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Role of E-Commerce and Its Effects on Operational Cost

Sandhya Shrivastav

Asst. Prof. , Dept. of Commerce, Ladhidevi Ramdhar Maheshwari Night College of Commerce, Mumbai, Maharashtra, India

ABSTRACT: E-commerce (electronic commerce) is the activity of electronically buying or selling of products on online services or over the Internet. E-commerce draws on technologies such as mobile commerce, electronic funds transfer, supply chain management, Internet marketing, online transaction processing, electronic data interchange (EDI), inventory management systems, and automated data collection systems. E-commerce is in turn driven by the technological advances of the semiconductor industry, and is the largest sector of the electronics industry. Operating costs or operational costs, are the expenses which are related to the operation of a business, or to the operation of a device, component, piece of equipment or facility. They are the cost of resources used by an organization just to maintain its existence.

KEYWORDS: E-commerce, supply chain management, resources, organization, data collection, operational cost

I. INTRODUCTION

E-commerce typically uses the web for at least a part of a transaction's life cycle although it may also use other technologies such as e-mail.[1] Typical e-commerce transactions include the purchase of products (such as books from Amazon) or services (such as music downloads in the form of digital distribution such as iTunes Store).[1] There are three areas of e-commerce: online retailing, electronic markets, and online auctions. E-commerce is supported by electronic business.[2] The existence value of e-commerce is to allow consumers to shop online and pay online through the Internet, saving the time and space of customers and enterprises, greatly improving transaction efficiency, especially for busy office workers, but also saving a lot of valuable time.[3]

E-commerce businesses may also employ some or all of the following:

- Online shopping for retail sales direct to consumers via web sites and mobile apps, and conversational commerce via live chat, chatbots, and voice assistants;[4]
- Providing or participating in online marketplaces, which process third-party business-to-consumer (B2C) or consumer-to-consumer (C2C) sales;
- Business-to-business (B2B) buying and selling;[5]
- Gathering and using demographic data through web contacts and social media;
- B2B electronic data interchange;
- Marketing to prospective and established customers by e-mail or fax (for example, with newsletters);
- Engaging in pretail for launching new products and services;
- Online financial exchanges for currency exchanges or trading purposes.

There are five essential categories of E-commerce:[6]

- Business to Business
- Business to Consumer
- Business to Government
- Consumer to Business
- Consumer to Consumer

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For a commercial enterprise, operating costs fall into three broad categories:

- fixed costs, which are the same whether the operation is closed or running at 100% capacity. Fixed Costs include items such as the rent of the building. These generally have to be paid regardless of what state the business is in. It never changes
- variable costs, which may increase depending on whether more production is done, and how it is done (producing 100 items of product might require 10 days of normal time or take 7 days if overtime is used. It may be more or less expensive to use overtime production depending on whether faster production means the product can be more profitable). Variable Costs include indirect overhead costs such as Cell Phone Services, Computer Supplies, Credit Card Processing, Electrical use, Express Mail, Janitorial Supplies, MRO, Office Products, Payroll Services, Telecom, Uniforms, Utilities, or Waste Disposal etc.
- semi variable, the expenses necessary to keep the business in proper condition.[7]

Overhead costs for a business are the cost of resources used by an organization just to maintain its existence. Overhead costs are usually measured in monetary terms, but non-monetary overhead is possible in the form of time required to accomplish tasks.

Examples of overhead costs include:

- payment of rent on the office space a business occupies
- cost of electricity for the office lights
- some office personnel wages

Non-overhead costs are incremental such as the cost of raw materials used in the goods a business sells.[8]

Operating Cost is calculated by Cost of goods sold + Operating Expenses. Operating Expenses consist of :

- Administrative and office expenses like rent, salaries, to staff, insurance, directors fees etc.
- Selling and distribution expenses like advertisement, salaries of salesmen.

It includes all operating cost such as salary, rent, stationery, furniture etc.[9]

Contemporary electronic commerce can be classified into two categories. The first category is business based on types of goods sold (involves everything from ordering "digital" content for immediate online consumption, to ordering conventional goods and services, to "meta" services to facilitate other types of electronic commerce). The second category is based on the nature of the participant (B2B, B2C, C2B and C2C).[7]

On the institutional level, big corporations and financial institutions use the internet to exchange financial data to facilitate domestic and international business. Data integrity and security are pressing issues for electronic commerce.

