Sustainability in Omnichannel Retailing: A Study on Integrating E-Commerce with Brick and Mortar Retailing

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Abstract— *E-Commerce or electronic commerce is the most convenient way of conducting business which focus on online ordering and delivering goods and services at the doorstep of the customers. Apart from the developed countries, this technology based concept is the growing phenomenon in the developing countries as well. In India different E-Commerce website delivers product in almost every pin codes apart from the very remote areas. This has an impact on the Brick and Mortar stores and currently the Brick and Mortar stores are integrating with e-commerce to avail certain advantages of Electronic Commerce. Therefore, E-Commerce can contribute in the sustainability aspect as E-Commerce results in a very hassle free ordering and delivering. This paper will focus on how E-Commerce retailing is going to help in achieving sustainable development in the context of integration with Brick and Mortar retailing in Guwahati Metropolitan area of Assam India.*

Keywords— *Sustainable Development, E-commerce, Brick and Mortar stores.*

I. INTRODUCTION

E-Commerce is the most recent way of business which provides global accessibility to the sellers as well as greater convenience to the customers for ordering and receiving products from different nook and corner of the world. Electronic commerce is a process where every transaction takes place electronically via internet. The ideation of E-Commerce was initially developed by a person named Michael Aldrich in the United Kingdom in the year 1979. E-Commerce focuses on reducing costs while improving the quality of different services and products. The different forms of online Commerce include B2B, C2C,C2B,B2G,G2B etc. (Vivian, 2018; Simon, 2018; Bharadwaj, 2021)

The certain characteristics of E-Commerce include ubiquitousness which imply that E-Commerce is available everywhere and at all times. Customers can access internet and can go through the E-Commerce websites. E-commerce enables a business to reach across geographic boundaries. (Elliason, 2018; Hanadi,2021) E-commerce has better ways of marketing like delivering video, images, virtual try ons etc. It facilitates modern types of business strategies for reaching the customers such as online advertising, online marketing, online payment etc (Simon, 2018;).E-Commerce technologies allow two-way communication between the company and the customer through E-mail or social networking. Interactivity in E-Commerce is much better because online businesses can interact on a much mass scale as compared to offline business. (Ahmad, 2018; Bharadwaj, 2021; Anas, 2021).

Advantages and Disadvantages of E-Commerce

The platform of E-commerce provides opportunity to perform business 24X7 for the customers conveniently with Global accessibility by increasing profits and lowering down the costs. E-Commerce focuses on building quality relationship with the customers by concentrating on customer satisfaction with flexibility in adding and changing resources.

From the point of view of customers, E-Commerce gives freedom to make choices among different products. It is also a time saving as well as convenient process for the customers. Customers also receive the readily available information like products, services, features, prices etc. without having much delay (Tining, 2020; Bharadwaj, 2021).

As far as advantages are concerned, there are certain disadvantages also like lack of security, reliability and privacy, lack of trust, different legal issues, tax issues etc. Sometimes, there might be some insufficient communication, technological limitations etc. Lack of knowledge and lack of personal touch may create some havoc in the system (Jagdesh,2021; Yacob, 2021).

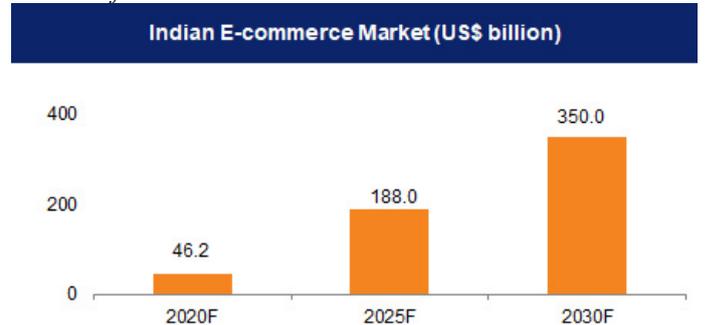### Growth of E-Commerce in India

Figure 1.1 Source- India Brand Equity Foundation

There is a significant growth in the E-Commerce sector of India which is projected for the Financial Years 2025 and 2030. Therefore, it is clear evidence that this sector has got tremendous growth potential in the coming future.

