disadvantages) of Customer Engagement of millennial population on their shopping through online platforms.
- (4) To identify the key parameters that are influencing customer engagement quantitatively and depict them in order of its contribution.
- (5) To quantitatively ascertain the key determinants that contribute the customer engagement on online shopping platforms.

4. RESEARCH METHODOLOGY :

The research methodology comprises of listing the various Determinant issues and the Key Attributes concerning to each determinant with respect the four constructs of ABCD Analysis frame work, Advantages, Benefits, Constraints and Disadvantages. The key attributes were further subjected to elemental analysis in order to enlist the various Critical Constituent Element (CCE). After enlisting all the Critical Constituent Element analysis and tabulated separately for each construct. Each element has been assigned with 1= Unsatisfactory, 2 = Neutral and 3 = Satisfactory in a likert scale (Joshi, A., et al. (2015) [56]). A focus group (N=10) discussion was held in order to collect the responses for the each element. The score of Key attributes has been summed up for all the responses based on each determinant issue and tabulated. Sum of Key attributes scores of each determinant issue was determined. Second step is to identify the total score of each Construct: Advantages, Benefits, Disadvantage, Constraints and Disadvantages. For this, Arithmetic mean all the scores (Key Attributes + Construct Score + CCE) score for each determinant was estimated in order to get the Mean Determinant Score. These Means scores for Advantages, Benefits, Constraints and Disadvantages were compared in order to ascertain the quantitative comparison. If the Advantages and Benefits scores are found to be significantly more than the scores of Constraints and Disadvantages, then the proposed model is considered to be supporting and vice versa. The determinant mean scores than graphically represented through a vertical bar graph for a visual clarity of these constructs.

5. LISTING OF A, B, C, D CONSTRUCTS IN ABCD ANALYSIS FRAMEWORK :

Advantages:

- 1. Millennial cohort consists about 25% of the total population
- 2. Can engage them through a variety of electronic media
- 3. Scattered Millennials populations can be served on a single platform

- 4. Social media is a powerful tool to engage this population
- 5. Millennial community is educated
- 6. Millennial's disposable income is high
- 7. Studies shows Millennials prefer online shopping
- 8. Phenomenal business growth can be achieved
- 9. e-Word of Mouth happens easily
- 10. Millennials are font of liberal shopping
- 11. Can serve round the clock
- 12. Better profitability, being willing to pay more for fancy products

Benefits:

- 1. Engaged Millennials are more loyal to the brand and become self-brand ambassador
- 2. Engaged customer has higher customer satisfaction
- 3. Engaged customer tends to buy more
- 4. Enhances the brand image
- 5. Can take the advantage of round the clock shopping
- 6. Direct Communications can be made through attractive contents
- 7. Personalised contents can be created
- 8. Benefitted by higher discounts and offers can be directly offered
- 9. Millennials being tech oriented, electronic payments can be facilitated
- 10. Can offer variety of products compared to Brick and Mortar Store
- 11. Products can be delivered at their convenient time and place
- 12. Reviews can be made more transparent
- 13. Customer analysis is comprehensive
- 14. Feedback can be collected online
- 15. Social community can be created for better communication
- 16. Valuable Time saving

Constraints:

- 1. Contents quality shall be high such as Product Videos, product information, page design etc.
- 2. Personalized engagement strategies need to be formulated
- 3. High Technology dependent
- 4. Being educated cohort, need to be engaged carefully
- 5. Perception may affect the customer engagement
- 6. Rural Millennials and technology outreach
- 7. Regional cultural preferences shall be considered during engagement
- 8. Attractiveness of electronic platform
- 9. Technical competency of the engagement employees
- 10. Engagement costs
- 11. Technology changes are rapid

Disadvantages:

- 1. Highly demanding customers
- 2. Engagement contents need to be always updated
- 3. Highly informed group hence loyalty shift is fast
- 4. Possibility of negative customer engagement
- 5. High expectation of prompt and high service quality
- 6. Since highly connected through the social media, chances of negative feedback is fast
- 7. Dislike and returns are high hence incurs high return costs
- 8. Merchandizing costs is high as millennial cohort always look impressive packaging
- 9. Minor service lapse may cost a customer and more through him/her

6. KEY ATTRIBUTES IDENTIFIED UNDER ABCD ANALYSIS FRAME WORK :

Table 3 below illustrates the various Determinant issues that are significantly associated with the online business model. These determinants are the deciding factors of the business model, leading to success or failure. These primary issues are categorized as Organizational, Business, Customer, Operational, Social & Environment and Stake holders. The determinant issues are further developed in to various



Key attributes to obtain further clarity on it. Researcher has identified various key attributes concerning to the various determinant issues are depicted in the Table 3.

