

The Adoption Factors of E-CRM in Service Sector of Thai SMEs

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Abstract: This paper presents a conceptual model and propositions for identifying the Small and Medium Enterprises (SMEs) factors of e-CRM adoption for improving SMEs benefits and their performances especially in service sector of SMEs. Specifically, this examines and explains the relationships among technology factors on e-CRM adoption; organization factors on e-CRM adoption; external factors or environment factors on e-CRM adoption and the relationships between SME perceive benefits on e-CRM adoption and SME performance which is the goal of adoption of e-CRM in SMEs in order to enhance of the SMEs performance. Suggestions for future research and empirical testing of propositions are offered.

Keyword : e-CRM adoption, SME, TOE framework, DOI theory

1. Introduction

While the customer is important in current dynamic market, their demands are increasing and changing every day, therefore, the company is rapidly forced to shift their focus from “mass production” to “mass customization”, this is to resolve customer concerns or offer the customer with the right mix of products at the right approach. Basically, acquiring the new customer is a key considering of the most company; however retaining existing customer is one of important factor to drive the success of company. Furthermore, the cost associated with finding new customers mean that every existing customer could be important and its cost is more than 5 or 6 times of retaining existing customers [17], [20].

In today competitive, electronic Customer relationship management (e-CRM) Solution is brought into many business industrial, this is to help gaining an insight into the behavior of their customers, helping business to understand the value of the customer, and make changed the way companies approach the relationships with their customers. Consequently with Gartner research (2009), worldwide e-CRM market revenue totaled \$ 9.15 billion in 2008 which a 12.5 percent increase from 2007. And more the enterprise investment policy is focused on customer oriented. Moreover, another research from a Springboard Research Advisory (2009) confirms that e-CRM market also continue with increasing growth rate during 2008 to 2012. However, there are some limitations for implementing that solution into a small and medium size of business, for example Small and Medium Enterprises (SMEs). The cost of e-CRM is extremely high as well as the learning skills of people must be able to handle such a tool. Therefore, SME is denied to use the e-CRM in their business while they still need to build and keep a good relationship with their customers; therefore, they are required to utilize the electronic Customer Relationship Management (e-CRM) solution to analyze the customer base. Due to, there are many limitations in small and medium firms, for example capital investment, skill of management and personals. Hence, this study will explore in this following questions;

1. What are the factors in e-CRM adoption in service sector of Thai SMEs?
2. What are the readiness levels of e-CRM adoption in service sector of Thai SMEs?

The objectives of the study of Electronic - Customer Relationship Management (e-CRM) Adoption in service sector of Thai Small and Medium Enterprises (SMEs) which due to the problem statement above are stated as the following:

1. To identify relevant factors that influence in e-CRM adoption in service sector of Thai SMEs.

2. To investigate the readiness levels for e-CRM adoption in service sector of Thai SMEs .
3. To determine the relationships between relevant factors in e-CRM adoption and level of e-CRM adoption.

2. Literature Reviews

➤ *Electronics Customer Relationship Management (e-CRM)*

Customer Relationship Management (CRM) is one of the marketing concepts that can be used largely. CRM has been defined as an approach for managing customer related knowledge to increase strategic significance. CRM helps build long-term and keep up the customer relationship which are valuable for both business and customer. Lastly, CRM is a corporate strategy that emphasizes creation and maintenance of relationship with its clients [2], [21]. Due to e-CRM (Electronic CRM or Web-base CRM) is defined by Lee et.al, [15] as the marketing tools, activities, and techniques, delivered over the internet (using technologies such as web sites and e-mail, data-collection, warehousing, and mining) with a specific aim to build and maintain long-term customer relationships to enhance their individual potential. E-CRM is a combination of people, processes and technology and seeks to achieve a better understanding of the buyer-seller relationship. E-CRM has evolved from advances in information technology (IT) and organizational changes in customer-focused processes. E-CRM is an integrated approach to managing customer relationships, especially focusing on customer retention and relationship development.

In marketing perspective, e-CRM is presented as a marketing tool that comes in the form of a software application and is used to manage customer relationships on the internet transaction [25]. This research adopts the relatively definition of e-CRM :’e-CRM is the use of internet technologies to facilitate the management of customer relationships’ [5]. From many researches have demonstrated about the benefit of e-CRM implementation. Da-wei [8] study claimed that business can implement e-CRM as an integral part of their business processes for help to create e-loyalty. E-CRM can improve understanding of customer behavior and delivering personal services to make customer loyalty and retention [1]. Finally, Fjermestad and Romano [9] presented that the important benefit of successful e-CRM implementation such as increased customer loyalty, more useful customer information using, producing the suitable campaigns for customer, predicting purchasing behavior and tracking any necessary information.

