

## SELF-SERVICE TECHNOLOGY (SST) IMPLICATION TOWARD INTENTION TO REVISIT IN SMALL HOTELS: A CASE STUDY OF NAKHON RATCHASIMA PROVINCE, THAILAND

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**Abstract:** Abstract. Self-service technology is an innovation that requires communication over the Internet through high-efficiency platforms. However, with the ability of each guest, it may cause problems in technology use. This study aims to investigate the effect of self-service technology, technology adoption, electronic service quality, satisfaction on repeat service use intention for small hotels in Nakhon Ratchasima province, Thailand. To develop and test a structural equation model, and to analyze the direct and indirect effects of all five components. The data was collected by using questionnaires from 412 samplings of small hotel guests in Nakhon Ratchasima province, Thailand, via an online survey by Google form during the COVID-19 pandemic. The descriptive statistic and path analysis were applied. The results found that the model is consistent with empirical material in statistical significance. It can confirm that three significant factors effects repeat service use intention which is 1) self-service technology, 2) technology adoption, and 3) satisfaction. Moreover, self-service technology has direct significantly affected technology adoption, electronic service quality, satisfaction, and repeat service use intention respectively. To investigate the positive effect of self-service technology, technology adoption, electronic service quality, satisfaction on repeat service use intention for small hotels in Nakhon Ratchasima province, Thailand. The quantitative approach was employed by using structural equation modeling for path analysis. The data was collected by using questionnaires. There were 412 samplings from small hotel guests in Nakhon Ratchasima province via an online survey by Google form during the COVID-19 pandemic. The results found that the model is consistent with empirical material in statistical significance. It can confirm that three significant factors effects repeat service use intention which is 1) self-service technology, 2) technology adoption, and 3) satisfaction. Hence, to implement the use of self-service technology for small hotels that should focus on these factors. The authors would recommend applying the self-service technology for small hotels as technology plays an increasingly important role in the hospitality industry, small hotels need to survive the increasingly intense competition. This research contributes the new model for small hotels to implement the use of self-service technology and it can create the guest experience and satisfaction. However, the potential of people in different societies should be considered for technology adoption.

**Key words:** Self-service Technology, Technology Adoption, Electronic Service Quality, Satisfaction, Repeat of Service Use Intention

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### INTRODUCTION

Self-service technology (SST) is an innovative service that requires high-performance communication via the Internet through various platforms. The SST refines the customers seeing and hearing virtual reality. That is supplementary to the instant decisions on purchasing the products and services. The SST becomes an increasingly popular technology for communication and service transactions in the hospitality industry in Thailand (Kankaew et al., 2022; Suwannakul, 2019). It flourishes the customer experiences and comfort employees in some service transaction processes. In addition, SST facilitates responding to customer needs more quickly and comfortably. It also reduces the confrontation among people in terms of service providers, service receivers, and other customers. SST minimizes the usage of service items by using personal electronic devices. The good point is avoiding the spread of pathogens such as the current COVID-19 virus (Toubes et al., 2021). There were many studies on SST implementation in the hospitality industry, for instance, check-in/out at hotels, airports, hotel reservations, self-service payment, conducting financial transactions via smartphone, and other intermediary organizations (Hanks et al., 2015; Huang et al., 2019; Myra et al., 2020; Stojčić et al., 2019).

Likewise, SST has played a significant role in the service industry including in Thailand, (Amoako et al., 2021; Kankaew et al., 2022; Safaeimanesh et al., 2021; Stojčić et al., 2019; Suwannakul, 2019). Due to its sophisticated capabilities that allow customers and service providers to exchange information or service resources for purchasing goods and services online such as tablets, kiosks, and smartphones without direct interaction with employees or service providers (Huang et al., 2019; Muhammad et al., 2018). Service organizations in Thailand have used SST to serve the needs of customers, for instance, Marriott hotels allow their customers to book and check-in through either application or website by the customer themselves. At the same token in the airlines business, Thai Air Asia applied SST enhancing self-check-in system and reserve a restaurant table in the application QueQ at Don Mueang International Airport

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(Kankaew et al., 2022; Suwannakul, 2019). However, the adoption of self-service technology needs to consider the importance of service quality as it is the key to delivering guest satisfaction (Giousmpasoglou and Hua, 2020). Since the satisfaction and the ability to meet the needs of customers that exceed their expectations are the heart of the hotel business. Hence, good service results in a customer's positive attitude, satisfaction, and intention to return.

On the other hand, if the customer's needs are not met as desired or expected, dissatisfaction will occur and directly affect the revisit intention (Beard and Russ, 2017; Zhong et al., 2017). In addition, there are additional factors that may cause the customer's decision to use or decline the service via SST for instance, the availability and understanding of each customer and service provider, ease of use, and fast response which can also limit the customer's refusal to use the service via the operator's or agent's SST (Hanks et al., 2015; Huang et al., 2019; Myra et al., 2020; Stojčić et al., 2019). This is a challenge for the hotel industry in managing to achieve its goals while achieving profitability and reducing operating costs in terms of investment (Walker, 2017; Wang, 2022). However, the use of technology to serve hotel customers without interacting and assistance may lead to a response that does not meet the needs or expectations of the customer. Especially, if there are questions, doubts, system errors, or other needs arise during the use of the service, employees would be unable to respond to the need or solve the problem immediately and unable to recognize the true needs of customers directly (Considine and Cormican, 2016).

