

Implementation of Blue Ocean Strategy in e-Commerce: Case Study Among Arabic Investors in Malaysia

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***Abstract---** E-commerce was potentially extending firms' competency and efficiency. Hence, Arabic investors in Malaysia had serious target to increase the usage of this technology. However, the implementation of e-commerce among Arabic investors were still limited due to the lack of trust whilst dealing with it. Consequently, extensive efforts have been done to further understand this issue. To appear more insightful, this study develops a research model utilizing the technological and organizational factors to identify the determinants of the firms' propensity in implementing e-commerce. In addition, this study hypothesizes that partnership characteristics; trust and dependency act as a moderator between the variable of implementation e-commerce. Total of 323 questionnaires were self-administrated by Arabic investors in Malaysia in 205 firms which was registered in large capital of Malaysia were analyzed using the Partial Least Squares approach. The results revealed that marketing and purchasing departments have had different views regarding the determinants of the adoption. Moreover, the results showed that the moderating role of trust was less pronounced. These findings have demonstrated how dependence asymmetries between trading partners may change the adoption motivations. The importance of considering the views and opinion of business partner for the adoption is further explained in this study.*

***Keywords---** Trust, E-commerce, Technological factors, Complexity, Compatibility, Organizational factors.*

I. INTRODUCTION

E-commerce systems provide several potentials by using such technology in mediating buyer-supplier relationship including faster decision-making, reduced marketing time, increased efficiency and productivity, better control, reduced inventory, reduced bullwhip effect, and reduced bureaucratic systems. Furthermore, E-commerce differs in its views of marketing and purchasing departments. Dependency, trust, and the differences between the two sides of E-commerce are important issues that need to be addressed. In addition, they enable tighter business process' integration between trading partners.

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Other important opportunities can be achieved by using such technology in mediating buyer-supplier relationship which include; faster decision-making, reduced marketing time, increased efficiency and productivity, better control, reduced inventory, reduced bullwhip effect, and reduced bureaucratic systems (Shankar, Narumanchi, Ananya, Kompalli, & Chaudhury, 2017). The sluggishness in adopting e-commerce technology is not confined to Malaysia. It is a global issue, especially in developing countries (Lim, Baharudin, & Low, 2017). The unsatisfactory and slow adoption of IT innovations in general and e-commerce in particular have led to a spate of studies that are intended to understand, to manage and to predict e-commerce diffusion (Alsaad, Mohamad, & Ismail, 2018; Rahman, & Casanovas, 2017).

In this area of research, scholars have considered various approaches to examine the determinants of e-commerce adoption. Generally, most of the influencing factors are derived from two different perspectives. These include the Efficiency-Choice and the Institutional perspectives Efficiency-Choice perspective or Rational perspective which predicts that innovation is adopted by rational decision makers who weigh costs and benefits of available alternatives and select accordingly (Alsaad, et al., 2018; Shankar, et al., 2017; Lim, et al., 2017) argue because the adoption of e-commerce transpires simultaneously between two autonomous organizations bound in a symbiotic relationship, the adoption of this technology is contingent upon the nature of its relationship between trading partners including trust and dependency.

Summary to the above statement, prevailing empirical research does not provide conclusive evidence regarding the aforementioned issues, thus this study will investigate technological factors with organizational factors and moderating role by its trust with the implementation of e-commerce.

Study Questions

Based on the discussion above put forth are four main research questions are proposed:

- 1 What is the relationship between technological factors (compatibility and complexity) on implementation E-Commerce?
- 2 Is there influence in the relationship between organizational factors (organizational readiness and top management support) on implementation E-Commerce?
- 3 Is there influence of trust as moderating the relationship between technological variables (compatibility - complexity) on implementation E-Commerce?
- 4 Is there influence of trust as moderating the relationship between organizational variables (organizational readiness - top management support) on implementation E-Commerce?

II. LITERATURE REVIEW

Organizational Factors

Organizational factors in this study have important factors, enterprise readiness with senior management support playing a positive role in shaping and defining the structure and the behavior of a firm. Organizational factors, either as a change enabler or change inhibitor (Lee, Shiue, & Chen, 2016). Adopting E-commerce requires a change in organization technology, staff, process, and structure (Ipsen, Gish, & Poulsen, 2015).

Organization Readiness

In e-commerce's adoption literature, organizational capability to adopt new technology is conceptualized as an Organizational Readiness (Longhi, & Keeble, 2017; Randall, Hort, Huebner, Mallott, Mancl, Milgrom, & Cunha-Cruz, 2019), the ability of a firm to successfully adopt, use and benefit from information technologies. Others defined readiness as managers' perception of the extent to which their organizations have awareness, resources, commitment and governance support to adopt e-commerce (Haddad, Ameen, & Mukred, 2018), extend readiness to include variables such as, national readiness and industrial readiness, partner readiness in addition to organizational readiness.

Thus based on the above literature, the following hypothesis is offered:

H1a: Organization readiness has a positive effect on the Implementation of E-Commerce.

