

AN OVERVIEW OF RESEARCH ON E-COMMERCE ADOPTION: FUTURE TRENDS

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ABSTRACT

E-Commerce is one of the recent inventions and innovative ideas that enable firms to compete with larger market players. Moreover, e-commerce has sufficient potential and productivity. It became the centre of attraction of the many firms in various countries in the different parts of the world. The impact of e-commerce is enormous as it provides platforms for consumers and suppliers to make it a common platform for transactions of goods and services. Suppliers of goods and services considered it a very convenient platform to distribute goods and services. Consumers also considered it one of the best platforms for buying commodities as they can order the product from the online platform from anywhere, they want. Consumers can also compare the goods and services based on their quality, quantity, and price. Even these platforms provide a manifesto to sell their/consumers commodities to the third party. This paper is trying to explain the meaning of e-commerce, the factors for the success of e-commerce, the adoptive e-commerce strategy of firms, reasons for adopting e-commerce, and significant constraints for the firm to adopt this e-commerce platform.

Key Words: E-Commerce, Adaptation, Online Shopping, Business to Business

INTRODUCTION

Electronic commerce, or only e-commerce, is the system that recently emerged where purchasing of goods and services by using the virtual. Rather than buying commodities, it can also compare the prices and qualities of various websites' goods and services (Khan, 2016). The invention of the internet and the advancement of information technology have developed the internet's application in multiple phases of human life. The technology of the internet became familiar among the public during the period of 1994 and its application in commerce, later it became popular in the term of e-commerce during 2000. Many services in the United States and Europe started shifting their business engagements to internet services by using electronic payment services (Khoo et al., 2016). Nowadays, the impact of the internet and its influence on business has been getting very popular among the business community (Al-Khowarizmi & Muhathir, 2020).

(Chaffey et al., 2006) divided the various model of E-Commerce. Customer to Customer (C2C): which means communications between and among the consumers in cyberspace. This kind of interaction is an essential one *via* the internet. It will further be suggested that companies need to make innovations and ideas applications in their business. The next one is the Business to Customer (B2C). Here, customers can learn about the products and services offered through electronic publishing, secure payments, and delivered electronic and other physical channels.

The next type of method is the Business to Business (B2B) were "an electronic market transaction in which businesses, governments, and other organizations depend on computer-to-computer communications as a fast, economical, and dependable way to conduct business transactions." The fourth type of business is the C2B (Customer to Business), which means consumers will start trading with consumers, mostly with the suppliers. Here many channels are their people consumers are selling branded companies' products. Nowadays, it is prevalent due to the advancement of many social media platforms. The next one is the Customer to Government (C2G). Here the people who used the product and their services can give feedback to the government through various online websites and other pressure groups intervention. This process will make the companies making the product qualitatively without any compromise. Another type of e-commerce method is that B2G (Business 2 Government), where people or agents from the business side can give feedback to the government about the performance and quality of the product that they are producing, sometimes from the non-governmental organizations can also provide the feedback about the business establishment to the government. The next form of transactions is the Government to Citizen (G2C), which means that A type of online interaction through "which government offer national transactions such as local government services, national government information, and tax information to its citizens and other stakeholders," which means governments of the respective countries should be sharing the essential information regard to the government and peoples concerned with the citizens of the country through using many social websites and other government recognized bodies.

The adoption of e-commerce is beneficial to organizations in reducing the running cost. The maximization of revenue and later will improve the product delivery and customer service among the business sectors (Paris et al., 2016). One can say that e-commerce and its business applications are a significant part of the research nowadays. Many studies in this field already confirmed the positive impact of e-commerce in the business sector (Tran & Thuy, 2021).