Nevertheless, the application of SST in hospitality is dramatically growing. According to the study of researchers found that in the future, especially new-generation hotel users will be more accepting and have less fear of technology which will be different from the current generation, especially, Gen P (Generation Plastic) aged between 18 and 24 (Huy et al., 2019). Thus, it is undeniable that technology will play an increasingly important role for service users and hoteliers, which is an important strategy for differentiating businesses that can meet the needs of the customers which is constantly changing based on the need for better services quality (Stojčić et al., 2019; Suwannakul, 2019; Hanks et al., 2015; Huang et al., 2019; Myra et al., 2020; Muhammad et al., 2018). In addition, travel distance is a crucial factor that determines tourism demand and guests' behavior. Hence, technology is considered as the factor that helps to reduce the process of service and save time, especially guests' timing consumption shapes their experiences and their satisfaction in a destination (Park and Yang, 2018). Hence, it is imperative to study hotel guests' acceptance of technology application so that operators can apply it appropriately, meet the customer's expectations, create customer's satisfaction, and affect the revisit intention (Suwannakul, 2019; Muhammad et al., 2018). In this research, the researcher selects chosen Nakhon Ratchasima province as a case, because it is the economic center of the lower northeastern region of Thailand, which has stated in the Economic Development Plan No. 5 of Thailand. Nakhon Ratchasima province has grown rapidly over the past few years. This is because of its biggest area province in Thailand. There are various popular touristic sites located its mountainous geographical where the temperature is fine all year round. Furthermore, the government has implemented development plan on the ground transport infrastructure of both road and high-speed rail connect to the province. This development is directly having a positive effect to the hotel industry in Nakhon Ratchasima province in terms of number of tourists visit. Consequently, hotel employs SST to deal with the augmenting number of tourists. In this study, therefore, the researcher stresses the adoption of SST in small hotels in Nakhon Ratchasima province examining the return intention of its customers. As well as, how well the small hotels perform in technology application to compete with chain hotels.

## LITERATURE REVIEW

Self-service Technology refers to technology that allows users to transact and exchange information or service resources by themselves through various intermediaries or platforms. Customers can access information anytime, anywhere, on their own from the start to the end of the transaction process without direct interaction with service personnel. Nowadays, SST has been developed to be more convenient and accessible on other platforms and many different applications (Huang et al., 2019; Muhammad et al., 2018). Many expert (e.g.: Huy et al., 2019; Scherer et al., 2015) have summarized types of SST which include 1) technology interfaces, the technology that require customers to use intermediaries for communication and transactions, 2) direct transactions, the technology that allows customers to exchange resources with service providers themselves, and 3) self-help, refers to technology that allows customers to learn, receive, train and provide all of their services until the end of a transaction.

From the research review of many experts for instance, Safaeimanesh et al. (2021) Scherer et al. (2015) and Shiwen et al. (2021) added that the offering of goods and services through SST in the hospitality industry has the key factors affecting the usability of SST which include: 1) the interface should be efficient and run smoothly without slow response or signal interruption, 2) information should be accurate, able to find complete information, and the accessibility to the information should be uncomplicated, 3) product presentation should be clear, interesting, and attractive to search for more details, 4) the design of the self-service technology media device should be designed to support a wide variety of functions of computer systems, 5) the payment system should be stable and highly secure, support various currencies and support a variety of payments such as cash, credit cards, etc., 6) web marketing often involves dynamic digital displays with multiple product views including comprehensive product information, many applications have mechanisms that can customize individual purchasing packages to meet the needs of different customers, 7) using a website to showcase a wide range of products through hyperlinks and system capabilities may create greater customer browsing preferences than vending machines, and 8) kiosks and websites that can be linked to the Internet and support staff access at all times will be able to respond to the needs of customers in a timely manner. In addition, many scholars mentioned factors a key benefit of SST implementation from a managerial perspective.

On the other hand, efficiency, accessibility, privacy, and self-control over transactions are the main benefits of an SST, emphasized by customers (Giousmpasoglou and Hua, 2020). The SSTs have also been described as allowing the actual transaction to be performed more quickly or efficiently than does the interpersonal alternative which saves traveling time and reduces the service process clearly. This also helps to decrease tourism resources consumption (Muhammad et al., 2018; Park and Yang, 2018). Likewise, in the perspectives of service business executives think that using SST can reduce management costs, increase management efficiency, reduce investment in strategic non-value activities, and invest resources in value-added activities. In addition, Huang et al. (2019) studied on the influence of service quality on customer satisfaction and loyalty in the B2B technology service industry found that (1) service quality had a positive impact on customer satisfaction (2) Customer satisfaction positively influences customer loyalty and (3) brand awareness positively influences the relationship between service quality and customer satisfaction. Hence, it became a Hypothesis 1, 2, 3, and 4.

**H1:** Self-service technology has a direct positive impact on technology adoption.

**H2:** Self-service technology has a direct positive impact on electronic service quality.

**H3:** Self-service technology has a direct positive impact on satisfaction.

**H4:** Self-service technology has a direct positive impact on repeat of service use intention.

Technology adoption means that individuals learn and study through a process of self-realization and experimentation until assured that the technology can definitely be beneficial. It is an individual's mental process from the perception of an innovation or technology. The adoption might not happen if the users find the technology useless, difficult to understand, unaware, never used it, and unfamiliar with the technology (Infante-Moro et al., 2021). From the literature review found that technology adoption was related to several main factors, including 1) demographics and experiences influence perceptions of the benefits of information technology and perceptions of it as an easy-to-use system, 2) the perceived benefit of information technology is a factor that determines an individual's perception of how information technology can contribute to operational efficiency and is a direct factor in the intention to display behavioral use, and 3) perceiving that it is an easy-to-use system is a determining factor in terms of the quantity of success achieved whether it meets the needs or expectations. This is a factor that affects the perception of the benefits of information technology (Huy et al., 2019; Pizam et al., 2022; Xie and Kim, 2022).

