

The Factors Influencing Successful Implementation of E-Commerce within SMEs Businesses

Supattra Kanchanopast

Abstract—The purpose of this research was to identify factors that influenced the success of e-commerce implementation within SMEs businesses. In order to achieve the objectives of this research, the researcher collected data from random firms in Thailand, both the users and those who are not using the e-commerce. The data was comprised of the results of 310 questionnaires, as well as 10 interviews with owner/managers of businesses who are currently using e-commerce successfully. The data were analyzed by using descriptive statistics, which included frequency, percentages, mean, and the standard deviation of pertinent factors. Independent t-test and one-way ANOVA test were also used. The findings of this research revealed that 50% of all the firms surveyed had e-commerce website, whereas, over 20% of all firms surveyed had developing an e-commerce strategy. The result findings also indicate that organizational factors, technological factors and environment factors as significant factors effecting success of e-commerce implementation in SMEs. From the hypotheses testing, the findings revealed that the different level of support us e-commerce by owner/manager had different success in e-commerce implementation. Moreover, the difference in e-commerce management approach affected the success in terms of higher total sales for the business or higher number of retained or returning customers.

Keyword—Electronic commerce, Implementation of E-Commerce, small and medium sized enterprises, SMEs, Website, success factors.

I. INTRODUCTION

SMALL and medium-sized enterprises (SMEs) are important on economic growth in developing countries, which include Thailand. In 2013, SMEs in Thailand contributed over 37 percent of Gross Domestic Product or GDP and generated employment 80.4 percent of the country's total employment [1]. However, the economic, political and social changes of the world have been affected the management of Thai SMEs. Moreover, economic integration and trade liberalization cause higher competition of Thai SMEs. As a result, SMEs take advantage from the rich natural resources, high labor skills and also can produce low cost product. In the past, it faced serious competitive situation because the competitors have lower labor costs and more resources create new competitors. In order to be able to survive under very close competition and can take advantages for customer retention. Therefore, entrepreneurs in Thai SMEs need to develop new business strategy to solve these problems and it might also generate new business opportunities. However, one of the most important constrain of Thai SMEs has limited funds for investment and for working capital.

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Then, the best strategy should reduce the cost in entering new market; find potential customers, customer retention [2]. Another way is to take an advantage in product design, supply and inventory management, production and distribution, sales and marketing, and customer service. Further, it needs to offer the customers greater flexibility in terms of places and times of access. Thus, the previously mentioned benefit could be really driven from the Internet. The Internet can be used to support many of business activities, from business communications to electronic commerce [3].

Electronic commerce commonly known as E-commerce which is conducting business over the internet and it is also refers to buying and selling goods and services. Transferring funds digitally, and facilitating the transaction of business activities between and among businesses, individuals, governments or other organizations [4]. E-commerce also can give a lot of benefits to business organizations especially in terms of cost reduction and reaching global market. Thus, e-commerce is an important strategy that Thai government has been pushing SMEs to reinforce competitiveness, and create competitive advantage that can be seen from the 2nd Thailand Information and Communication Technology Master Plan (2009–2013), in terms of the development strategy (Strategy 6) has mentioned to use ICT to build sustainable competitiveness for Thai industries. This strategy would emphasis about to help many sectors in Thailand, to gain comparative advantages and potentials, to compete competitiveness including SMEs. Moreover, according to the statics of internet usage around the world with the rapid growth of internet users has estimated more than 2,712 million [5]. However, in the other hand, Thailand also has to maintain from 25 million of internet users in 2012 to 26 million in 2013 [6]. So, operating business via the Internet would be able to earn more customers, and income for entrepreneurs because e-commerce helps improve efficiency, reduce costs such as marketing cost, inventory management costs, labor costs, and advertising costs etc., and so easy to reach to a lot of consumer worldwide and available to every place, at any time.

