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Innovation in Application Q-SWIFT for Hotel Industry

Ahmad Ruzaimi Bin Raseli, Nur Shahirah binti Mat Sharf, Nabilah Binti Mohammad
& Anon Ghosh

Faculty Hotel and Tourism Management, UiTM Puncak Alam, Puncak Alam, 42300 Kuala Selangor, Selangor

Abstract

In line with the pandemic situation, hotel industry might face various problems to provide a good service to guests but still follow the standard operation procedure (SOP) recommended by our country. One of the main issues include many hotel operators have to scale down their labour costs significantly through reducing the working hours or they even have to retrench the staff in order to cover their loss of revenue. Pertaining to SOP, guests would prefer to have less physical contact with strangers during travel or hotel check-in. Meanwhile, the check-in process may have given difficulties to the management in handling the guest. Not only that, room services are also very crucial to be managed by the hotel staff. To support this situation, an innovation is needed to fix this issue and to bring back the hotel industry to a new norm management and system. Therefore, "Q-SWIFT Contactless Room Service" is developed as an optimal solution in dealing with the problem of the hotel. The function of the product has keyless elements and room service assistant. For the keyless element, it will solve the check-in/check-out process time. The guest trust is regained by providing an alternative to contactless check-in and digital key room entry by the front desk. By using this mobile application, no physical key or keycard is needed and the time is also saved because there are no dependencies of third party. Additionally, room amenities and in-room dining can also be requested through this mobile application, enabling guests to choose items for room service delivery. Thus, this mobile application will help the hotel industry to face new norm circumstances and assist customers to have pleasant hotel experiences particularly in this pandemic situation.

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Keyword: Mobile application, contactless, room service assistant, in-room dining, room amenities

1.0 Introduction

Development of technology has transformed the style of teaching-learning activities from passive learning to active learning with the rapid development of technology today, the hospitality industry needs to find a way to stay competitive. Moreover, the world is spill-up with unexpected outbreaks which is a covid-19 pandemic and has stifled the global tourism industry. Customers are beginning to be afraid to travel and it is time for industrial hotels to find ways to facilitate customers while dealing in hotels. As a solution, Q-SWIFT will be introduced during this pandemic and at the same time, it will help to reduce the risk of infection to hotel customers.

Service innovation has been constantly studied to serve customers better. However, as one of the oldest industries, it is hard to innovate in hotel industry with traditional methods (Håkansson, H. & Waluszewski, A. 2012). Fortunately, an emerging discipline called Service Science, and information technology an outstanding representative of modern civilization, give us a good chance to innovate services in a new way. Hotels make profit mainly by providing lodging service. For many of travelers in their vacation, visit or business trip, hotels are places they stay when out of home. As a mature industry, hotels industry now includes all types of lodging from luxurious 5-star hotels to youth hostels. Besides room services, most hotels also offer a variety of accessorial services, including but not limited to food, beverage, laundry and valet services. Additionally, the high-level hotels can offer conference rooms, swimming pools, beauty salons, fitness centers and many other facilities to both business development, implementation, support or management of computer-based information systems, particularly software applications and computer hardware. Compared to hotel industry, Information technology came out rather recently, but has developed into one of the biggest industries with influences to most other industries. In hotel industry, the possibility to supply qualified IT services is regarded as one of the prerequisites for, at least, top level hotels (Håkansson, H. & Waluszewski, A. 2012).

1.2 Objective of study

- i. To help hotel industry to have less physical contact and pleasant hotel experience with the keyless element
- ii. Create a structure system for contactless hotel room services into mobile application.
- iii. Assist customers to have pleasant hotel experiences

2.0 Literature Review

Few techniques to make sure your room service meals are worth your money and appetite Room service in hotels is a convenient feature hotel make profit mainly by providing lodging service. For many of travelers in their vacation, visit or business trip, hotels are places they stay when out of home. As a mature industry, hotels industry now includes all types of lodging from luxurious 5-star hotels to youth hostels. Besides room services, most hotels also offer a variety of accessorial services, including but not limited to food, beverage, laundry and valet services. Additionally, the high-level hotels can offer conference rooms, swimming pools, beauty salons, fitness centers and many other facilities to both business and leisure travelers. Keyless elements for check in and check out Unlock guest's room when the guest want to check in and check out and want Unlock guest's room Online payment can be made through this app user can also get discount for any food, they order via this apps (Håkansson, & Snehota, 2015).