E-commerce implementation has often been connected to the acceptance of e-commerce (Yasin, 2014, Purba & Widjaja, 2020). The use of e-commerce within the company is continuously rising in numbers. As the development occurs, the e-commerce industry becomes more complex and highly difficult, primarily due to the e-commerce organizational framework as part of their constraint expense rather than the company's opportunity cost, e-commerce. But authors such as (Cohen & Kallirroi, 2006) pointed out that price, in general, is not the biggest obstacle to organizations adopting e-commerce in the business, but the relative gain crucial in determining whether or not to introduce e-commerce in their company (Bakir, Chniti & Zaher, 2018). Due to e-commerce, companies may not consider the complex changes in the company and management structure that will be needed. They will hesitate to adopt an e-commerce strategy that will allow them to implement e-commerce effectively. In the e-commerce market, two forms of adoption have been used (Paris et al., 2016; Eka, 2018). Dissemination of Innovation (DOI) and the Model of Technology Acceptance (TAM). Many studies show that five variables are involved in the DOI, such as relative benefits, compatibility, difficulty, the capacity to test, and observability. This means that the characteristics of an invention itself would determine its adoption. On the other hand, the Technology Acceptance Model (TAM) suggests that the amount of technology acceptance that is influenced by the two main determinants called "perceived usefulness (the degree of belief that the application of a particular system would improve the job performance) and perceived ease of use (the degree of perceived difficulties and difficulties in the use of a particular system)." However, the TAM has been applied to TAM 2, TAM3, and Unified Theory of Acceptance and the use of technology by the introduction of additional external variables to strengthen its predictive ability further, due to the limitations of these two influential factors for deciding to clarify the different contextual influences (Aldwsry & Mayhew, 2011).

Despite all the advantages of adoption studies, DOI has some limitations like TAM (power (Aldwry & Mayhew, 2011; Alsoud & Othman, 2018). Likewise, in the TAM, DOI is also engaging in technical perspective, and because of that, it isn't easy to take into account different external contextual influences. (the organizational and environmental perspectives) Both models examine the technological effects and determinants that may influence e-commerce adoption at the micro-level. Other than these, the decisions to accept modern technologies into the organizations are bureaucracy. They will make a consensus of the management and board of directors of the organization rather than end-user.

Business to Business E-Commerce Adoption

Lefebvre, et al., (2005) stated that, Medium Businesses (SMEs). An online survey was used to gain an in-depth understanding of B-to-B e-commerce adoption and its related benefits. Multiple case studies were used to verify the e-commerce adoption trajectories we found and their underlying dynamics. Findings indicate e-commerce adoption within small- and medium-sized enterprises (SMEs). The ongoing adoption of e-commerce initiatives has been described as self-reinforcing and cumulative. (Karakaya & Shea, 2008) the research examined the reasons why businesses are beginning to use e-Commerce and whether these e-Commerce programs have been successful. Two hundred and three Internet company executives have been surveyed. The factor analysis indicated that there are two major under-dimensions—short-term productivity gains and long-term competitiveness of companies—that motivate the establishment of e-commerce. Besides, (Choshin & Ghaffari, 2017) developed a framework that proposed the effective factors on e-commerce success. Structural equations with partial least squares (PLS-SEM) was used to investigate and experiment the proposed model. The obtained results based on the collected data from 180 staff employees of the Post Bank1 in Eastern and Western Azerbaijan indicated that customer satisfaction, the amount of costs, infrastructures and knowledge and information are the effective's factors which have a significant impact on e-commerce success.

Cantered on the Theory of Planned Action, (Mainardes, Souza & Correia, 2020) studied the antecedent and consequent causes of e-commerce non-adoption behaviour (TPB). This study employed the frameworks of 'attitude,' 'subjective norms,' 'perceived behavioural regulation (PBC),' and 'intention' as antecedents. The constructs for the outcomes were 'negative word-of-mouth' and 'disinterest in e-commerce (Majali & Bohri, 2016). The findings revealed that construct attitude and PBC have a beneficial impact on construct intention. intention and PBC both positively affected behaviour, which in turn impacted two subsequent behaviours: negative word-of-mouth and disinterest in e-commerce. When the control variables were taken into account, we found no statistically significant relationship between subjective norms and purpose.

