

# Quantitative ABCD Analysis of Online Shopping

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### ABSTRACT

**Purpose:** *The central focus of the study is to study ABCD Analysis Framework for Online Shopping and determine the major affecting factor for Online Shopping.*

**Design:** *Published scholarly articles were referred to understand the concept. The Focus group interaction method was used to analyze major affecting factors for Online Shopping.*

**Findings:** *Results of the study found that among four factors, Advantages factor impacts more towards its prosperity.*

**Originality:** *The paper contributes in understanding various affecting factors towards online shopping.*

**Type of Paper:** *Empirical Analysis*

**Keywords:** Online Shopping, Quantitative ABCD Analysis, ABCD Analysis Framework, Key attributes, Determinant issues, Elementary Analysis, Factor Analysis.

### 1. INTRODUCTION :

E-commerce has contributed to the upliftment of the economy with more access to internet facilities. E-payments have become a more popular method of making any cashless transaction with the increase of disposable income [1]. Moreover, advancement in digitalization has influenced many firms to go for modern methods and employ their resources to optimize their return [2-4]. Therefore, online shopping has become very popular and many customers prefer to shop online. Online Shopping has modernized many businesses by offering their services online and exploring the opportunity to advance their trade [5-7].

Recently many researchers are employing ABCD (Advantages, Benefits, Constraints and Disadvantages) analysis framework which is a well-known method used for analysing a business prospect. The study also highlights in understanding ABCD analysis Framework and is used for analyzing Online Shopping.

### 2. REVIEW OF LITERATURE ON ABCD ANALYSIS FRAMEWORK :

Every firm strives to create a unique business model which helps in revenue generation and customer retention [8-9]. Therefore, a business model is a technique whereby the important elements of the firm's activity are analyzed. ABCD Analysis Framework is propounded by Aithal, *et al.*, (2016). This technique is used to analyze various "business models, company strategy, concept, idea, or business systems" from the stakeholder's view and contributes to revenue generation in long term. In this method, a matrix is drawn and "advantages, benefits, constraints, and disadvantages" are identified against stakeholders' views in the grid and "Critical Constituent Elements" are identified [10]. Many research-based papers are published based on this analysis framework as it considers other strategic methods of analysis such as- "SWOC, Competitive Profile Matrix (CPM) analysis, EFE & IFE Matrices, BCG matrix, Porter's Five Forces Model, and PESTLE Analysis" [11-13].

Many scholars have adopted this analysis for their study. One such research on "Working from Home" found that working from home model is advantageous in contrast with other mode. Thus, this technique of analyzing was well accepted from organisation and workers point of view [14-15].

Furthermore, this analysis framework was used in study “Higher Education Stage Model” and noted that this technique is suitable for analysis [16]. The present study considers “ABCD Analysis Framework” for analysing Online Shopping considering the determinant issues as Merchant, Logistics, Customer, Technology, and Centralized financial Institution. Further, the key attributes and constituent critical element is determined by focus group.

### 3. OBJECTIVES OF THE STUDY :

- (1) To study the aptness of ABCD Analysis Framework to analyze Online Shopping.
- (2) To list the Advantages, Benefits, Constraints, and Disadvantages of Online Shopping.
- (3) To find determinant issues of Online Shopping.
- (4) To identify affecting factors for Online Shopping under each key attribute as per ABCD Analysis Framework.
- (5) To analyze the identified critical constituent element for each online shopping ABCD construct using its elementary analysis technique.
- (6) To appraise the critical constituent elements for online shopping’s each ABCD construct.

### 4. ABCD LISTING OF ONLINE SHOPPING :

#### Advantages:

- (1) The whole process saves effort and time.
- (2) It gives the convenience of place as one can shop from any place.
- (3) It offers a variety of products and services of many brands.
- (4) It gives a detailed description of each listed product and service.
- (5) Comparison of various products of different brands is possible through a single website or app.
- (6) Many local vendors can market their products globally.
- (7) Physical store setup cost can be reduced as the customers can view the products online.

#### Benefits:

- (1) There is no push up sales by online mode, thereby, offering freedom for customers to browse products without any pressure to buy.
- (2) The website or app is accessible 24X7, rendering services all the time.
- (3) Customer can track online to know the status of shipment.
- (4) There are many discounts offered, therefore, many customer can get products and services at cheaper rates.
- (5) Logistics companies can earn more by transportation means to deliver goods to customers destination.
- (6) Purchases can be done faster as there is no queue like physical store.

#### Constraints:

- (1) Shipment delay takes place due to improper management of inventories.
- (2) Physical store experience is not possible in online shopping.
- (3) Frauds can take place due to cyber-attack.
- (4) Genuineness of the product and services cannot be assured.
- (5) Lack of trust as there is no physical dealing.
- (6) Integrity in e-payments is considered to be risky due to phishing activities.