The Indian e-commerce sector occupied 9th rank in the world and it is projected to increase from 4% to 8% from 2020 to 2025(E-Commerce Industry report 2022, IBEF).

Concept of Sustainability and Sustainable Development
Concept of Sustainability

Sustainability is the meeting of current needs without hampering the needs of the future generation while using resources. Sustainability is not only about the natural resources but it also concentrates on the social and economic resources as well. The movement of sustainability has roots from conservatism and social justice which comes from the rich histories of the past (Judit,2018).

The Ecological integrity keeps the balance of environmental resources within themselves so that the resources can get replenish while they have been used by the human beings. The use of optimum financial resources refers to the economic sustainability which is required to be balanced by the human beings while meeting the daily requirements.

Sustainable Development

Sustainable development is the transition to sustainable production as well as consumption patterns. Sustainable consumption for development includes sustainable infrastructure, access to required social services, ensuring a lush green environment and quality of life expected to be better for all etc. As assumed by the United Nations plan, to achieve sustainability, certaintransition to sustainable production as well as consumption is required to be practice in the different countries of the world and it is expected that the developed countries should take the initiative and have the first move towards the new shift. The government of different countries worldwide aims to develop their economies into a digital platform which is utmost important on every aspect of life. The implementation of sustainable consumption can be done via digital economies. E-Commerce is one of the crucial elements of the digital economy today .and has become an integral part of the world trade system in the past few years. E-commerce can play a better role in attaining sustainable development as it can be processed only through internet (Amanda,2018).

Environmental Sustainability in Business

The concept of sustainability in business is a focal point as it emphasizes on decreasing the impact on nature and considering the society and the environment more than just attaining profits. Operating a business activity and also focusing on the ecological health is utmost important as it has been made mandatory in different parts of the world. Businesses should be carried on without harming the natural environment and the well being of the human and the planet earth. An eco friendly business acquires profit by being responsible to the nature, society and the economy. Prosperity of the businesses can be enhanced with a healthier earth and a healthier society.

E-Commerce Sustainability Efforts

Sustainability in E-Commerce refers to conducting an online business in such a way which will not going to impact the nature and its resources and also satisfy the needs of the current generation without any compromise with the future generation. An Electronic commerce emphasizes on eco friendly manufacturing, shipping and sustainable management of the delivery of the products as well. Adopting sustainable E-commerce does not require any kind of global change rather it requires certain healthy practices that can make a difference to environmental friendliness (Amanda,2018).

Different E-Commerce sustainability efforts are being discussed as below-

1. Sustainable production and shipping methods- Adopting sustainable production methods is very much important as environment friendly products should be put into use. Bulk shipping and deliveries should be adopted for maintaining the sustainability of the environment.

2. Eco friendly packaging – Majority of the E-Commerce websites have shifted to biodegradable packaging system and adopting sustainable packaging methods by the different shopping sites will lead to less harm to the environment. Sustainable packaging will help in maintaining the ecological integrity with the business operations as well. Brands like Mamaearth, Myntra, Amazon and Flipkart have adopted sustainable packaging for their commitment towards sustainability.

3. Tech Assisted Core process – Technology Assisted core processes include the permanent changes in the production process by lowering the carbon footprint in the machinery to lower the ecological impact in order to increase efficiency and lowering the cost in the long run. Different examples of Tech Assisted process include- implementation of Electronic Vehicles and different environmental friendly means of transport and use of automated warehouses.

4. Implementation of Software tools- Software tools can optimize the entire supply chain and the business process. This helps in lowering the overall cost incurred by the business operations which also helps in reducing the carbon footprint.
Multiple carriers and Data Driven Algorithms are used to optimize the delivery processes for attaining logistics intelligence platforms.

5.Adherence to Business Ethics- Business ethics or ethos is the way of conducting an business activity without hampering the environment, social as well as economic interests of the employees as well as the customers. Maintaining business ethics will automatically lead to a sustainable environment which will contribute to the sustainable development.

