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## Review factors influencing the slow adaptation of E-commerce

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### Abstract

These days, e-commerce has acquired a fundamental concern from SMEs (Small and Medium Enterprises) as it awards competitive advantages and strategic benefits to the business. Even although the many benefits which e-commerce provides, the adoption average is as yet comparatively slow and limited. This essay assists to classify and discuss the impacts affecting the Small and Medium Enterprises willingness to adopt and practice this technique. A broad spectrum of articles and papers were interrogated in this article to classify the reasons which impact the practice of Electronic commerce in SMEs. By this, the output of this article can help SMEs to understand better the reasons behind the slow adoption of this competitive tool which will result in motivating SMEs to enable and leverage e-commerce potential and usage.

**Keywords:** E-commerce, Small and Medium Enterprises (SMEs), challenging market, Technology Acceptance Model (TAM), Innovation Diffusion (ID) model, lack of payment facilities

### Introduction

Today's competitive, unpredictable environment has forced many Medium and Small Enterprises (SMEs) to discover new baths of doing these companies' businesses. To cope with this phenomenon, the field of communication and information technology is offering innovative possibilities for SMEs to expand and sustain their business operations in an effective and efficient way.

E-commerce "Electronic Commerce" is one of these technologies which is realized as "the procedure of buying, selling, shifting or trading products, services and information via computer networks or any other devices, including the Internet" (Alzougool and Kurnia, 2008 citing Turban *et al.* 2008) [3]. E-commerce has created an innovative medium for SMEs where they can find great new opportunities and potential benefits like reducing business and operation cost, streamlining of business processes, global out-reach, 24/7 business, improving operational efficiencies, better access to new customers, suppliers and trading partners, creating new ways of selling existing company products and services, rapid time-to-market, greater competitive advantage, expanding market penetration, boosting revenue and more benefits (Mohammed, Alnaser and Almsafir, 2013; Ahmad *et al.*, 2014) [5, 1]. According to (Wymer and Regan, 2011; Wymer and Regan, 2005) [11, 12] e-commerce has introduced a new way of doing business regardless of the organization size, resources, geographical location and market reach. Eliminating such limitations e-commerce has created new information, a business era that companies, involving SMEs, are propelled and encouraged for adaptation to be able to survive in this challenging market.

Rahayu and Day (2015 citing Chiliya, Chikandiwa, & Afolabi, 2011; Chong, 2008; Grandon & Pearson, 2004; Kartiwi & MacGregor, 2008; Long, Lan, & Duong, 2011; Shah Alam *et al.*, 2011) [6] have mentioned that the e-commerce technology has been approved universally by giant corporations and organizations across the globe. However, SMEs are still considered to be somewhere lagging behind. SMEs are required to consider ways to start adopting this new technology, or it is "going to be shut out of a critical part of the marketplace" said Rahayu and Day (2015 citing Shah Alam, Ali, & Mohd. Jani, 2011) [6].

There are many factors behind this slow adaptation and use of Electronic commerce in SMEs context. Consequently, this review paper is targeted at discussing and clarifying the multitude variables affecting this technology adaptation position by investigating the various. Lists of rewardings and impediments from different aspects these are organizational, technological, business owner/manager and environmental factors.

### Materials and Methods

This paper represents a review article which is entirely based on the review and analysis of other authors' papers and articles to recognize the issues which impact the delayed adaptability of e-commerce in the Small and Medium Enterprises context. Therefore, there is not a particular method and/or a framework used to gain the results in this essay. Different insights on the adoption of e-commerce by SMEs were given by the reviewed material and articles

### Discussion

This essay part is meant to highlight, identify and discuss the factors motivating or inhibiting the adaptation of E-commerce in SMEs context via reviewing the discussions which were done by many researchers in different studies. Reviewing the articles used in this review paper, different researchers have used various methods, models or frameworks to classify the influences that affect the adaptation of E-commerce like Technology Acceptance Model (TAM), Innovation Diffusion (ID) model, Technology-Organization-Environment (TOE) framework, Theory Reasoned Action (TRA) and the Theory of Planned Behavior (TPB). However, this paper focuses mainly on the factors impacting the adaptation of E-commerce not on the model used to identify them. Therefore, a summary containing all factors found from all different models and frameworks will be discussed here.

As mentioned above, there are four determinant factors which are influencing the adaptation and usage of E-commerce in SMEs which are individual, organizational, technological, and environmental factors.