Room services is important for customer satisfaction and quality of the services offered are closely connected (Yu, et al, 2014). Room services and perceived value of the services for the customers should be always taken into consideration by the managers of the hotels and marketing analysts helping the development of the hotel. Because of room services customer satisfaction is therefore a very significant factor customer satisfaction has been used as an approach to evaluate room service quality. The interest in room service quality and customer satisfaction is chiefly caused by the fact that there has been a growth in consumerism the desire by consumers to satisfy their needs by increasing the variety and quantity of the services they use this has led to expectations on the part of the customers to receive services of a much higher standard in Room service quality (De Sausmarez, 2019)

The hotel industry is one of the basic infrastructures to attract tourism and tourism development. This industry is comprised of several sections, which cover a wide range of organizations and services. One of the most significant issues in this industry is concerning the question of how to be successful in this competitive world believe that evaluation should be an ever-present factor in the hotel industry and running service quality assessments is must for the hoteliers. This way they might come to know about their own weaknesses and strengths. Customer satisfaction directly impacts the hotel revenue (CarbonBrief. 2020)

During the first half of 2020, we are living in a different world. The world started to change from Wuhan one of the biggest industrial centers of China in January 2020 when carbon and other greenhouse gas emissions started to fall dramatically. From many other external sources, crises caused by disasters have been broader researched by scholars of the tourism industry (Bundy & Pfarrer, 2015). However, such studies mostly highlight reactive responses and recovery strategies rather than reduction or readiness strategies

Rule and regulation standard and standard operation procedure (SOP) made by World Health Organizations (WHO) and Ministry of Health Malaysia (KKM) need to follow by hotel industry. As hotel and accommodation establishments are places where there is a high degree of interaction among guests and workers. These aspects the lodging of guests, the services this entails (food and beverage, cleaning, activity organization, etc. and the interactions specific to these establishments (guest-guest, guest-staff, and staff-staff) that require specific attention. All staff of the accommodation establishment should comply with basic protective measures against COVID-19 including hand hygiene, physical distancing, avoiding touching eyes, nose and mouth, cough and sneezing etiquette (respiratory hygiene), use of medical or fabric masks, stay-at-home orders when indicated and seeking medical attention when symptoms consistent with COVID-19 are present (WHO, 2020).

For recovery in term of economic, hotel industry has to involve with innovations as remote working becomes the norm for today. Thanks to innovations and technology, even such a people-centric industry as hospitality experiences an increase in telecommuting. In fact, hoteliers can manage all the hotel processes without even being there. But in these times, this system can bring even greater benefits. For example, if the software goes with mobile concierge apps, which can help engage with the guests without personal contact, starting from check-in to meal and service orders (Romashko, 2020).

3.0 Methodology

Research design is utilized to control the methods and approaches to use in order to congregate and assess the details for the study (Driscoll III, T., & Petty, K. 2013). The contribution of this article is to propose a generic framework for conducting usability tests for mobile applications through discussing research questions, methodologies, and usability attributes. Quantitative research requires counting and measuring of events and performing the statistical analysis of a body of numerical data. Quantitative research can be identified as the research problem in very specific and set terms. This study is using primary data as only source for data collection.

This paper also mainly focuses on the use of Google Form as a way to replace the conventional method of survey i.e. meeting face to face as well as to reduce filing system in the form of printout form. Google Form is a web-based app from Google used to create forms for data collection purposes. The form is web-based and can be shared with respondents by sending a link, emailing a message, or embedding it into a web page or blog post. There are 30 respondents recorded from various generations and occupations. Roscoe, 1975 proposes the following method to determine the sample size i.e. “the number of samples more than 30 and less than 500 is suitable for most studies”. Therefore, the researchers chose to use the Roscoe method as a finding for information collection. A study conducted by Roscoe has proven that this study can use a minimum number of samples of 30 respondents. Direct interview also conducts to collect data for this study. There are 5 respondents had been interviewed in order to give feedback toward this study which were tourism and hotel industry players and also customers. All the survey and interviews conduct in Malaysia and will be analyses by the result of survey and interview

4.0 Results and Discussion

Demographic Respondents	Type	Percentage (%)
Gender	Male	46.9
	Female	53.1
Age	20-30	65.62
	31-40	25
	41-50	9.75
	SPM	15.62
Level of education	Diploma	31.25
	Degree	31.25
	Master	18.75
	PHD	3.12