Integrating Brick and Mortar Retailing with E-Commerce for Sustainability

Brick and Mortars are the most oldest form of business where the buying and selling takes place in a physical store where the seller and the customer comes face to face while doing the transaction. It is the traditional form of business which is followed all over the world. In the recent times as the different E-Commerce websites have come up and they deliver products in different nook and corners, online shopping has become more accessible due to the availability of internet facilities as well as the cheap data rates provided by the service providers. The online shopping sites are giving tough competition to the traditional stores and many brick and mortar stores are now integrating themselves with the E-Commerce by being available online via youtube, facebook, instagram etc. which provides them global accessibility as well. The most important advantage of the Brick and Mortar stores operating in both online and offline modes is that they will have the customer base from the local area as well as from different areas. The concept of sustainability here plays an important role

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as customers are not required to travel to the destination of shopping which has got a huge advantage as there will be less use of economic resources, there will be less traffic which will cause less pollution and will have lower negative impact on the environment. To maintain the ecological balance the Brick and Mortar stores can go for an environment friendly packaging system, bulk deliveries etc. Therefore, the integration of E-Commerce with the Brick and Mortar stores will help in achieving sustainability for a better future.

Literature Review

A literature review is a summary of researches done on a particular selected area previously. It surveys books, scholarly articles and any other sources relevant to a particular issue in order to have an in depth knowledge of the concerned area.

The various studies (Ahmad,2018; Judit,2018; Amanda,2018; Bharadwaj,2021; Anas,2021). carried out by different academicians, researchers, institutions are reviewed to develop a foundation to carry out the research successfully.

Research Gap

Achieving sustainability through E-Commerce integration with Brick and Mortar stores can be quite possible as it is being assumed to have certain positive impact on the both social and economic environment as well. Very few studies has been conducted in this area in certain geographical regions by different researchers. Therefore, this paper is expected to fill up the gap in the prevailing literature.

Research Objectives

For the purpose of the study, the following objectives has been formulated.
1) To study the influence of combined efforts of integrating Brick and Mortar stores with E-Commerce on sustainability.
2) To study the acceptance of sustainable E-Commerce methods by the Brick and Mortar stores for achieving Sustainable development.

II. RESEARCH METHODOLOGY

Nature -The study will be descriptive and analytical in nature. Descriptive research is also called Ex post facto research.
Population of the study-The population of the study constitute the Brick and Mortar stores dealing in Apparel business and also available online in the Guwahati Metropolitan area. The

population of the research is 3200 licensed apparel dealers as on 10th December 2022 as per NorthEast Garments Association. Sampling Design- Among the population 50 Brick and Mortar stores has been selected for the purpose of the research. The samples are collected by using simple random sampling technique.

Data Collection Design- Primary data has been collected by way of distribution of schedule to Brick and Mortar stores by using different indicators suitable for the objectives of the study. The secondary data required has been gathered from relevant articles, research papers, social media etc.

III. ANALYSIS OF THE DATA AND INTERPRETATION

Demographic Profile

TABLE 1.1 Classification of sample retailers on the basis of age group and educational classification

Age Group	Upto 30 years	08 (16)
	31-40 Years	20 (40)
	41-50 Years	14 (28)
	Above 50 years	09 (18)
Total		50 (100)
Educational qualification	10th qualified	07 (14)
	12th standard passed	11 (22)
	Graduate	21 (42)
	Post Graduate	11 (22)
Total		50 (100)

Source : Field Survey by the researcher
Note : Figures in the bracket indicates the percentage

As per table 1.1 majority of the respondents are in 41-50 years bracket and 18% of the respondents are above 50 years of age. As per the data received for Educational Qualification, majority of the respondents are graduates while 22% are 12th standard passed, 14% of the respondents are 10 th qualified and 22% are post graduate. Education is an important factor since it is required to understand the technological sophistication of E-Commerce.

TABLE 1.2 Level of influence of combined efforts of Brick and Mortar stores on achieving sustainable development on integrating Brick and Mortar Stores with E-Commerce.