### Individual Factors

Since SMEs are smaller in size and number of employees, company decisions are profoundly affected by its owner/manager. Decisions like the financial investment and obligations to revenue relating of the overall directions of the company, new e-commerce infrastructure investment, the risk of adaptation the E-commerce and ICT technologies and so forth.

Rahayu and Day have mentioned that such a strategic decision like adopting E-commerce extensively consists on the acceptance and willingness of the business owner. He added that there are "three individual contexts: owner innovativeness, owner IT experience and owner IT ability are identified as determinant factors that influence SMEs in adopting e-commerce" (Rahayu and Day, 2015). They have shown the strong relation between SMEs owners and the adoption of e-commerce. They have mentioned that if SME owner is innovative and has a computing and information technology experience, then he will have a higher chance and confidence in taking the risk of adopting this technology. Another researcher, Shemi, has also described how a manager's perspective and attitude towards the use

and adoption of e-commerce can affect "the development of internal ICT competencies, and provide a significant involvement in the development of an environment which enables ICT adaptation and usage" (Shemi, 2012) [7]. Shemi also discussed the importance of having 'skilled ICT personnel' at the SMEs as they have a tremendous level of appreciation of ICT and e-commerce benefits to the business. Therefore, they will try their best to abreast with technology.

### Factors related to Organizations

Organizational factors can be defined as the "internal influences which impact the adaptation of e-commerce" (Maryeni *et al.*, 2012) [4]. By way of explanation, these factors represent the organization characteristics which are unique to the firm itself. These factors are first security and privacy issues which are considered to be a very critical matter to SMEs as Subramanian (2015) [8] mentioned that safety and privacy "threats properly have been classified as one of the biggest concerns of business owners" when it comes to e-commerce adaptation. The second factor is the financial ability which Shemi has described as one of the challenges which SMEs face when planning for e-commerce adaptation. When firm plans for e-commerce adaptation, concerns like ICT infrastructure setup skilled IT individuals, purchasing required equipment, consultation, training, installation and maintenance fees, etc. The third factor is the organisational size which is defined as "the amount of qualified human resources owned by the firm. Organization size is regularly considered as one of the factors of innovation adoption" (Triandini *et al.*, 2013) [9]. Therefore, the organization size significantly influences its decision toward adoption of e-commerce, for instance, small businesses might find it very challenging to invest a big amount of money to set up an e-commerce system. The final influential reason in the adaptation of E-commerce is the organizational culture. W. Nickels *et al.* (2010) [10] discussed that the "organizational cultures are not supporting innovation, and the use of new technologies have been identified as a barrier to B2B e-commerce adoption". He added. If the firm culture is not opened to the new innovations, the adaptation and usage of electronic commerce will be a barrier.

### Factors of Technology

Influences of technology are those which are gathered from the environment and characteristic of the ICT which the SMEs utilize or propose to use for e-commerce adaptation (Shemi, 2012 citing Scupola, 2009) [7]. These impacts contain the accessibility and internet connection speed as this significantly affect the performance of the e-commerce system. Moreover, lack of payment facilities which can represent a barrier to completing the e-commerce transaction. Furthermore, issues in electricity supply reliability affect the operation and adoption of e-commerce. Since most ICT and e-commerce applications are in English, language can be a barrier too especially in developing countries.

### Environmental Factors

These factors are external to the firm, and they have a considerable effect on E-commerce adaptation. Those factors are government, business partner, nature and natural disasters, technology infrastructure, political instability, etc. Ajmal and Mohd Yasin (2012) [2] have shown in their

research the positive relation between support government and adaptation of E-commerce and how the “government support is necessary for adaptation of E-commerce as the government can simplify directions and arrangement; provide technical infrastructural toward adaptation of E-commerce in SMEs”, while some natural disasters like earthquakes and floods could have very adverse effects on e-commerce adoption because such disasters could sweep away the whole ICT infrastructure of a country.

### Conclusions

Small and Medium Enterprises are prime economic players and powerful sources of national, regional and local economic development. Today’s combative world economy has requested the SMEs to explore for ways to progress their competitive ability continuously.

To conclude, this review paper was desk research in which available research papers on the subject matter were critically reviewed. The discussion generalizes all SMEs regardless of the geographical place where they are located. This article discusses different researchers’ papers to identify the impacts which influence the slow adaptation of e-commerce by Small and Medium Enterprises. In conclusion, Small and Medium Enterprises should not underemphasize their capabilities to be able to get involved in a larger market and make use of e-commerce as a strategic instrument to bring the company more opportunities and ultimately boosting its revenue.

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