

THE INTENTION OF THAI CUSTOMERS TO ADOPT RESTAURANT WEBSITES IN BANGKOK

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Abstract

This study aimed to investigate the intention of Thai customers to adopt restaurant websites in Bangkok. Specifically, it aimed to examine the influence of the perception of innovation toward this intention to adopt. The target population of this study was internet users in Bangkok with the sample size totaling 407 respondents. The researcher chose nonprobability sampling method (purposive sampling) in analyzing the data. The results indicate that only the unstandardized regression weights of Trialability and Observability are significantly related to Intention to Adopt; P-values of the two constructs are less than 0.05 & 0.01, respectively. The relationships are positive. However, Relative Advantage, Complexity and Compatibility are not significantly related to Intention to Adopt; their P-values are greater than 0.05.

Key words: innovation, website, perception of innovation, online, adopter

บทคัดย่อ

การวิจัยครั้งนี้มีจุดมุ่งหมายเพื่อศึกษาความตั้งใจของผู้บริโภคในการยอมรับเว็บไซต์ร้านอาหารในกรุงเทพมหานคร โดยเฉพาะอย่างยิ่งมุ่งวิจัยอิทธิพลของการรับรู้นวัตกรรมที่มีผลต่อการยอมรับเว็บไซต์ร้านอาหาร การวิจัยนี้ใช้วิธีสุ่มตัวอย่างแบบเจาะจงได้กลุ่มตัวอย่างจำนวนทั้งสิ้น 407 คน ซึ่งเป็นผู้มีประสบการณ์ในการใช้อินเตอร์เน็ตที่อาศัยในกรุงเทพมหานครจากผลการวิจัยพบว่าปัจจัยที่ทำให้เกิดความตั้งใจในการยอมรับเว็บไซต์ร้านอาหารของผู้บริโภคในกรุงเทพมหานคร คือการสามารถนำไปทดลองใช้ได้ (Trialability) และการสามารถสังเกตเห็นผลได้งาย (Observability) ซึ่งทั้งสองปัจจัยมีอิทธิพลต่อความตั้งใจในการยอมรับเว็บไซต์ร้านอาหารที่ระดับนัยสำคัญทางสถิติที่ระดับ 0.05 และ 0.01 ตามลำดับ

คำสำคัญ: นวัตกรรม, เว็บไซต์, มุมมองด้านนวัตกรรม, ออนไลน์, ผู้ตอบรับนวัตกรรม

INTRODUCTION

The Institute for Small and Medium Enterprises Development (ISMED) reported that many of the small medium enterprises (SMEs) are dealing with insufficient resources in running their businesses such as the needed business knowledge, enough funding, manpower, technological skills and management skills (ISMED, 2012). Thus, many industries try to cut down unnecessary expenses by looking for new alternative tools such as the internet. It is undeniable that using websites in boosting up a business poses several advantages to business operators. This is especially true in terms of its advertising, publicity and promotion. With attractive web design, customers are attracted

to visit the virtual restaurant and order food from there in the convenience of their home. However, to attract consumers to visit the restaurant websites is not simple. The perception of innovation also plays an important role towards the intention of Thai customers to adopt restaurant websites in Bangkok.

LITERATURE REVIEW

Innovation

According to Grewal and Levy (2010) innovation is the process by which ideas are adapted into new products and services that will help firms

grow. If firms want to increase sales, they can venture into two possible choices, which are to continue to market current products to current customers, technically called, market penetration or they can take the same product to another market with similar customer which is called market development. This is where innovation can take place, since the firms have to consider some changes to the product to suit the needs of the new market (Grewal & Levy, 2010).

Diffusion of Innovation

The process by which the use of an innovation, whether for a product or for a service, spread throughout a market over time and over various categories of adopters, is referred to as diffusion of innovation. The theory surrounding diffusion of innovation helps marketers understand the rate at which consumers are likely to adopt a new product or service. It also gives them a means to identify potential markets for their new products or services and predict their potential sales, even before they introduce the innovations. This theory was first published by Everett M. Rogers in 1962. These adopters can be divided into five groups namely the innovators, early adopters, early majority, late majority and laggards (Grewal & Levy, 2010).