Moreover, technology adoption places a high emphasis on perceived usability, ease of use, attitude, quality, achievement of system capabilities, high level of efficiency, and moderate privacy. The adoption of technology and the quality of electronic services had a statistically significant effect on user satisfaction. And the adoption of technology that delivered quality of service had a statistically significant effect on user satisfaction and (Mohamed and Ahmed, 2020). Furthermore, there are 3 factors of service innovation that affect the decision to stay in boutique hotels in the Northeast: diversifying the offering of hotel products and services and improving service. Innovative processes affecting the decision to stay in boutique hotels in the Northeast are based on two factors: workflow improvement factors; and practical factors supporting products and services (Amoako et al., 2021). Hence, it became a Hypothesis 5, 6, and 7.

**H5:** Technology adoption has a direct positive impact on the quality of electronic services.

**H6:** Technology adoption has a direct positive impact on satisfaction.

**H7:** Technology adoption has a direct positive impact on repeat of service use intention.

Electronic service quality, service quality is related to the expectation of the customer in terms of quality after obtaining information about the service and the desire to use it. It is including evaluating and choosing to use the service in which the user compares expectations and perceived service performance. This is a concept that holds the principle of fault-free service operation and meets the needs and know the needs of the service recipient (Oliveras-Villanueva et al., 2020; Pakurár et al., 2019). However, Parasuraman et al. (2005) have presented "E-S-QUAL" and "E-RecS-Qual" and group website quality measurements into four quality measurement dimensions: efficiency, fulfillment, system availability, and privacy. Whereas the study of Suwannakul (2019) has developed the tools to studied in the context of airline business found that the seven SSTQUAL measures were appropriate to assess service quality in a manner without interaction with service workers: functionality, enjoyment, security/privacy, assurance, design, convenience, and customization. In addition, it was found that there has not been any research that has applied the SSTQUAL measure to assess service quality through self-service technology in the context of airlines in Thailand. While Huang et al. (2019) study on the influence of service quality on customer satisfaction and loyalty in the B2B technology service industry found that (1) service quality positively influences customer satisfaction (2) Customer satisfaction positively influences customer loyalty and (3) brand awareness positively influences the relationship between service quality and customer satisfaction. Hence, it became a Hypothesis 8.

**H8:** Electronic service quality has a positive effect on satisfaction.

Satisfaction is the positive feeling or attitude of a person. It is the subjective feeling of happiness that arises from various forms of environmental stimulation because of comparing the information with expectations during the service. And often due to getting the desired response, if the service is below expectations, it will cause dissatisfaction which consists of two components: 1) perceived quality of service products, and 2) perceived quality of service offerings (Kotler and Armstrong, 2018; Shyju et al., 2021). Furthermore, some scholars added that satisfaction with the use of self-service technology, or intent to use it, is a manifestation of the subscriber's plans for intentionally and prioritizing the use of the service at a particular time. Satisfaction arises from the user's positive attitude towards such things as the satisfaction of

using the service or receiving the service. It may come from the user attitude or the direct experience with a driving force in reuse. This may be measured by satisfaction or confidence in the service, continued use and participation in the development or improvement of the system (Mohamed and Ahmed, 2020). Many scholars revealed that satisfaction is the key to customer retention and repeat service is that customer satisfaction will lead to being a regular customer, buying new products that the company has introduced, as well as being interested in specific products of the company (Kankaew et al., 2021; Kotler and Armstrong, 2018; Ranjbarian and Khazaei, 2015). Repeat of service use intention is a return to the service of the customer resulting from their previous experience of the product or service and the satisfaction they expected or exceeded. This leads to the need to reuse the service because it is useful, valuable, and reasonable, resulting in repeat service behavior and word of mouth (Majeed et al., 2022; Nilsson and Wall, 2017). From the study of the relevant literature, it was found that there are many factors affecting the return of the customer, but the main factor for using the service again is satisfaction. However, from further studies, it can be concluded that the factors affecting the service reuse are 1) quality of electronic services, 2) perceived value and benefits, 3) safety, and 4) experience. and 5) satisfaction (Huang et al., 2019; Huy et al., 2019; Muhammad et al., 2018). Hence, it became a Hypothesis 9.

**H9:** Satisfaction has a positive effect on repeat of service use intention.

According to the scholars (e.g.: Giousmpasoglou and Hua, 2020; Suksutdhi, 2020; Suksutdhi and Boonyanmethaporn, 2022) mentioned the characteristics and its definition of the small hotel or the budget hotel which refer to the number of rooms that is the hotel with less than 100 rooms and provide the basic facilities and services. The room type is basic with necessities such as bedding, television, telephone, and bathroom. The room rates are cheap due to limited services and activities. The business management structure consists of the management department, Front office, Housekeeping, and the Repairs and maintenance department. It is an independent management, that is, an owner-managed hotel, some of which are family-run. Most independently managed hotels can be found in main cities and communities. Nakhon Ratchasima province is the economic center of the lower northeastern region of Thailand which has been stated in the Economic Development Plan No. 5 of Thailand and is considered as one of the main cities of the country which has grown rapidly over the past few years. This is because of its biggest area province in Thailand. There are various popular touristic sites located in its mountainous geographical where the temperature is fine all year round. In addition, most of the hotel in the city area of the province is small hotels. From the change in customer behavior, guests have changed from staying in large hotels to small hotels, which offer good services similar to the large hotel. It has high privacy and gains closer care and attention is more familiar than a large hotel which resulting in increasing guests' service use decision (Giousmpasoglou and Hua, 2020; Suksutdhi, 2020; Suksutdhi and Boonyanmethaporn, 2022). Hence, this study, therefore, focuses on small hotels in the central business district of the province. From the literature review of the related studies above, it can be summarized the research conceptual model are in Figure 1 as follow:

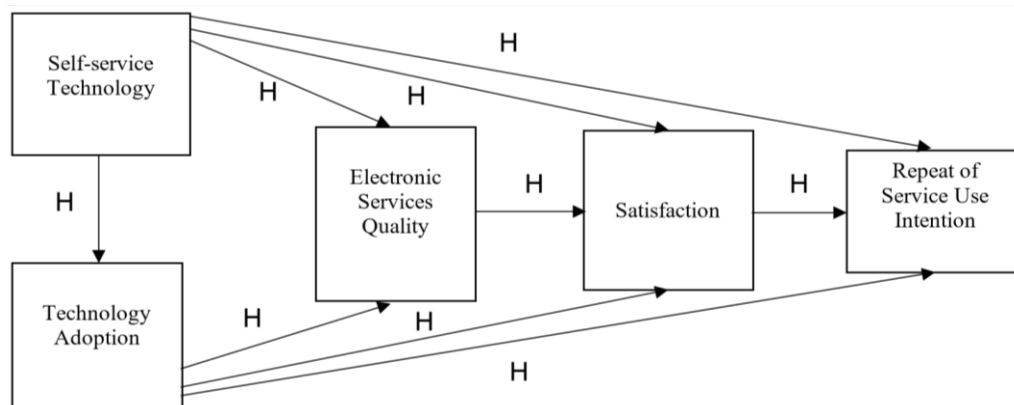


Figure 1. Research Conceptual Model

**MATERIALS AND METHODS**

The quantitative approach was employed by using structural equation modeling for path analysis. The researcher used a probability sampling method and using a sample random sampling. The data was collected by using questionnaires. There were 412 samplings from small hotel guests in Nakhon Ratchasima Province via an online survey by Google form during the COVID-19 pandemic. The researcher employed both descriptive statistics and inferential statistics by using structural equation modeling (SEM). 51 items were used to measure the model of Self-service Technology (SST) toward return intention in small hotels. Therefore, a further detailed examination is carried out by looking at the standardized residual covariance of each item and modification indices. After measurement, the number of paths was taken to enhance the validity of the collected data. The fit indices were tested for SEM and found that CMIN/DF = 1.058, GFI = .937, CFI = .998, NFI = .963, RFI = .949, RMSEA = .012, all of them passed the criteria (Hair et al., 2014; Schumacker and Lomax, 2010).

The final questionnaire included 38 variables which are provided as follows: 4 questions were allocated to Self-service Technology, 8 questions were allocated to Technology Adoption, 13 questions were allocated to Electronic Service Quality, while 9 questions were allocated to Satisfaction, and lastly, 4 questions were allocated to Repeat of Service Use Intention which was indeed derived from several published papers as shown in Table 1.

Table 1. The Final Questionnaire Variables

Variables	Items	References
	SST1 (Efficient connection)	Considine and Cormican (2016),
Self-service Technology	SST3 (Product presentation is clear and attractive)	Giousmpasoglou and Hua (2020), Huang et al. (2019), Huy et al. (2019), Muhammad et al., (2018),
	SST4 (Support for a variety of system functions)	Safaeimanesh et al. (2021) Scherer et al. (2015),
	SST6 (Products and services are diverse and comprehensive)	Shiwen et al. (2021)
Technology Adoption	PU1 (Reduce the transaction time) PU2 (Browsing immediately) PU3 (Browsing faster) PU4 (It can be done immediately) PEU1 (Ease of searching from various sources) PEU2 (Ease of installation and loading) PEU3 (Easy-to-use structure layout) PEU6 (Convenience in payment)	Amoako et al. (2021), Considine and Cormican (2016), Huy et al. (2019), Infante-Moro et al. (2021), Mohamed and Ahmed (2020), Pizam et al. (2022), Xie and Kim (2022)
Electronic Service Quality	EFF1 (Quick access) EFF2 (Display information quickly) EFF3 (Fast) EFF4 (Transaction correctly) FFM1 (Receive orders correctly) FFM2 (offer products or services as requested) SA1 (Activate immediately) SA2 (Stable continuous work) SA3 (No crash or stop working) SA4 (Accurately calculate and display) PVC1 (Protect personal information of users) PVC2 (Security check procedure) PVC3 (Secure financial transactions)	Huang et al. (2019), Oliveras-Villanueva et al. (2020), Pakurár et al. (2019), Parasuraman et al. (2005), Suwannakul (2019)
Satisfaction	WIC3 (Display data accurately and completely) WIC4 (Interact immediately) WIC5 (Easy to find information) PQ1 (Motivated) PQ3 (Timely delivery of information) PV1 (The importance of searching for information) PV2 (Save time) PV3 (Convenient) PV4 (Easy to use)	Kankaew et al. (2021), Kotler and Armstrong (2018), Mohamed and Ahmed (2020), Pakurár et al. (2019), Ranjbarian and Khazaei (2015), Shyju et al. (2021)
Repeat of Service Use Intention	IRS2 (Safety) IRS3 (Value recognition) IRS4 (Good experience) IRS5 (Satisfaction)	Huang et al. (2019) Huy et al. (2019), Majeed et al. (2022), Muhammad et al. (2018), Nilsson and Wall (2017)

## RESULTS AND DISCUSSION

The personal information of all 412 respondents revealed that most of them 262 were female accounted for 63.60% and 150 were male which accounted for 36.40%. Most of them were Generation Y (21 - 38 years old) amount of 151 people accounted for 36.70%. A large group of respondents were the single status amount of 263 people accounted for 63.80%. The respondents were 292 who graduated with a bachelor's degree or equivalent which accounted for 70.00%. They were the private company employees amount of 155 people accounted for 37.60%, and the average income per month was more than 444 - 740 USD amount of 163 people accounted for 39.60%.

