

THE USE OF MOBILE APPS TO IMPROVE SERVICE INDUSTRY IN THAILAND: A STUDY OF SPA AND MASSAGE BUSINESS

Chai Rakwongskaseam¹
Sayamol Nongbunnak²

ABSTRACT

Advances in wireless and mobile technology have enable people all over the world to access numerous services through but the tip of their finger. Millions of mobile applications have been created and integrates itself into business. The spa and massage, one of the popular and well-known industry in Thailand, is also one such business which adopt mobile application. Nonetheless, many of them have yet to accept this technology into its fold. This study aims to clarify why that is such the case. Three factors, company profile, ppplication features, and perceived benefit, have been propose as the potential factors that have relation in influencing Thailand's massage and spa business owner's intention to use mobile application. A qualitative study using in-depth interview with 15 massage and spa business owner in Bangkok and Nonthaburi.

The result of the study indicates that company profile, application features, and perceived benefit are factors that influence the massage and spa owner's intention to use mobile application for their business It is also found that the three factors have influence on one another. Owner's experience with technology have also shown to affect the degree of influence the three factors have toward the owner's intention to use mobile application for their business. Nevertheless, the scope of the sample of the study is quite limited, so further research into the topic to compare the data and verified its reliability is recommended

Keywords: Mobile Application, Spa and Massage in Thailand, Owner Intention to Use

Introduction

Thailand is a country that have its economy mainly comprise of three sectors, agriculture, manufacturing, and service. Among the three, service sector, which encompass many industries including but not limited to tourism, health, communication, and transport, contributing the most toward the national income (CIA, 2017). Over half of the Thailand GDP come from services and around half of the jobs the total labor forces end up with are also here (CIA, 2017).

Among the service sector is spa and massage business which customers both foreign and local have been enjoying, mainly for relaxation and as a mean for rewarding themselves (Bordoloi, Bergado, Jacka, & Khiewsanun, 2014). It has also become even more prevalent in recent years due to the increase popularity of Thailand's medical tourism and its usage as alternative medicine (Eden, 2012). The spa and massage saw a high growth of 202 percent from 2002 to 2009 and resulted in Thailand becoming the country with the highest numbers of spa within the region (Update Thailand Spa, 2009). In 2015, the Spa business and selling of its commodity have generated around 2 billion THB from tourist alone (Department of International Trade Promotion, 2014).

However, with the advancing of the technological development in the world, many services would need to adapt to the change it bought. In recent years, the usage and ownership

¹ A Master Degree student, Master of Business Administration (International Program), College of Innovative Business and Accountancy, Dhurakij Pundit University

² A research supervisor, College of Innovative Business and Accountancy, Dhurakij Pundit University

of mobile devices and the availability of the internet have been seeing a rapid growth worldwide. According to Statista, the number of smartphone users worldwide is 2.32 billion, while the users in Thailand alone is 24.14 million in 2017, an increase of almost 10 million from 2013. As for the internet, the number of users in Thailand in 2016 is approximately 43 million or around 64 percent of the total population with over 90 percent accessing it through smartphone (Sullivan, 2017). This is the result of the increases availability and diversity of mobile device along with its greater computing power (Lee, 2016). The better infrastructure such as wireless coverage range and higher speed also add to the equation. Because of that, customers have started to revolve their lifestyle and activities around mobile device and internet (Daim, Aldhaban, Justice, & Basoglu, 2014, Aldhaban, 2016). This lead to many businesses needs to change their approach to be more accommodating to these different (Rampton, 2015).

Currently, there are many smartphone technologies, with mobile application being the most prominent, that created and use in all kind of industries from banking, hospitality, transportation, and so on. As of March 2017, there are 2.8 and 2.2 million apps available for Android and Apple users in the world respectively (Statista, 2017). The numbers of apps downloaded worldwide have also reached a very high level with 149.3 billion apps being downloaded in 2016 and are predicted to reach 197 billion in 2017 (Statista, 2017). Businesses in Thailand have also followed this trend and start to become more proactive in adopting the change, creating new avenue for marketing and operation (Wang, Liao, & Yang 2013).