	Determinant Issues	Key Attributes		
1	Organizational	Organization Structure, Business Ecosystem, Growth Strategies and financial stability		
2	Business	Innovativeness, Market Competition, Market Competition, Brand presence and Brand Equity		
3	Customer	Technological Acceptability, Customer Perception, Usefulness,		
4	4 Operational Logistic Infrastructure, Technical and Administrative Competence			
5	Social and Environment	Employment opportunities, Economic Growth, Social Ecosystem		
6	Stake Holders	Government Policies, Business Inclusiveness		

Table 3:	List of Key	Attributes of	f various	Determinant Issues
----------	-------------	---------------	-----------	--------------------

Source : Compiled by the researcher

7. FACTORS AFFECTI NG THE MODEL UNDER ABCD ANLYSIS FRAMEWORK :

Comprehensive listing of the four constructs of ABCD frame work are illustrated in Table 4

Table 4: List of four Constructs Advantages Benefits, Constraints and Disadvantages of ABCI)
analysis framework	

Determinant Issues	Key Attributes	Advantages	Benefits	Constraints	Disadvantages
	Vision	Large Population of Millennials	Organizational Image	Cultural Diversity	Creative Engagement strategies are essential
Organization	Business Ecosystem	Positive Customer inclination	Futuristic	High Technology Investments	Multiple Engagement Strategies
al	Growth	High Scalability	High ROI	Growth Plans	High Startup Investments
	Financial	Better Cash flows	Shorter Pay Back Period	Investment Plans	Higher Risk
	Innovativeness	High Acceptance by Millennials	Quick Customer Acquisition	Loss of customers	Electronic Engagement only
	Marketing Strategies	Personalized Contents	Reach out to large number of customers with less cost	Customer retention	High level of loyalty switch
Business	Brand Presence	Better buildup of Customer Confidence	Engaged Customers promote the brand	Highly informed customers	Constantly Changing engagement strategies
	Engagements	Urban Millennials are techno savvy	Easy communication outreach	High Customer Expectations	Negative Customer Engagement
	Technological Acceptability	High Positive acceptance	Time saving	Rural Areas	Difficult to engage rural area Millennials
Customer	Personality Traits	Favourable Customer Perception	Social Community build up	Trust build up	Less committed
	Social Media	Highly connected	Omni channel reach out	High Speed Internet connectivity	Omni channel engage costs are high



SRINIVAS PUBLICATION

	Customer Connectivity	Easy through Electronic devices	Personalized Connectivity	Content Quality	Low quality content can have negative impact
Operational	Technical Competency	Highly competent technical resources available	Tailor made customer engagement software	High Employee Attrition	High HR Costs
	Customer Satisfaction	Highly satisfied Customers	Developed Society	Educational Standards	Rural Areas discarded
Social	Economic Growth	Better disposable income	Boosted economy	Business inclusiveness	More inclined to the wealthy millennial segments
	Social Ecosystem	High Social Communities formation	Developed Society	Geographical Constraints	More fragile
Other Stake	Government Policies	Encouraging Policies	Better Operational Conduciveness	Customer Acceptability	Changing policies
Holders	Business Inclusiveness	Inter Region Business	Large economic sections can be covered	Physical Infrastructure	Less penetration to rural areas
Source: Compil	led by the researcher	•			

8. IDENTIFICAITON OF CRITICAL CONSTITUENT ELEMENT :

Upon listing the various key attributes and the listing of four constructs A, B, C, D Critical Constituent Elements (CCE) were identified against each attribute. The various CCE with respect to each construct are tabulated in Table 5 to Table 8

Determinant Issues	Key Attributes	Advantages	Critical Constituent Element (CCE)
	Vision	Large Population of Millennials	Targeted Segments
Organizational	Business Ecosystem	Positive Customer inclination	Millennial Characteristics
Organizational	Growth	High Scalability	Mission and Vision
	Financial	Better Cash flows	Financial Targets
	Innovativeness	High Acceptance by Millennials	Customer Engagement
	Marketing Strategies	Personalized Contents	Content Design
Business	Brand Presence	Better buildup of Customer Confidence	Trust Build up
	Engagements	Urban Millennials are techno savvy	Varied Engagement Strategies
	Technological Acceptability	High Positive acceptance	Electronics Device suitability
Customer	Personality Traits	Favourable Customer Perception	Perceptional Studies
	Social Media	Highly connected	Engagement in Social Media
Onersternel	Customer Connectivity	Easy through Electronic devices	Personal electronic devices
Operational	Technical Competency	Highly competent technical resources available	Selection Criteria
	Customer Satisfaction	Highly satisfied Customers	Satisfaction Survey
Social and Environment	Economic Growth	Better disposable income	Social Contribution Targets
Environment	Social Ecosystem	High Social Communities formation	Community Development
Other Stake Holders	Government Policies	Encouraging Policies	Policy Evaluation and application