SL No.	Combined Efforts	Highly influence	Influence	Neither influence nor uninfluence	Uninfluence	Highly uninfluence
		LEVEL OF INFLUENCE				
1	Global accessibility without harming the environment	18 (36)	07 (14)	02 (4)	00 00	00 00
2	Low shipping cost for economic sustainability	11 (22)	06 (12)	02 (4)	00 00	00 00
3	Exposure of products without environmental degradation	12 (24)	05 (10)	01 (2)	01 (2)	00 00
4	Online payment method	06 (12)	09 (18)	02 (4)	00 00	00 00
5	Cost reduction for economic sustainability	02 (4)	09 (18)	11 (22)	01 (2)	00 00
	Total	**49**	**36**	**18**	**02**	**00**

Source : Field Survey by the researcher

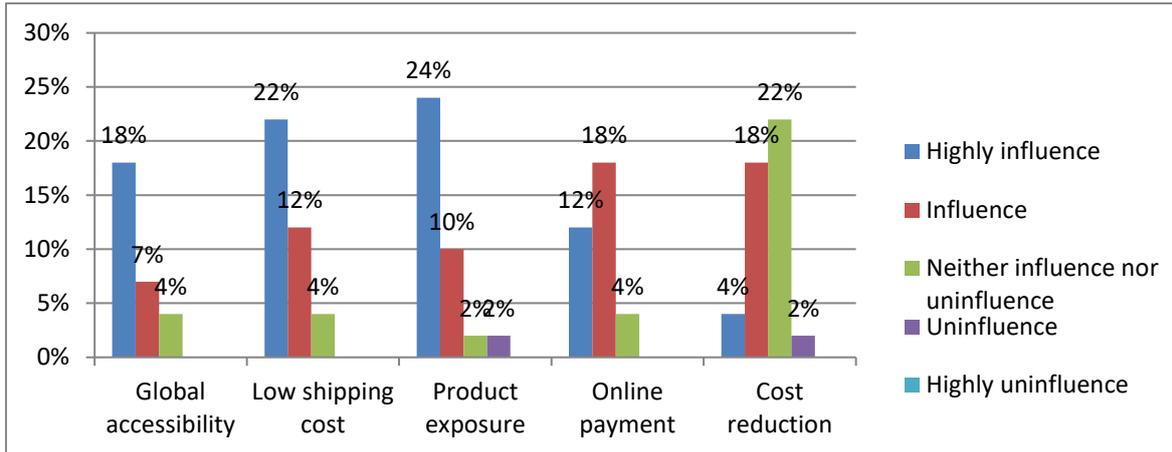Note : Figures in the bracket indicates the percentage

Figure 1.2 Level of influence of combined efforts of Brick and Mortar stores on achieving sustainable development on integrating Brick and Mortar Stores with E-Commerce.

Source : Table 1,2

TABLE 1.3 Level of acceptance of Brick and Mortar stores on achieving sustainable development on integrating Brick and Mortar Stores with Online-Commerce in the context of sustainability efforts.

SL No.	E-COMMERCE Sustainability Efforts	LEVEL OF ACCEPTANCE				
		Highly Agree	Agree	Neutral	Disagree	Highly disagree
1	Bulk Shipping and Deliveries	17 (34)	02 (4)	02 (4)	00 00	00 00
2	Environment friendly packaging	12 (24)	05 (10)	02 (4)	00 00	00 00
3	Sustainable promotion of products	11 (22)	08 (16)	01 (2)	01 (2)	00 00
4	Lowering pollution level	08 (16)	09 (18)	02 (4)	00 00	00 00
5	Development ofEnvironmnet friendly products	10 (20)	07 (14)	02 (04)	01 (2)	00 00
	Total	50	31	17	02	00