Aside from traditional e-commerce, the terms m-Commerce (mobile commerce) as well (around 2013) t-Commerce[8] have also been used.

In the United States, California's Electronic Commerce Act (1984), enacted by the Legislature, and the more recent California Privacy Rights Act (2020), enacted through a popular election proposition, control specifically how electronic commerce may be conducted in California. In the US in its entirety, electronic commerce activities are regulated more broadly by the Federal Trade Commission (FTC). These activities include the use of commercial e-mails, online advertising and consumer privacy. The CAN-SPAM Act of 2003 establishes national standards for direct marketing over e-mail. The Federal Trade Commission Act regulates all forms of advertising, including online advertising, and states that advertising must be truthful and non-deceptive.[9] Using its authority under Section 5 of the FTC Act, which prohibits unfair or deceptive practices, the FTC has brought a number of cases to enforce the promises in corporate privacy statements, including promises about the security of consumers' personal information.[10] As a result, any corporate privacy policy related to e-commerce activity may be subject to enforcement by the FTC.

The Ryan Haight Online Pharmacy Consumer Protection Act of 2008, which came into law in 2008, amends the Controlled Substances Act to address online pharmacies.[11]

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Conflict of laws in cyberspace is a major hurdle for harmonization of legal framework for e-commerce around the world. In order to give a uniformity to e-commerce law around the world, many countries adopted the UNCITRAL Model Law on Electronic Commerce (1996).[12]

Internationally there is the International Consumer Protection and Enforcement Network (ICPEN), which was formed in 1991 from an informal network of government customer fair trade organisations. The purpose was stated as being to find ways of co-operating on tackling consumer problems connected with cross-border transactions in both goods and services, and to help ensure exchanges of information among the participants for mutual benefit and understanding. From this came Econsumer.gov, an ICPEN initiative since April 2001. It is a portal to report complaints about online and related transactions with foreign companies.

There is also Asia Pacific Economic Cooperation. APEC was established in 1989 with the vision of achieving stability, security and prosperity for the region through free and open trade and investment. APEC has an Electronic Commerce Steering Group as well as working on common privacy regulations throughout the APEC region.[11,12]

In Australia, trade is covered under Australian Treasury Guidelines for electronic commerce and the Australian Competition & Consumer Commission[13] regulates and offers advice on how to deal with businesses online,[14] and offers specific advice on what happens if things go wrong.[15]

The European Union undertook an extensive enquiry into e-commerce in 2015-16 which observed significant growth in the development of e-commerce, along with some developments which raised concerns, such as increased use of selective distribution systems, which allow manufacturers to control routes to market, and "increased use of contractual restrictions to better control product distribution". The European Commission felt that some emerging practices might be justified if they could improve the quality of product distribution, but "others may unduly prevent consumers from benefiting from greater product choice and lower prices in e-commerce and therefore warrant Commission action" in order to promote compliance with EU competition rules.[16]

In the United Kingdom, the Financial Services Authority (FSA)[17] was formerly the regulating authority for most aspects of the EU's Payment Services Directive (PSD), until its replacement in 2013 by the Prudential Regulation Authority and the Financial Conduct Authority.[18] The UK implemented the PSD through the Payment Services Regulations 2009 (PSRs), which came into effect on 1 November 2009. The PSR affects firms providing payment services and their customers. These firms include banks, non-bank credit card issuers and non-bank merchant acquirers, e-money issuers, etc. The PSRs created a new class of regulated firms known as payment institutions (PIs), who are subject to prudential requirements. Article 87 of the PSD requires the European Commission to report on the implementation and impact of the PSD by 1 November 2012.[19]

In India, the Information Technology Act 2000 governs the basic applicability of e-commerce.

In China, the Telecommunications Regulations of the People's Republic of China (promulgated on 25 September 2000), stipulated the Ministry of Industry and Information Technology (MIIT) as the government department regulating all telecommunications related activities, including electronic commerce.[20] On the same day, the Administrative Measures on Internet Information Services were released, the first administrative regulations to address profit-generating activities conducted through the Internet, and lay the foundation for future regulations governing e-commerce in China.[21] On 28 August 2004, the eleventh session of the tenth NPC Standing Committee adopted an Electronic Signature Law, which regulates data message, electronic signature authentication and legal liability issues. It is considered the first law in China's e-commerce legislation. It was a milestone in the course of improving China's electronic commerce legislation, and also marks the entering of China's rapid development stage for electronic commerce legislation.[22]

II. DISCUSSION

In the case of a device, component, piece of equipment or facility (for the rest of this article, all of these items will be referred to in general as equipment), it is the regular, usual and customary recurring costs of operating the equipment. This does not include the capital cost of constructing or purchasing the equipment (depending on whether it is made by the owner or was purchased as a constructed system).