Table 5: Critical Constituent Elements concerning Advantages



	Business Inclusiveness	Inter Region Business	Business Model
Source : Compiled by the researcher			

Determinant Issues	Key Attributes	Benefits	Critical Constituent Element (CCE)	
	Vision	Organizational Image	Top Management	
Organizational	Business Ecosystem	Futuristic	Business Predictivity	
	Growth	High ROI	Mission and Vision	
	Financial	Shorter Pay Back Period	Accrued profits	
	Innovativeness	Quick Customer Acquisition	Customer Engagement techniques	
Business	Marketing Strategies	Reach out to large number of customers with less cost	Personalized pull contents	
DUSIIIESS	Brand Presence	Engaged Customers promote the brand	eWOM	
	Engagements	Easy communication outreach	Omni Channel Marketing	
Customer	Technological Acceptability	Time saving	Internet availability	
	Personality Traits	Social Community build up	Social Media Data survey	
	Social Media	Omni channel reach out	Social media engagements	
	Customer Connectivity	Personalized Connectivity	Digital Infrastructure	
Operational	Technical Competency	Tailor made customer engagement software	Software Capabilities	
Social and	Customer Satisfaction	Customer Satisfaction Developed Society		
Environment	Economic Growth	Boosted economy	Business Targets	
	Social Ecosystem	Developed Society	Social Policies	
Other Stake Holders	Government Policies	Better Operational Conduciveness	Mitigation Measures	
	Business Inclusiveness	Large economic sections can be covered	Inclusion strategies	
Source: Compiled	by the researcher	•	·	

Table 6: Critical Constituent Elements concerning Benefits

Table 7: Critical Constituent Element concerning Constraints

Determinant Issues	Key Attributes	Constraints	Critical Constituent Element (CCE)	
	Vision	Cultural Diversity	Demographical Data	
Organizational	Business Ecosystem	High Technology Investments	Selection of Engagement media	
8	Growth	Growth Plans	Mission and Vision	
	Financial	Investment Plans	Financial Stability	
	Innovativeness	Loss of customers	Content design	
	Marketing Strategies	Customer retention	Omni channel engagement strategies	
Business	Brand Presence	Highly informed customers	Financial Budget	
	Engagements	High Customer Expectations	Brand Image	
	Technological Acceptability	Rural Areas	Electronics Device affordability	
a	Personality Traits	Trust build up	Perceptional Studies	
Customer	Social Media	High Speed Internet connectivity	Social Engagement feed back	
Operational	Customer Connectivity	Content Quality	Electronic Media selection	
Operational	Technical Competency	High Employee Attrition	HR Strategies	
Social and	Customer Satisfaction	Educational Standards	Society Standard Index	
Environment	Economic Growth	Business inclusiveness	Inclusion Targets	
Environment	Social Ecosystem	Geographical Constraints	Infrastructure network	
	Government Policies	Customer Acceptability	Strategic Measures	



SRINIVAS PUBLICATION

Other Stake Holders	Business Inclusiveness	Strong Business Initiatives	Value Propositions			
Source: Compiled by the researcher						

Determinant Issues	Key Attributes	Disadvantages	Critical Constituent Element (CCE)
	Vision	Creative Engagement strategies are essential	Content Management
Organizational	Business Ecosystem	Multiple Engagement Strategies	Customer Engagement Team
	Growth	High Startup Investments	Engagement Plans
	Financial	Higher Risk	Risk Mitigation Strategies
	Innovativeness	Electronic Engagement only	Media Selection
	Marketing Strategies	High level of loyalty switch	Loyalty Building Measures
Business	Brand Presence	Constantly Changing engagement strategies	Brand Promotion
	Engagements	Negative Customer Engagement	Engagement Feed Back evaluation
	Technological Acceptability	Difficult to engage rural area Millennials	Technology unavailability
Customer	Personality Traits	Less committed Cohort	Customer Holistic Studies
	Social Media	Omni channel engage costs are high	Data Analytics
Operational	Customer Connectivity	Low quality content can have negative impact	Effective Feedback System
Operational	Technical Competency	High HR Costs	Optimum Software / HR Selection
	Customer Satisfaction	Rural Areas discarded	Urbanization Rates
Social and Environment	Economic Growth	More inclined to the wealthy millennial segments	Customer Segmentation
Environment	Social Ecosystem	Millennial Customer Ecosystem is More fragile	Social Auditing
Other Stake	Government Policies	Changing policies	Risk Mitigation Measures
Holders	Business Inclusiveness	Less penetration to rural areas	Penetration Measures
Source: Compiled	by the researcher		

