

A Study of the Effectiveness of E-Commerce Adoption among Small and Medium-sized Enterprise (SME) in Postnatal Care Services Industry: a Case Study in Selangor, Malaysia

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Abstract--- *The paper aims to provide an insight about factors affecting business-to-business e-commerce (EC) adoption and implementation in small to medium-sized enterprises (SMEs), highlighting among postnatal care services industry. However, EC adoption by SME in developing countries has faced many challenges that we have not adequately addressed due to the complex nature of EC adoption in such countries. We based the re-search on an extensive literature review, focused on proposing a theoretical model of technological, environmental and organisational factors (TOE) influencing e-commerce adoption and implementation. Thus, the first and second research goals focused in this re-search is to identify the characteristics and perception of SMEs' managers among Postnatal Care Service industry towards E-Commerce (EC) adoption and explaining the factors from the technological, organizational and environmental context affecting SMEs in post-natal care services industry adopting e-commerce. Finally, the research also covers critical studies, as it tries to provide the key strategies that we suggested to the organizations in creating awareness towards E-Commerce platform among SMEs in postnatal care services which help to get an overview and understanding in adopting e-commerce platform in that industry. The results of the empirical research provide an indication to SME among post-natal care services industry interested in adopting and conducting business-to-business e-commerce. This paper both contributes to enhancing the understanding of the factors affecting business-to-business EC adoption and implementation in SME and provides some interesting perspectives from the postnatal care services industry.*

Keywords--- *E-Commerce, Small-medium Sized Enterprise (SME), E-Commerce Adoption, Postnatal care Services Industry.*

I. INTRODUCTION

It has been a customary practice among Malaysian women to stay at home after giving birth and observe the month-long confinement period. We have been using traditional practices in postnatal widely. The remarkable experience of Malaysia in lowering maternal mortality reflects a robust strategic plan to improve maternal and child wellbeing. In the postnatal period, Malaysia had seen noteworthy enhancements when all said in done and maternal and child wellbeing. Even before the Safe Motherhood Initiative, the claimed maternal mortality (MMR) ratio had increased from about 280 to 141 per 100 000 live births between 1957 and 1970 (MGD5, 2004).

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According to the 2013 estimates of maternal mortality by the World Health Organization (WHO), (2014), 99 per cent (286,000) of worldwide maternal deaths occurred in developing nations. Maternal death statistics were proposed to include slow deaths within one year postnatal, as the risk of death increases to 6 months after birth. (Høj et al., 2003). Wickramansinghe (2005) stated that the need for the exchange of information is common because knowledge allocated among many organizations and companies recognize an expanding need to cooperate with other companies. Because of their role in promoting economic growth and innovation, SMEs are an essential sector of the economy.

II. CONCEPTUAL BACKGROUND AND A RESEARCH MODEL

DeLone and McLean (2003) additionally inspected the exchanges on the first D&M model and its augmentations and as of late added administration quality to their refreshed IS achievement model. Tornatzsky and Fleischer (1990) built up the Technological, Organizational and Environmental (TOE) Processes for Technological Innovation. In this book, the TOE system alludes to the structure for the effect of development appropriation and execution with regards to the organization and outlines three unique angles that are technological, organizational and environmental contexts. The use of TOE in the SME condition has been extended to fuse the activity of the CEO (Thong, 1999) who a significant part of the time is the first chief similarly as the owner of the business. TOE may be useful in the SME setting in case it can fuse the whole scope of the accomplice (Robertson, 2010).

2.1 The Characteristics and Perception of SMEs' Managers among Postnatal Care Service Industry towards E-Commerce (EC) Adoption

Proposition 1: There is a significant relationship between managerial perception and their characteristics and E-commerce adoption.

The adoption of E-Commerce (EC) in an organization leads to changes that require the development of a strategic perspective and the ability to deal with these changes. When these organizations succeeded, they focused on leadership that facilitates the appropriate change and creates a conducive e-commerce climate. This study supports (Cope and Waddell 2004) argument that the specific characteristics required to carry out an EC transition are visionary, inclusive, risk-taking, accessible, forward-thinking, open to change, committed, determined and communication capability.

Proposition 2: There is a significant relationship between the factors from technological context, organizational context and environmental context and E-commerce adoption.

2.2 Technological Context

The technological framework is all relevant technologies relevant to the company, along with technologies already used in the company and others on the market but never used in the company. Petter and McLean (2009), showed that IS literature indicates that EC / IS technological features, the use and satisfaction of the IS are essential determinants, including information, the system and the quality of service. The quality of the information we can characterize as the nature of the data gave to the association by it information system (IS) concerning practicality, precision, dependability, significance and data fulfilment (Byrd et al., 2006). To the extent the research knows, little

has been done to comprehend the association between the nature of EC applications' data and the utilization of EC in a B2B situation. For instance, extremely advanced knowledge acquisition methods are typical of customer feedback systems, data mining, company intelligence and cooperation with partners and study organizations (Alias, Mansor, Rahman, Ahmad, & Samsudin, 2018).