Table 4.1 Demographic Respondent Profile

According to table 5.1, there are more female than male answered the survey. As female stated 53.1 % meanwhile male 46.1 %. of respondents. The respondents mostly from age 20-30 years old as it indicated 65.62 % of respondent. Next respondents with age of 31-40 was at 25% and follow with age of 41-50 at 9.75%.. For respondents' level education background mostly from Degree and Diploma as both stated 31.25 %. The second highest was Master level 18.75 followed by SPM 15.62 and PHD 3.12 %

Demographic respondent	Type	Percent (%)
Frequency booking hotel in a year	4	15.6
	More than 5	12.5
Occupation	Government Servant	56.32
	Private sector and business	24.93
	Student	18.75

Table 4.2: Demographic respondent profile 2

Based on Table 5.2 the highest frequency booking hotel in a year was 3 times with 34.4 %. The second highest was 1 and 4 times with both are 15.6 % followed by 2 times and more than 5 time with both stated 12.5 % of frequency booking hotel in a year. From the survey. It recorded various of occupations from respondents. However, we classify into three category which are Government servant, private sectors and business and students. Last but not least, on the respondent occupations stated that majority of them are government servant with 56.3 %. The second highest was from private sectors and business at 24.9% of respondent and lastly students stated 18.7%.

Bil	Item	Percentage (%)	
		Yes	No
1	I would prefer to book the hotel with no physical key or not use a keycard to lock my room	71.4	28.6
2	This mobile application may help the check-in process faster	100	0
3	This application will save my time to queue and wait during check-in procedure and check out.	100	0
4	I would prefer to get information on the menu from the apps and order from the apps	93.8	6.3
5	I would prefer to buy food from a hotel if there is a discount given if I order via apps	87.9	12.5
6	I would prefer to request the room amenities and view the price list through a mobile application	100	0
7	The apps function can help the hotel industry to apply contactless interaction between guest	100	0
8	I am interested to use this apps during my check in hotel	100	0
9	This mobile apps will help me to avoid any physical contact with other guest and hotel staff	100	0
10	I would suggest this application to be used in every hotel	96.9	3.1

Table 4.3 Questionnaire Answer for Product Function and Attributes

5.0 Product Description

“Q-SWIFT Contactless Room Service” is a multifunction mobile application where hotel guest can use the keyless elements for check in and check out and it also provide the room service assistant to the guest. By using this mobile application, no physical key or key card is needed. Researchers were actually designed the mock up Q-swift apps and create the structure system to enhance the system that can be applied by the hotel. There are three elements as shown in Diagram 2.1 until Diagram 2.5 which enhance in this application, first this apps have keyless elements for check in and check out to unlock the guest room. Additionally, room amenities and in-room dining can also be requested through this mobile application, enabling guests to choose items for room service delivery. When user order food or request the amenities so online payment can be made via this apps, so it can be easy to the guest where they can easily pay anything with only click through the apps. Besides, the loyalty program is also applied in this apps to make sure the guest uses the apps and repeat to book the same hotel. For example, discount can be given if any food ordered by the guest via this apps.

Diagram 5.1: Q-Swift application interface

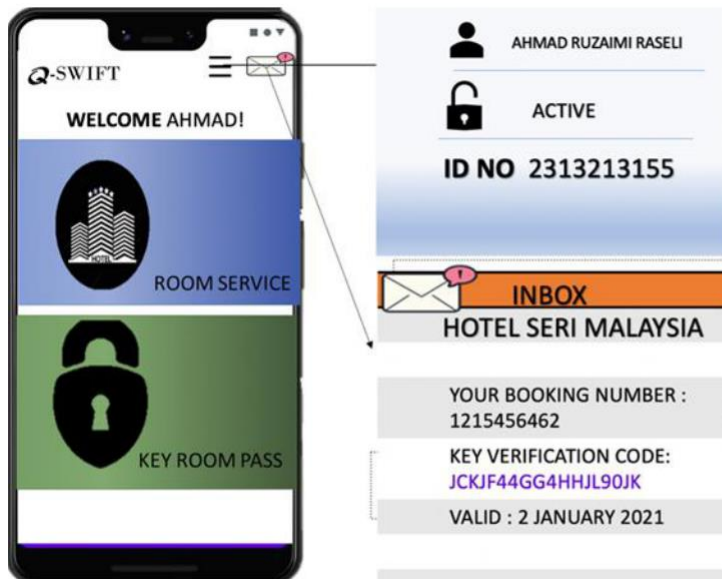


Diagram 5.2: User get the key verification code from apps



Diagram 5.3: User get the key verification code from apps



Diagram 5.4: Keyless function in Q-Swift apps



Diagram 5.5: Buy food via Q-Swift apps



Diagram 5.6: Request room amenities



Based on Diagram 5.7 below, it shown how is actually this apps will be used in the hotel as a tool to achieve the objectives of this study:

1. Firstly, user can download the apps from the play store or apps store
2. User can register or sign up through the apps and user has to fill in the form accordingly by the apps to confirm the guest information.
3. Besides, this apps will allow the pre check-in in order and hotel will send the virtual key verification code via the apps before they arrive at the hotel.
4. Once the guest arrived, they don't have to queue and wait at the receptionist. So, guest can just go straight to their room number allocated by the hotel and unlock the room by using the key room pass function in this apps.
5. The virtual key will automatically disappear from the guest apps once their stay is over, and can be remotely cancelled from the reception software.
6. Lastly the guest will get price off when they order food through the Q-Swift application. Diagram 2.6: Flow step on how Q-Swift will be used in hotel

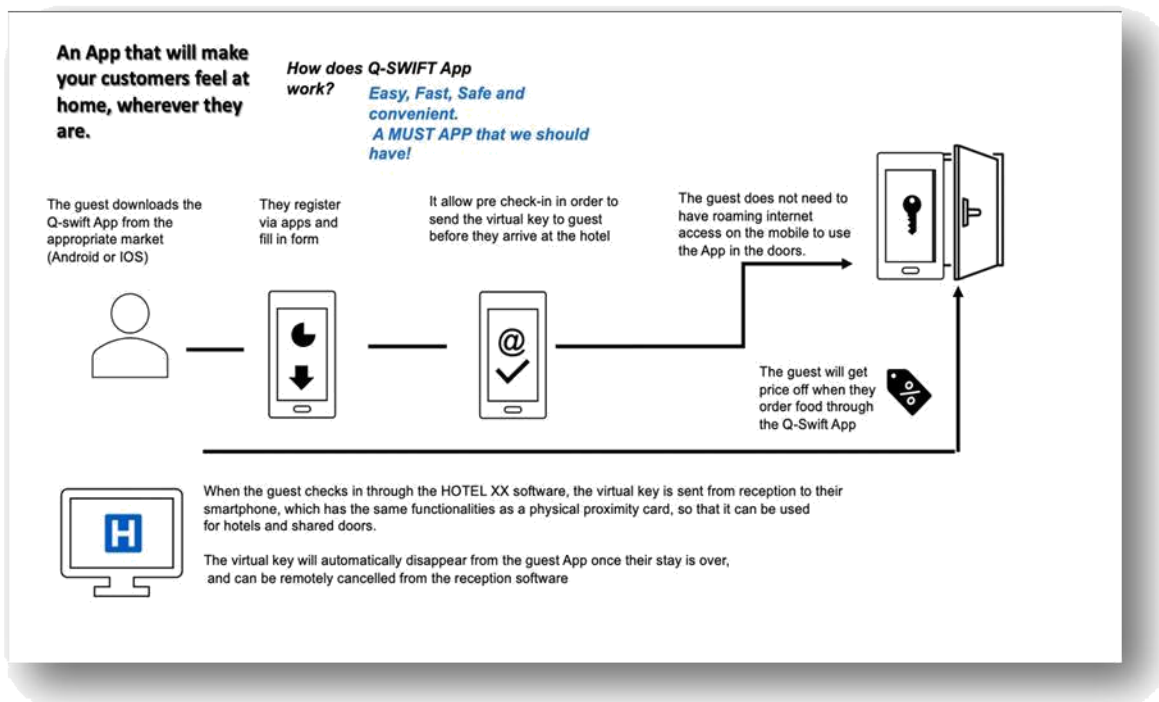


Diagram 5.7: Flow step on how Q-Swift will be used in hotel

6.0 Discussion

This service innovation might bring competitive advantages to all the participants in the new netlike business model. IT system provider improves its customers and partners competencies with its product. The attractive functions and convenient information allow customers to be ready to use it and explore it, and thus they satisfy themselves and, in the mean, while bring profits to other actors. Hotels lodge guests and provide space to other actors, the reward for which is improved IT facilities and customer loyalty. With the help of partners, local businesses have chances to advertise their goods to their target customer group directly (Greenrooms, C. 2018). However, innovation is followed by both new chances and threats the result from the google form survey and interview shows majority of the respondents agree this apps will assist them while check in/check out and having good experience in the hotel. Still, the minority of respondents who didn't agree especially in using keyless function which stated 28.6 percent of respondents might choose traditional approach as using physical key