Table 8: Critical Constituent Element concerning Disadvantages

9. CRITICAL CONSTITUENT ELEMENT (CCE) ANALYSIS :

Critical Constituent Elements have been estimated through a Focus group data collection and statistical analysis. The Table 9 to Table 12 show the scores obtained for each construct.

Determinant Issues	Key Attributes	Advantages	Critical Constituent Element (CCE)	Key Attribute Total Score	Issues Total Score	Determina nt issue Mean Score
	Vision	Large Population of Millennials	Targeted Segments	30		
Organizational	Business Ecosystem	Positive Customer inclination	Millennial Characteristics	29	114	156
Organizational	Growth	High Scalability	Mission and Vision	29		
	Financial	Better Cash flows	Financial Targets	26		
	Innovativene ss	High Acceptance by Millennials	Customer Engagement	29	109	

Table 9: Key Attributes and Determinant Mean Score for Advantages



SRINIVAS PUBLICATION

Business	Marketing Strategies	Personalized Contents	Content Design	26		
	Brand Presence	Better buildup of Customer Confidence	Trust Build up	29		
	Engagements	Urban Millennials are techno savvy	Varied Engagement Strategies	25		
	Technologica l Acceptability	High Positive acceptance	Electronics Device suitability	27		
Customer	Personality Traits	Favourable Customer Perception	Perceptional Studies	28	84	
	Social Media	Highly connected	Engagement in Social Media	29		
	Customer Connectivity	Easy through Electronic devices	Personal electronic devices	28		
Operational	Technical Competency	Highly competent technical resources available	Selection Criteria	29	57	
	Customer Satisfaction	Highly satisfied Customers	Satisfaction Survey	27		
Social and Environment	Economic Growth	Better disposable income	Social Contribution Targets	27	83	
Environment	Social Ecosystem	High Social Communities formation	Community Development	29		
Other Stake	Government Policies	Encouraging Policies	Policy Evaluation and application	27	53	
Holders	Business Inclusiveness	Inter Region Business	Business Model	26		
Source: Compiled	by the researcher	•				

Table 10 : Key Attributes and Determinant Mean Score for Benefits

Determinant Issues	Key Attributes	Benefits	Critical Constituent Element (CCE)	Key Attribute Total Score	Issues Total Score	Deter minant issue Mean Score
	Vision	Organizational Image	Top Management	28	109	
Onconinctional	Business Ecosystem	Futuristic	Business Productivity	27		
Organizational	Growth	High ROI	Mission and Vision	27		150.9
	Financial	Shorter Pay Back Period	Accrued profits	27		
Business	Innovativeness	Quick Customer Acquisition	Customer Engagement techniques	28		
	Marketing Strategies	Reach out to large number of customers with less cost	Personalized pull contents	29	114	



	Brand Presence Engagements	Engaged Customers promote the brand Easy communication	eWOM Omni Channel	28 29	_
		outreach	Marketing	29	
Customer	Technological Acceptability	Time saving	Internet availability	24	
	Personality Traits	Social Community build up	Social Media Data survey	26	77
	Social Media	Omni channel reach out	Social media engagements	27	
	Customer Connectivity	Personalized Connectivity	Digital Infrastructure	29	
Operational	Technical Competency	Tailor made customer engagement software	Software Capabilities	26	55
Social and	Customer Satisfaction	Developed Society	Customer Satisfaction Survey	27	80
Environment	Economic Growth	Boosted economy	Business Targets	25	
	Social Ecosystem	Developed Society	Social Policies	28	
Other Stake	Government Policies	Better Operational Conduciveness	Mitigation Measures		
Other Stake Holders	Business Inclusiveness	Large economic sections can be covered	Inclusion strategies	26	54
Source: Compiled	by the researcher				

Table 11: Key Attributes and Determinant Mean Score for Constraints

Determinant Issues	Key Attributes	Constraints	Critical Constituent Element (CCE)	Key Attribute Total Score	Issues Total Score	Determi nant issue Mean Score
	Vision	Cultural Diversity	Demographical Data	20		
Organizational	Business Ecosystem	High Technology Investments	Selection of Engagement media	18	75	
	Growth	Growth Plans	Mission and Vision	20		
	Financial	Investment Plans	Financial Stability	17		
	Innovativeness	Loss of customers	Content design	18		99.2
	Marketing Strategies	Customer retention	Omni channel engagement strategies	18		
Business	Brand Presence	Highly informed customers	Financial Budget	17	72	
	Engagements	High Customer Expectations	Brand Image	19		



