

Factors affecting self-service technology towards intention to adopt the technology among consumer in the foodservice industry

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Abstract

The aims of this study is to explain the factor affecting the intention to adopt self-service technology (SSTs) in various restaurant settings in the foodservice industry. Self-service technology is the innovative technology which allows consumers to create service outcome electronically without direct contact from employees. The adoption of SSTs has been subjected of research in the past years. However, the factors which effect the intention to adopt SSTs among various restaurant settings consumers still lack. To fit with the research, consumers trial of SSTs model which included innovation characteristics and individual differences as antecedents of SSTs intention which complements the technology acceptance model (T.A.M.), unified theory of acceptance and use of technology (UTAUT) and UTAUT2 by adding restaurants type was adopted and modified by incorporating intention to adopt that acts as the dependent variable. This study proposed a quantitative research using a questionnaire which will be collect from consumers in selected restaurant area Klang Valley who have an experienced used the SSTs. At the end of the research, the results are hoped to benefit the industry practitioners in terms of consumer's adoption and preferences especially on SSTs to develop appropriate operational strategies using the digital technology platform.

Keyword: *Innovation Characteristic, Individual Differences, Restaurant Type, Intention To Adopt, Self-Service Technology, Consumers*

INTRODUCTION

The foodservice industry is a sustainable industry in the world and also one of the hospitality sub-industry that has undergone constant change and growth over time including in Malaysia (Spears & Gregoire, 2010). The encouraging trends in Malaysia were affected by changes in consumer practices, tourism, urbanization and growth of the economy (Euromonitor, 2020). Consumer foodservices have indeed played an essential part in Malaysia to record strong performance in 2019, with trends towards remote dining and tourist growth frequently being pursued and consuming food supplies and home supply orders expected to continue to be sought by consumers. Today, one of the strategic decisions taken by most foodservice providers is to invest in the application of information technology (IT) (Hashim, Safri, Yusoff, Omar, Velayuthan, Hashim, Aziz, Awang, Ahmad, & Fatt, 2019; Hashim, Ramlee, Yusoff, Nawi, Awang, Zainuddin, Abdullah, Ahmad, Rahim, & Fatt, 2019). The number of consumers who communicate with technology to deliver service results rather than communicate with employees is therefore also growing (Baba, Mohd Shahril & Hanafiah, 2020). The increasing use of ICTs in services has revolutionized the relationship between service providers and consumers and increased standardization of various services.

Restaurant technology's strategic objectives have previously focused on increased operating efficiency and productivity, with focus on points of sale (POS) and back-to-house (BOH) systems (Kwon & Matilla 2017; Marinkovic & Kalinic 2017). Nonetheless, a transition has taken place recently from business efficiency to a customer-centric approach where consumer loyalty has increased and become the key concern and top priority of today's restaurant technology (Lorden & Pant, 2016). For instance, restaurants in the United States have launched consumers self-service technology in recent years. In late 2013, Chili and Applebees reveals they have installed over hundred thousand tableside electronic display systems in all their chain restaurants in the country after an in-store iPad with a digital menu for restorative items was first released to consumers. Then a number of other restaurant companies, like Buffalo Wild Wings and Olive Garden followed shortly thereafter (Puzder, 2016; Chevers & Spencer, 2017). While in Malaysia, the application was implemented with the use of devices such as iPad or Samsung Galaxy Page, which provided the menu tablet ordering and digital ordering. However, there is still a lack of application of self-service technology within the food industry (Zulkifly, 2017; Siniah, 2011). While the implementation of this technology would contribute to reducing the restaurant's financial burden (Park & Shin, 2017) and increase customer loyalty through ordering experiences, the high cost of introducing the tablet-books self-service in the food services industry is poorly implemented (Dixon & Kimes, 2012; Wang, Harris & Patterson, 2012; Tian, 2015).

The issue of self-service technology has attracted an interest of previous researchers who are interested in studying which classified by purposed (such as mobile hotel check-in and check-out, online check-in) transaction services (Ukpabi & Karjaluoto 2017; Law et al. 2014) and consumer self-services (such as SMART hotel conciergers) (Barney, 2015; Kim & Qu, 2014) and in some cases, self-service technology can result in co-create of value by causing an insufficient and unexpected utilization of service delivery resources (Ple & Chumpitaz Caceres, 2010). For instance, as not all consumers do not have the expertise or skills to perform certain tasks, there may be a greater risk of service failure, particularly when using self-service technology at an early stage (Hilton et al., 2013). However, consumer adoption of the technology has not been sufficiently evaluated in the food service setting (Freie, 2012; Baba, Mohd Shahril & Hanafiah, 2020). The specific issue is that it is not clear how consumers in restaurant establishments particularly millennials embrace self-service technology as a form of consumer service interaction.