Source : Field Survey by the researcher
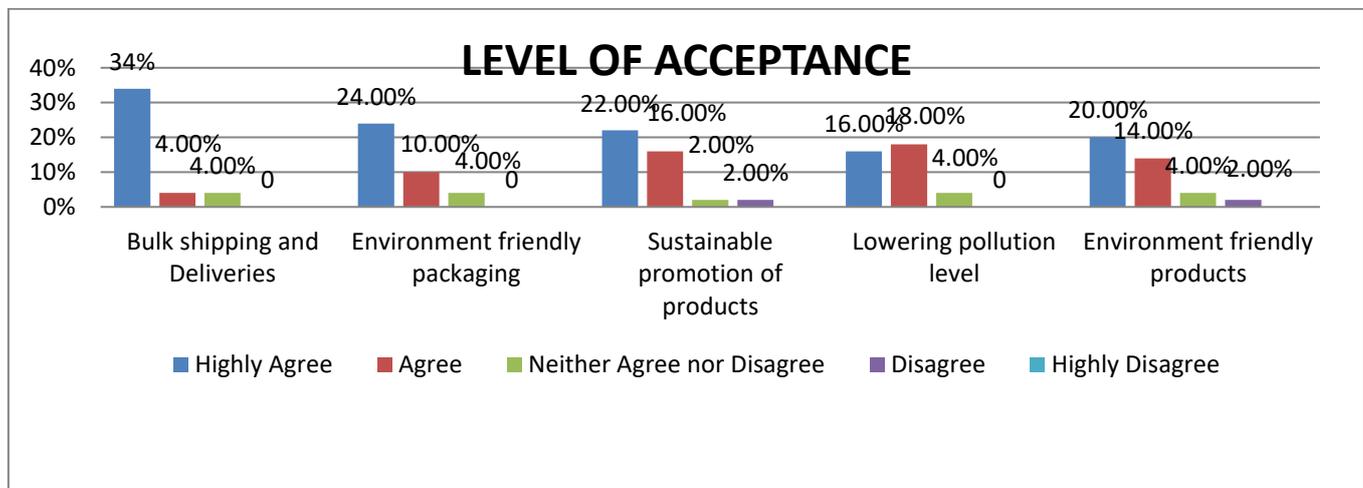Note : Figures in the bracket indicates the percentage

Figure 1.3 Level of acceptance of Brick and Mortar stores on achieving sustainable development on integrating Brick and Mortar Stores with E-Commerce.
Source: Table 1.3

Majority of the stores are highly influenced regarding the Global accessibility without harming the environment. 22% have agreed upon the lower shipping cost and 24% are highly influenced by the effort on exposure of products without environmental degradation. 18% are influenced by the online payment method and 22% have neutral opinion regarding cost reduction for economic sustainability.

Amongst the Brick and Mortar stores, 34% of the stores have agreed that bulk shipping and deliveries can be opted for a sustainable approach.. 24% of the stores have agreed to Environment friendly packaging while majority of the stores have accepted that sustainable promotion of products can be done with the help of E-Commerce. 18% of the stores have agreed that pollution can be lowered if customers receive the product at the doorstep and also 20% have agreed that focus should be given on environment friendly products.

IV. FINDINGS OF THE STUDY

The different findings of the research work post analysis states that-

1. Sustainable development can be achieved by integrating Brick and Mortar stores as environment friendly shipping and delivery techniques can be adopted.

2. Eco-friendly packaging of products will lead to cause less harm to the environment.

3. Global accessibility can be achieved for the brick and mortar stores by integrating with e-commerce by maintaining sustainability as per majority of the respondents.

4. As per the respondents of the study, economic sustainability can be achieved with the help of cost reduction as E-Commerce contributes in reducing the cost.

5. Doorstep delivery of products by the stores will encourage on lowering down the pollution level as the customers are not required to travel to the destination for conducting the purchase of the required products.

6.Combind efforts of Brick and Mortar stores with E-Commerce like low shipping cost, online payment, product exposure without environment degradation etc. have highly influenced the respondents of the study.

V. CONCLUSION

In today's world sustainable development is utmost important to save the resources so that they can be utilized by the coming generations as well. Therefore, it is the need of the hour to use certain sustainable methods in the business operations which will generate profit and save the environment as well. E-commerce is one of the convenient way to adapt in order to have a smooth functioning of the business and maintaining ecological balance as well.

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