Customer	Technological Acceptability	Rural Areas	Electronics Device affordability	18	
	Personality Traits	Trust build up	Perceptional Studies	19	52
	Social Media	High Speed Internet connectivity	Social Engagement feed back	15	
	Customer Connectivity	Content Quality	Electronic Media selection	18	
Operational	Technical Competency	High Employee Attrition	HR Strategies	16	34
	Customer Satisfaction	Educational Standards	Society Standard Index	19	
Social and Environment	Economic Growth	Business inclusiveness	Inclusion Targets	15	50
	Social Ecosystem	Geographical Constraints	Infrastructure network	16	
Other Stake Holders	Government Policies	Customer Acceptability	Strategic Measures	18	
	Business Inclusiveness	Strong Business Initiatives	Value Propositions	17	35

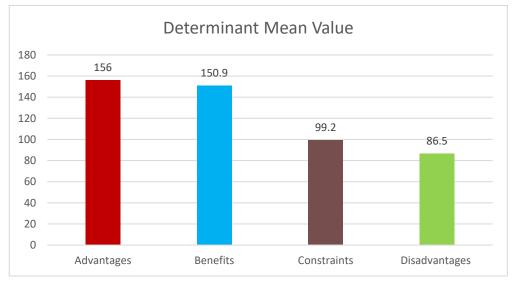
Determinant Issues	Key Attributes	Disadvantag es	Critical Constituent Element (CCE)	Key Attribute Total Score	Issues Total Score	Determina nt issue Mean Score
	Vision	Creative Engagement strategies are essential	Content Management	15		
Organizational	Business Ecosystem	Multiple Engagement Strategies	Customer Engagement Team	15	58	
	Growth	High Startup Investments	Engagement Plans	15		
	Financial	Higher Risk	Risk Mitigation Strategies	13		
	Innovativeness	Electronic Engagement only	Media Selection	16		86.5
	Marketing Strategies	High level of loyalty switch	Loyalty Building Measures	17		
Business	Brand Presence	Constantly Changing engagement strategies	Brand Promotion	16	65	
	Engagements	Negative Customer Engagement	Engagement Feed Back evaluation	16		
Customer	Technological Acceptability	Difficult to engage rural area Millennials	Technology unavailability	14	42	

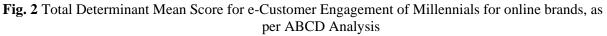


	Personality Traits	Less committed Cohort	Customer Holistic Studies	14	
	Social Media	Omni channel engage costs are high	Data Analytics	14	
Ormetical	Customer Connectivity	Low quality content can have negative impact	Effective Feedback System	16	33
Operational Social and	Technical Competency	High HR Costs	Optimum Software / HR Selection	17	
	Customer Satisfaction	Rural Areas discarded	Urbanization Rates	13	
	Economic Growth	More inclined to the wealthy millennial segments	Customer Segmentation	17	47
Environment Other Stake	Social Ecosystem	Millennial Customer Ecosystem is More fragile	Social Auditing	17	
	Government Policies	Changing policies	Risk Mitigation Measures	13	
Holders	Business Inclusiveness	Less penetration to rural areas	Penetration Measures	13	26
Source:	Compiled by the res	earcher			

10. PRESENTATION AND INTERPRETATION OF FOUR CONSTRUCTS :

The estimated values of determinants with respect to the four constructs of ABCD framework is given in fig. 2. The mean value of determinants with respect to the Advantages, Benefits, Constraints and Disadvantages are 156, 150.9, 99.2 and 86.5 respectively. This reveals that the total score of Advantages and Benefits are significantly higher than the Constraints and Disadvantages. Hence it can be concluded that the strategies for the e-Customer Engagement of Millennials are supporting and can be successfully deployed





Source: Compiled by the researcher

11. CONCLUSION :

The Strategies of e-Customer Engagement among Millennials for Online Platforms Have Been Evaluated Using an ABCD analysis framework. We used a focus group to compile a detailed list of the ABCD analysis framework's four components and to generate a quantitative estimate based on the collective wisdom of the participants. The results of the study showed that the strategic model can be used effectively to improve Millennials' use of digital channels for customer engagement. The findings pave the way for additional studies of this model for other clients.