Reasons for Technology Adoption

The internet facility and its usage are an inevitable part of almost all sections of human life. Thus, the usage of advanced technology in the business sector is inevitable to the growth of the sector. Of course, there would be many reasons for e-commerce in the respective business establishment (Harindranath et al., 2008). He also stressed that well developed and explained the e-commerce inside the organization would facilitate the expansion of the business establishments. (Jesus et al., 2019; Hadjimanolis, 1999) stressed that the application of e-commerce in the business sector in developing countries could increase the saving in communication cost, it could be possible to increase the marketing of the product, advertising of their product and as well supply chain or production processes. It could be possible to deliver the goods and services to the

various part of the world. Another author (Manuela & Ulewicz, 2018; MacGregor & Kartiwi, 2010), also stress said that the possibility of shopping online by using the internet is the most interesting and most beneficial part of e-commerce. Even the consumer will benefit while doing this type of online shopping by choosing the quality product and comparing the same product in the different brands and websites. Overall, the trading purpose *via* the internet has great advantages. Another version of the reasons for the e-commerce implementation was provided by (Saffu et al., 2008) stressed that there is no boundary for using and applying e-commerce in the business establishment. E-business is not explained by the geographical or countries borders. Consumers will be getting from a wide selection of services and products, including the product not easily available in the offline market (Khan & Uwemi, 2018). Since there no boundary for e-commerce trading, one can buy the product after crossing the national boundary. This type of online platform can give all the information concerned with the product availability like price and its fluctuations, availability of the product in the market, different variety of the same product and product alternatives, etc. Even each consumer can make a fast consumption of the product from the internet with the best quality available in the market other than the so-called marketplace by making the rapidity of the research process and exchanging things (Al-maaitah, Majali, Alsoud & Al-maaitah, 2021; Sullivan & Kim, 2018). Another author (Li, Wang & Sherratt, 2020) made a statement in their article that the internet has to have the huge potential to offer consumer benefit concerning total secrecy and privacy throughout the purchasing and selection process online. Unless someone hacks our account, one cannot see the details of the person who is trading on the electronic platforms. Compared to online purchasing, the internet makes the consumers not disclose the secrecy related to them. Another author, (Turban et al., 2008), giving the details like shifting from offline trading to online commerce will be mostly advantages to the consumers in the sense that it will reduce the prices of goods and services as a result of increased competitions among the players and more suppliers will be able to compete in the virtual market, as result of this, transportation cost will be reduced, the operation cost of the firm will be reduced, and producers are internalizing the activities traditionally performed by intermediaries. These reductions of the cost of production of goods and services will be added to the product's price as price reduction, which will finally reduce the prices of goods and services that buying from the online platforms. (Bakos, 1998) also gives the idea that the e-commerce platform is the most dynamic one and can make easy responses to changes in the environment when changes happen to the tastes, new types of customers, and new consumers. And all the consumers are a more or less similar requirement from virtual trading that they want the quality product for the lower price. All the e-commerce platforms made possible these requirements due to the competition between themselves. Competition always will make a positive outcome to the consumers. In addition to this e-commerce, adoption is not limited to above some of the areas. Some of the authors were also giving some other areas where e-commerce can be successfully implemented. According to (McDougall & Levesque, 2000), e-commerce platforms can be made possible for extensive online information. Consumers can make decisions whether they need to purchase or not a particular product. Another possible advantage of the adoption of e-commerce will be a possible comparison. Since the online platform provided stiff competition among the consumers and there will always be war prices of the commodities among the sellers, consumers will make a wide range of choices to choose a particular commodity (Hu & Chaudhry, 2020). Another one adoption advantage will be time-saving. The persons who want to go shopping no need to do separate timing from his workplace to go for shopping, while at the working space itself one can go for shopping and selection of commodities. The delivery of commodities or services is possible through e-ticket, e-books, etc. even one can make payment by using e-wallets. One can keep the money e-wallets and whenever do any purchasing and all they can be deducted money from our wallets. That also possible only with the help of virtual technology.

(Efendioglu et al., 2005) also gave importance to a complete commercial cycle *via* a network. Another major reason for adopting e-commerce technology is the convenience and accessibility of the users like sellers and consumers. It made possible purchases from anywhere at any time around the world (Dwi, Muhdaliha & Halim, 2020).

Technology Acceptance Model

In recent times the development of technology and its use in various fields like business and other establishments have emerged in technology adoption. The technology adoption model is one of the types of strategy used by the people belonging to the entrepreneurs (Sanayei et al., 2010). This type of model is one of the models used to explain the variables influencing the adoption of information process and information and communications channel by buyers and sellers (Barakat & El Sheikh, 2010; Badi et al., 2011). When one develops a model that could be used to understand the lawmakers and decision-makers to accept the technology for their companies to reject or accept, this particular model is one of the powerful ones which can be predicted the acceptance of technology by consumers (Riantini & Eka, 2018).