Perception of Innovation

Rogers (1962) claimed that the rate of adoption of an innovation categorically depends on how its characteristics are perceived in terms of its relative advantage, compatibility, complexity, trialability, and observability. Relative advantage means that if a product is perceived to be better than substitutes then the diffusion will be relatively quick, while compatibility refers to the occasion when the product or service closely matches the individual's needs, the innovation can be considered highly compatible with the consumer. On the other hand, complexity means that if the innovation has a high level of complexity, it will have a lower level of adoption. Trialability occurs if customers have a chance to try new product or service before the actual buying the product adoption rates will rise substantially. Finally, observability means the more positive effects are observed, the higher effects this will bring to the consumers

(Grewal & Levy, 2010).

In the study conducted by Xu and Quaddus (2010) as cited in Chaffey (2010), they found that relative advantage is perceived to be a benefit if a company decides to go through e-commerce adoption. Compatibility on the other hand, is assumed as the range of innovation that is perceived as consequent with existing benefits, past experiences and needs of potential adopters. Thus, they claimed that business processes and adaptation of new technologies are compatible. Complexity is another technological factor which illustrates the degree to which an innovation is perceived as comparatively difficult to understand and use. As Xu and Quaddus (2010) in Chaffey (2010) reiterated the perceived complexity of e-commerce applications limit the possibility of adoption.

However, Hsu et al. (2007) found that compatibility plays a role in Multimedia Messaging Service (MMS) adoption for the early-majority and late-majority groups but not for innovators and early-adopters. The perceptions of trialability, measured for four groups, were also found to be not meaningful predictors of adoption intention (Hsu et al., 2007). But the relative advantage in MMS use was found to be essential as innovators/early-adopters, early-majority, and late majority groups viewed that relative advantage highly affected their intention to use MMS. However, there were no important relationships found among laggards (Hsu et al., 2007).

Li (2013) revealed that most people are familiar with the advantages of digital television and realize that it is an inevitable development in technology. This may explain why this study did not find that relative advantage and compatibility played a major role in the intention to adopt both digital terrestrial television and digital cable.

Hill et al. (2011) commented that relative advantage is one of the strongest components to explain broadband adoption in rural Australia. One special finding that drew attention was the connection between the three internet usage factors, namely, frequency, daily length of usage, and number of household users. Broadband users generally use the internet more frequently and longer everyday than non-broadband users. The more people within households use the internet, the more likely are those households to have adopted broadband.

Martins et al. (2004) pointed that observability

and trialability were the ones that better support the acceptance of the internet as an educational tool in Brazilian language schools, while Joo (2011) stated that trialability had a positive impact on its adoption; the lack of examples and lower trialability had a negative consequence on its adoption. Complexity made users feel insecure about the result of system adoption.

Kim et al. (2004) confirmed that a new product's performance, or its relative advantage, help successful market penetration. Moreover, it was observed that backward compatibility lowers the level of resistance and thus facilitates successful market entry. Unlike performance, however, compatibility enhancement became more effective when the customer base is quite small. Furthermore, when forward compatibility of the incumbent product increases, the probability of new product's successful entry drops, and the drop is steeper as the number of customers is high.

Moore and Benbasat (1991) and Wei (2006) found that relative advantage and compatibility were not distinguishable from each other in empirical studies of technology adoption and suggested a revision of Rogers' five attributes (Zhou, 2008).

HYPOTHESES

Hypothesis 1: Relative advantage influences the intention to adopt restaurant websites.

Hypothesis 2: Complexity influences the intention to adopt restaurant websites.

Hypothesis 3: Compatibility influences the intention to adopt restaurant websites.

Hypothesis 4: Trialability influences the intention to adopt restaurant websites.

Hypothesis 5: Observability influences the intention to adopt restaurant websites.

Study Design

Exploratory research was done to gain background information about the topic at hand and to clearly define the term innovation and diffusion of innovation. A secondary data analysis was also performed to clarify the research problem and to develop the research hypotheses. A questionnaire was used as a research instrument to gather relevant data. Descriptive statistics were utilized to ana-

lyze the data.