REFERENCES:

- Lee, J. Y., Fang, E., Kim, J. J., Li, X., & Palmatier, R. W. (2018). The effect of online shopping platform strategies on search, display, and membership revenues. *Journal of Retailing*, 94(3), 247-264. Google Scholar≯
- [2] Chang, Y. F., & Chen, C. S. (2005). Smart phone—the choice of client platform for mobile commerce. *Computer Standards & Interfaces*, 27(4), 329-336. <u>Google Scholar ≯</u>
- [3] Vohra, A., & Bhardwaj, N. (2019). Customer engagement in an e-commerce brand community: An empirical comparison of alternate models. *Journal of Research in Interactive Marketing*, 13(1), 225 Google Scholar →
- [4] Issa, J. Michael. (2017). The rest of the story about the state of brick-and-mortar retail. *American Bankruptcy Institute Journal*, *36*(11), 36-80. <u>Google Scholar ≯</u>
- [5] Van Doorn, J., Lemon, K. N., Mittal, V., Nass, S., Pick, D., Pirner, P., & Verhoef, P. C. (2010). Customer engagement behavior: Theoretical foundations and research directions. *Journal of service research*, 13(3), 253-266. <u>Google Scholar ≯</u>
- [6] Brodie, R. J., Hollebeek, L. D., Jurić, B., & Ilić, A. (2011). Customer engagement: Conceptual domain, fundamental propositions, and implications for research. *Journal of service research*, 14(3), 252-271. Google Scholar
- [7] Kumar, V., Aksoy, L., Donkers, B., Venkatesan, R., Wiesel, T., & Tillmanns, S. (2010). Undervalued or overvalued customers: Capturing total customer engagement value. *Journal of service research*, 13(3), 297-310. <u>Google Scholar ×</u>³
- [8] Moreno, F. M., Lafuente, J. G., Carreón, F. Á., & Moreno, S. M. (2017). The characterization of the Millennials and their buying behavior. *International Journal of Marketing Studies*, 9(5), 135-144. <u>Google Scholar ×</u>
- [9] Dharmesti, M., Dharmesti, T. R. S., Kuhne, S., & Thaichon, P. (2019). Understanding online shopping behaviours and purchase intentions amongst millennials. *Young Consumers*, 22(1), 152-167. <u>Google Scholar ≯</u>
- [10] Bateh, D. (2019). Leadership from millennials to generation Z transformed. *Journal of Advanced Management Science*, 7(1), 11-14. <u>Google Scholar ≯</u>
- [11] Melović, B., Šehović, D., Karadžić, V., Dabić, M., & Ćirović, D. (2021). Determinants of Millennials' behavior in online shopping–Implications on consumers' satisfaction and e-business development. *Technology in society*, 65(21), 1-12. <u>Google Scholar ×</u>
- [12] Aithal, P. S., Shailashree, V., & Kumar, P. M. (2015). A new ABCD technique to analyze business models & concepts. *International Journal of Management, IT and Engineering*, 5(4), 409-423. <u>Google Scholar</u>.
- [13] Ho, J. K. K. (2014). Formulation of a systemic PEST analysis for strategic analysis. *European* academic research, 2(5), 6478-6492. <u>Google Scholar ≯</u>
- [14] Aithal, P. S., Shailashree, V., & Kumar, P. M. (2015). Application of ABCD Analysis Model for Black Ocean Strategy. *International journal of applied research*, 1(10), 331-337. <u>Google</u> <u>Scholar</u>³