3. Research Conceptual Model and Propositions

From the literature review, the variable from Technology- Organization - Environment (TOE) framework and Diffusion of Innovation (DOI) theory should be tested among e-CRM adoption factors in Thai SMEs, SME perceive benefit in e-CRM adoption, and their performance. Hence, the research conceptual framework is presented as follows;

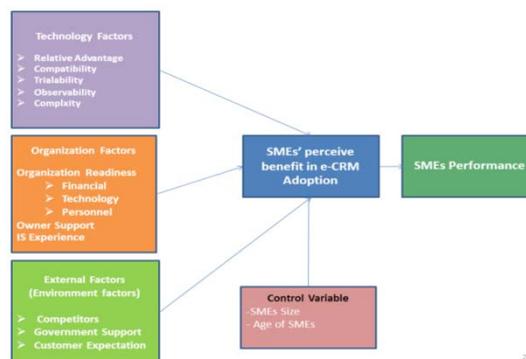


Figure 1: The research conceptual Model

Technology Organization Environment Framework (TOE)

Technology- Organization - Environment (TOE) framework was developed by Tornatzky and Fleischer [28]. The framework can be used in many information technology and information system studies especially to analyse IT and IS adoption by firms. Based on the TOE framework, we stipulate that three aspects may

possibly influence IS adoption: technological context (relative advantage, compatibility, complexity, observability, and trialability) technology and technology integration); organizational context (organization readiness, owner support, and IS experience of SMEs personnel); and environmental context (competitors pressure, government support, and customer expectation).

➤ *Technological Context*

Factors that potentially affect adoption intention of organizations are taken primarily from the innovation diffusion theory. This theory posits that five perceived innovation attributes influence adoption: relative advantage, compatibility, complexity, observability, and trialability. This study assesses the extent to which these five perceived factors of e-CRM adoption can predict the SMEs future performance.

Relative advantage is viewed as an advantage for an organization over previous ways of performing the same task. In view of the advantages that e-CRM offer, it would thus be expected that companies who perceived e-CRM as advantageous would also be likely to adopt the e-CRM. This leads to the first proposition:

P1 : The perceived relative advantage of using e-CRM will be positively related to the perceive benefit in adoption of e-CRM by Thai SMEs.

Compatibility. Tornatzky and Klein [27] found that an innovation is more likely to be adopted when it is compatible with individuals' job responsibility and value system. Compatibility of an innovation with a preceding ideas can either speed up or retard its rate of adoption in the organization. The degree to which innovation meets client needs is another dimension of compatibility of an innovation. Therefore, it is expected that the companies use e-CRM in their business purposes. They perceived the e-CRM as compatible with the SMEs total business procedures, and that the SMEs will adopt e-CRM. Thus, the proposition is:

P2 : The perceived compatibility of using e-CRM will be positively related to the perceive benefit in adoption of e-CRM by Thai SMEs.

Trialability. It becomes an important feature for an innovation because it provides a means for prospective adopters to reduce their uncertainties regarding unfamiliar technologies or products. Hence, the proposition is:

P3 : The perceived trialability of using e-CRM will be positively related to the perceive benefit in adoption of e-CRM by Thai SMEs.

Observability. The results of some of the innovations are easily observed and communicated with others whereas some innovations are difficult to describe to others. Observability is the degree to which the results of an innovation are visible to others. According to Rogers [22], observability in an innovation is an important factor in early adoption of innovation. Mansfield (1968) states that, the rate of reduction of the initial uncertainty regarding the innovations performance affects its rate of diffusion. This leads to the proposition4:

P4 : The perceived observability of using e-CRM will be positively related to the perceive benefit in adoption of e-CRM by Thai SMEs.

Complexity. Previous research has indicated that the adoption of complex innovations requires organizational personnel to possess sufficient operational resources and technical competencies [7]. These resources include adequate computer or IT infrastructure, technical skills among organizational personnel, and training systems which facilitate the installation and maintenance of innovation technologies such as e-commerce [6], [23]. This leads to the proposition 5:

P5 : The perceived complexity of using e-CRM will be positively related to the perceive benefit in adoption of e-CRM by Thai SMEs.

➤ *Organizational Context*

The organisational context represents the factors internal to an organization influencing an innovation adoption and implementation [28]. Some of the organisational factors more cited in the literature are organizational size [13] and organisational structure [14]. The successful adoption and implementation of technological innovations within organisations has been often related to the support of top management [14] or the product champion [26], [14]. Other important factors are organisational readiness [13]. A thorough literature review of factors affecting SMEs IS innovation adoption shows that the most significant factors

include top management support, CEO characteristics [16], [26], employees' IS experience [26], [16], and organization readiness such as financial, information technology, and human resources or SMEs personnel of the firm [13], [28].