#### Disadvantages:

- (1) Competition can sometimes degrade the product and service quality.
- (2) Addressing complaints and grievances are slow which creates disappointment among customers.
- (3) Lack of direct interaction especially in high-value goods creates a sense of fear among customers.
- (4) There is a high chance of receiving damaged or wrong products.
- (5) Packaging the products in plastic to protect from damage, harms the environment.
- (6) Personal assistance from the seller is not available.

**5. ABCD FRAMEWORK FOR ONLINE SHOPPING :**

Below Table 1 shows the list of identified determinant issues by different scholarly articles in various fields of research using ABCD analysis framework.

| Table 1: Determinant issues identified by different authors |                                        |                                                                                                                          |                                                                      |
|-------------------------------------------------------------|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Sl. No                                                      | Focus Area                             | Determinant Issues                                                                                                       | Reference Number                                                     |
| 1.                                                          | Black Ocean Strategy                   | Employee, Business, Operational, Organisational, External and Administrative                                             | Aithal, Shailashree & Kumar (2015) ; Aithal & Kumar (2015). [10][17] |
| 2.                                                          | NAAC Accreditation System              | Faculty, Social, organisational and student                                                                              | Aithal, Shailashree & Kumar (2016). [11]                             |
| 3.                                                          | Private University Analysis            | Student, Societal, Governance, Best practices, organisation, faculty, other stakeholders and Innovation                  | Aithal & Kumar (2015); Muduli & Pattnaik (2019). [16][18]            |
| 4.                                                          | National Institutional Ranking System  | Research productivity, graduation outcomes, perception, learning and teaching, impact and IPR and outreach & inclusivity | Aithal, Shailashree & Kumar (2016). [12]                             |
| 5.                                                          | Ideal Software                         | Transitional, output, operational, maintenance and environment                                                           | Aithal & Pai (2016). [19]                                            |
| 6.                                                          | Research Productivity                  | Academic, students, organisational and other stakeholders                                                                | Aithal, Shailashree & Kumar (2016). [20]                             |
| 7.                                                          | Dye-Doped Polymers                     | Application, production, customers, material properties, commercialization, providers and society                        | Aithal, S & Aithal, P.S. (2016). [21]                                |
| 8.                                                          | Six Thinking Hats                      | Managerial, Operational, Societal, conceptual, operational and stakeholders                                              | Aithal, Kumar & Shailashree (2016). [22]                             |
| 9.                                                          | New Research Indices                   | Researcher, industry, research organisation and funding agency                                                           | Aithal, P.S. & Aithal, S. (2017). [23]                               |
| 10.                                                         | Task Shifting- Professional Healthcare | Alternative acceptors, patients & relative, country, organisational, donor physicians and societal                       | Aithal, A. & Aithal, P.S. (2017). [24]                               |
| 11.                                                         | IEDRA Model                            | Model flexibility, overall model relevance, model schedule, model administration and applicability                       | Shenoy, V. & Aithal (2017). [25]                                     |
| 12.                                                         | “Wealth at the Base of the Pyramid”    | Organisation, Customer, environment, stakeholder, technological, operational and social                                  | Raj & Aithal (2018). [26]                                            |
| 13.                                                         | Online Food Delivery Services          | Customer, Supplier, Technology and Food deliverer                                                                        | Frederick & Bhat (2022). [27]                                        |
| 14.                                                         | Well-being of Care takers              | Pschy education and Jacobson’s muscle relaxation therapy                                                                 | Abdul & Kotian (2022). [28]                                          |
| 15.                                                         | Organic Food Product                   | Customer, Company, Society, Farmers, Co-operative Society, Suppliers                                                     | Sujaya & Aithal (2022). [29]                                         |

Below Table 2 shows contributions by different scholarly articles in various fields of research using ABCD analysis framework

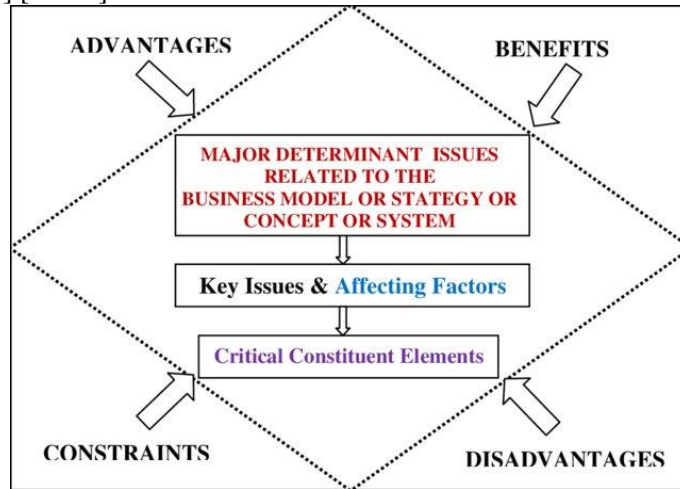
| Table 2: Scholarly contribution by different authors |            |              |                  |
|------------------------------------------------------|------------|--------------|------------------|
| S. No                                                | Focus Area | Contribution | Reference Number |