7.0 Conclusion

From this study, conclusion the researchers make based on result from finding analysis from all the data or figured obtained that. Based on finding also, it has high chance of that this mobile application will help the hotel industry to face new norm circumstances and assist customers to have pleasant hotel experiences particularly in this pandemic situation as majority of respondent positive. Customers are beginning to be afraid to travel and it is time for industrial hotels to find ways to facilitate customers while dealing in hotels. As a solution, Q-SWIFT will be introduced during this pandemic and at the same time, it will help to reduce the risk of infection to hotel customers. Service innovation has been constantly studied to serve customers better. However, as one of the oldest industries, it is hard to innovate in hotel industry with traditional methods. Fortunately, an emerging discipline called Service Science, and information technology an outstanding representative of modern civilization, give us a good chance to innovate services in a new way Hotels make profit mainly by providing lodging service. For many of travelers in their vacation, visit or business trip, hotels are places they stay when out of home (Bryman, A., Bell, E. 2017).

In addition, from all objectives as mention in earlier chapter which are to Help the hotel industry to face new norm. Create a structure system for contactless hotel room services into a mobile application and Assist customers to have pleasant hotel experience., ALL having convincing prospect to be succeed when the product launch due to overwhelming respond from industry player and customers. Nevertheless, in the future. There are a lot of enhancement to be make in order to cope with current trend and situations on that time as the technology as keep evolving from time to time.

8.0 Reference

- Bryman, A., Bell, E. (2017). *Business Research Methods*. Oxford University Press, Oxford.
- Bitner, M.J., Brown, S., Goul, M., Urban, S. (2016). *Services Science Journey: Foundations, Progress, Challenges*. Arizona State University.
- Edvardsson, B. (2016). Quality in new service development – key concepts and a frame of reference. *International Journal of Production Economics*, 52(1-2), 31-46.
- Edvardsson, B., Gustafsson, A., Roos, I. (2015). Service portraits in service research – a critical review. *International Journal of Service Industry Management*, 16(1), 107-121.
- Edvardsson, B., Gustafsson, A., Kristensson, P. & Witell, L. (2018). *Customer Integration in Service Innovation: the handbook of innovation and services*. CTF, Karlstad, Sweden
- Edvardsson, B. & Enquist, B. (2018). *Values-based Service for Sustainable (Business Lessons from IKEA)*. Routledge, London
- Grönroos, C. (2016). Adopting a Service Logic for Marketing. *Marketing Theory*, 6(3), 317-333.
- Grönroos, C. (2018). Service-Dominant Logic Revisited: Who Create Value? And Who Co-Creates? *European Business Review*, 20(4), 298-314.
- Håkansson, H., Snehota, I. (2015). *Developing Relationships in Business Networks*. Routledge, London
- Håkansson, H. & Ford, D. (2012). How should companies interact in business networks? *Journal of Business Research*, 55 (2), 133-139.
- Håkansson, H. & Waluszewski, A. (2012). Path dependence: restricting or facilitating technical development? *Journal of Business Research*, 55 (7), 561-570.
- Romashko, B. (2020). How can the hotel industry recover after COVID-19? Retrieved 28 November 2020 from <https://www.hospitalitynet.org/opinion/4098077.html>
- Roscoe, J.T. (1975). *Fundamentals Research Statistics for Behavioural Sciences*. (2nd.). in Hill, R. (1998). “What Sample Size is ‘Enough’ in Internet Survey Research”? *Interpersonal Computing and Technology: An electronic Journal for the 21st Century*. Available at: <http://www.emoderators.com/ipct-j/1998/n3-4/hill.html>
- Roscoe, J.T. (1975). *Fundamentals Research Statistics for Behavioural Sciences*. (2nd.). in Hill, R. (1998). *Interpersonal Computing and Technology: An electronic Journal for the 21st Century*. Available at: <http://www.emoderators.com/ipct-j/1998/n3-4/hill.html>
- World Health Organization. Operational considerations for COVID-19 management in the accommodation sector - Interim guidance. Geneva: World Health Organization; 2020. (<https://apps.who.int/iris/handle/10665/331937> accessed 20 August 2020)