The Fed Davis introduced the first technology adoption model in 1989. Dais was trying to create a platform to recognize why users accept it or reject it by suggesting this model. This particular model was developed by using the theory of reasoned action taken from psychology. This theory's main idea is that it assumes that individual behaviour is stimulated through intention and desire. The particular purpose and behavioural meaning are specific attitudes towards the behaviour and subjective norms of the unique behavioural performance (Fedorko & Gavurova, 2018). Regarding the theory of reasoned action that has been developed to describe any human behaviour and its characteristics. It has been created a model after studying the determinants of adoption and application computers in the 1980s (Ghorbani et al., 2011).

Barriers of E-Commerce to the Organizers and Consumers.

There is little literature that is listed about the constraints or obstacles to e-commerce adoption in researchers' world. At the same time, some of the countries have made considerable progress in their business establishments in e-commerce adoption. (Tan, Tyler & Manica, 2007) suggested that fear of cheating or fraud and risk of profit loss have been cited as the most common constraints in implementing this new method of business strategy in their business establishments. Before (Rose, Khoo & Straub, 1999), E-commerce provides a wide variety of opportunities and business expansion for one-to-one marketing among organizations. Another major is that is significant will take out the end to end to personal service and human to human, which has prevailed for long years. This e-commerce adoption will reduce the person-to-person contact in the business, especially in developing countries (Ahmad, Hamad, Raed & Maram, 2019). This may be an impediment to the consumers in many developing countries consumers (Satar, Dastane & Ma'arif, 2019). Due to internet connections, using the internet may be time-consuming in many developing and underdeveloped countries. It is tough to use the internet facilities since the low bandwidth (Tan, Tyler & Manica, 2007).

Further noted that the purchase of commodities and services would be more timesaving in the situations where many consumers are delaying their purchase due to their time-consuming consideration. There are some situations the consumers may consider that there are difficulties for virtual purchase of commodities like difficulties in locating the websites of the commodities, challenging to locate the product and services, etc., registration procedure required to access the services they are looking for and making prices comparisons of same commodities and services in the different website. Some of the researchers in e-commerce find out that acquiring the computer for virtual business and the cost of bearing the expenses of the internet are all some of

the constraints or barriers to e-commerce adoption by small and medium enterprises (Dahbi & Benmoussa, 2019). However, (MacGregor & Kartiwi, 2010) made a presentation on barriers of e-commerce business and stated that ‘It is more or less difficult on the internet to ensure, beyond doubt, that (tangible) goods have the desired characteristics (e.g. design, content, colour, fit), giving rise to a barrier to e-commerce quality assessment. ‘Another empirical study (Thulani, Tofara & Langton, 2010) showed that without touching the product and feeling the product and services at the time of buying commodities, it might be challenging to choose proper and comfortable commodities. Other than these barriers, another major constraint for e-commerce trading is the lack of enjoyment other than that of physical shops. E-shopping involves the customer and the computer. The feeling of satisfaction while touching and choosing the product will not get into the product one purchases from the virtual (Tankovic & Benazic, 2018). Therefore, one can say that e-commerce will not be the substitute for all these experiences of consumers once they purchase the commodities from the market. Due to the implementation of e-commerce, the market's definition also changed, rather than buying and selling of commodities happening in the physical presence, here it is happening in the non-physically which will be inconvenient for many consumers producers. Another significant problem for e-commerce mentioned by (Rose, Khoo & Straub, 1999) is that it is challenging to locate the product place, which means that some consumers may find it very difficult to trace the product due to the low site usability frequent fluctuations happening in the internet connections. (MacGregor & Kartiwi, 2010) pointed out that there are four major stages for the adoption of e-commerce in business establishments like. The first step means developing their first email and websites, which are known as the developers, and the second category means those that will be using all emails and exchanging documents and design electronically by linking the customers and producers or suppliers (Sharma & Aggarwal, 2019). These category people came to be known as communicators; the next category of people working in e-commerce will have a web presence, which means online ordering facilities. Finally, those will make use of ordering and payment capabilities known as the transactors.