|     |                                       |                                                                                                                                                                                                                                                         |                                                    |
|-----|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| 1   | Postcolonial Novels Review            | ABCD Listing was used for review of novels. It was observed that this analysis contributed in understanding the novels “displacement, space and identity”.                                                                                              | Ambrose & Lourdusamy (2022). [30]                  |
| 2   | Customer Perception towards Furniture | The study contributed in understanding the driver for purchasing the furniture’s and different challenges faced such as restricted freedom of movement by shopkeepers, counter crowding, and so on.                                                     | Amin & Kumar (2022). [31]                          |
| 3   | Work Engagement of Teachers           | Factors affecting the engagement of teachers is analyzed and policies required for effective engagement are discussed.                                                                                                                                  | Santmajor, Carmelita & James (2022). [32]          |
| 4   | Fashion Industry                      | The advancement of online portal for fashion industry is discussed in the study and various marketing strategies for improvements are suggested.                                                                                                        | Madhura & Panakaje (2022). [33]                    |
| 5   | Digital Forensics                     | Many companies resort to NIST and CSF to safeguard the information and SSD problems are discussed.                                                                                                                                                      | Pallivalappil & Jagadeesha (2022). [34]            |
| 6   | Agriculture Finance                   | The study of difficulties of the farmers in raising funds and presented available avenues to increase their financial income for growth for agriculture sector.                                                                                         | Kambali & Panakaje (2022). [35]                    |
| 7   | Transforming Healthcare               | The study presented the seven pillars for increasing the efficiency of MSME and SME units engaged in public health care.                                                                                                                                | Mahesh, Aithal & Sharma (2022). [36]               |
| 8   | Customization Process                 | The identifies the success factor of V.K Sofa makers is offering customization to suit customers’ requirements and therefore, explains its process involved throughout the agreement of sales.                                                          | Amin & Kumar (2022). [37]                          |
| 9   | Furniture Manufactures- Case Study    | Through focus group interaction, sustainable strategies adopted by V.K. furniture are explained in the case study and a comparison to other nations is made to understand the competitive advantage of the company.                                     | Amin & Kumar (2022). [38]                          |
| 10. | Indian Pharmaceutical Industry        | The study explains the prospects of pharmaceutical industry and identifies various factors from the view of political, economic, Socio-cultural, legal, global, support industries, society, economy, public health, regulation, competition and so on. | Shenoy & Shailashri (2021). [39]                   |
| 11  | Traffic Flow Prediction               | To manage traffics in cities, ITS and TFP should be used employing machine learning to reduce the problems of traffics on roads.                                                                                                                        | Sathyam & Jagadeesha (2022). [40]                  |
| 12  | Lexical Analysis Tasks                | The study presents a hybrid model on multi-core system using an auto password and algorithm.                                                                                                                                                            | Vaikunta, Pai, Nethravathi and Aithal (2022). [41] |
| 13  | Cryptocurrency Adoption               | Factors driving investors for trading in cryptocurrency are identified and strategies required for merchants to stabilize their growth are suggested.                                                                                                   | Bhuvana & Aithal (2022). [42]                      |
| 14  | Livestream Marketing                  | The study highlights the importance of Live stream marketing to enhance the sales of the companies, especially for those firms that have reduced turnover due to pandemic situation.                                                                    | Rajasekar & Aithal (2022). [43]                    |

|    |                                      |                                                                                                                                 |                                      |
|----|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| 15 | Sustainable finance for green growth | Many financial avenues are listed that help in growth of MSME involved in green production and their prospects are highlighted. | Mahesh, Aithal & Sharma (2022). [44] |
|----|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|

**6. STRUCTURE OF ABCD ANALYSIS FRAMEWORK :**

Qualitative data is used to find the various affecting factors for constructs such as “Advantages, Benefits, Constraints, and Disadvantages”, and constituent critical elements were determined for Online Shopping [10] [45-46].