There are several mobile applications that are made to incorporate spa and business into their features at the moment. Many businesses took it in stride and integrate new technology into their operation, especially the larger business. Nonetheless there are many more that haven't shown sign of accepting or acknowledge it yet. No matter how much the customers show interest toward the usage of mobile application, it would still be pointless if the owners doesn't actually adopt it. Presently, there haven't been any substantial study into this particular topic. Therefore, with the finding of this study, it would help in understand which factors could influence the business owners to become more accepting toward the mobile technology and adopt it for their business.

This study aims to investigate some of the potential factors, which are company profile, application features, and perceived benefit, to find out whether they have any influence on the owner intention to use or not. The study thus, propose 3 propositions as follow:

- Proposition 1: There is an influence from the company profile on the spa and massage business owners' intention to use mobile apps for their business.
- Proposition 2: There is an influence from the features of the mobile apps on the spa and massage business owners' intention to use mobile apps for their business.
- Proposition 3: There is an influence from the perceived benefits of the mobile apps on the spa and massage business owners' intention to use mobile apps for their business.

Investigating Constructs

This study addresses the intention to use of spa and massage business owners in Thailand. The proposed factors which are company profile, application features, and perceived benefit were examines to identifies their possibility in influencing the owner intention to use mobile application. The definitions of key terms in this study are described as follows:

- **Mobile application (commonly known as app)** is a type of software application designed to run on a mobile device, such as a smartphone or tablet computer. It is usually distributed by the owner of operating system through platform like Apple App Store or Google Play. It also being used as a way to make it easier for the user to use service that are more commonly use on desktop like YouTube or Facebook. (Wang, Liao, & Yang 2013)

- **Owner:** The owner that are mentioned in this study refers to the one who have the full ownership of their spa and massage business and able to dictate the policy and change within it.
- **Intention to use** is the thought of groups or individual toward particular subject which mandates their decision by demonstrate willingness to use something, information technologies or other kind of new technologies in this case, a mobile application for massage and spa business, or not (Dillon & Morris 1996).
- **Company profile** is the status of the spa and massage business, particularly, the type of business (Spa or Massage Parlor), the size, the experience, and its infrastructure to support mobile application usage.
- **Application Features** is the distinguish characteristics that set the application apart from other similar application that are design to be used for/with spa and massage business. This include differences such as the usage difficulty level or the functions the apps provided.
- **Perceived Benefits** is the belief that something favorable or positive would occur to the user in response to doing certain behavior or specific action.

To further understand the relationship between the three factors and intention to use in technology context, the following relevant studies have been reviewed. One of the oldest model that have been used for understand information system technology adoption is The Theory of Reasoned Action (TRA) which was developed by Fishbein and Ajzen in 1975. This theory explains that the user intention to do certain action or behavior are influence by the user personal attitude on the subject, meaning what users perceived could influence their action. Following that, Technology Acceptance Model (TAM) (Davis, Bagozzi, & Warshaw, 1989) was later developed and explained that how much does individual accept and adopts the usage of technology is depending on two beliefs. Perceived usefulness is the degree the individual perceived technologies or system to increase the user performance while perceived ease of use is degree the users perceived it to effortless. These two factors will affect the user attitude toward the technology and influence their decision and behavior regarding it.

A research using TAM to try to understand the factors that drive users' intention toward the adoption of three mobile application being internet access, mapping services, and games using had been done by Verkasalo, López-Nicolás, Molina-Castillo, and Bouwman, (2010). They find out that individual perception toward themselves regarding the ability to use mobile service without trouble is one of the factors which is a barrier toward their adoption of the technology. The perceived usefulness has been identified as the driving force for the user behavior toward adoption as well. They also explain that TAM or similar theory shouldn't be used to study mobile technology in general, but it is recommended to address individual mobile service or technology specifically.

A study into the intention to adopt mobile payment have also been conducted by Abrahão, Moriguchi, and Andrade (2016) based on the Unified Theory of Acceptance and Use of Technology have indicate that performance expectation and effort expectation play a significant role in the subject. The study explained that the technology having a good performance and is easy to use are two of the decisive factors that influence the user's adoption. Additionally, Studies of application usage in many type of business (Liu, Mbachu, Mathrani, Jones, & Mcdonald, 2017) and on other online technology (Lee, 2009) have also found that the perceived benefits are one of the factors that affect the user intention to use or adopt the technology. Many studies have also highlighted that how difficult a technology or software is to use have significant effect on the users' intention to use that technology (Kim, 2012, Cianciotta, 2016).