Table 1
AUTHORS AND DEPENDENT VARIABLE

Author	Title	Year	Dependent variable	Sample	Location
Majid Esmailpour	An Empirical Analysis of the Adoption Barriers of E-commerce in Small and Medium-sized Enterprises (SMEs) with implementation of Technology Acceptance Model	2016	Actual use	157	Iran
Seyed Yaaghoob Hoseini					
Younes Jafarpour					
Lobel Trong Thuy Tran	Managing the effectiveness of e-commerce platforms in a pandemic	2020	Sustainable consumption	617	Iran
Salma Dahbi, Chihab Benmoussa	What Hinder SMEs from Adopting E-commerce? A Multiple Case Analysis	2019	e-commerce adoption	4 companies	Moroccan
Ana Cuic Tankovic, Dragan Benazic,	The perception of e-services cape and its influence on perceived e-shopping value and customer loyalty	2018	perceived e-shopping value and customer loyalty	221	Croatia

Satar	Customer Value Proposition for E-Commerce: A	2019	value proposition	2 company	Malaysia
Dastane Ma'arif3	Case Study Approach				
Riantini	Adoption of E-Commerce Online to Offline with Technology Acceptance Model (TAM) Approach	2018	E-commerce adaptation	111	Indonesia
Vional,					
Aries					
YANG	Sentiment Analysis for E-Commerce Product Reviews in Chinese Based on Sentiment Lexicon and Deep Learning	2020	Sentiment Analysis	-	China
LI					
WANG					
Sullivan,	Assessing the effects of consumers' product evaluations and trust on repurchase intention in e-commerce environments	2018	Repurchase intention -	312	South Korea
Kim					
Uwemi,	Possible impact of e-commerce strategies on the utilisation of e-commerce in Nigeria	2018	e-commerce utilisation	225	Nigeria
Ullah Khan					
Ingaldi, Ulewicz	Evaluation of Quality of the e-Commerce Service	2018	customers' expectations	87	Czestochowa
Martine Navarro,	The influence of virtual reality in e-commerce	2019	purchase intention	178	Spain
Bigné,					
Guixeres,					
Alcañiz,					
Torrecilla.					
Mainardes, Souza, Correia	Antecedents and consequents of consumers not adopting e-commerce	2020	E-Commerce Adaptation	260	Brazil
Choshin, Ghaffari	An investigation of the impact of effective factors on the success of e-commerce in small- and medium-sized companies	2017	e-commerce success	118	IRAN
Alsoud, Othamn	The Determinant of Online Shopping Intention in Jordan: A Review and Suggestions for Future Research	2018	SHOPPING INTENTION	270	JORDAN
Tran	Managing the effectiveness of e-commerce platforms in a pandemic	2021	sustainable consumption	617	Vietnam

CONCLUSION

E-commerce is the system that recently emerged where purchasing of goods and services by using the virtual. Customers can learn about the products and services offered through electronic publishing, secure payments, and delivered electronic and other physical channels. E-commerce implementation has often been connected to the acceptance of online shopping. The adoption of modern technologies will be driven by bureaucracy rather than end-users. The author concludes that this will lead to a more complex and difficult e-Commerce industry as well as to a loss of face-to-face interaction between customers and businesses. The authors conclude that the

development of the industry will make it more difficult for businesses to cope with the increased demand for shopping in the future. It will have a negative impact on the quality of customer service and customer service, they say. The study concludes that e-Commerce in the business sector will improve revenue and profitability for the companies. Medium Businesses (SMEs). An online survey was used to gain an in-depth understanding of B-to-B e-commerce adoption and its related benefits. Two hundred and three Internet company executives have been surveyed. Short-term productivity gains and long-term competitiveness of companies are among the factors that motivate the establishment of e-commerce. E-commerce will take out the end to end to personal service and human to human, which has prevailed for long years. Fear of cheating or fraud and risk of profit loss has been cited as the most common constraints in implementing this new method of business strategy. E-commerce adoption will reduce the person-to-person contact in the business, especially in developing countries. It may take time for people to get used to shopping on the internet, which is difficult for people in developing nations. Some consumers may find it very difficult to trace the product due to the low site usability frequent fluctuations in internet connections. The feeling of satisfaction while touching and choosing the product will not get into the product one purchases from the virtual. The purchase of commodities and services would be more time-saving in situations where many consumers are delaying their purchase due to time-consuming consideration.

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