**Fig. 1:** Factors affecting the Online Shopping as per ABCD Analysis Framework [8]

**7. KEY ATTRIBUTES AFFECTING ONLINE SHOPPING :**

Table 3 shows the determinant issues, i.e., the stakeholders affecting online shopping and for each issue, the identified key attributes are presented below:

| Table 3: Determinant issues and key attributes of Online Shopping |                                 |                                    |
|-------------------------------------------------------------------|---------------------------------|------------------------------------|
| S. No.                                                            | Determinant Issues              | Key Attributes                     |
| 1.                                                                | Merchant                        | Inventory, Competition, Safety     |
| 2.                                                                | Logistics                       | Order, Shipment, Communication     |
| 3.                                                                | Customer                        | Value, Reliability, Attitude       |
| 4.                                                                | Technology (Website/App)        | Accessibility, Information, Design |
| 5.                                                                | Centralized Financial institute | Payment, Privacy, Integrity        |

Source: Author

**8. FACTOR ANALYSIS OF ONLINE SHOPPING USING ABCD FRAMEWORK :**

Online shopping success depends on several factors from the point of view of different determinant issues such as Merchant, Logistics, Customer, Technology, and Centralized Financial Institute. Below table 4 identifies the advantages, benefits, constraints, and disadvantages for the identified determinant issues and key attributes.

| Table 4: Factor Analysis of Online Shopping |                |                        |                          |                      |                   |
|---------------------------------------------|----------------|------------------------|--------------------------|----------------------|-------------------|
| Determinant Issues                          | Key Attributes | Advantages             | Benefits                 | Constraints          | Disadvantages     |
| Merchant Issues                             | Inventory      | New Stock              | Meet Anticipated demands | Cost of Obsolescence | Stock-out         |
|                                             | Competition    | Uniqueness             | Trendiness               | New Entrants         | Cut-throat Effect |
|                                             | Safety         | Genuine Product        | Guarantees               | Quality Assurance    | Fake Products     |
| Logistics Issues                            | Order          | Smart Order Allocation | Accuracy                 | Cancellation         | Returns           |

|                                        |               |                         |                        |                        |                                   |
|----------------------------------------|---------------|-------------------------|------------------------|------------------------|-----------------------------------|
|                                        | Shipment      | Hassle-Free Integration | Timeliness of Delivery | Traffic Delays         | Poor Reverse Logistics Operations |
|                                        | Communication | Automation              | Real Time Tracking     | Fragmented             | Technical Glitches                |
| Customer Issues                        | Value         | Good Product Quality    | Reasonable Price       | Customization          | No Bargain                        |
|                                        | Reliability   | No Queue                | No Pushy Sales         | Lack of Personal Touch | Hidden Costs & Shipping Charges   |
|                                        | Attitude      | Favourable Perception   | Recommend              | Normative Beliefs      | Brand Switch                      |
| Technology Issues                      | Accessibility | Advanced Navigation     | User-Friendly          | Data Network           | Site Breakdown                    |
|                                        | Information   | Detailed Description    | User-Generated Reviews | Overload               | Low Credibility                   |
|                                        | Design        | Augmented Reality       | Attractive             | Frequent Upgradation   | Heavy Cost                        |
| Centralized Financial institute Issues | Payment       | Many Modes              | Cashless Payment       | Phishing               | Less e-payments                   |
|                                        | Privacy       | Secured                 | Confidential           | Cyberattack            | Hacking                           |
|                                        | Integrity     | Trust                   | Morale                 | Lack of Trust          | Apathy                            |
| Source: Author                         |               |                         |                        |                        |                                   |

**9. ELEMENTARY ANALYSIS BASED ON CRITICAL CONSTITUENT ELEMENT (CCE):**

As per ABCD analysis framework for Online Shopping, the factors affecting under Merchant, Logistics, Customer, Technology, and Centralized Financial Institute issues are identified. The CCEs of these factors are identified under the four constructs - advantages, benefits, constraints, and disadvantages of the ABCD technique and tabulated in tables 5 to 8. Table 5 shows the advantageous factors of online shopping with the identified CCE.

| Table 5: Advantageous Factors of Online Shopping and their CCE |                |                                                   |                              |
|----------------------------------------------------------------|----------------|---------------------------------------------------|------------------------------|
| Determinant Issues                                             | Key Attributes | Advantageous Factors Affecting Determinant Issues | Critical Constituent Element |
| Merchant Issues                                                | Inventory      | New Stock                                         | EOQ                          |
|                                                                | Competition    | Uniqueness                                        | Innovative Products          |
|                                                                | Safety         | Genuine Product                                   | Trust                        |
| Logistics Issues                                               | Order          | Smart Order Allocation                            | No delay in order            |
|                                                                | Shipment       | Hassle-Free Integration                           | No delay in delivery         |
|                                                                | Communication  | Automation                                        | Informed Customers           |
| Customer Issues                                                | Value          | Good Product Quality                              | High Returns                 |
|                                                                | Reliability    | No Queue                                          | Time Saving                  |
|                                                                | Attitude       | Favourable Perception                             | Re-purchase                  |

|                                        |               |                      |                  |
|----------------------------------------|---------------|----------------------|------------------|
| Technology Issues                      | Accessibility | Advanced Navigation  | Variety          |
|                                        | Information   | Detailed Description | Clarity          |
|                                        | Design        | Augmented Reality    | Better Sales     |
| Centralized Financial institute Issues | Payment       | Many Modes           | East Transaction |
|                                        | Privacy       | Secured              | Safety           |
|                                        | Integrity     | Trust                | Ethics           |
| Source: Author                         |               |                      |                  |

