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Assessing the Cost Implications of E-Commerce Adoption: An Operational Perspective

Prof. Vikas Laxman Naravade, Dr. Sumit Bhattacharjee

Research Scholar, Singhania University, Rajasthan, India

Research Supervisor (Guide), Singhania University, Rajasthan, India

ABSTRACT: E-Commerce is the process of conducting business electronically among various entities in order to satisfy an organizational or individual objective. E - Commerce is one of the most promising applications of IT in recent years. Majorly E - Commerce is currently at the inter-corporate and inter-organizational level, services targeted at individual customers are evolving rapidly. Supply – chain management has been largely benefitted from e – commerce. It can largely improve manufacturing, retail and service operations. E – Commerce brought huge development in trade, market, products, sale and intensified the competition to achieve profit. It has completely changed the modern trade for buying and selling, increased the efficiency of companies. Due to e – commerce, there is change in the operational costs of storage, inventory, distribution, inventory and salaries. The companies are benefitted by increasing the profit due to decrease in operational costs. In this paper, we define e – commerce, evaluate major elements, its merits – demerits and its role in deciding the operational cost.

KEYWORDS: E – Commerce, trade, inventory, supply – chain management, operational cost

I. INTRODUCTION

Transaction time, processing time and operational cost are greatly improved by the advent of internet. Internet helps to make information available globally. The ubiquity of the web and the availability of browsers across different platforms provide a common base upon which E-Commerce applications can be built. It greatly reduces the significance of issues pertaining to software distribution and software installation. It results in encouraging the expansion of E-Commerce via Intranets, Extranets and the Internet. E-Commerce provides new channels for the global marketing of tangible goods and presents opportunities to create new businesses providing information and other knowledge-based intangible products (Rhodes & Carter, 1998). E-Commerce is expanding because of the greater number of businesses and individuals who are able to use these networks and the growing number of ways in which businesses can conduct transactions electronically with other organizations and directly with consumers at a reduced cost (Bartell et al, 1999). Currently, business-to-business E-Commerce is of greater volume than business-to-consumer E-Commerce resulting in operational cost reduction. These trends are important to the global economy and to the economy of individual countries because E-Commerce contributes to economic efficiency. E-Commerce also referred to as electronic trading has a very important factor which is advertisement and procurement of goods and services over the Internet (Rhodes & Carter, 1998). With the development of E-Commerce, every computer can offer a new avenue to any business around the globe. Now, large number of people and organizations are using computers and internet, E-Commerce is expanding and due to this, organizations and consumers are directly interacting with increase in digital transaction which reduces operational cost (Bartell et al, 1999). Since capital is scarce, digital trade has opened the whole new world of trade to those who have capital and with digital trade, discounts have increased which increase the overall sale.

The contribution of E – Commerce to economic efficiency is in the following ways(Turban et al, 2000):

1. shrinking distances and timescale
2. lowering distribution and operational costs
3. speeding product development
4. providing more information to buyers and sellers
5. enlarging customer choice and supplier reach

Our concentration is on the operational cost.

II. LITERATURE SURVEY

AleksandarAndonov et al. (2021) stated that E-commerce has emerged as one of the most successful business models that have provided numerous benefits to businesses in the contemporary environment. Some imperative impacts have been the international marketplace, no time constraints, better relationship building with customers, lesser fixed costs, and some more. This study focuses on assessing the impact of E-commerce on business performance.

E-commerce has been regarded as buying and selling products and services using the internet. The business model is designed to provide its offerings online and allow the consumers to select and purchase the desired products. Planning for an E – Commerce business is critical. This allows the firm to consider the related dynamics and implementation of the business model consider the probable adversities and challenges that may arise during the process and functionality (Tzavlopoulos et al. 2019).

The planning further considers the associated risks and limitations to which the company may be exposed so that an effective contingency plan may be developed through critical planning and considerations. The other aspect is technology selection along with mediums and approaches. The firm must select adequate technology to carry out the desired tasks and activities to function online. In this regard, the considerations need to be made according to the nature and type of customers and the capabilities, resources, and kind of business involved in the process. The technology usage may differ for various businesses and their specific target audiences, and critical analysis in this regard could be conducted to ensure optimum results (Nyagwencha, 2018).

