

***ADOPT E-COMMERCE BY USING THE BLUE OCEAN
STRATEGY CASE STUDY AMONG MALAYSIANS
MANAGERS of SMES***

***1Hadher Sabah Shair,
2 Talha Kawan Salim,
3Ossama Mohammed Abed***

***hadthers@tu.edu.iq talha.kawan@tu.edu.iq ossama-
980@tu.edu.iq***

***Faculty of Administration and Economics/ Tikrit University /
Iraq***

***تبنى التجارة الالكترونية باستخدام استراتيجية المحيط الازرق / حالة دراسة لمديري
الشركات الصغيرة والمتوسطة في ماليزيا***

***م. حاضر صباح شعير
جامعة تكريت- كلية الادارة والاقتصاد***

hadthers@tu.edu.iq

***م.م. طلحة كوان سالم
جامعة تكريت- كلية الادارة والاقتصاد***

talha.kawan@tu.edu.iq

***م.م. اسامة محمد عبد
جامعة تكريت- كلية طب الاسنان***

ossama-980@tu.edu.iq

The study investigate the using the Blue Ocean to adopt E-commerce in Malaysians SMEs. The research focused on SMEs because of the importance of SMEs in the economy and the high percentage of them in the Malaysian business population. The present study examined the moderating variable dependency on the relationship between independent variables, technological factors (relative advantage, compatibility, and complexity) and environmental factors, (competition pressure) with blue ocean strategy to adopt e-commerce in SMEs. Furthermore, the study use RBV theory and blue ocean strategy. This study used a 220 questionnaires among managers, then analyzed by unit of analyses using the Partial Least Squares approach (PLS). However, Findings showed that each independent variable had mixed results on adopt E-commerce in Malaysians SMEs. This study contributed to the flow of RBV and provided important contributions for practitioners in developing policies and strategies for business success among managers to adopt E-commerce in Malaysians SMEs.

Keywords: Technological Factors, Relative Advantage, Compatibility, Complexity, Environmental Factors, Competition Pressure, Dependency Adopt E-Commerce.

1.1 INTRODUCTION

In 21st century, it is obvious that businesses tend to have been more responsive and careful about the actions of rivals especially in the global environment in Malaysians E-commerce in SMEs have the potential adopters will perform an explicit or implicit cost analysis. Furthermore, a considerable literature examines the influence of Relative Advantage on adoption behavior Despite the soundness of the "Relative Advantage" as important IS adoption indicator (Hwang, Al-Arabi, Shin, & Lee, 2016), research results on the effect of innovation are mixed results regarding influence of Relative Advantage variable.

Economists believe that the existing technologies in organizations is product of adopting of innovations that provide new benefits and critical advantages (Liu, 2017). In 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 (Agnihotri, 2016; Wierenga, & Van der Lans, 2017; Hsiao, & Chen, 2015). Innovation researchers use Compatibility concept to reflect the degree of fit between different organization components and an innovation. Rogers offers one of the earliest definitions of Compatibility. He defines it as the degree to which using an innovation is perceived as consistent with the existing sociocultural values and beliefs, past and present experiences, and needs of potential adopters (Laudon, & Traver, 2016; Kirman, 2017; Kim, & Peterson, 2017).

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 (Rogers, 2003; Aulkemeier, Schramm, Iacob, & Van Hillegersberg, 2016). Perceived ease of use and perceived Complexity are used interchangeably in e-commerce adoption literature (Ocloo, Xuhua, Akaba, Addai, Worwui-Brown, & Spio-Kwofie, 2018). In addition, complex innovation such as E-C requires not only technological adjustments. IS researchers have found many variables in organizational environment that influence the decision to adopt E-C In this literature review, the list of factors has been identified. The focus of this study will only be on Competition Pressure because it is consistently found to discriminate between adopters and non-adopters of information system (Qin, Chang, Li, & Li, 2014). However, based on the previous study and findings the current study put forth a research framework which examined the independent variables, technological factors (relative advantage, compatibility, complexity) and environmental factors, (competition pressure) moderating variable dependency with blue ocean strategy to adopt e-commerce.