2.3 Organizational Context

We frequently distinguish support from top management in an organization as a significant component in any technological adoption inside an organization. T. Oliveira and M. F. Martins (2010), expressed that management support and interest help to bring issues to light of an organization's innovative focal points through formal communication, give the required innovation framework and support technology preparing that improves the probability of advantage acknowledgement and diminishes the organization's protection from change. We, therefore, follow the findings of previous success research (Sabherwal et al., 2006) that show that management support has a constructive and direct impact on user satisfaction and system utilization. In the meantime, successful adoption of the IS requires knowledge sharing, training and a higher level of skills among staff who are also IS users (Egbu, Hari & Renukappa, 2005). Individual and organizations' capabilities affect without anyone else work process (Sharif et al., 2018). It is especially essential because it requires not only understanding but also social skills (Nur Fauzi, Usodo and Subanti, 2017). Therefore, knowledge sharing can be defined as a communication process between two or more peoples involved in providing and acquiring knowledge in which communication can take many forms, either using verbal or nonverbal mechanisms, with or without the use of technology (Isa et al., 2016).

2.4 Environmental Context

Also, regulatory support plays a vital role in influencing the adoption of technologies by organisations, Z. X. Tan and W. Ouyang (2006). F. Wahid (2007), stated the regulatory support also plays an essential role in providing the necessary national ICT infrastructure, such as a reliable Internet connection, with reasonable speed and appropriate technical standards. Government backing can come through encouraging approach for SME activities in the nation, institutional help for giving money related and innovative help, improving e-commerce framework, and authorizing ideal online business laws (Scupola, 2003). Government facilitates the exchanges of development in a legitimately organized way to business for public use (Sharif et al., 2018).

Therefore, we use TOE as a general framework for the study of various influential adoption factors.

III. FINDINGS AND DISCUSSION

There seemed to be an absence of apparent connection here between expected results of the adoption of e-commerce projects and organizational objectives. Orientation with specified organizational goals seems to have a crucial role to play in organizing and conducting investment, and also the priorities assigned to various IT investment initiatives (Mirani and Lederer, 1993). The goals for organizations to adopt e-commerce systems varied. Rogers (2003) demonstrates a timeframe for the adoption of a new tech/idea where few adopters arrive at the beginning and with time, the percentage of users is increasing. We found that achieving upper management commitment across the implementation phase was crucial to the success of e-commerce IT investments (Power,

2004). All of the organizations interviewed stated that top executives provided adequate management leadership and perhaps even the necessary organizational commitment to implementing IT investments in e-commerce. Discussed the interaction of components and how they decide the extent the adoption of e-commerce in SME depend on the conditions of each organization.

Some organizations have enormously profited by the adoption of e-commerce, for example, C1Alpha, some of which have been reasonably influenced by C3Star, and others at much lower dimensions of C2Puma advantage. It is consequently essential to comprehend what cooperation help little and medium-sized ventures accomplish these positions. This way, the discussion depends on these dimensions of utilization in SME.

For C1Alpha, the extent of e-commerce adoption has been affected by elements portrayed as high-level drivers, for example, the potential customers available in Selangor, the inventive and innovative abilities of managers and right now existing ICT applications, for example, email, Internet, and the dynamic site giving guidelines for payment.

Proposition 3: There is a significant relationship between key strategies suggested to the organizations in creating awareness and E-Commerce.

The communication of these interior variables with the environmental context gives C1Alpha an incredibly uplifting position. The social component of e-commerce transaction has enormously affected the nature of these exchanges, as the gatherings are confiding in one another and products are being paid. What is more, when the third-party agent that idospa.my utilized in the C3Star models, they add to their capacity to advertise their product and services adequately on the worldwide market. C3Star's outcomes verify past studies by Ray and Ray (2006), which demonstrated that SME could exploit minimal effort third-party web services to infer strategic incentive in money generation and higher benefits for their organizations.

IV. CONCLUSION AND FUTURE RESEARCH

In this research, a related or nearly similar improvement on e-commerce adoption in the postnatal care services industry we will make for future research. The recommendation suggested for future research should consider the allocated timeframe for completing the research. Another postnatal care sector in the Selangor region and also in Malaysia can be involved to get more accurate data and efficient. There are, however, best practices from the research that the organization can use (Husin, Yunus and Samsudin, 2017).

At long last, e-commerce adoption in small and medium-sized undertakings is expansive and covers different trains, for example, promoting, organizational behaviour and others. Employee satisfaction is a significant factor in any business ' achievement. The compensation of the staff must be sufficient to satisfy the requirements of a higher living standard. (John and Vikitset, 2019).

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