Top Management Support

TMS and leadership appreciates ply strength affecting in the importance of E-commerce. Furthermore, the adoption of E-commerce need committed TMS (Lee, Shiue, & Chen, 2016). TMS involves two parts: management's participation and management's belief. The former refers to a subjective psychological state regarding the potentials of E-commerce, the latter refers to the steps taken in order to enable E-commerce (Al Shobaki, Abu Amuna, & Abu-Naser, 2016).

Management support maintains that adequate technological resources and finances allocated that require the adoption of an IT innovation (Lee, et al, 2016; Santos-Vijande, López-Sánchez, & Pascual-Fernandez, 2018). The senior management is a strong force that may work with or go against the adoption process. When senior management works positively to embrace innovation, they can create the cultural values of the companies and they support, therefore reducing organizational resistance (Shantz, Alfes, & Latham, 2016; Shao, Feng, & Hu, 2016). Conversely, if management support is low or non-existent, adoption will be given lower priority. Therefore, senior management support as a composite of management beliefs and management involvement is a key factor in the adoption of e-commerce.

Thus based on the above literature, the following hypothesis is offered:

H1b: Top management has a positive effect on Implementation E-Commerce.

Technological Factors

Economists believe that the existing technologies in organizations is product of adopting of innovations that provide new benefits and critical advantages (Kurnia, Choudrie, Mahbubur, & Alzougool, 2015). In the view of that, many theories which attempt to explain "adoption behavior" relied mainly on the premise that the expected benefits of innovations are key players in an adoption decision (Rahayu, & Day, 2015; Featherman, & Hajli, 2016).

Compatibility

Compatibility refers to the extent to which e-commerce is compatible with the firm's values, needs and past experiences (Rogers, 2003). Prior research suggests that Compatibility is a significant factor to be considered before a firm adopts e-commerce (Awa, Ojiabo, & Emecheta, 2015; Rahayu & Day, 2015). This is because adopting e-commerce requires significant changes to be incorporated into a firm's structure, work practices, routine, and/or processes. A higher degree of Compatibility will enable the adoption of e-commerce with minimum changes to the current status (Hussein, & Baharudin, 2016). Also, higher compatibility level increases the benefits perception (Lin, & Shiqian, 2018). Thus, based on the above literature, the following hypothesis is offered:

H2a: Compatibility has a positive effect on Implementation of E-Commerce.

Complexity

Perceived Complexity is an important factor in innovation evaluation. Complexity refers to the degree to which a new technology is comparatively difficult to apply and understand (Ahmad, Abu Bakar, Faziharudean, & Mohamad Zaki, 2015). Perceived ease of use and perceived Complexity are used interchangeably in e-commerce adoption literature (Al-Alawi, & Al-Ali, 2015). In addition, complex innovation such as e-commerce requires not only technological adjustments, (Awa, et al., 2015). Therefore, the easier the usage of technology and implementation is easily understood, the faster the adoption process takes place (Sukrat, MahatananKoon, & Papasratorn, 2016). Thus based on the above literature, the following hypothesis is offered:

H2b: Complexity has a positive effect on Implementation E-Commerce.

The moderating effect of Trust

Trust, in company refers to trust and reliability of business partners. It exists when one party strongly believes in the reliability and integrity of its trading partners. (Alsaad, et al. 2017).

Furthermore, Li, & Karahanna, (2015) discussed the implementation of e-commerce in the concept of e-commerce and how it works in the company and make the process easy and suitable for the market followed by the difference between types of e-commerce in terms of resource processes which involves considerable investment and motivation to invest in e-commerce, only if there is a substantial degree of trust with a trading partner. Thus based on the above literature, the following hypothesis is offered:

H3a: Trust significantly moderates the relationship between organization readiness has a positive effect on Implementation E-Commerce.

H3b: Trust significantly moderates the relationship between top management has a positive effect on Implementation E-Commerce.

H3c: Trust significantly moderates the relationship between compatibility has a positive effect on Implementation E-Commerce.

H3d: Trust significantly moderates the relationship between complexity has a positive effect on Implementation E-Commerce.