1.2 Study Questions

- 1 What is the relationship between technological factors (relative advantage, compatibility and complexity) on adopt E-Commerce?
- 2 Is there influence in the relationship between environmental factors, (competition pressure) on adopt E-Commerce?
- 3 Does dependency moderate the relationship between technological factors (relative advantage, compatibility and complexity) on adopt E-Commerce?
- 4 Does dependency moderate the relationship between environmental factors, (competition pressure) on adopt E-Commerce?

2.1 TECHNOLOGICAL FACTORS

2.1.1 RELATIVE ADVANTAGE

In this stream, researchers emphasized that adoption behavior sometimes responds to the external environment pressure. This pressure makes the top management anxious of being perceived as having lagged behind (Jamali, Marthandan, Khazaei, Samadi, & Fie, 2015). Accordingly, the adoption decision will be a product of institutional pressures rather than product of a rational assessment that focuses on innovation advantages (Alsaad, Mohamad, & Ismail, 2017; Awa, Ojiabo, & Emecheta, 2015).

In addition, researchers also suggest that the influence of this factor is important but it is insufficient in itself to determine the adoption behavior (Alsaad, Mohamad, & Ismail, 2018). They proclaim that technology is a reflection of the existing relationship between organizations. In this manner, the characteristics of this relationship will play a predominant role not only on the adoption decision, but also on the relevance of other factors.

In summary, Relative Advantage was the main construct in several adoption theories. It has significant influence on innovation adoption. Because E-C adoption is an organizational-level decision executed in an inter-organizational context, Relative Advantage alone cannot explain the adoption of E-C Thus, the researcher shaped the following hypothesis:

H1: Relative advantage (RA) significantly influences on adopt e-commerce.

2.1.2 COMPATIBILITY

In understanding the relevance of Compatibility on adoption decision. Researchers attempt to find an explanation for these unexpected results. For example, scholars proclaim that the influence of Compatibility play a different role in different adoption stages (Palacios-Marqués, Soto-Acosta, & Merigó, 2015; Aulkemeier, et al., 2016; Qin, et al., 2019). For example, Alsaad, et al., (2017) argue that Compatibility may have greater influence in the initial adoption stage rather than in the implementation stage. They claim that potential adopters in the initiation and adoption stages made necessary adjustments to adopt an innovation. As a result, Compatibility issues are resolved in those stages and the need for Compatibility in the implementation stage will only be a minor concern. (Agnihotri, 2016; Wierenga, & Van der Lans, 2017; Hsiao, & Chen, 2015; Laudon, & Traver, 2016; Kirman, 017), contend that the reason behind this result could be attributed to the high level of internet infrastructure in the study context (Singapore).

In summary, Compatibility has a significant influence on adoption behavior. The inconsistent results about its influence, however, increase the need to examine some contingencies that may change the relevance of this factor. Very few studies have examined the moderating effect of relationship characteristics between Compatibility and the adoption of E-C Thus, the researcher shaped the following hypothesis:

H2: Compatibility (COM) significantly influences on adopt e-commerce.

2.1.3 COMPLEXITY

Researchers attempt to provide an explanation for these unexpected results. Laudon, & Traver, (2016); Kirman, (2017), argue that perceived Complexity has less influence on the adoption decision given that internet technologies are easier to understand and implement compared to traditional EDI systems. On the other hand, researchers have investigated firms' migration from traditional EDI to web-based IOS. They confirm that Complexity is an important element for this migration (Gutierrez, Boukrami, & Lumsden, 2015). Thus, the researcher shaped the following hypothesis:

H3: Complexity (COX) significantly influences on adopt e-commerce

2.2 ENVIRONMENTAL FACTORS

2.2.1 COMPETITION PRESSURE

Other environmental factors such as government support and institutional pressures are excluded from this study because they are not important in Jordanian settings. Accordingly, competition has been found to be an important driver of e-commerce adoption (Agnihotri, 2016; Wierenga, & Van der Lans, 2017; Hsiao, & Chen, 2015; Laudon, & Traver, 2016; Kirman, 2017; Kim, & Peterson, 2017; Hwang, et al., 2016; Liu, 2017; Ocloo, et al., 2018). Despite of this, recent studies show that competitive pressure has different influence on different adoption stages. In sum, due to contradictory results in prior research, it is not easy

to draw conclusion about the role of competition. Most of prior studies focus on how Competition motivates innovation adoption but without considering co-adoption attribute of e-commerce technology. In such case, relationship characteristics dependency could direct the role of competition Thus, the researcher shaped the following hypothesis:

H4: Competition pressure (CP) significantly influences on adopt e-commerce

2.3 THE MODERATING ROLE OF PERCEIVE DEPENDENCY (PD)

In context of EC, it has been suggested that unfavorable relationships often exist among trading partners (Zaefarian, Forkmann, Mitreğa, & Henneberg, 2017; Ipsen, Gish, & Poulsen, 2015). They have different interest and perception about adoption of E-C making the decision to adopt difficult to be achieve (Lee, Shiue, & Chen, 2016; Oliveira, Alinho, Rita, & Dhillon, 2017; Zhang, Zhu, & Wu, 2016). Scholars suggest that to resolve the conflicting issue in adoption decision, potential adopter should use his power to do so successfully. In this manner, the dependent firm will not be able to do that, while the powerful firm (the less dependent one), which is, by definition, in a better position to induce its desired on the dependent party. Therefore, several studies found partner dependence and its counterparty partner power significantly affect the adoption of E-C (Kurnia, Choudrie, Mahbubur, & Alzougool, 2015; Soto-Acosta, Popa, & Palacios-Marqués, 2016).

In the same vein, the effect of power and dependency on the adoption decision has been investigated using different theoretical lens. Researchers have used the lens of Resources Dependency theory, Institutional theory or Stakeholder theory (Gutierrez, et al., 2015; Ipsen, et al., 2015; Lee, et al., 2016; Oliveira, et al., 2017; Zhang et al., 2016). The main rationale in all of these lens corresponds to argument of resource dependency theory.

Institutional theory used the concept of 'coercive pressure' to examine the influence of powerful party on the firm decision (Kurnia, et al., 2015). This concept is interrelated with theoretical assumption that an innovation (i.e. e-commerce) is the best way of conducting business in organizational environment (Soto-Acosta, et al., 2016). Therefore, researchers find that the influence of coercive pressure will take place only in the later stage of the innovation life cycle where the number of adopters is high (Aulkemeier, et al., 2016; Qin, et al., 2019).

In another respect, researchers apply Resource Dependency theory to investigate power or power exercise on adoption decision. Many studies have found the influence of power exercise on decision to adopt E-C consistent with the reasoning of this theory. In contrast, others found insignificant and even negative relationships between the power exercised and E-C adoption (Alsaad, et al., 2017).

Son et al. (2005) argue that exercising power could work well only in the early adoption stages when the powerful firm asks the target firm to accept the idea of E-C or to adopt the minimum requirement of EC. By contrast, exercising power would not be an appropriate strategy in increasing the level of usage (Son et al., 2005). The use of power in usage stage may create conflict between trading partners which, in result, increases the level of the focal firm's resistance (Kurnia, et al., 2015).

To conclude, it is important to point out that previous research investigating the relationship between dependency (power) and adoption is somewhat scarce and generally suffers from several limitations (Soto-Acosta, et al., 2016). The majority of publications focus on the direct relationship between dependency and adoption while the contingency role of power is mostly ignored in the literature. Thus, additional research is required to shed more understanding about this issue. Thus based on the above literature, the following hypothesis is offered:

H5: *dependency significantly moderates the relationship between relative advantage has a positive effect on adopt e-commerce.*

H6: *dependency significantly moderates the relationship between compatibility has a positive effect on adopt e-commerce.*