- [15] Krishna Prasad, K. (2018). ABCD Analysis of Fingerprint Biometric Attendance Maintenance System. International Journal of Applied Engineering and Management Letters (IJAEML), 2(2), 53-70. Google Scholarx³
- [16] Raj, K., & Aithal, P. S. (2018). Generating Wealth at the Base of the Pyramid–a Study Using ABCD Analysis Technique. *International Journal of Computational Research and Development* (*IJCRD*), 3(1), 68-76. <u>Google Scholar ×</u>
- [17] Aithal, P. S., & Aithal, S. (2016). Factor Analysis based on ABCD analysis framework on Recently Announced New Research Indices. *Sciences (IJMTS)*, *1*(1), 82-94. Google Scholar ≯
- [18] Shenoy, V., & Aithal, P. S. (2016). ABCD Analysis of On-line Campus Placement Model. *IRA-International Journal of Management & Social Sciences*, 5(2), 227-244. Google Scholar ≯
- [19] Aithal, P. S., & Aithal, S. (2018). Factor & Elemental Analysis of Nanotechnology as Green Technology using ABCD analysis framework. *International Journal of Management*, *Technology, and Social Sciences (IJMTS)*, 3(2), 57-72. Google Scholar x
- [20] Aithal, P. S. (2021). Analysis of Systems & Technology Using ABCD analysis framework. *Chapter 8, Ideal Systems, Ideal Technology, and their Realization Opportunities using ICCT & Nanotechnology,* 345-385. Google Scholar №
- [21] Aithal, P. S., Shailashree, V., & Kumar, P. M. (2016). Application of ABCD Analysis Framework on Private University System in India. *International journal of management sciences and business research*, 5(4), 159-170. <u>Google Scholar №</u>
- [22] Aithal, P. S., VT, S., & Kumar, P. M. (2016). Analysis of ABC Model of Annual Research Productivity using ABCD analysis framework. *International Journal of Current Research and Modern Education (IJCRME)*, 1(1), 846-858. <u>Google Scholar ×</u>
- [23] Jeevan, P. (2015). A study of an integrated digital marketing framework-theoretical model and analysis using ABCD model. *International Journal of Management, IT and Engineering*, 5(7), 648-659. Google Scholarx³
- [24] Aithal, P. S. (2018). ABCD Analysis of Fingerprint Hash Code, Password and OTP Based Multifactor Authentication Model. Saudi Journal of Business and Management Studies, 3(1), 65-80. Google Scholarx³
- [25] Aithal, P. S., Shailashree, V., & Kumar, P. M. (2016). Analysis of NAAC Accreditation System using ABCD analysis framework. *International Journal of Management, IT and Engineering*, 6(1), 30-44. Google Scholarx³
- [26] Aithal, P. S., Shailashree, V., & Kumar, P. M. (2016). The study of new national institutional ranking system using ABCD analysis framework. *International Journal of Current Research and Modern Education (IJCRME)*, 1(1), 389-402. Google Scholar≯
- [27] Kumari, P., & Aithal, P. S. (2020). Growth & Fate Analysis of Mangalore International Airport– A Case Study. International Journal of Case Studies in Business, IT, and Education (IJCSBE), 4(2), 71-85. Google Scholarx³
- [28] Aithal, A., & Aithal, P. S. (2017). ABCD analysis of task shifting–an optimum alternative solution to professional healthcare personnel shortage. *International Journal of Health Sciences and Pharmacy (IJHSP)*, *1*(2), 36-51. Google Scholar ≯
- [29] Aithal, P. S., Kumar, P. M., & Shailashree, V. (2016). Factors & elemental analysis of six thinking hats technique using ABCD analysis framework. *International Journal of Advanced Trends in Engineering and Technology (IJATET)*, *1*(1), 85-95. Google Scholar →
- [30] Aithal, P. S., Shailashree, V., & Kumar, P. M. (2016). ABCD analysis of Stage Model in Higher Education. International Journal of Management, IT and Engineering, 6(1), 11-24. Google Scholar≯