The study suggests that an adoption of self-service technology has not yet been "catches" nor empirically explored to a significant degree (Sohn 2017; Shin & Perdue 2019). To further understand the above problem, it is important to find out the consumer's behavior in various kinds of restaurants related to self-service technology. Through recognizing the relationship that exists between these particular structures, it will not only aid in contributing to a wider awareness that is applicable to restaurateurs, but will also aid them to incorporate the self-service technology that can support their consumers and thereby increase their income as well as the industry.

LITERATURE REVIEW

Self Service Technology

SSTs are known as "technology-based self-service" that are characterized as services that are provided without interfaces to service employees during the service encounter and typically by different kinds of technology themselves (Beatson et al., 2007). Consumers serve as co-producers during the SSTs process and directly contribute to the process of service delivery (Lin & Hsieh, 2006). Because the advancement

of information technology is becoming more advanced every day, as well as the growing service environment, the hospitality industry has been introducing SSTs since a few decades ago.

The introduction of SSTs can give the industry a number of advantages, and, according to Sur (2008), cost savings are the most crucial advantage of SSTs. Operating costs can especially be minimized for the employee's allocation or salary, as enforcing SSTs will replace employees. SSTs were used mainly in the transport and retail sectors in the early stage of implementation. Nonetheless, the foodservice industry has become an inevitable phenomenon because it is expected to reduce employee numbers and overall service delivery time (Chen, 2011). Despite the benefits of SSTs, consumer-related services are consistently reliable and consistent wherever and wherever possible (Law et al., 2009; Ong, 2010). SSTs have also gained significantly from higher rates of perceived service flexibility and more leverage over the quality of service through customer participation (Meuter et al., 2000). As a result, SSTs in the food services sector have a strategic advantage (Kattara & El-Said, 2014).

Innovation Characteristic

There are two mechanisms used to influence the use of new technologies; namely the expected characteristics of innovation and individual consumer differences (Meuter, Ostrom, Roundtree, & Bitner, 2005). Perception of innovation characteristics is known as a person's perceived toward innovative features that can estimate the number of applications of innovation. In addition, it is also refer to a person's opinion towards innovation features which can predict the degree of adoption of an innovation. Rogers (1995) defined five attributes that could help to determine the acceptance of innovation are: relative advantage, complexity, compatible, trialability and observable. Nevertheless, a study by Tornatzky and Klein (1982) suggested that the most consistently substantial relationship with purpose is three of these innovation characteristics; namely relative advantages, complexity and compatibility. This study concentrates therefore on these three aspects of innovation. The relative advantages are identified by the belief that the findings offer more benefits than the concepts they replace; therefore, relative advantages are associated with acceptance rates (Yepes, 2015). Compatibility determines the level of compatibility of innovation with the existing values and needs of potential users; therefore, if such innovations are considered highly compatible, adoption rates are also expected to be high (Venkatesh et al., 2003) while, complexity is related to the level of quantitative challenges felt in recognizing and using technology. Thus, complexity is associated with acceptance rate (Wang & Qualls, 2007).

Proposition 1: Innovation characteristic is positively related to intention to adopt

Individual Differences

Therefore, individual differences are known as the second concept shaping the adoption of new technologies. The individual differences between users can be divided into inertia, technological anxiety, interaction, past experience and demographics (Meuter et al., 2005). Inertia makes it difficult to establish individual requirements and performance goals, which contributes to uncertainty in the implementation of new technology (Olashavsky & Spreng 1996). Technological anxiety is characterized in the use of new technologies, which prevents engagement with a specific technology as fear, apprehension and excessive timidity (Meuter et al. 2003). Dabholkar (1996) explains that there are certain service encounters that require interaction between employees and users, known as the need for interaction, therefore the need for interaction of certain people is expected to influence the behaviour of self-service technology. In fact, previous self-service experiences, such as tablet-based ones, will

increase the chances of implementing tablet-based menus, as previous knowledge will instil confidence in new technology management (Dickerson & Gentry, 1983; Wang et al., 2017; Meuter et al., 2005). Demographics are the fifth variable included in the individual difference block. Nonetheless, antecedent variables such as sex and education are weak test indicators (Meuter et al., 2005).

Proposition 2: Individual differences is positively related to intention to adopt

Types of Restaurant

It is vital to consider the overall atmosphere of the restaurant when evaluating the use of self-service technology. All restaurants can be classified based on their characteristics and level of service (Bujisic et al., 2014). Emenheiser et al. (1998) distinguished three types of restaurants based on restaurant specialty, credit card acceptance, type of restaurant felt and alcohol availability. Based on these features, three types of restaurants are defined as fast-food restaurants (perceived as fast-food restaurants or takeaway restaurants), chain restaurants and upscale restaurants (considered to be more than middle-class restaurants because of the full liquor service offered).