Although, the Department of Business Development, Ministry of Commerce and Thai Electronic Commerce Association tried to push Thai SMEs to do business via the Internet including e-commerce, SMEs were still at the initial implementation phase of e-commerce, the failure rate was so high because of the majority entrepreneurs neglected to focus on success factors. There are many critical success factors in e-commerce implementation, such as entrepreneur readiness, technology and electronic commerce specialist, the adequacy of the operational cost, etc. [7]; these are important factors that entrepreneurs SMEs had to consider. Therefore, studying

factors that influenced the success of e-commerce implementation within SMEs to help entrepreneurs be able to use the findings as a guide, to prepare and planning for e-commerce implementation, which may be able to enhance more opportunities to succeed, and higher competitive advantage for SMEs.

II. METHODOLOGY

The Research Hypotheses were: 1) Difference organizational factors have different success of e-commerce implementation within SMEs businesses. 2) Technological factors have different success of e-commerce implementation within SMEs businesses 3) Environmental Factors have different success of e-commerce implementation within SMEs businesses.

The research framework used in this paper is based on the IS Framework (TOE) of Tornatzky and Fleischer (1990) [8].

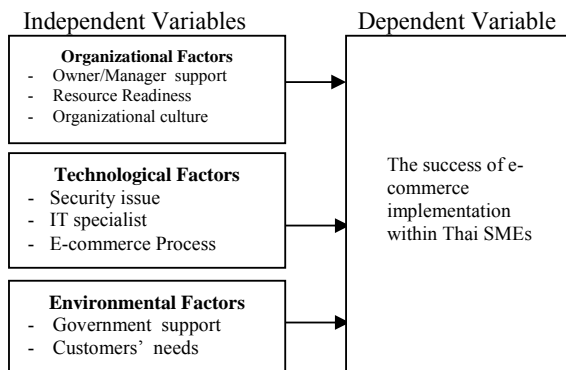


Fig. 1 Conceptual Framework

In order to achieve the objectives of this research, the data for this research was collected in April and May 2013 with the help of a questionnaire survey distributed to all 400 SMEs businesses in Bangkok, the capital of Thailand, both using and not using e-commerce. From 400 questionnaires handed to the owner/manager of businesses, 310 usable questionnaires were returned, a response rate of 77.5 percent. In addition, the data was also comprised of the results of 10 depth interviews with owner/managers of SMEs businesses who are currently using e-commerce successfully. In this study, quota sampling and convenient sampling were used to portion samples of SMEs businesses as shown in Table I.

TABLE I
NUMBER OF SAMPLES

Characteristics of SMEs	Number of sampling (set)	Percent (%)
1 Use Ecommerce website	155	50
2 Not use Ecommerce website but had developing the strategy	65	21
3 Not use Ecommerce website and hadn't developed the strategy	90	29
Total	310	100

III. FINDINGS

The findings of this research revealed that the majority of the respondents were male between 35-44 years old, with an undergraduate degree. In terms of firm characteristic, the majority of respondents were the owner of small retail businesses that has operated more than 5 years, had 1-2 computers and connected to the Internet. Furthermore in e-commerce implementation, 50% of all the firms surveyed had e-commerce website, had implementing between 3-5 years and generally have medium success in implementation of e-commerce, whereas, over 20% of all firms surveyed had developing an e-commerce strategy. Also, the findings indicated that the success of e-commerce implementation within Thai SMEs was influenced by three significant factors, were organizational factors, technological factors, and environmental factors.

The hypotheses testing results disclosed that different organizational factors in term of the support from owner/manager, the readiness of resources and organizational culture; had different success in e-commerce implementation within Thai SMEs at the statistical significance at 0.05. Also, different technological factors include security issue, IT specialist and e-commerce processes; had difference the success within Thai SMEs. In addition, difference environmental factors considered included government support and customers' needs also had difference success the statistical significance at 0.05.