Operating costs are incurred by all equipment — unless the equipment has no cost to operate, requires no personnel or space and never wears out. In some cases, equipment may appear to have low or no operating cost because either the cost is not recognized or is being absorbed in whole or part by the cost of something else.[23]

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Equipment operating costs may include:

- Salaries or Wages of personnel
- Advertising
- Raw materials
- License or equivalent fees (such as Corporation yearly registration fees) imposed by a government
- Real estate expenses, including
  - Rent or Lease payments
  - Office space rent
  - furniture and equipment
  - investment value of the funds used to purchase the land, if it is owned instead of rented or leased
  - property taxes and equivalent assessments
  - Operations taxes, such as fees assessed on transportation carriers for use of highways
- Fuel costs such as power for operations, fuel for production
- Public Utilities such as telephone service, Internet connectivity, etc.
- Maintenance of equipment
- Office supplies and consumables[24]
- Insurance premium
- Depreciation of equipment and eventual replacement costs (unless the facility has no moving parts it probably will wear out eventually)
- Damage due to uninsured losses, accident, sabotage, negligence, terrorism and routine wear and tear.
- Taxes on production or operation (such as subsidence fees imposed on oil wells)
- Income taxes

Some of these are not applicable in all instances. For example,

- A solar panel placed on one's home for use in generating electric power generally has only capital costs; once it's running there are no personnel costs, utility costs or depreciation and it uses no extra land (that wasn't already part of the place where it is located) so it has no real operating costs; however there may need to be taken into account costs of replacement if damaged.
- An automobile or any other item purchased for personal use has no salary cost because the owner does not charge themselves for operating the device.[25]
- An item which is leased may have some or all of these costs included as part

It might be questionable to assert that the cost of ten extra people on the sales force are an incremental cost or an overhead cost, since the wages for these people are both overhead and incremental. The staff needed to keep the shop operational are mostly considered overhead.

- formula for operating cost = total cost* number of weeks

In 2010, the United Kingdom had the highest per capita e-commerce spending in the world.[23] As of 2013, the Czech Republic was the European country where e-commerce delivers the biggest contribution to the enterprises' total revenue. Almost a quarter (24%) of the country's total turnover is generated via the online channel.[24]

Among emerging economies, China's e-commerce presence continues to expand every year. With 668 million Internet users, China's online shopping sales reached $253 billion in the first half of 2015, accounting for 10% of total Chinese consumer retail sales in that period.[25] The Chinese retailers have been able to help consumers feel more comfortable shopping online.[26] e-commerce transactions between China and other countries increased 32% to 2.3 trillion yuan ($375.8 billion) in 2012 and accounted for 9.6% of China's total international trade.[27] In 2013, Alibaba had an e-commerce market share of 80% in China.[28] In 2014, Alibaba still dominated the B2B marketplace in China with a market share of 44.82%, followed by several other companies including Made-in-China.com at 3.21%, and GlobalSources.com at 2.98%, with the total transaction value of China's B2B market exceeding 4.5 billion yuan.[29]In 2014, there were 600 million Internet users in China (twice as many as in the US), making it the world's biggest online market.[30] China is also the largest e-commerce market in the world by value of sales, with an estimated US$899

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billion in 2016.[31] Research shows that Chinese consumer motivations are different enough from Western audiences to require unique e-commerce app designs instead of simply porting Western apps into the Chinese market.[32]