Below Table 6 shows the beneficial factors of online shopping with the identified CCE.

| <b>Table 6: Benefit Factors of Online Shopping and their CCE</b> |                       |                                                        |                                     |
|------------------------------------------------------------------|-----------------------|--------------------------------------------------------|-------------------------------------|
| <b>Determinant Issues</b>                                        | <b>Key Attributes</b> | <b>Beneficial Factors Affecting Determinant Issues</b> | <b>Critical Constituent Element</b> |
| Merchant Issues                                                  | Inventory             | Meet Anticipated demands                               | Meet Demands                        |
|                                                                  | Competition           | Trendiness                                             | Fashionable supplies                |
|                                                                  | Safety                | Guarantees                                             | Less Hazards                        |
| Logistics Issues                                                 | Order                 | Accuracy                                               | Quality                             |
|                                                                  | Shipment              | Timeliness of Delivery                                 | Meet Expectation                    |
|                                                                  | Communication         | Real Time Tracking                                     | Updated                             |
| Customer Issues                                                  | Value                 | Reasonable Price                                       | Economical                          |
|                                                                  | Reliability           | No Pushy Sales                                         | Freedom of Selection                |
|                                                                  | Attitude              | Recommend                                              | Delightfulness                      |
| Technology Issues                                                | Accessibility         | User-Friendly                                          | Convenient                          |
|                                                                  | Information           | User- Generated Reviews                                | Feedback                            |
|                                                                  | Design                | Attractive                                             | More Surfing                        |
| Centralized Financial institute Issues                           | Payment               | Cashless Payment                                       | Paperless                           |
|                                                                  | Privacy               | Confidential                                           | Less Data Theft                     |
|                                                                  | Integrity             | Morale                                                 | Goodwill                            |
| Source: Author                                                   |                       |                                                        |                                     |



Below Table 7 shows the constraints factors of online shopping with the identified CCE.

| <b>Table 7: Constraint Factors of Online Shopping and their CCE</b> |                       |                                                         |                                     |
|---------------------------------------------------------------------|-----------------------|---------------------------------------------------------|-------------------------------------|
| <b>Determinant Issues</b>                                           | <b>Key Attributes</b> | <b>Constraints Factors Affecting Determinant Issues</b> | <b>Critical Constituent Element</b> |
| Merchant Issues                                                     | Inventory             | Cost of Obsolescence                                    | Loss of over-stocking               |
|                                                                     | Competition           | New Entrants                                            | Strategies                          |
|                                                                     | Safety                | Quality Assurance                                       | Exchange of Products                |
| Logistics Issues                                                    | Order                 | Cancellation                                            | Transit loss                        |
|                                                                     | Shipment              | Traffic Delays                                          | Delayed Delivery                    |
|                                                                     | Communication         | Fragmented                                              | Misunderstanding                    |
| Customer Issues                                                     | Value                 | Customization                                           | Frequent Changes                    |
|                                                                     | Reliability           | Lack of Personal Touch                                  | Distrustful                         |
|                                                                     | Attitude              | Normative Beliefs                                       | Pessimistic behaviour               |
| Technology Issues                                                   | Accessibility         | Data Network                                            | Low Access in Remote Places         |
|                                                                     | Information           | Overload                                                | Confusion                           |
|                                                                     | Design                | Frequent Upgradation                                    | High Maintenance Cost               |
| Centralized Financial institute Issues                              | Payment               | Phishing                                                | Insecure                            |
|                                                                     | Privacy               | Cyberattack                                             | Uncertainty                         |
|                                                                     | Integrity             | Lack of Trust                                           | Scepticism                          |
| Source: Author                                                      |                       |                                                         |                                     |

Below Table 8 shows the disadvantageous factors of online shopping with the identified CCE.

| <b>Table 8: Disadvantageous Factors of Online Shopping and their CCE</b> |                       |                                                             |                                     |
|--------------------------------------------------------------------------|-----------------------|-------------------------------------------------------------|-------------------------------------|
| <b>Determinant Issues</b>                                                | <b>Key Attributes</b> | <b>Disadvantageous Factors Affecting Determinant Issues</b> | <b>Critical Constituent Element</b> |
| Merchant Issues                                                          | Inventory             | Stock-out                                                   | Brand Switch                        |
|                                                                          | Competition           | Cut-throat Effect                                           | Quality Compromise                  |
|                                                                          | Safety                | Fake Products                                               | Physical Shopping                   |
| Logistics Issues                                                         | Order                 | Returns                                                     | Collection Cost                     |
|                                                                          | Shipment              | Poor Reverse Logistics Operations                           | High Operating Cost                 |
|                                                                          | Communication         | Technical Glitches                                          | Communication Gap                   |
| Customer Issues                                                          | Value                 | No Bargain                                                  | Inflexible                          |