Population and Sample Size

The researchers chose nonprobability sampling method (purposive sampling). Since the purpose of the study is to analyze how perception of innovation of consumers plays a role on the intention to adopt restaurant website in Bangkok, respondents must be internet users, who are familiar with websites. According to Yamane's formula (Yamane, 1973), the minimum sample size which can be considered acceptable to represent the minimum sample size of populations is equal to 400. The data was gathered using an online questionnaire from 106 respondents and paper questionnaires from 301 respondents who are consumers in Bangkok with the sample size totaling 407 respondents.

Study Instrument

The instrument used in this study is a 7-point Likert scale questionnaire, on a scale of 1- 7 (1 being strongly disagree and 7 being strongly agree) which was developed to attain the research objectives and is based upon the conceptual framework that presents how perception of innovation plays a role on the intention to adopt restaurant website in Bangkok. Developing the questionnaire was made possible by collecting data from the respondents who live in Bangkok to measure the level of agreement towards the research questions. Modification to the questionnaire was then made following theories on adoption and innovation, with referrals to some dissertations, academic articles and books.

Statistical Treatment

The research framework was analyzed primarily using Structural Equation Model (SEM), supported by AMOS 21.0 software.

FINDINGS

Name of the favorite restaurant websites. Most of visitors cannot remember the exact domain name of their favorite restaurant websites. Therefore, they type what they can remember in search en-

gine to find out. Usually internet users visit restaurant website through search engines such as google.com and pantip.com. Meanwhile people who search for special offers always visit famous websites that offer best-deals such as aroi.com, tripadvisor.com, wongnai.com, EDTguide.com, aroihere.com, BKKmenu.com and Teenee.com. They also look through social networking sites such as facebook.com.

Reasons for liking the favorite restaurant websites. Twenty-four percent of respondents prefer their favorite restaurant websites because the sites can fulfill their information needs, while 22 percent of them said that they prefer the website because of the reputation of the restaurants. Nineteen percent of the people click on the website because of special deals, while 14 percent of visitors are convinced by beautiful pictures. Eleven percent of respondents click on the website because of its attractive design, among other reasons such as online reservation and combo set special offer.

Reasons for visiting favorite restaurant websites. Thirty-seven percent of respondents who visit their favorite restaurant websites do so to search for information and privileges, while 34 percent want to view the menu. Fifteen percent want to place an order and 8 percent want to reserve the table. In addition, 4 percent have other reasons to visit such as to look for maps, phone numbers, locations and other details. Only 2 percent of them want to share their comments.

Recommendations. The research found that most people want to see updated information with full details of price and food. The design of website should then be well organized, and the needed information easy to find. The customers also want to view beautiful pictures of special dishes and restaurant scenery. Some of them who are not regular customers want to get contact numbers, maps and read reviews of other guests. Exclusive special promotion online, application on smart phone and the link with social networking sites could be good way to get attention of people. Finally they request that the restaurant should be ready for advance reservations and food order.

The result of the study from Structural Equation Model

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taurant websites in Bangkok

Absolute Fit Measure Chi-square = 359.596
Degrees of freedom = 120 Probability level = .000
The result indicates that the hypothesized model did not fit the data well by the Chi-Square because the null hypothesis is rejected i.e., there is a significant difference between the actual and predicted variance-covariance matrices. However, the Chi-Square is sensitive to sample size. The use of Chi-Square index provides insignificant support in determining the extent to which the model does not fit.

Baseline comparisons

Although the hypothesized model did not fit the observed variance-covariance matrices well by the Chi-Square test, the Baseline comparisons fit indices of NFI, RFI, IFI, TLI, and CFI are all above 0.9. A widely applied guideline for a good fit of these incremental fit indices is 0.09; therefore, it can be concluded that the possible improvement in fit for the hypothesized model is less than 0.1 which is too small to be practically significant.

Regression Weights: (Group number 1 - Default model) - unstandardized

The result indicates that only the unstandardized regression weights of Trialability and Observability are significantly related to Intention to Adopt, P-Values of the two constructs are less than 0.05 and 0.01, respectively. The relationships are positive. Therefore, it can be concluded that Trialability and Observability positively influence the intention of Thai customers to adopt restaurant websites in Bangkok.