Recent research indicates that electronic commerce, commonly referred to as e-commerce, presently shapes the manner in which people shop for products. The GCC countries have a rapidly growing market and are characterized by a population that becomes wealthier (Yuldashev). As such, retailers have launched Arabic-language websites as a means to target this population. Secondly, there are predictions of increased mobile purchases and an expanding internet audience (Yuldashev). The growth and development of the two aspects make the GCC countries become larger players in the electronic commerce market with time progress. Specifically, research shows that the e-commerce market is expected to grow to over $20 billion by 2020 among these GCC countries (Yuldashev). The e-commerce market has also gained much popularity among western countries, and in particular Europe and the U.S. These countries have been highly characterized by consumer-packaged goods (CPG) (Geisler, 34). However, trends show that there are future signs of a reverse. Similar to the GCC countries, there has been increased purchase of goods and services in online channels rather than offline channels. Activist investors are trying hard to consolidate and slash their overall cost and the governments in western countries continue to impose more regulation on CPG manufacturers (Geisler, 36). In these senses, CPG investors are being forced to adapt to e-commerce as it is effective as well as a means for them to thrive.[33]

In 2013, Brazil's e-commerce was growing quickly with retail e-commerce sales expected to grow at a double-digit pace through 2014. By 2016, eMarketer expected retail e-commerce sales in Brazil to reach $17.3 billion.[33] India has an Internet user base of about 460 million as of December 2017.[34] Despite being the third largest user base in the world, the penetration of the Internet is low compared to markets like the United States, United Kingdom or France but is growing at a much faster rate, [35]adding around 6 million new entrants every month.In India, cash on delivery is the most preferred payment method, accumulating 75% of the e-retail activities.[35] The India retail market is expected to rise from 2.5% in 2016 to 5% in 2020.[36]

The future trends in the GCC countries will be similar to that of the western countries. Despite the forces that push business to adapt e-commerce as a means to sell goods and products, the manner in which customers make purchases is similar in countries from these two regions. For instance, there has been an increased usage of smartphones which comes in conjunction with an increase in the overall internet audience from the regions. Yuldashev writes that consumers are scaling up to more modern technology that allows for mobile marketing. However, the percentage of smartphone and internet users who make online purchases is expected to vary in the first few years. It will be independent on the willingness of the people to adopt this new trend (The Statistics Portal). For example, UAE has the greatest smartphone penetration of 73.8 per cent and has 91.9 per cent of its population has access to the internet. On the other hand, smartphone penetration in Europe has been reported to be at 64.7 per cent (The Statistics Portal). Regardless, the disparity in percentage between these regions is expected to level out in future because e-commerce technology is expected to grow to allow for more users.[37]

The e-commerce business within these two regions will result in competition. Government bodies at the country level will enhance their measures and strategies to ensure sustainability and consumer protection (Krings, et al.). These increased measures will raise the environmental and social standards in the countries, factors that will determine the success of the e-commerce market in these countries. For example, an adoption of tough sanctions will make it difficult for companies to enter the e-commerce market while lenient sanctions will allow ease of companies. As such, the future trends between GCC countries and the Western countries will be independent of these sanctions (Krings, et al.). These countries need to make rational conclusions in coming up with effective sanctions.

The rate of growth of the number of internet users in the Arab countries has been rapid – 13.1% in 2015. A significant portion of the e-commerce market in the Middle East comprises people in the 30–34 year age group. Egypt has the largest number of internet users in the region, followed by Saudi Arabia and Morocco; these constitute 3/4th of the region's share. Yet, internet penetration is low: 35% in Egypt and 65% in Saudi Arabia.[37]

E-commerce has become an important tool for small and large businesses worldwide, not only to sell to customers, but also to engage them.[38][39]

Cross-border e-Commerce is also an essential field for e-Commerce businesses. It has responded to the trend of globalization. It shows that numerous firms have opened up new businesses, expanded new markets, and overcome trade barriers; more and more enterprises have started exploring the cross-border cooperation field. In addition, compared with traditional cross-border trade, the information on cross-border e-commerce is more concealed. In the era of globalization, cross-border e-commerce for inter-firm companies means the activities, interactions, or social relations of two or more e-commerce enterprises. However, the success of cross-border e-commerce promotes the development of small and medium-sized firms, and it has finally become a new transaction mode. It has helped the companies solve

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financial problems and realize the reasonable allocation of resources field. SMEs (small and medium enterprises) can also precisely match the demand and supply in the market, having the industrial chain majorization and creating more revenues for companies.[40]

In 2012, e-commerce sales topped $1 trillion for the first time in history.[41]

Mobile devices are playing an increasing role in the mix of e-commerce, this is also commonly called mobile commerce, or m-commerce. In 2014, one estimate saw purchases made on mobile devices making up 25% of the market by 2017.[42]