IV. DISCUSSION

The results of this research indicate that the respondents agree on the success factors with influence SMEs to implement e-commerce. The influencing factors are:

1. The effect of success factors on e-commerce implementation within Thai SMEs in term of the organizational factors showed that owner/manager support is very important because they would lead to allocate of right expenditure and budget spending for e-commerce implementation within SMEs businesses, this is consistent with Alemayehu Molla assertion that e-commerce projects that supported by top management are likely to be successful [9]. Resource readiness is also a crucial issue, especially, financial, human and technology are necessary for SMEs to implement e-commerce and build the opportunity to succeed according to Volkan Cosgun & Ozgur Dogerlioglu, indicate that financial resources as significant factors effecting success of e-commerce in SMEs [10] and Hongda Lu state that human resource has great influence upon the e-commerce development process all the time [11] so, SMEs businesses must handle this important factors well and also have enough human resource reserve and edge-cutting technologies. Furthermore, organizational culture also played important role to succeed, because it is belief, habits, behavior, regulations acquired by an individual as a member of a community, therefore, cultural problems about resistance to e-commerce within SMEs businesses

may factor as an obstacle to the implementation of E-commerce. On the other hand, e-commerce acceptance, benefit awareness of owner and employees within SMEs businesses would lead to more success. The result of this study concurred with the findings of Harrington & Guimaraes found that role of organizational culture was to absorb the success of the capacity and information technology implementation [12].

2. The overall technological factors had affected on success of e-commerce implementation within Thai SMEs. The technological factors included security issue, IT expert and e-commerce process played important role in influenced on the success of e-commerce implementation. Technology comes with a risk which may lead to unintended shared private information or transferred financial transaction; therefore, the security of e-commerce is a serious aspect of the ongoing success. Likewise, IT specialist, who builds and supports e-commerce website, run computer networks, grant users access to databases and systems including, greater pay attention for security; is important success factor for e-commerce implementation within SMEs. Moreover, the security of e-commerce is very easier managed in case SMEs has IT specialist. Another success factors of technological dimension is e-commerce process which linked both an offline and an online, such as order fulfillment, payment channel, delivery, customer relationship etc., would motivate customer, trust on e-commerce and get customer willing to purchase more, that these aspects coincided with Debajyoti Mukhopadhyay & Sangeeta Mishra confirmed that security is a major issue in developing e-commerce because this is probably the most important reason people hesitates to buy things on the Net [13].
3. In context of the environmental factors including, government support in term of policies, law, nation infrastructure, educational/training program etc., would plays a significant role in encouraging e-commerce implementation within SMEs because its can initial motivate entrepreneurs to invest on e-commerce implementation and persuade customer to trust on e-commerce protection and would lead to customer perceptions concerning the value of buying product/services on e-commerce, these is very essential for success of e-commerce implementation within SMEs. Also, dimensions of customer needs that may be targeted by e-commerce include timeliness, accessibility, quality of service are very important for success of e-commerce within SMEs because customers' needs are fundamental factors to pursue customer to visit e-commerce website and sell products/services on e-commerce effectively, as that according to Jumayah Abdulaziz Mohammed, Mahmoud Khalid Almsafir & Ahmad Salih Mheidi Alnaser found that customers' need are expected to affect the adoption of e-commerce [14].

V. RECOMMENDATION

1. The research would suggest that in order for Thai SMEs to be successful in e-commerce they should have a high level of awareness about customers' needs. Although customer is essential for all businesses, e-commerce loses the personal touch of SMEs business. Therefore, it is better at reaching a larger audience and all e-commerce activities; product presentation, marketing strategy, payment method, delivery channel etc., should attract customers and serve customer needs; to purchase products or services in order to bring in money to the SMEs and lead to success in term of, sale volume and customer retention.
2. The information from summary executive of OSMEP identified that there is currently around 2 million SMEs operation in Thailand which suggests that they will play a significant role in developing the economy of the country for many years. One factor that can affect this, that effect all companies involved is government. With government support and consistent policies, protecting the consumers through better education and law, e-commerce for SME businesses will aid in the growth of Thai economy. Moreover, Thai SMEs need to support from governments in order to improve their capacities and competencies of e-commerce implementation for responding to ASEAN and globalization challenges.

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