The structural model comprising of self-service technology, technology adoption, electronic service quality, satisfaction, and repeat of service use intention. After measurement model of the research, construct achieved the acceptable goodness-of-fit, the remaining 38 indicators were loaded on their respective constructs and performed by CFA to estimate the fit indices for the overall measurement model. The hypotheses were related to the relationships between self-service technology, technology adoption, electronic service quality, satisfaction, and repeat service use intention. This hypothesized model was tested using SEM and the path diagram is presented in Figure 2 which can be explained as follow.

Hypothesis 1, 2, 3, and 4 predicted that self-service technology has a direct positive impact on technology adoption, electronic service quality, satisfaction, and repeat of service use intention respectively. The model presents the path estimates of self-service technology on technology adoption with factor loading value equals to 1.00, on electronic service quality with factor loading value equals to -0.49, on satisfaction with factor loading value equals to -0.54, and on repeat of service use intention with factor loading value equals to 1.04. For self-service technology (SST), SST3 and SST4 are having a high factor loading value of 0.88 and 0.80 respectively. The research results showed that self-service technology (SST) has direct significantly affected technology adoption, electronic service quality, satisfaction, and the repeat service use intention respectively which is consistent with the findings of Giousmpasoglou and Hua (2020), Huang et al. (2019), Huy et al. (2019), Muhammad et al. (2018), Scherer et al. (2015) and Shiwen et al. (2021).

Hypothesis 5, 6, and 7 predicted that technology adoption has a direct positive impact on electronic service quality, satisfaction, and repeat of service use intention respectively. The model presents the path estimates of technology adoption

on electronic service quality with factor loading value equals to 1.16, on satisfaction with factor loading value equals to 1.04, and on repeat of service use intention with factor loading value equals to 1.064. Technology adoption consists of two factors, perceived usefulness (PU) and perceived ease of use (PEU). PU2 and PU4 are having a factor loading value equal to 0.85 and 0.81 respectively. Electronic service quality consists of four factors, efficiency (EFF), fulfillment (FFM), system availability (SA), and privacy (PVC). The highest factor loading value of each are EFF3, FFM2, SA2, SA4, and PVC3. The research results revealed that technology adoption has direct significantly affected electronic service quality, satisfaction, and repeats service use intention which is consistent with the findings of Amoako et al. (2021), Huy et al. (2019), Infante-Moro et al. (2021), Mohamed and Ahmed (2020), Pizam et al. (2022), and Xie and Kim (2022).

Hypothesis 8 predicted that electronic service quality has a positive effect on satisfaction. The model presents the path estimates of electronic service quality on satisfaction with a factor loading value equal to 0.41. Satisfaction has three factors, website interface correction (WIC), perceived quality (PQ), and perceived value (PV). The highest factor loading value of each are WIC5, PQ3, PV1, and PV3. While hypothesis 9 predicted that satisfaction has a positive effect on repeat of service use intention (IRS). The model presents the path estimates of satisfaction on repeat of service use intention with factor loading value equals to 0.21 which IRS2, IRS3, IRS4 are having factor loading value 0.82 equally. The research results illustrated that electronic service quality has direct significantly affected satisfaction only, and satisfaction has direct significantly affected the repeat service use intention which are consistent with the findings of Huang et al. (2019) Huy et al. (2019), Kankaew et al. (2021), Kotler and Armstrong (2018), Majeed et al. (2022), Mohamed and Ahmed (2020), Muhammad et al. (2018), Nilsson and Wall (2017), Ranjbarian and Khazaei (2015), and Shyju et al. (2021).

In this case, self-service technology, technology adoption, and satisfaction develop the repeat service use intention, and these three variables all together influence repeat service use intention for small hotels in Nakhon Ratchasima province.