For traditional businesses, one research stated that information technology and cross-border e-commerce is a good opportunity for the rapid development and growth of enterprises. Many companies have invested an enormous volume of investment in mobile applications. The DeLone and McLean Model stated that three perspectives contribute to a successful e-business: information system quality, service quality and users' satisfaction.[43] There is no limit of time and space, there are more opportunities to reach out to customers around the world, and to cut down unnecessary intermediate links, thereby reducing the cost price, and can benefit from one on one large customer data analysis, to achieve a high degree of personal customization strategic plan, in order to fully enhance the core competitiveness of the products in the company.[44]

Modern 3D graphics technologies, such as Facebook 3D Posts, are considered by some social media marketers and advertisers as a preferable way to promote consumer goods than static photos, and some brands like Sony are already paving the way for augmented reality commerce. Wayfair now lets you inspect a 3D version of its furniture in a home setting before buying.[45]

III. RESULTS

Logistics in e-commerce mainly concerns fulfillment. Online markets and retailers have to find the best possible way to fill orders and deliver products. Small companies usually control their own logistic operation because they do not have the ability to hire an outside company. Most large companies hire a fulfillment service that takes care of a company's logistic needs.[46] E-commerce markets are growing at noticeable rates. The online market is expected to grow by 56% in 2015–2020. In 2017, retail e-commerce sales worldwide amounted to 2.3 trillion US dollars and e-retail revenues are projected to grow to 4.891 trillion US dollars in 2020.[47] Traditional markets are only expected 2% growth during the same time. Brick and mortar retailers are struggling because of online retailer's ability to offer lower prices and higher efficiency. Many larger retailers are able to maintain a presence offline and online by linking physical and online offerings.[48]

E-commerce allows customers to overcome geographical barriers and allows them to purchase products anytime and from anywhere. Online and traditional markets have different strategies for conducting business. Traditional retailers offer fewer assortment of products because of shelf space where, online retailers often hold no inventory but send customer orders directly to the manufacture. The pricing strategies are also different for traditional and online retailers. Traditional retailers base their prices on store traffic and the cost to keep inventory. Online retailers base prices on the speed of delivery.[49]

There are two ways for marketers to conduct business through e-commerce: fully online or online along with a brick and mortar store. Online marketers can offer lower prices, greater product selection, and high efficiency rates. Many customers prefer online markets if the products can be delivered quickly at relatively low price. However, online retailers cannot offer the physical experience that traditional retailers can. It can be difficult to judge the quality of a product without the physical experience, which may cause customers to experience product or seller uncertainty. Another issue regarding the online market is concerns about the security of online transactions. Many customers remain loyal to well-known retailers because of this issue.[49]

Security is a primary problem for e-commerce in developed and developing countries. E-commerce security is protecting businesses' websites and customers from unauthorized access, use, alteration, or destruction. The type of threats include: malicious codes, unwanted programs (ad ware, spyware), phishing, hacking, and cyber vandalism. E-commerce websites use different tools to avert security threats. These tools include firewalls, encryption software, digital certificates, and passwords.

For a long time, companies had been troubled by the gap between the benefits which supply chain technology has and the solutions to deliver those benefits. However, the emergence of e-commerce has provided a more practical and effective way of delivering the benefits of the new supply chain technologies.[50]

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E-commerce has the capability to integrate all inter-company and intra-company functions, meaning that the three flows (physical flow, financial flow and information flow) of the supply chain could be also affected by e-commerce. The affections on physical flows improved the way of product and inventory movement level for companies. For the information flows, e-commerce optimized the capacity of information processing than companies used to have, and for the financial flows, e-commerce allows companies to have more efficient payment and settlement solutions.[50]

In addition, e-commerce has a more sophisticated level of impact on supply chains: Firstly, the performance gap will be eliminated since companies can identify gaps between different levels of supply chains by electronic means of solutions; Secondly, as a result of e-commerce emergence, new capabilities such implementing ERP systems, like SAP ERP, Xero, or Megaventory, have helped companies to manage operations with customers and suppliers. Yet these new capabilities are still not fully exploited. Thirdly, technology companies would keep investing on new e-commerce software solutions as they are expecting investment return. Fourthly, e-commerce would help to solve many aspects of issues that companies may feel difficult to cope with, such as political barriers or cross-country changes. Finally, e-commerce provides companies a more efficient and effective way to collaborate with each other within the supply chain.[50]