Moreover, IT adoption often requires close collaboration and coordination that can be easily achieved in small firms. This study implements firm size and age for control factors. Hence, from above studies lead to these propositions;

P6a : The readiness in financial of SMEs will be positively related to the perceive benefit in adoption of e-CRM by Thai SMEs.

P6b : The readiness in technology of SMEs will be positively related to the perceive benefit in adoption of e-CRM by Thai SMEs.

P6c : The readiness in personnel of SMEs will be positively related to the perceive benefit in adoption of e-CRM by Thai SMEs.

P7 : The SMEs owner support will be positively related to the perceive benefit in adoption of e-CRM by Thai SMEs.

P8 : The SMEs IS experience will be positively related to the perceive benefit in adoption of e-CRM by Thai SMEs.

➤ *Environmental Context*

The external environment is the arena in which an organisation conducts its business. Two major environmental pressures in SMEs' innovation adoption are pressure from trading partners such as suppliers and customers and competitive pressure [13], [14]. Empirical evidence suggests that competitive pressure is a powerful driver of IT adoption and diffusion [10], [12], [13]. One of important factors is the level of government involvement in fostering IS adoption [3], [19]. A thorough literature review shows that significant external factors that might influence SMEs' innovation adoption are competitive pressures, pressure from trading partners such as buyers and suppliers [13], [11], the role of government [24]. Customer expectations can be explained in terms of CRM demand usage. Customers' expectations is that e-CRM should have ease of use, be useful, have supported functions, enable the users to track their transactions and information, and, lastly, be personalized to fit each specific user. Therefore, previous studies lead to these propositions as follow;

P9 : The competitor pressure will be positively related to the perceive benefit in adoption of e-CRM by Thai SMEs.

P10 : The government support will be positively related to the perceive benefit in adoption of e-CRM by Thai SMEs.

P11 : The SMEs customer expectation will be positively related to the perceive benefit in adoption of e-CRM by Thai SMEs.

➤ *SME perceive benefit in e-CRM adoption*

Empirical studies consistently found that perceived benefits have a significant impact in IT adoption [4], [10], [13]. Perceived obstacles are particularly relevant because the adoption process may be complicated and costly [18]. Improved products or services or internal process that are enabled by or related to a subset of IT, namely e-business technologies (Koellinger 2008). This leads to the proposition12:

P12 : The perceive benefit in adoption of e-CRM by Thai SMEs will be positively related their performance .

➤ *Diffusion of Innovation (DOI) theory*

Diffusion of Innovation (DOI) theory is a broad social psychological or sociological theory. This theory is used to explain the patterns of adoption, explain the mechanism and assist in predicting whether and how a new invention will success. According to Rogers [22], diffusion is a process by which an innovation is communicated through certain channels over a period of time among the members of a social system. An innovation is an idea, practice, or object that is perceived as new by an individual or other unit of adoption.

➤ *Previous Studies that used TOE framework combined with DOI theories*

Studies combining the TOE framework and DOI theories include the following. Thong [26] joins CEO characteristics from DOI to the TOE framework. Chong et al. [7] add innovation attributes (relative advantage, compatibility, and complexity) from DOI and an additional new factor in the adoption study called information sharing culture characteristics to the TOE framework. Wang et al. [29] add relative advantage, complexity, and compatibility from DOI to the TOE framework.

4. Conclusion and Discussion

In the framework, four important factors related to the customer who uses E-Commerce are affected customer expectations when using e-CRM in E-Commerce. According to the first variables for testing, which is customer familiarity to E-Commerce usage, any customer who gains high experience or high familiarity in using E-Commerce should have higher expectations to have e-CRM in E-Commerce operating. For the second variable, customer knowledge to the E-Commerce Usage, the customer who knows well in the E-Commerce will have higher expectations to have e-CRM in E-Commerce transactions. Thirdly, the customer participation in E-Commerce transaction explains that when a customer feels that he or she can participate more in E-Commerce functions, the customer will expect more of e-CRM in E-Commerce. Lastly, customer accessibility to E-Commerce transaction means that any customer who can gain access to E-Commerce easily will expect more service from e-CRM in E-Commerce. Finally, the relationship between customer expectations and customer satisfaction showed that for any customers who have high expectations from e-CRM in E-Commerce, firms should provide their e-CRM services in the expected level in order to increase the level of customer satisfaction as well.

5. Future Study and limitation

The opportunities for future research for this paper should continue the empirical research to test the proposition with the sample that can show the related direction of the proposition. The other, to consider in some variable factors that can be adopted for future studies for test the other dimensions and the study should be able to replicate the process in other type of e-commerce such as B2B, B2G or C2C etc. Finally, we encourage this research work will be more beneficial if it is expanded in the future to test the relationships in our suggested model by using the empirical data or other techniques.

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