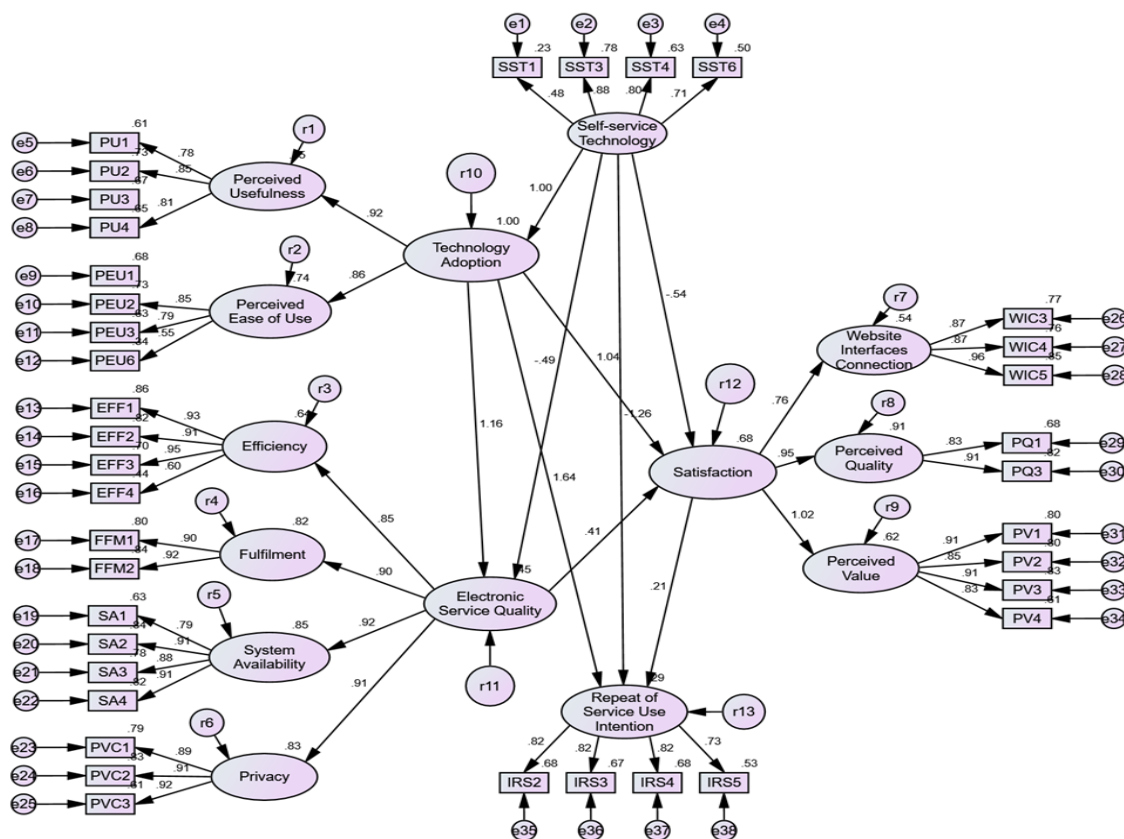


Figure 2. The Structural Model of the Study

## CONCLUSION

This study was conducted to find the effect of self-service technology, technology adoption, electronic service quality, and satisfaction on repeat service use intention for small hotels in Nakhon Ratchasima province, Thailand. The confirmatory factor analysis of self-service technology (SST) index of hotel guests toward repeat service use intention found that model is consistent with empirical material in statistical significance. It can confirm that three significant factors effects on repeat service use intention which are 1) self-service technology, 2) technology adoption, and 3) satisfaction. The results show that self-service technology (SST) has direct significantly affected technology adoption, electronic service quality, satisfaction, and the repeat service use intention respectively which is consistent with the findings of Giousmpasoglou and Hua (2020), Huang et al. (2019), Huy et al. (2019), Muhammad et al. (2018), Scherer et al. (2015), and Shiwen et al. (2021). As well the technology adoption has direct significantly affected electronic service quality, satisfaction, and repeats service use intention which is consistent with the findings of Amoako et al. (2021), Huy et al. (2019), Infante-Moro et al. (2021), Mohamed and Ahmed (2020), Pizam et al. (2022), and Xie and Kim (2022). While



electronic service quality has direct significantly affected satisfaction only, and satisfaction has direct significantly affected the repeat service use intention which are consistent with the findings of Huang et al. (2019), Huy et al. (2019), Kankaew et al. (2021), Kotler and Armstrong (2018), Majeed et al. (2022), Mohamed and Ahmed (2020), Muhammad et al. (2018), Nilsson and Wall (2017), Ranjbarian and Khazaei (2015), and Shyju et al. (2021).

Therefore, this research contributes the new model for small hotels to implement the use of self-service technology (SST) for small hotels which it should focus on the following.

1) For SST, small hotels should realize the efficient connection of SST, it should be stable and smooth, no slow response or signal interruption all the time, and the product and service information should be clear and attractive. SST devices should be able to support the operation of a wide variety of computer systems because the guests may access it from different platforms. Furthermore, hotel products and services in SST should be diverse and comprehensive which provide for guests to select (Giousmpasoglou and Hua, 2020; Huang et al., 2019; Huy et al., 2019; Muhammad et al., 2018; Scherer et al., 2015; Shiwen et al., 2021).

2) For technology adoption, small hotels should focus on perceived usefulness and perceived ease of use that reduce the transaction and traveling time. Browsing should be done very fast and immediately because fast service represents the hotel's service quality. Thus, the hotel should also focus on the quality of the Internet system. Furthermore, the searching of self-service technology should be supported from various sources, the installation and loading should be easy to perform, the structured layout should be easy to use and understand for some types of guests such as the elderly, as well as the ease of various forms of payment that should be convenience and support the different types of payment. Hence, the perceived usefulness and perceived ease of use are reflected the guest satisfaction which effects the return of the service use intention (Kankaew et al., 2021; Kotler and Armstrong, 2018; Mohamed and Ahmed, 2020; Muhammad et al., 2018; Park and Yang, 2018; Ranjbarian and Khazaei, 2015; Shyju et al., 2021).

3) Satisfaction is clearly affected to repeat of service use intention; thus, small hotels should focus on the guests' safety while using SST. It should encourage value recognition which the guest should perceived what they receive from using SST. In addition, all of activities of using SST should create over all good experience such electronic service quality, variety of products and services, hotel information, clear and easy to use, attractive, support of various types of payment, etc. (Huang et al., 2019; Huy et al., 2019; Majeed et al., 2022; Muhammad et al., 2018; Nilsson and Wall, 2017).

This research also contributes for theoretical implications, given the scarcity of research on self-service technology (SST) in small hotels, filling an important research gap to measure the repeat of service use intention with an in-depth understanding of small hotel guests. It provides a tool to identify the repeat of service use intention that guests prefer and to evaluate the performance of small hotels providing the SST provide.