- [31] Aithal, P. S., & Kumar, P. M. (2016). CCE Approach through ABCD Analysis of 'Theory A'on Organizational Performance. *International Journal of Current Research and Modern Education* (*IJCRME*), 1(2), 169-185. Google Scholar≯
- [32] Reshma, P. S., Aithal, P. S., & Acharya, S. (2015). An empirical study on Working from Home: A popular e-business model. *International Journal of Advance and Innovative Research*, 2(2), 12-18 <u>Google Scholar →</u>
- [33] Aithal, S., & Aithal, P. S. (2016). ABCD analysis of Dye-doped Polymers for Photonic Applications. *IRA-International Journal of Applied Sciences*, 4(3), 358-378. Google Scholar ≯
- [34] Aithal, S., & Aithal, P. S. (2016). Student centric learning through planned hard work-an innovative model. *International Journal of Scientific Research and Modern Education (IJSRME*, *1*(1), 886-898 <u>Google Scholar ≯</u>
- [35] Aithal, S. (2016). Student centric curriculum design and implementation–challenges & opportunities in business management & IT education. *IRA International Journal of Education and Multidisciplinary Studies*, 4(3), 423-437. <u>Google Scholar ≯</u>
- [36] Aithal, P. S. (2017). ABCD Analysis of Recently Announced New Research Indices. International Journal of Management, Technology, and Social Sciences (IJMTS), 1(1), 65-76. Google Scholarx^{*}
- [37] Rajasekar, D., & Aithal, P. S. (2022). Direct to Consumer using Livestream as an Innovative Marketing Medium during COVID-19. *International Journal of Applied Engineering and Management Letters (IJAEML)*, 6(1), 77-86. Google Scholar ス
- [38] Pai, R. (2020). Diversity and Inclusion: Key to Improve Productivity-A Case Study on WIPRO. International Journal of Case Studies in Business, IT and Education (IJCSBE), 4(2), 18-27. Google Scholarx³
- [39] Bhuvana, R., & Aithal, P. S. (2020). Blockchain based service: A case study on IBM Blockchain Services & Hyperledger Fabric. International Journal of Case Studies in Business, IT, and Education (IJCSBE), 4(1), 94-102. Google Scholarx³
- [40] Aithal, P. S. (2016). Study on ABCD analysis technique for business models, business strategies, operating concepts & business systems. *International Journal in Management and Social Science*, 4(1), 95-115. Google Scholar *X*
- [41] Aithal, P. S. (2017). ABCD Analysis as Research Methodology in Company Case Studies. International Journal of Management, Technology, and Social Sciences (IJMTS), 2(2), 40-54. Google Scholarx^{*}
- [42] Aithal, P. S., & Aithal, S. (2016). Impact of on-line education on higher education system. International Journal of Engineering Research and Modern Education (IJERME), 1(1), 225-235. Google Scholarx^{*}
- [43] Mahesh, K. M., Aithal, P. S., & Sharma, K. R. S. (2022). Impact of Sustainable Finance on MSMEs and other Companies to Promote Green Growth and Sustainable Development. International Journal of Applied Engineering and Management Letters (IJAEML), 6(1), 60-76. Google Scholarx³
- [44] Aithal, P. S. (2016). Smart library model for future generations. *International Journal of Engineering Research and Modern Education (IJERME)*, *1*(1), 693-703. <u>Google Scholar</u>≯
- [45] Aithal, P. S., & Pai T, V. (2016). Concept of Ideal Software and its Realization Scenarios. International Journal of Scientific Research and Modern Education (IJSRME), 1(1), 826-837. Google Scholar X
- [46] Aithal, P. S., & Kumar, P. M. (2016). Analysis of choice based credit system in higher education. International Journal of Engineering Research and Modern Education (IJERME), 1(1) 278-284. Google Scholar≯

- [47] Aithal, P. S., & Rao, P. (2016). Green education concepts & strategies in higher education model. *International Journal of Scientific Research and Modern Education (IJSRME)*, 1(1), 793-802. Google Scholarx³
- [48] Aithal, P. S., & Kumar, P. M. (2016). Student performance and learning outcomes in higher education institutions. *International Journal of Scientific Research and Modern Education* (*IJSRME*), *1*(1), 674-684. <u>Google Scholar ₹</u>
- [49] Shenoy, V., & Aithal, P. S. (2017). Quantitative ABCD Analysis of IEDRA Model of Placement Determination. International Journal of Case Studies in Business, IT and Education (IJCSBE), 1(2), 103-113. Google Scholarx³
- [50] Frederick, D. P., & Bhat, G. (2022). Quantitative ABCD Analysis of Online Food Delivery Services. International Journal of Case Studies in Business, IT and Education (IJCSBE), 6(1), 76-92. Google Scholarx³
- [51] Nayak, P., & Kayarkatte, N. (2022). Education for Corporate Sustainability Disclosures by Higher Educational Institutions–A Quantitative ABCD Analysis. International Journal of Management, Technology, and Social Sciences (IJMTS), 7(1), 465-483. Google Scholarx
- [52] Raj, K., & Aithal, P. S. (2022) Assessing the attractiveness & Feasibility of doing business in the BoP Market–A Mixed Method Approach using ABCD Analysis. <u>Google Scholar ≯</u>
- [53] Frederick, D. P., Sujaya, H., & Salins, M. (2022). Quantitative ABCD Analysis of Online Shopping. International Journal of Applied Engineering and Management Letters (IJAEML), 6(1), 313-329. Google Scholarx³
- [54] Kumari, P., & Aithal, P. S. (2022). Stress Coping Mechanisms: A Quantitative ABCD Analysis. International Journal of Case Studies in Business, IT, and Education (IJCSBE), 6(2), 268-291. Google Scholarx³
- [55] Mendon, S., & Aithal, P. S. (2022). Quantitative ABCD Analysis of Organic Food Product and its Impact on Purchase Intention. *International Journal of Management, Technology, and Social Sciences (IJMTS)*, 7(1), 254-278. Google Scholar≯
- [56] Joshi, A., Kale, S., Chandel, S., & Pal, D. K. (2015). Likert scale: Explored and explained. *British journal of applied science & technology*, 7(4), 396-403. Google Scholar ≯