E-commerce helps create new job opportunities due to information related services, software app and digital products. It also causes job losses. The areas with the greatest predicted job-loss are retail, postal, and travel agencies. The development of e-commerce will create jobs that require highly skilled workers to manage large amounts of information, customer demands, and production processes. In contrast, people with poor technical skills cannot enjoy the wages welfare. On the other hand, because e-commerce requires sufficient stocks that could be delivered to customers in time, the warehouse becomes an important element. Warehouse needs more staff to manage, supervise and organize, thus the condition of warehouse environment will be concerned by employees.[51]

E-commerce brings convenience for customers as they do not have to leave home and only need to browse websites online, especially for buying products which are not sold in nearby shops. It could help customers buy a wider range of products and save customers' time. Consumers also gain power through online shopping. They are able to research products and compare prices among retailers. Thanks to the practice of user-generated ratings and reviews from companies like Bazaarvoice, Trustpilot, and Yelp, customers can also see what other people think of a product, and decide before buying if they want to spend money on it.[52][53] Also, online shopping often provides sales promotion or discounts code, thus it is more price effective for customers. Moreover, e-commerce provides products' detailed information; even the in-store staff cannot offer such detailed explanation. Customers can also review and track the order history online.

E-commerce technologies cut transaction costs by allowing both manufactures and consumers to skip through the intermediaries. This is achieved through by extending the search area best price deals and by group purchase. The success of e-commerce in urban and regional levels depend on how the local firms and consumers have adopted to e-commerce.[54]

However, e-commerce lacks human interaction for customers, especially who prefer face-to-face connection. Customers are also concerned with the security of online transactions and tend to remain loyal to well-known retailers. In recent years, clothing retailers such as Tommy Hilfiger have started adding Virtual Fit platforms to their e-commerce sites to reduce the risk of customers buying the wrong sized clothes, although these vary greatly in their fit for purpose.[55] When the customer regret the purchase of a product, it involves returning goods and refunding process. This process is inconvenient as customers need to pack and post the goods. If the products are expensive, large or fragile, it refers to safety issues.[48]

In 2018, E-commerce generated 1.3 million short tons (1.2 megatonnes) of container cardboard in North America, an increase from 1.1 million (1.00)) in 2017. Only 35 percent of North American cardboard manufacturing capacity is from recycled content. The recycling rate in Europe is 80 percent and Asia is 93 percent. Amazon, the largest user of boxes, has a strategy to cut back on packing material and has reduced packaging material used by 19 percent by weight since 2016. Amazon is requiring retailers to manufacture their product packaging in a way that doesn't require additional shipping packaging. Amazon also has an 85-person team researching ways to reduce and improve their packaging and shipping materials.[56]

Accelerated movement of packages around the world includes accelerated movement of living things, with all its attendant risks.[57] Weeds, pests, and diseases all sometimes travel in packages of seeds.[57] Some of these packages are part of brushing manipulation of e-commerce reviews.[57]

E-commerce has been cited as a major force for the failure of major U.S. retailers in a trend frequently referred to as a "retail apocalypse."[58] The rise of e-commerce outlets like Amazon has made it harder for traditional retailers to attract

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customers to their stores and forced companies to change their sales strategies. Many companies have turned to sales promotions and increased digital efforts to lure shoppers while shutting down brick-and-mortar locations.[59] The trend has forced some traditional retailers to shutter its brick and mortar operations.

IV. CONCLUSIONS

In March 2020, global retail website traffic hit 14.3 billion visits[61] signifying an unprecedented growth of e-commerce during the lockdown of 2020. Later studies show that online sales increased by 25% and online grocery shopping increased by over 100% during the crisis in the United States.[62] Meanwhile, as many as 29% of surveyed shoppers state that they will never go back to shopping in person again; in the UK, 43% of consumers state that they expect to keep on shopping the same way even after the lockdown is over.[63]Retail sales of e-commerce shows that COVID-19 has a significant impact on e-commerce and its sales are expected to reach $6.5 trillion by the future.[64] The cost of operation is the business strategy implemented in many companies to gain a huge market.[1] The cost of operation is the cost acquired in completing one operation. It may be a conversion of inputs into the outputs or labor costs etc. If the cost of operation is low then it is easy to maintain cost leadership and gain the market with competitive advantage.[60]

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