Rajneesh Shahjee (2015) studied the impact of Electronic Commerce on Business. The research study has highlighted the Management Information Systems, Finance and Accounting, Marketing and Computer Sciences of E-Commerce on Business. E-commerce is a way of conducting business over the Internet. Though it is a relatively new concept, it can alter the traditional form of economic activities. It already affects such large sectors as communications, finance, and retail trade and holds education, health, and government promises. The most significant effects may be associated not with many of the impacts that command the most attention but with less visible, but potentially more pervasive, effects on routine business activities. The integration of Electronic Commerce and Business will bring a renaissance in the marketing function. It presents opportunities to get close to the customer to bring the customer inside the company, explore new product ideas, and pre-test them against real customers.

Kumar, Sameer, and Petersen, Palo (2006) understood how e-commerce had affected companies' abilities to serve the customers' needs and raise their satisfaction level. The research showed a direct correlation between the use of e-commerce and improved customer service. In particular, e-commerce has improved the availability of information, reduced processing errors, reduced response times, lowered costs of services, and has effectively raised customer satisfaction and the level of service that customers expect to receive. The research revealed that many businesses are transitioning to integrated e-commerce business operations. This is being done with the expectation of lowering operational costs and significantly improving their service offerings. The study is unique in applying the logistics regression approach to multi-company data across various industries to analyze the impact of e-commerce on the service aspect of business operations. It also addresses the research question – whether e-commerce use in a business effectively raises customer service and overall business operation to a more desirable quality.

III. CURRENT EFFECTS

The technological advances in communications media are also referred to as the third industrial revolution by many people. It has a quantum leap in communications media. The speed of information has expanded the volume of trade in the world. Though we are discussing merits, e-commerce has also raised problems, like inability of the current system to keep up with the special nature of this trade. It requires new laws which serve suitably according to the country and the environment. The trade doctrinal disagreements about income have increased which is caused by the tax system and the position of those entering. Due to this, few have modernized their systems with respect to income tax.

The social behaviour has changed with the development in information and communication technology and the pictures of economic activity has also changed. It is now capable of transmitting information, services, money and goods with the most direct route and its cost is not expensive. It requires the computer and communication networks of different area (wide area like the whole world) network and get the advantages of the technology to improve the trade.

E – Commerce supports marketing intelligence. Intelligent systems help to obtain the information to evaluate alternatives and they also assist in making choices. E – Commerce supports the following intelligence activities:



1. search for products
2. management of search criteria
3. comparison of products found.

With the development in the digital field, the government is working for shifting all the processes towards information and communication technology and due to this, the world's asset is shifting to digital economy and the diversified services are available in all parts of the world. The evolution of E-commerce is related to the rapid development of information technologies, the growing adoption in different areas, and the decrease of their usage cost.

IV. ARCHITECTURE

E-commerce started in the early nineties and includes several key components to be provided in the application of e-commerce, such as the use of computer and communications technology and information systems. So can the definition of e-commerce at the present time as the process of buying or selling or exchange of products, services and information through the web site. E-commerce requires dealing in the commercial market coverage of different parties to handle the different parties for clients in the corporate sector in the same society is linked through the electronic network in different sectors in the same community or beyond either the government sector or sector individuals (consumers) as well as the government sector can be linked to another state.

E-commerce can be found new markets, in terms of time, space, and information, where the transaction costs and regulation in the past made expensive degree hindering For example:

- A. Bank of Brazil (Banco 1) presents its banking services throughout the (24 hours / day) through the Internet directly, while in the past and before the advent of e-commerce was not able to achieve that .
- B. Website (esteel.com) brings together producers of steel and the buyer the adults all over the world within the Market Square and one on the network directly, while it was a matter of putting them in this picture is almost impossible, and even if they were, they would require substantial costs to make connections among them as explained in Figure 1.