Methodology

The research is a qualitative research design that uses depth-interviews to collect data from the respondents. The research adopted purposive sampling method by doing depth-interviews with the owners of small, have 5 or less masseurs, and medium, have 5 to 10 masseurs, massage and spa business. The areas in which the data collection is focusing on are only limited to two areas being Yannawa District in Bangkok and Mueang Nonthaburi District in Nonthaburi due to the time constrain. The data are recorded through the usage of audio recording, note taking, and a check list.

The data are sorted into few key words and facts. Then, they will be analyze with content analysis method using summative approach which involve examining and comparison of the data that are categorized, followed by interpretation of those data (Hsieh & Shannon, 2005).

Results and Discussion

This study collects the data from 15 spa and massage business's owners located in Yannawa district, Bangkok, and Muang Nonthaburi district, Nonthaburi. Among the 15 respondents, 10 (66.66%) are massage parlor and 5 (33.33%) are spa owners. Out of that, 6 (40%) massage parlor employed five or less masseurs while 4 (26.67%) massage parlor and all 5 (33.33%) spa have between six to ten masseurs. Only 2 (13.33%) of the massage parlor that employed five or less masseurs have been opened for less than two years while the remaining 13 (86.66%) have been opened for two or more years. The age group and gender distribution of the respondents are 1 (6.67%) being between 25-34, 4 (26.67%) are 35-44, and 5 (33.33%) are 45-55 with 8 (53.33%) being male and 2 (13.33%) being female for massage parlor. As for spa, 2 (13.33%) are 35-44 and 3 (20%) are 45-54 with 1 (6.67%) being males and 4 (26.67%) being female. Other than that, all of the 15 (100%) samples have internet access at their store as well as having in possession of mobile devices that could use mobile applications.

The research has found that the different in type, size, and experience of the business, have shown to have influence toward the owner's intention to use certain type of application with varied degrees. The type of business has make it so that some application features is more useful than the others. This is indicated by how the spa business which show the trend of having higher interest in promotion than massage parlor is more active in adopting the usage of application that help in that regard. Factor such as size also limited degree in which the owners could make use of some features. Application like massage delivery service require for the masseur to relocated to the appointed place which make it difficult for small business with limited amount of employee to do so since it would cut into their main sources of income. This result has been supported by other study into technology adoption in small business (Thong, 1995, Teng 2000). As for the business experience, not much evidence has indicated it influence, but it is also possible to be due to the low number of new business in comparison to the old one. Similarly, the infrastructure that support the usage of mobile application does not clearly shown to influence any other factors. This could be due to the fact that all the samples have internet access and possessing mobile device while the possession of PC does not factor anything. As a result, a comparison cannot be done and a conclusion are unable to be reached.

As for the application features, the study reveals that it also has relationship with the owner's intention to use the mobile application for their business. What the application has to offer are shown to affect the owner's intention differently which is parallel to the result of the study of software feature on software adoption by Kim (2012). It is also influence by other independent variables and factors like the personal experience having played quite a significant role (Nugroho, Susilo, Fajar, & Rahmawati, 2017). Other than that, the degree of difficulty of the usage and management of the apps have also shown to affect their interest in adopting it for their business. The apps that require lower level of supervision to operate by the respondents

have receive higher amount of interest while apps that the owner have difficulty using tend to receive lower amount of interest. This is consistent with many studies that indicate the significant influence by degree of usage difficulty on the technology adoption intention (Celuch, Wal, Saxby, & Ehlen, 2011, Aldhaban, 2016, Naicker, & Merwe, 2018) In addition to that, the degree of technical support given by the apps developers have shown some influence, but are depend on both the degree of usage difficulty of the application and the owner experience in using technology and so, have more of a minor role in affecting intention to use than the function of the feature and the ease of use.

In terms of perceived benefits, the study has indicated that there is relationship between the owner's intention to use the massage and spa application. The respondents' opinion on the degree of how much each type of application would improve their business are shown to have correlation with the choice of application that they would adopt. This have been in accord with other researches on similar topics (Lee, 2009, Aldhaban, 2016) Aside from that, it is founded that one of the factors that reduce the appeal to the adoption is the lack of pressure from both the customers and business situation. Many of the respondent have deem some application to be unnecessary due being to contend with the current state of their operation and no demand from the customers to initiate any changes.