|                                        |               |                                 |                        |
|----------------------------------------|---------------|---------------------------------|------------------------|
|                                        | Reliability   | Hidden Costs & Shipping Charges | Price Increase         |
|                                        | Attitude      | Brand Switch                    | Low Retention          |
| Technology Issues                      | Accessibility | Site Breakdown                  | Disappointment         |
|                                        | Information   | Low Credibility                 | Less Orders            |
|                                        | Design        | Heavy Cost                      | Financial Difficulties |
| Centralized Financial institute Issues | Payment       | Less e-payments                 | Less Transactions      |
|                                        | Privacy       | Hacking                         | Fear of Access         |
|                                        | Integrity     | Apathy                          | Distrust               |
| Source: Author                         |               |                                 |                        |

**10. QUANTITATIVE CCE FOR ONLINE SHOPPING AS PER ABCD ANALYSIS FRAMEWORK :**

The CCE for each key attribute for Online Shopping under the determinant issues as per construct of ABCD analysis framework are identified below and depicted in table 9 to 12:

Each CCE is assigned by weights allotted by the focus group. Ranking for different weights are expressed as follows:

- 3 – Satisfactory;
- 2 – Neutral;
- 1 – Not Satisfactory.

Below Table 9 shows the advantageous factors of online shopping and their CCE with the total mean score.

**Table 9:** Advantageous Factors of Online Shopping and their CCE with the total mean score

| Determinant Issues | Key Attributes | Advantageous Factors Affecting Determinant Issues | Critical Constituent Element | Key Attributes (Total Score) | Determinant Issues (Total Score) | Total mean score |
|--------------------|----------------|---------------------------------------------------|------------------------------|------------------------------|----------------------------------|------------------|
| Merchant Issues    | Inventory      | New Stock                                         | EOQ                          | 30                           | 85                               | <b>123.7</b>     |
|                    | Competition    | Uniqueness                                        | Innovative Products          | 26                           |                                  |                  |
|                    | Safety         | Genuine Product                                   | Trust                        | 29                           |                                  |                  |
| Logistics Issues   | Order          | Smart Order Allocation                            | No delay in order            | 29                           | 86                               |                  |
|                    | Shipment       | Hassle-Free Integration                           | No delay in delivery         | 29                           |                                  |                  |
|                    | Communication  | Automation                                        | Informed Customers           | 28                           |                                  |                  |
| Customer Issues    | Value          | Good Product Quality                              | High Returns                 | 27                           | 85                               |                  |
|                    | Reliability    | No Queue                                          | Time Saving                  | 28                           |                                  |                  |
|                    | Attitude       | Favourable Perception                             | Re-purchase                  | 30                           |                                  |                  |

|                                        |               |                      |                  |    |    |
|----------------------------------------|---------------|----------------------|------------------|----|----|
| Technology Issues                      | Accessibility | Advanced Navigation  | Variety          | 25 | 81 |
|                                        | Information   | Detailed Description | Clarity          | 28 |    |
|                                        | Design        | Augmented Reality    | Better Sales     | 28 |    |
| Centralized Financial institute Issues | Payment       | Many Modes           | East Transaction | 28 | 80 |
|                                        | Privacy       | Secured              | Safety           | 24 |    |
|                                        | Integrity     | Trust                | Ethics           | 28 |    |

Source: Author

Below Table 10 shows the beneficial factors of online shopping and their CCE with the total mean score.

| <b>Table 10: Benefit Factors of Online Shopping and their CCE with the total mean score</b> |                |                                                 |                              |                              |                                  |                  |
|---------------------------------------------------------------------------------------------|----------------|-------------------------------------------------|------------------------------|------------------------------|----------------------------------|------------------|
| Determinant Issues                                                                          | Key Attributes | Beneficial Factors Affecting Determinant Issues | Critical Constituent Element | Key Attributes (Total Score) | Determinant Issues (Total Score) | Total mean score |
| Merchant Issues                                                                             | Inventory      | Meet Anticipated demands                        | Meet Demands                 | 30                           | 84                               | <b>120.7</b>     |
|                                                                                             | Competition    | Trendiness                                      | Fashionable supplies         | 26                           |                                  |                  |
|                                                                                             | Safety         | Guarantees                                      | Less Hazards                 | 28                           |                                  |                  |
| Logistics Issues                                                                            | Order          | Accuracy                                        | Quality                      | 29                           | 86                               |                  |
|                                                                                             | Shipment       | Timeliness of Delivery                          | Meet Expectation             | 29                           |                                  |                  |
|                                                                                             | Communication  | Real Time Tracking                              | Updated                      | 28                           |                                  |                  |
| Customer Issues                                                                             | Value          | Reasonable Price                                | Economical                   | 23                           | 75                               |                  |
|                                                                                             | Reliability    | No Pushy Sales                                  | Freedom of Selection         | 27                           |                                  |                  |
|                                                                                             | Attitude       | Recommend                                       | Delightfulness               | 25                           |                                  |                  |
| Technology Issues                                                                           | Accessibility  | User-Friendly                                   | Convenient                   | 29                           | 84                               |                  |
|                                                                                             | Information    | User- Generated Reviews                         | Feedback                     | 28                           |                                  |                  |
|                                                                                             | Design         | Attractive                                      | More Surfing                 | 27                           |                                  |                  |
| Centralized Financial institute Issues                                                      | Payment        | Cashless Payment                                | Paperless                    | 29                           | 83                               |                  |
|                                                                                             | Privacy        | Confidential                                    | Less Data Theft              | 27                           |                                  |                  |
|                                                                                             | Integrity      | Morale                                          | Goodwill                     | 27                           |                                  |                  |