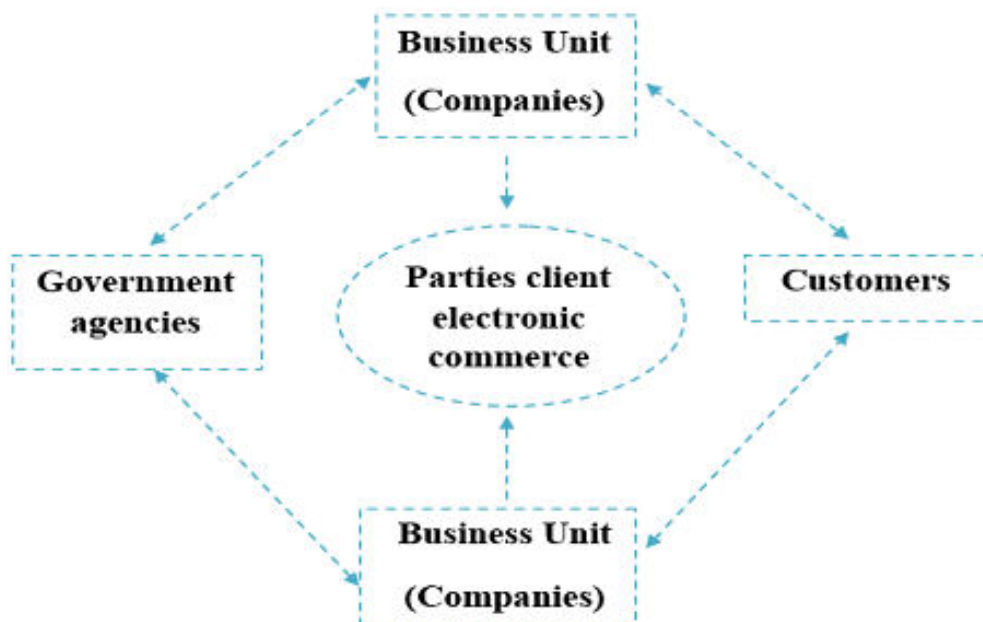


Figure1: Form (1) Parties client electronic commerce

V. THE IMPORTANCE OF E-COMMERCE TO REDUCE COSTS

The importance of e-commerce to reduce costs is very important to the manufacturers or vendors in the processing of electronic stores and low-cost inception compared to the processing of traditional stores, which leads to a reduction in the cost of business performance, and increase the scope of supply markets, including beyond the limits of space and time, and thereby to increase competition which results from the high quality products and low prices. (Anati, 2000, 36).

The lower costs of business processes represent a trade transaction cost of gathering information, negotiation and brokerage fees and sales commissions, administrative procedures and other important part of the price of the product. And e-commerce plays a prominent role in reducing these costs by improving information flow and increase the coordination of the business, as well as lower costs of searching for information relating to potential buyers and sellers in the market. (Samarrai 1999.15-14). Contribution to e-commerce to reduce administrative costs to the businesses in distribution, archiving and retrieval of information paper, may end up reducing the administrative costs of procurement operations to 85% of what eventually lead to lower product prices. Good management of inventory as contributing to e-commerce to reduce inventory through the use of a drug in the supply chain management system, where the process begins with obtaining commercial demand from the buyer and provide him with his application through industrialization temporary manner, and this would work to reduce business cycle significantly; where the product is shipped directly from the factory to the final buyer. This is shown dramatically in digital products, any goods and services that are delivered electronically. Thus, e-commerce is an important tool in the management of inventory and lower storage costs, and this has economic implications at the macro level. If we know that 10% of the volatility in the quarterly growth rates of production as a result of the volatility of returns in investment in inventory. If e-commerce is working to reduce inventory to a minimum, it is expected to be one of the effects of e-commerce, to mitigate the effects of the business cycle resulting from the change in inventory. With the development of information and communication technology and better information flow, it is expected to decrease the impact of the stock of the business cycle to a minimum and perhaps even non-existent.

VI. CONCLUSION

E-Commerce is expanding because of the greater number of businesses and individuals who are able to use these networks and the growing number of ways in which businesses can conduct transactions electronically with other organizations and directly with consumers at a reduced cost. Currently, business-to-consumer E-Commerce focusses on operational cost reduction, but may change in the future. These trends are important to the global economy and to the economy of individual countries because E-Commerce contributes to economic efficiency.

To get the benefits of E – Commerce, firms must understand its potential, its components, their own businesses, and the businesses of trading partners. They need to focus on strong partnerships, the core products and the structure that make e – commerce possible. E - Commerce infrastructure has to be defined, developed and use to the optimum by the businesses in order to take the advantages of new business opportunities. Effective strategies have to be developed for achieving competitive advantages through e – commerce to be successful in the 21st century.

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