In conclusion, the study suggested that the all of the three factors, consisting of company profile, application features, and perceived benefit have influence the owner's intention to use mobile application for their business to a different degree. There's also seems to be correlation between the three factors which make them influence one another. Additionally, the result indicated that the experience with technology have influence over the application features. The familiarity with similar type of application have increase the interest level of some owners like with the online transaction feature of the apps are more accepted by owner with prior experience of using online banking while those with no experience appear to be wary of using it. This also conform with the study by Rotchanakitumnuai & Speece (2003) regarding barrier to internet banking where those without prior personal interaction with internet banking are more likely to show disinterest toward using it. This result shows a similarity with the study on small business internet commerce adoption by Teng (2000) which show that the CEO experience with technology, business size, technology complexity, and the perceived benefit have significant impact on the extent of the adoption.

Implication of the Study

1. From the study, many of the spa and massage owners are shown to favor application that are easy to use and require low level of attention from them to manage. This indicates that the apps developer should looks into ways to make navigation and management to be as simple as possible to increase their interest. This also include technical support aspect since providing too much details would be counterproductive with how owners prefer things to be simple
2. The owners without prior experience in using online banking or similar software tend to be wary of using apps like that. Therefore, an apps that offer service that can only be done through online transaction are ill-advised. Providing the option for an alternative method of payment through more traditional means as well are recommended.
3. Different kind of function have shown to appeal to different kind of people. However, other factors like the company profile could affect how likely are they to adopt the technology. It is advised to take in consideration of the external factors that could influence the targets since it might limit their acceptance of the technology despite being design to perfectly appeal to them.
4. The function of the application, the degree of usage difficulty, and the potential benefit it provides to the business in terms of acquiring new customers are what the respondents

mainly influence by. The future researcher could use these factors as based to form model for the purpose of studying massage and spa owner's intention to use mobile application and other kind of technology or on similar topics.

5. Despite the lacks of interest for the massage delivery feature by most of the owners, the study has found that some of the masseur have done similar service by themselves. Further study into this subject could be done since it could potentially lead apps developer to shift their attention to accommodate masseur as freelancer instead of the massage and spa owners.

Limitations of the Study

1. The study focuses on the small and medium sizes spa and massage business hence, the result might not be applicable to the larger business. The large massage and spa owner might have different view, so it is recommended for the future study to includes them as targets of the study.
2. This study uses purposive sampling method to select the samples which resulting in the searching criteria being subjective to the researcher and might not be completely arcuate in representing the whole population.
3. The scope of the study is limited into two areas within Bangkok and Nonthaburi province, so the result can't be generalized for the Bangkok or Thailand as a whole. A future research might expand the scope to encompass larger areas or in different region of Thailand.
4. The data in some parts of the study are too limited regarding the number of its categorization and somewhat subjective to the researcher opinion. This resulted in data not being very clear and somewhat subjective to the researcher opinion. Future study should have a clear categorization for the respondents' opinion to make the resulted analysis more objective.

BIBLIOGRAPHY

- Aldhaban, F. A. (2016). *Exploratory study of the adoption and use of the smartphone technology in emerging regions: Case of saudi arabia* (Order No. 3746241). Available from ProQuest Dissertations & Theses Global. (1758252385). Retrieved from <https://search.proquest.com/docview/1758252385?accountid=44522>
- Bordoloi, P., Bergado, D., Jacka, A., & Khiewsanun, P. (2014) Spa Industry 2014: Opening the Spa Doors to ASEAN. Retrieved from: http://www.thaispaassociation.com/uploads/userfiles/file/2014_Spa_Study_Final.pdf
- Celuch, K., Walz, A., Saxby, C., & Ehlen, C. (2011). Understanding SME intention to use the internet for managing supplier information. *New England Journal of Entrepreneurship*, 14(1), 9-21. doi:10.1108/neje-14-01-2011-b001
- Cianciotta, M. A. (2016). *Stimuli influencing small business owner adoption of a software-as-a-service solution: A quantitative study* (Order No. 10022986). Available from ProQuest Dissertations & Theses Global. (1769012174). Retrieved from <https://search.proquest.com/docview/1769012174?accountid=44522>
- Daim, T. U., Aldhaban, F., Justice, J., & Basoglu, N. (2014). Understanding Factors Affecting Mobile Services Adoption [Abstract]. *International Journal of Information Systems in the Service Sector*, 6(2), 51-69.
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User Acceptance of Computer Technology: A Comparison of Two Theoretical Models. *Management Science*, 35(8), 982-1003. doi:10.1287/mnsc.35.8.982
- Department of International Trade Promotion. (2014). *Thai Spa Business*. Retrieved from: http://www.ditp.go.th/contents_attach/143532/143532.pdf