Source: Author

Below Table 11 shows the constraints factors of online shopping and their CCE with the total mean score.

| <b>Table 11: Constraint Factors of Online Food Delivery Services and their CCE with the total mean score</b> |                       |                                                         |                                     |                                     |                                         |                         |
|--------------------------------------------------------------------------------------------------------------|-----------------------|---------------------------------------------------------|-------------------------------------|-------------------------------------|-----------------------------------------|-------------------------|
| <b>Determinant Issues</b>                                                                                    | <b>Key Attributes</b> | <b>Constraints Factors Affecting Determinant Issues</b> | <b>Critical Constituent Element</b> | <b>Key Attributes (Total Score)</b> | <b>Determinant Issues (Total Score)</b> | <b>Total mean score</b> |
| Merchant Issues                                                                                              | Inventory             | Cost of Obsolescence                                    | Loss of over-stocking               | 21                                  | 59                                      | <b>84</b>               |
|                                                                                                              | Competition           | New Entrants                                            | Strategies                          | 20                                  |                                         |                         |
|                                                                                                              | Safety                | Quality Assurance                                       | Exchange of Products                | 18                                  |                                         |                         |
| Logistics Issues                                                                                             | Order                 | Cancellation                                            | Transit loss                        | 21                                  | 64                                      |                         |
|                                                                                                              | Shipment              | Traffic Delays                                          | Delayed Delivery                    | 21                                  |                                         |                         |
|                                                                                                              | Communication         | Fragmented                                              | Misunderstanding                    | 22                                  |                                         |                         |
| Customer Issues                                                                                              | Value                 | Customization                                           | Frequent Changes                    | 17                                  | 54                                      |                         |
|                                                                                                              | Reliability           | Lack of Personal Touch                                  | Distrustful                         | 19                                  |                                         |                         |
|                                                                                                              | Attitude              | Normative Beliefs                                       | Pessimistic behaviour               | 18                                  |                                         |                         |
| Technology Issues                                                                                            | Accessibility         | Data Network                                            | Low Access in Remote Places         | 22                                  | 63                                      |                         |
|                                                                                                              | Information           | Overload                                                | Confusion                           | 19                                  |                                         |                         |
|                                                                                                              | Design                | Frequent Upgradation                                    | High Maintenance Cost               | 22                                  |                                         |                         |
| Centralized Financial institute Issues                                                                       | Payment               | Phishing                                                | Insecure                            | 18                                  | 58                                      |                         |
|                                                                                                              | Privacy               | Cyberattack                                             | Uncertainty                         | 21                                  |                                         |                         |
|                                                                                                              | Integrity             | Lack of Trust                                           | Scepticism                          | 19                                  |                                         |                         |
| Source: Author                                                                                               |                       |                                                         |                                     |                                     |                                         |                         |

Below Table 12 shows the disadvantageous factors of online shopping their CCE with the total mean score.

| <b>Table 12: Disadvantageous Factors of Online Food Delivery Services and their critical constituent element with the total mean score</b> |                       |                                                             |                                     |                                     |                                         |                         |
|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------------------------------------------------|-------------------------------------|-------------------------------------|-----------------------------------------|-------------------------|
| <b>Determinant Issues</b>                                                                                                                  | <b>Key Attributes</b> | <b>Disadvantageous Factors Affecting Determinant Issues</b> | <b>Critical Constituent Element</b> | <b>Key Attributes (Total Score)</b> | <b>Determinant Issues (Total Score)</b> | <b>Total mean score</b> |
|                                                                                                                                            | Inventory             | Stock-out                                                   | Brand Switch                        | 19                                  | 57                                      | <b>80.6</b>             |