In addition, in an era of digital economy where technology plays an increasingly important role in hospitality industry, small hotels need to adapt and survive the increasingly intense competition. The adoption of technology is necessary for small hotel businesses to create comfort and convenience for their guests as much as possible. Therefore, this research will be a guideline in applying technology to suit the size of the hotel business and its budget in order to create satisfaction in the use of technology and affect the use of the service again. Finally, for research limitations, due to COVID-19 pandemic, data was collected online using the Google platform with self-identified participants, nonetheless, to avoid the retrieval failure problem, hotel guests should be surveyed just after their stay in the hotel or not long afterward. Further, the hotel type or hotel star rating was not under consideration in this research.

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### REFERENCES

- Amoako, G.K., Doe, J.K., & Neequaye, E.K. (2021). Online innovation and repurchase intentions in hotels: the mediating effect of customer experience. *International Hospitality Review*, <https://doi.org/10.1108/IHR-02-2021-0008>
- Beard, C., & Russ, W. (2017). Event Evaluation and Design: Human Experience Mapping. *Event Management*, 21(3), 365-374. <https://doi.org/10.3727/152599517X14942648527563>
- Considine, E., & Cormican, K. (2016). Self-service technology adoption: An analysis of customer to technology interactions. *Procedia Computer Science*, 100, 103-109. <https://doi.org/10.1016/j.procs.2016.09.129>
- Giousmpasoglou, C., & Hua, T.T. (2020). The Use of Self-Service Technologies in Budget Hotels: The Case of Bournemouth. *European Journal of Tourism Hospitality and Recreation*, 10(3), 251-261. <https://doi.org/10.2478/ejthr-2020-0022>
- Hair, J.F., Black, W.C., Babin, B.J., & Anderson, R.E. (2014). *Multivariate data analysis: Pearson new international edition*, Pearson, Essex, United Kingdom.
- Hanks, L., Line, N.D., & Mattila, A.S. (2015). The Impact of Self-Service Technology and the Presence of Others on Cause-Related Marketing Programs in Restaurants. *Journal of Hospitality Marketing & Management*, 25(5), 547-562. <https://doi.org/10.1080/19368623.2015.1046536>
- Huang, P.L., Lee, C.Y., & Chen, C.C. (2019). The influence of service quality on customer satisfaction and loyalty in B2B technology service industry. *Total Quality Management & Business Excellence*, 30(13-14), 1449-1465. <https://doi.org/10.1080/14783363.2017.1372184>
- Huy, L.V., Hoan, N.P.T., Pham, L., & Berry, R. (2019). Technology Readiness and Satisfaction in Vietnam's Luxury Hotels. *International Journal of Management and Decision Making*, 18(2), 183-208. <https://doi.org/10.1504/IJMDM.2019.098648>
- Infante-Moro, A., Infante-Moro, J.C., & Gallardo-Pérez, J. (2021). Key Factors in the Implementation of the Internet of Things in the Hotel Sector. *Applied Sciences*, 11(7), 2924. <https://doi.org/10.3390/app11072924>