III. PROPOSED RESEARCH FRAMEWORK

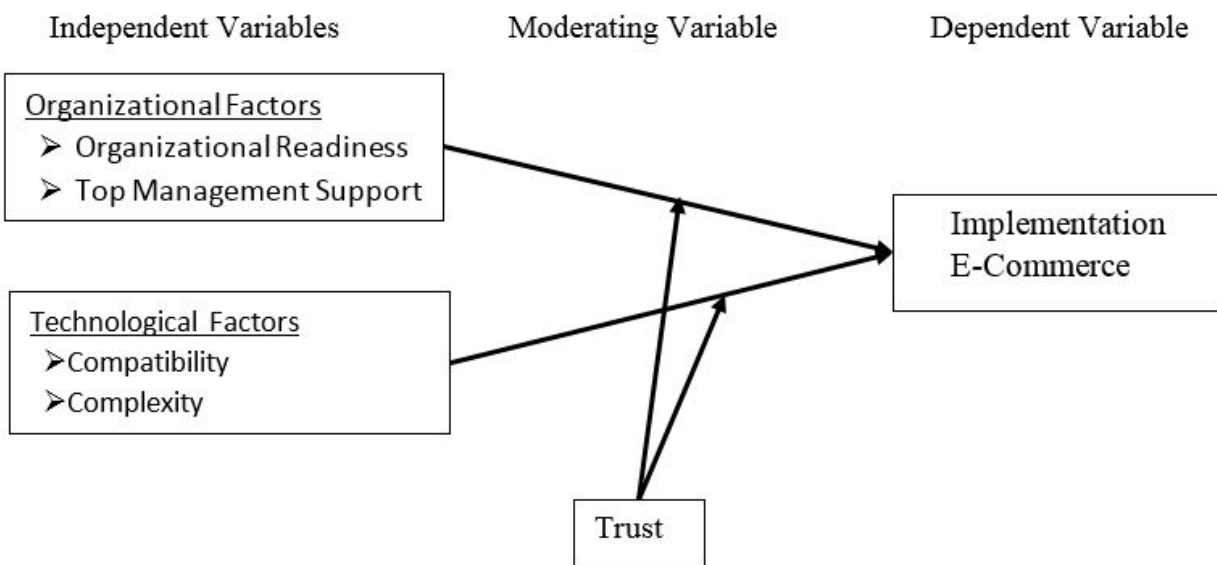
Research design	Cross-sectional quantitative design
Population of interest	Arabic investors in Malaysia
Sampling list	215 Arabic investors in Malaysia
Determination of sample size	<ul style="list-style-type: none"> ▪ Used Yamane's (1967) formula: $n = N / (1 + N * e^2)$ ▪ Minimum sample needed: 203
Sampling techniques	Simple random sampling

Data collection tool	self-administrated
Data analysis tool	SPSS, Smart PLS version 3.0
Reliability & validity	Tested in pilot study and measurement model
Hypotheses testing	Assessment of Structural model

The aim of this study is to investigate the relationship between the factors of its independent variables technological factors (compatibility and complexity) and organizational factors (organizational readiness and top management support), trust as a moderating variable and its dependent variable; implementation of e-commerce.

Several theories are available to explain why and how this blue ocean strategy is the simultaneous pursuit of differentiation and is at a low cost to open a new market and create a brand new demand. It is about creating and acquiring an undisputed market space, making competition irrelevant. Furthermore, the blue ocean strategy brings the role of relationship context as an important factor affecting the adoption of a new technology (Wierenga, & Van der Lans, 2017; Qin, Chang, Li, & Li, 2014; Palacios-Marqués, Soto-Acosta, & Merigó, 2015). Using those theoretical lenses, suggests a wide range of factors affecting the adoption behavior. Thus, to determine the relevant antecedents, this study focuses only on factors that are well established with new market strategy by implementing e-commerce.

Figure 3.2 depicts the proposed framework:



IV. HYPOTHESIS TESTING RESULTS

	Hypothesis	Path		Standard	Effect	Decision
		coefficient	p value	Error	size	
H _{1a}	OR -> ICO	0.38	p < 0.01	0.048	0.145	Sig.
H _{1b}	TOS -> ICO	0.19	p < 0.01	0.049	0.037	Sig.
H _{2a}	COMPATIBILITY(COM)-> ICO	0.23	p < 0.01	0.049	0.051	Sig.
H _{2b}	COMPLEXITY(COX)-> ICO	0.23	p < 0.01	0.049	0.051	Sig.
H _{3a}	Moderating effect of TRUST on OR -> I CO	0.08	p = 0.05	0.050	0.014	Sig.
H _{3b}	Moderating effect of TRUST on TOS -> I CO	0.08	p = 0.05	0.050	0.011	Sig.
H _{3c}	Moderating effect of TRUST on COM -> I CO	0.07	p = 0.09	0.050	0.012	Not sig
H _{3d}	Moderating effect of TRUST on COX -> I CO	0.06	p = 0.08	0.050	0.012	Not sig

V. CONCLUSION AND RECOMMENDATIONS

The importance of technological factors (compatibility and complexity), organizational factors (organizational readiness and top management support), trust and implementation of e-commerce. Furthermore, the findings of this study have confirmed that there are relatively small discrepancies of e-commerce. Purchasing side has perceived those variables as less important to drive their intention regarding e-commerce. The result of this study further suggests that organizational readiness and top management support is a significant moderator that explains the insignificant role of Competition Pressure.

Furthermore, the results also suggest that managers of e-commerce relationships should focus their attention on the nature of the relationship with their supply chain partners, when planning to implement e-commerce, the marketing side should realize that business customers are more affected by characteristics of the relationship. Moreover, as dependency increases the influence of adoption Complexity on the purchasing side, managers on the marketing side should provide incentives and encouragements to their business customers in order to minimize the Complexity.

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