|                                        |               |                                   |                        |    |    |
|----------------------------------------|---------------|-----------------------------------|------------------------|----|----|
| Merchant Issues                        | Competition   | Cut-throat Effect                 | Quality Compromise     | 19 |    |
|                                        | Safety        | Fake Products                     | Physical Shopping      | 19 |    |
| Logistics Issues                       | Order         | Returns                           | Collection Cost        | 17 | 57 |
|                                        | Shipment      | Poor Reverse Logistics Operations | High Operating Cost    | 21 |    |
|                                        | Communication | Technical Glitches                | Communication Gap      | 19 |    |
| Customer Issues                        | Value         | No Bargain                        | Inflexible             | 18 | 52 |
|                                        | Reliability   | Hidden Costs & Shipping Charges   | Price Increase         | 17 |    |
|                                        | Attitude      | Brand Switch                      | Low Retention          | 17 |    |
| Technology Issues                      | Accessibility | Site Breakdown                    | Disappointment         | 20 | 56 |
|                                        | Information   | Low Credibility                   | Less Orders            | 18 |    |
|                                        | Design        | Heavy Cost                        | Financial Difficulties | 18 |    |
| Centralized Financial institute Issues | Payment       | Less e-payments                   | Less Transactions      | 13 | 51 |
|                                        | Privacy       | Hacking                           | Fear of Access         | 19 |    |
|                                        | Integrity     | Apathy                            | Distrust               | 19 |    |
| Source: Author                         |               |                                   |                        |    |    |

**11. GRAPHICAL REPRESENTATION OF AFFECTING FACTORS FOR ONLINE SHOPPING AS PER ABCD ANALYSIS FRAMEWORK :**

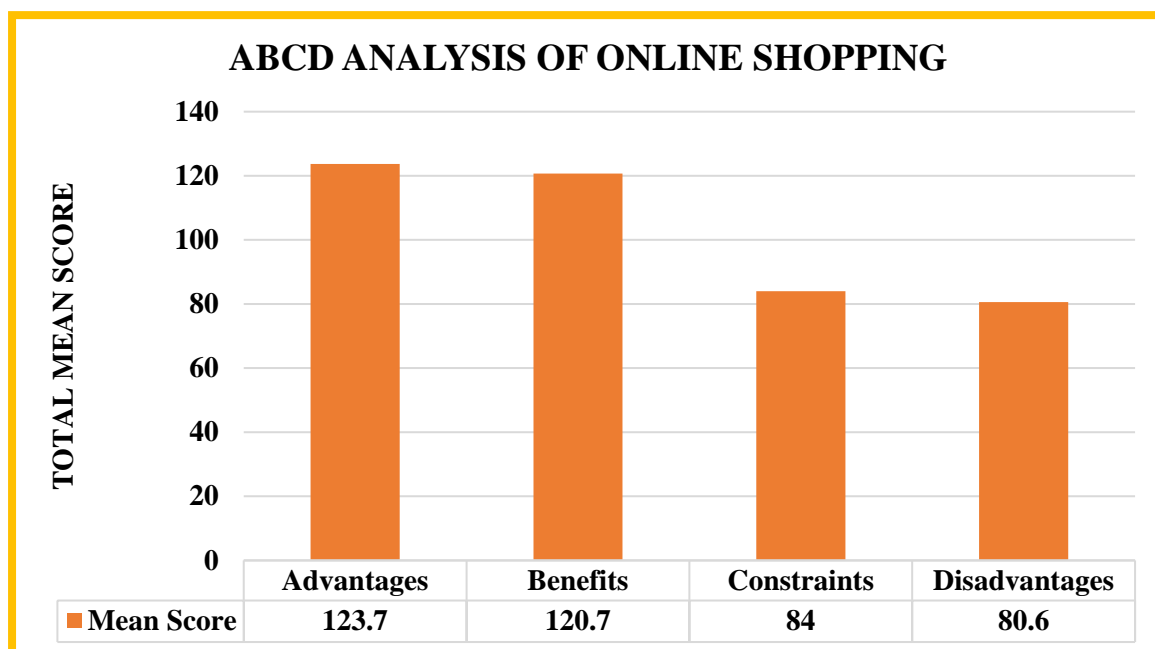


Fig. 2: Total Mean Score of Online Shopping as per ABCD analysis framework

Figure 2 shows, the mean score of different factors influencing online shopping as ABCD analysis framework, one - Advantageous construct ranks first with the total mean score value of 123.7, indicating satisfactory level. Second- 120.7 is the total mean score of Benefits indicating a neutral impact on online shopping and Third- 84 and 80.6 is the total mean score for constraints and disadvantages respectively indicating not satisfactory factor for online shopping.

## 12. CONCLUSION :

“ABCD analysis framework” is an inclusive model contributing in analyzing “business models, strategy, concepts or system” from point of view of stakeholders. The present study employed “ABCD analysis framework” to identify and find the most affecting factors for Online Shopping and the results state that Advantageous identified factors impact more on Online Shopping for its success. The study argues that ABCD analysis framework can be used for analyzing “business models, strategy, concepts or system”.

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