- Dillon, A., & Morris, M. G. (1996). User Acceptance of Information Technology: Theories and Models. *Annual Review of Information Science and Technology*, 31, 3-32.
- Eden, C. (2012). The Rise of Medical tourism in Bangkok. *BBC News*. Retrieved 08 September 2017, from <http://www.bbc.com/travel/story/20120828-the-rise-of-medical-tourism-in-bangkok>
- Hsieh, H., & Shannon, S. E. (2005). Three Approaches to Qualitative Content Analysis [Abstract]. *Qualitative Health Research*, 15(9), 1277-1288.
- Kim, H. (2012). *The effect of software features on software adoption and training in the audit profession* (Order No. 3521621). Available from ProQuest Dissertations & Theses Global. (1038969955). Retrieved from <https://search.proquest.com/docview/1038969955?accountid=44522>
- Lee, K. E. (2016). *An examination of the decision-making process for utilization of mobile applications in the MICE industry* (Order No. 10126469). Available from ProQuest Dissertations & Theses Global. (1798479310). Retrieved from <https://search.proquest.com/docview/1798479310?accountid=44522>
- Lee, M. (2009). Factors influencing the adoption of internet banking: An integration of TAM and TPB with perceived risk and perceived benefit. *Electronic Commerce Research and Applications*, 8(3), 130-141.
- Liu, T., Mbachu, J., Mathrani, A., Jones, B., & McDonald, B. (2017). The Perceived Benefits of Apps by Construction Professionals in New Zealand. *Buildings*, 7(4), 111. doi:10.3390/buildings7040111
- Naicker, V., & Merwe, D. B. (2018). Managers' perception of mobile technology adoption in the Life Insurance industry [Abstract]. *Information Technology & People*, 31(2), 507-526. doi:10.1108/itp-09-2016-0212
- Nugroho, M. A., Susilo, A. Z., Fajar, M. A., & Rahmawati, D. (2017). Exploratory Study of SMEs Technology Adoption Readiness Factors. *Procedia Computer Science*, 124, 329-336. doi:10.1016/j.procs.2017.12.162
- Rampton, J. (2015). Mobile Strategies Your Business Needs To Implement. *Forbes*. Retrieved from <https://www.forbes.com/sites/johnrampton/2015/04/04/7-mobile-strategies-your-business-needs-to-implement/#12e8b5ec1795>
- Rotchanakitumnuai, S., & Speece, M. (2003). Barriers to Internet banking adoption: A qualitative study among corporate customers in Thailand. *International Journal of Bank Marketing*, 21(6/7), 312-323.
- Sullivan, B. (2017). 90% of Internet Users in Thailand Use Smartphones. *Thailand Business News*. Retrieved from <https://www.thailand-business-news.com/tech/56345-90-internet-users-thailand-use-smartphones.html>
- Teng, K. L. (2000). *Factors and their influence on determining the level of internet commerce adoption in a small business: An empirical examination* (Order No. 9993838). Available from ProQuest Dissertations & Theses Global. (304680915). Retrieved from <https://search.proquest.com/docview/304680915?accountid=44522>
- Thong, J., & Yap, C. (1995). CEO characteristics, organizational characteristics and information technology adoption in small businesses. *Omega*, 23(4), 429-442.
- Verkasalo, H., López-Nicolás, C., Molina-Castillo, F. J., & Bouwman, H. (2010). Analysis of users and non-users of smartphone applications. *Telematics and Informatics*, 27(3), 242-255. doi:10.1016/j.tele.2009.11.001
- Wang, H., Liao, C., & Yang, L. (2013). What Affects Mobile Application Use? The Roles of Consumption Values. *International Journal of Marketing Studies*, 5(2). doi:10.5539/ijms.v5n2p11