- Kankaew, K., Kangwol, K., Guzikova, A.L., Kungwol, S., Sitikarn, B., & Suksutdhi, T. (2021). Organizational Structure Enhancing Airlines Efficiency Amid the Pandemic: Low-Cost Carriers in Thailand as a Case. *GeoJournal of Tourism and Geosites*, 38(4), 1189-1194. <https://doi.org/10.30892/gtg.38425-759>
- Kankaew, K., Tansiri, E., Waramontri, R., Paethrangsi, N., Kungwol, K., Sitikarn, B., & Charernit, K. (2022). Coping With the Changes That Challenge Business and Education Sectors in Thailand 4.0. *International Journal of Asian Business and Information Management*, 13(2), 1-11. <https://doi.org/10.4018/IJABIM.287588>
- Kotler, P., & Armstrong, G. (2018). *Principles of Marketing Management 17th ed*, Pearson, New York, USA.
- Majeed, M., Asare, C., Fatawu, A., & Abubakari, A. (2022). An analysis of the effects of customer satisfaction and engagement on social media on repurchase intention in the hospitality industry, *Cogent Business & Management*, 9(1), 2028331, <https://doi.org/10.1080/23311975.2022.2028331>
- Mohamed, M.B., & Ahmed, T.M. (2020). Developing technology acceptance model for e-service purposes. *Management Science Letters*, 10(10), 2221-2228 <https://doi.org/10.5267/j.msl.2020.3.014>
- Muhammad, S.I., Masood, U.H., & Ume, H. (2018). Impact of self-service technology (SST) service quality on customer loyalty and behavioral intention: The mediating role of customer satisfaction. *Cogent Business & Management*, 5(1). <https://doi.org/10.1080/23311975.2018.1423770>
- Myra, V.D., Ringgold, P.A., & Daniel, S. (2020). Influence of self-service technology (SST) service quality dimensions as a second-order factor on perceived value and customer satisfaction in a mobile banking application. *Cogent Business & Management*, 7(1). <https://doi.org/10.1080/23311975.2020.1794241>
- Nilsson, J., & Wall, O. (2017). *Online Customer Experience, Satisfaction and Repurchase Intention for Online Clothing Retailing*, Master's Degree Individual Study, University of Gothenburg, Gothenburg, Sweden.
- Oliveras-Villanueva, M., Llach, J., & Perramon, J. (2020). Service Quality in Hospitality and the Sustainability Effect: Systematic Literature Review and Future Research Agenda. *Sustainability*, 12(19), 8152; <https://doi.org/10.3390/su12198152>
- Pakurár, M., Haddad, H., Nagy, J., Popp, J., & Oláh, J. (2019). The Service Quality Dimensions that Affect Customer Satisfaction in the Jordanian Banking Sector. *Sustainability*, 11(4), 1113. <https://doi.org/10.3390/su11041113>
- Park, S., & Yang, Y. (2018). Travel distance and hotel service satisfaction: An inverted U-shaped relationship. *International Journal of Hospitality Management*, 76. <https://doi.org/10.1016/j.ijhm.2018.05.015>
- Parasuraman, A., Zeithaml, V.A., & Malhotra, A. (2005). E-S-QUAL: A Multiple-item Scale for Assessing Electronic Service Quality. *Journal of Service Research*, 7(3), 213-233. <https://doi.org/10.1177/1094670504271156>
- Pizam, A., Ozturk, A.B., Balderas-Cejudo, A., Buhalis, D., Fuchs, G., Hara, T., Meira, J., Revillae, M., Sethi, D., Sheng, Y., State, O., Hacikaraa, A., & Chaulagain, S. (2022). Factors affecting hotel managers' intentions to adopt robotic technologies: A global study. *International Journal of Hospitality Management*, 102(4). <https://doi.org/10.1016/j.ijhm.2022.103139>
- Ranjbarian, B., & Khazaei, P.J. (2015). The Impact of Perceived Quality and Value on Tourists' Satisfaction and Intention to Revisit Nowshahr City of Iran. *Journal of Quality Assurance in Hospitality & Tourism*, 16(1), 103-117. <https://doi.org/10.1080/1528008X.2015.966295>
- Safaeimanesh, F., Kılıç, H., Alipour, H., & Safaeimanesh, S. (2021). Self-Service Technologies (SSTs)—The Next Frontier in Service Excellence: Implications for Tourism Industry *Sustainability*, 13(5), 2604; <https://doi.org/10.3390/su13052604>
- Scherer, A., Wunderlich, N., & Wangenheim, F. (2015). The Value of Self-Service: Long-Term Effects of Technology-Based Self-Service Usage on Customer Retention. *MIS Quarterly*, 39(1), 177-200. <https://doi.org/10.25300/MISQ/2015/39.1.08>
- Schumacker, R.E., & Lomax, R.G. (2010). *A beginner's guide to structural equation modeling, 3rd ed*, Routledge/Taylor & Francis, New York, USA.
- Shiwen, L., Kwon, J., & Ahn, J. (2021). Self-Service Technology in the Hospitality and Tourism Settings: A Critical Review of the Literature. *Journal of Hospitality & Tourism Research*, <https://doi.org/10.1177/1096348020987633>
- Shyju, P.J., Singh, K., Kokkrankal, J., Bharadwaj, R., Rai, S., & Antony, J. (2021). Service Quality and Customer Satisfaction in Hospitality, Leisure, Sport, and Tourism: An Assessment of Research in Web of Science. *Journal of Quality Assurance in Hospitality & Tourism*, <https://doi.org/10.1080/1528008X.2021.2012735>
- Stojčić, N., Vojvodić, K., & Butigan, N. (2019). Service Innovations and Firm Performance in the Hospitality Industry: Evidence from Tourism Driven Economy. *ToSEE – Tourism in Southern and Eastern Europe*, 5, 679-688. <https://doi.org/10.20867/tosee.05.2>
- Suksutdhi, T. (2020). Service Quality Improvement for Senior Tourists at Hotels and Resorts in the Perception of Service Providers: Nakhon Ratchasima, Thailand. *The EURASEANs: Journal on Global Socio-Economic Dynamics*, 6(25), 56-61. [https://doi.org/10.35678/2539-5645.6\(25\).2020.56-61](https://doi.org/10.35678/2539-5645.6(25).2020.56-61)
- Suksutdhi, T., & Boonyanmethaporn, W. (2022). An Exploratory Factor Analysis of Thainess Experience-Centric Service Construction for Boutique Hotel Guests. *GeoJournal of Tourism and Geosites*, 40(1), 96–103. <https://doi.org/10.30892/gtg.40111-807>
- Suwannakul, E. (2019). Kānprayukchai māt wat SSTQUAL phūa pramōen khunnaphāp kān bōrikān phān theknōlōyī kān bōrikān dūai ton'eng: kōranī thurakit sāi kān bin nai prathēt Thai [Applications of the SSTQUAL Scale for Self-Service Technology Quality Assessment: A Case of Airline Business in Thailand]. *Journal of International and Thai Tourism*, 15(2), 106-120, (in Thai).
- Toubes, D.R., Araújo Vila, N., & Fraiz Brea, J.A. (2021). Changes in Consumption Patterns and Tourist Promotion after the COVID-19 Pandemic. *Journal of Theoretical and Applied Electronic Commerce Research*, 16, 1332–1352. <https://doi.org/10.3390/jtaer16050075>
- Walker, J.R. (2017). *Introduction to Hospitality Management 7th ed*, Pearson, New Jersey, USA.
- Wang, Y., (2022). Research on the Influence of Service Quality of Hotel Intelligent System on Customer Satisfaction Based on Artificial Intelligence Evaluation. *Mathematical Problems in Engineering*, 1-9. <https://doi.org/10.1155/2022/3832935>
- Xie, M., & Kim, H.B. (2022). User Acceptance of Hotel Service Robots Using the Quantitative Kano Model. *Sustainability*, 14(7), 3988; <https://doi.org/10.3390/su14073988>
- Zhong, Y.Y., Busser, J.A., & Baloglu, S. (2017). A model of memorable tourism experience: The effects on satisfaction, affective commitment, and storytelling. *Tourism Analysis*, 22(2), 201-217. <https://doi.org/10.3727/108354217X14888192562366>