Standardized Regression Weights: (Group number 1 - Default model)

Thus, it implies that the greater the Trialability and Observability, the more Intention to adopt the restaurant website.

Squared Multiple Correlations: (Group number 1 - Default model)

The squared multiple correlations, which is similar to R^2 , show that 81.9% of the variance of intention to adopt the restaurant website is accounted for by the variance of the 5 latent constructs i.e. Relative advantage, Complexity, Compatibility, Trialability, Observability. It can be concluded that the model can explain 81.9% of the variance of Intention to adopt the restaurant

website. The remaining 18.1% of the variance of Intention to adopt the restaurant website cannot be explained by the hypothesized model, and is thus attributed to the residual (error term).

DISCUSSION

The results show that Trialability and Observability influence the intention of Thai customers to adopt a restaurant website. This is in contrast to what Rogers (1962) claimed that the perception of innovation: relative advantage, complexity, compatibility, trialability, and observability all play important roles in the intention to adopt (Rogers, 1962). Xu and Quaddus (2010) in Chaffey (2010) found that relative advantage, compatibility and complexity are more important than the rest of the group. Hill et al. (2011) commented that relative advantage is one of the strongest components to explain broadband adoption in rural Australia. Hsu et al. (2007) stated that relative advantage and compatibility influence MMS adoption but trialability has no influence. Kim et al. (2004) mentioned that the relative advantage is important clue to penetrate the market and compatibility increases the chances of successful market entry.

However, there are some researchers that found different aspects. Moore and Benbasat (1991) and Wei and Lo (2006) as cited in Zhou (2008) found that relative advantage and compatibility were not distinguishable according to their studies of technology adoption. Martins et al. (2004) pointed that observability and trialability were the ones that better support the acceptance of the internet as an educational tool in Brazilian language schools. This is supported by the study of Joo (2011) who stated that trialability had a positive impact on adoption. Moreover, Li (2013) revealed that when people are familiar with the advantages of digital television and its technology, they do not find that relative advantage, and compatibility played a major role in their intention to adopt. This study may explain why the findings show only trialability and observability as the influencing factors on intention to adopt. Nowadays, people are familiar with the benefits of the internet and it has become part of their daily lives therefore they perceive that trialability and observability are more important than other characteristics.

Recommendations

This study has the following recommendations for practitioners running a restaurant business. Firstly, according to the result of the study, trialability is an important factor in stimulating customer intentions to adopt restaurant website, therefore restaurants should give their customers the opportunity to access them by linking their websites to famous search engines. It is the simplest way to let customers click on to their websites, and check what is in there. This process will help increase the number of visitors later on. The results of the study also showed that only few people could remember the exact domain name of their favorite restaurants therefore famous search engines are important tools in order to find restaurants easily. Secondly, observability is an essential variable for the customers' intention to adopt a restaurant website, thus many customers will adopt when they observe that the websites show attractive pages. Restaurant websites are found to be attractive if they provide more information about restaurants such as details of food, locations and special deals. Therefore, the owners need to present important information about the website, keeping them up-to-date, and offer privileges to attract customers' attention. Thirdly, because trialability and observability are vital for the intention to adopt, it is strongly recommended that restaurants find the space to show their websites on tourism promotional web sites such as Bangkok travel guide websites. This can help visitors to find easily the restaurant website they like because those travel guide websites are well-known, and some of them even provide reviews from the visitors. Fourthly, internet users mainly spend time online because of social contact and information, some of them spend long time on social networking sites, hence, facebook.com is a good place where restaurants can connect to people. If restaurants pay more attention to social network sites, trialability and observability can be more applied in their lifestyles. This is especially significant as smart phones have become an important tool for communication. Thus, entrepreneurs should apply mobile applications to make it easy for customers to directly track restaurant sites. Finally, some websites need to undergo further redesigning as people criticize some websites which are hard to understand, difficult to navigate and are not up-to-date.