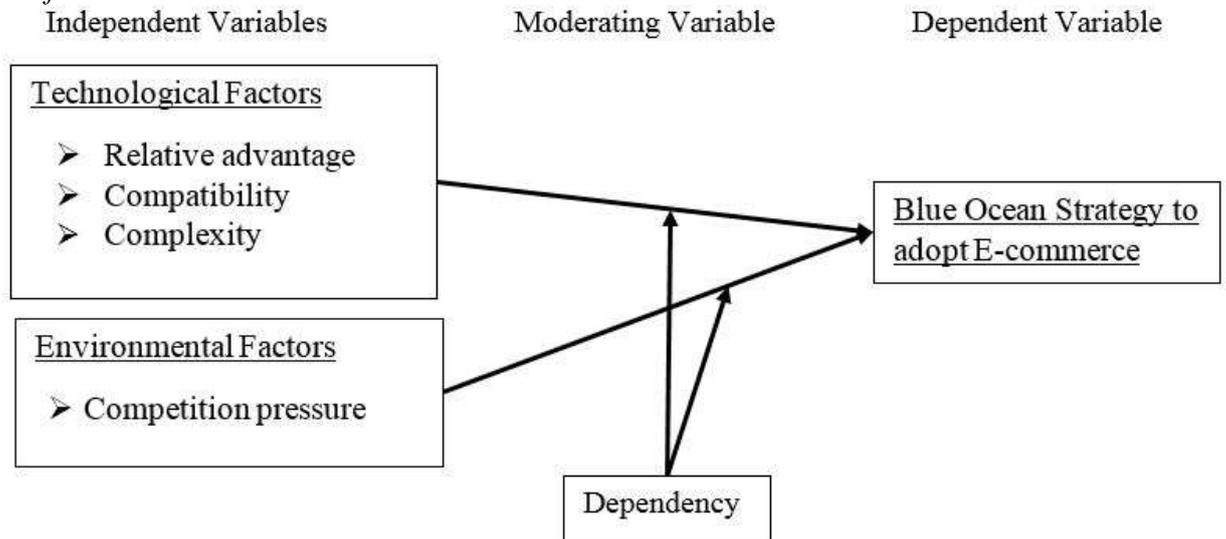
H7: *dependency significantly moderates the relationship between complexity has a positive effect on adopt e-commerce.*

H8: *dependency significantly moderates the relationship between competition pressure has a positive effect on adopt e-commerce.*

3.1 RESEARCH FRAMEWORK

The aim of the study to examined dependency moderating role between independent variables, technological factors (relative advantage, compatibility, complexity) and environmental factors, (competition pressure)

with blue ocean strategy to adopt e-commerce. Furthermore, several theories are available to explain why and how this (RBV) and blue ocean strategy is the simultaneous pursuit of differentiation and low cost to open a new market and create new demand. It is about creating and acquiring an undisputed market space, making competition irrelevant. Furthermore, blue ocean strategy brings the role of relationship context as an important factor affecting the adoption of a new technology (Kurnia, Choudrie, Mahbubur, & Alzougool, 2015). Thus, to determine the relevant antecedents, this study focused only on factors that are well established new market strategy by implementing e-commerce. Figure 2.1 depicts the proposed framework



3.2 RESEARCH METHODOLOGY

| | |
|------------------------------|--|
| Research design | Cross-sectional quantitative design |
| Population of interest | SMEs managers in Malaysia |
| Sampling list | 220 managers in Malaysia |
| Determination of sample size | <ul style="list-style-type: none"> ▪ Used Yamane's (1967) formula: $n = N / (1 + N * e^2)$ <ul style="list-style-type: none"> ▪ Minimum sample needed: 200 |
| 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 |

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

5.1 CONCLUSION

Businesses in Malaysia are becoming more attracted to embrace e-commerce (Chen & Holsapple, 2013). Thus, it is becoming necessary to understand the rationale that motivates them to invest in such technologies. It is imperative for managers and policy makers to be aware of the several determinants that influence the adoption. Therefore, this study sought to understand and to identify the factors that are critical to organizations in their decision regarding the adoption of e-commerce. This understanding will lead to meaningful and practical guidelines for adopting and practicing e-commerce.

In terms of contribution to the existing body of knowledge, this study adds to both, theory and practice. With regards to the theoretical contribution, this study identifies interacting effect dependency as moderate the role with independent variables, technological factors and environmental factors in explaining the adopt of E-commerce in Malaysians SMEs. Thus, the result shows independent variables, technological factors (relative advantage, compatibility, complexity) and environmental factors, (competition pressure) the direct relationship significantly influences adopt e-commerce in Malaysians SMEs, furthermore the moderating variable dependency was significant relative advantage and compatibility. On the other hand, the moderating dependency did not support the relationship complexity and competition pressure with adopt of E-commerce in Malaysians SMEs. However, this study used some assumptions of RBV and Blue Ocean Strategy. In term of the practical contributions, this study provided important decision makers and change agents, especially in the in Malaysians SMEs.

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