FUTURE RESEARCH

Firstly, future research can use different methodologies, such as focus groups and interviews to examine the influences on customers' intention to adopt a website. Secondly, the growth of the internet and online shopping will continue, and future researches can be replicated that deal with online shoppers, measuring actual purchase behaviors instead of intentions. This procedure is designed to understand if there are any significant difference in the perceptions of innovation of internet users and internet purchasers. Thirdly, researchers might consider developing more elaborate scales to measure the agreement of the intention to improve quality scales. Finally, findings of the intention to adopt restaurant website may differ across cultures. Thus, the study can be explored in different cultures to view cross-cultural comparisons.

References

- Chaffey, D. & Ellis-Chadwick, F. (2010). *Digital marketing: implementation and practice*. London: Pearson Education limited.
- Grewal, D. & Levy, M. (2010). *Marketing*. London: McGraw-Hill.
- Hill, S.R., Burgan, B. & Troshani, I. (2011). Understanding broadband adoption in rural Australia. *Industrial Management & Data Systems*, 111(7), 1087-1104
- Hsu, C.L., Lu, H.P. & Hsu, H.H. (2007). Adoption of the mobile internet: An empirical study of multimedia message service (Mms). *Omega*, 35(6), 715-726.
- Institute for small and medium enterprises development. (2012). www.ismed.or.th. 2012.
- Jin, C.H. (2013). The effects of individual innovativeness on users' adoption of internet content filtering software and attitudes toward children's internet use *Human Behavior*, 29(5), 1904- 1916.
- Joo, J. (2011). Adoption of semantic web from the perspective of technology innovation: A grounded theory approach. *International Journal of Computer Studies*, 69(3), 139-154.
- Kim, S. & Nam. S. (2004). Across the threshold: role of performance and compatibility in innovative new products' market penetration. *Industrial Marketing Management*, 33(8), 689-699.
- Kowtha, N.R., & T.W., Choon. (2001) Determinants of website development: a study of electronic commerce in Singapore. *Information & Management*, 39(3), 227-242.
- Li, S. (2013). Digital television adoption: Comparing the adoption of digital terrestrial television with the adoption of digital cable in Taiwan. Institute of Communication Studies, National Chiao Tung University.
- Lin, Hsiu-Fen. (2008). Empirically testing innovation characteristics and organizational learning capabilities in e-business implementation success. *Internet Research*, 18(1), 60-78
- Martins, C.B.M.J., Steil, A.V. & Todesco, J.L. (2004). Factors influencing the adoption of the internet as a Teaching Tool at Foreign Language Schools. *Computers & Education*, 42(4), 353-374.
- Mohamed, E. (2011). Adoption categories in communication technologies: Factors that influence a person to be a late or early adopter of new communication technologies. The University of York, Department of Computer Science.
- Moore, G. C. & Benbasat, I. (1991). Development of an instrument to measure the perceptions of adopting an information technology innovation. *Information Systems Research*, 2, 192-222
- Mozeik, C. (2007). Customer adoption of online restaurant services- a multi-channel approach. Master of Hospitality information management. University of Delaware.
- Roger, E.M. (1962). *Diffusion of innovation*. New York. The Free Press.
- Turner, C. (2002). *The information economy business strategies for competing in the global age*. London:
- Vargas-Barraza, J. & Suarez, M. (2012). Influence of culture on the perception of a website. *Business and Management Review*, 2(9), 09-23.
- Wei, R. and Lo, V. (2006). Staying connected while on the move: cell phone use and social connectedness. *New Media and Society*, 8(1), 53-72
- Xu, J. & Quaddus, M. (2010). *E-Business in the 21st Century*. London: Scientific.
- Yamane, T. (1973). *Statistics: An Introduction Analysis*. New York: Harper & Row Publishers Inc.
- Zilber, S. & Braz de Araújo, J. (2012). Small com-

panies innovations in emerging countries: E-business adoption and its business model. *Journal of Technology Management and Innovation*, 7(2), 102-116.

Zhou, Y. (2008). Voluntary adopters versus forced adopters: integrating the diffusion of innovation theory and the technology acceptance model to study intra-organization adoption. *New Media & Society*, 10(3), 475-496.

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