Fast-food restaurants offer the fastest service of all types of restaurants, as customers are expected to visit such restaurants in a hurry or in a short time for dinner. Quick service restaurants usually offer basic décor, and in some situations, these restaurants only have entrances or walk-in windows to make and take orders from other dining areas (Johnson, 2019). In addition, fast-food restaurants are influenced by the quality, convenience and economic value (Ha & Jang, 2013). Meanwhile, a chain restaurant is a group of similar restaurants of the same brand name in several different locations that are either run under joint ownership agreements or franchise agreements. Chain restaurants work efficiently under the same brand name, so brand equity management is the main driver of the success of the chain restaurant (Kim & Kim, 2004). While, Johnson (2019) designate upscale restaurants as providing a sleek and elegant atmosphere. The menu options are more detailed and the rates are more costly, however the perceived value of dining in such restaurants is recognized by the customers. Typically, services in upscale restaurants are known to be luxury-oriented and detailed, as consumers can spend hours in restaurants enjoying drinks, appetizers and desserts (Jin et al., 2016). Consumers who despise this type of restaurant often to celebrate the success of a business or special event because time is not a problem for them. Similarly, Ha and Jang (2013) found that the characteristics of high-quality restaurants are emotional value and quality of life.

Proposition 3: Types of restaurant is positively related to intention to adopt

Intention to Adopt

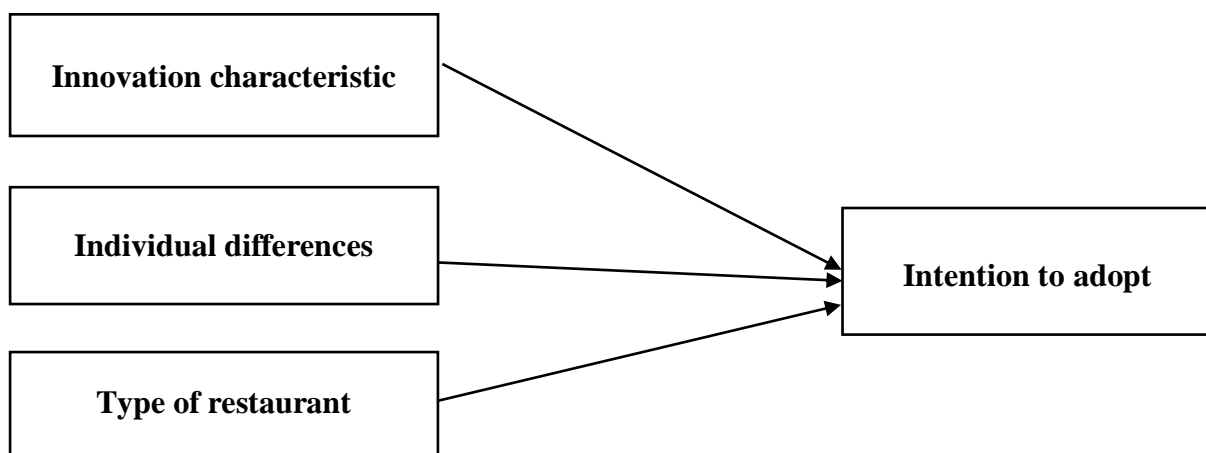
Based on Reasoning Action Theory (TRA), most behaviours are subject to voluntary control and are predictable based on behavioural intentions. Thus one's intention to do or not to perform a particular activity is a direct predictor of actual action (Ajzen & Fishbein, 1980). Intention and commitment are inseparable in conducting a specific task, which is why the probability of using a program should increase with the users' clear intention to use a program (Ajzen & Madden, 1986). Behavioral intention identifies the motivational factors influencing an action. Such variables are representative of the degree to which people expect to attempt to accomplish the conduct and how many attempts they intend to make (Ajzen, 1991). Understanding factors that influence behavior intention to use a web-based learning system also increases understanding of the actual use of the system among blue collar workers.

Previous work indicates that the most critical indicator of its adoption and actual use is intention to use a device (Ali et al., 2016; San Martin & Herrero, 2012; Kumar & Mittal, 2015, Hashim, Zulkiffli, Aziz, Nawi, Awang, Muhammad & Yusoff, 2020). Ajzen (1991), therefore, assumes that the intentions of people are able to catch motivating aspects that affect their actions and that they are willing to produce an action. UTAUT was initially developed to clarify technology adoption and implementation in organizational contexts, in line with other frameworks for information system implementation (Slade et al. 2015; Bakar, Hashim, Nawi, Rahim, Yusoff, Aziz, & Ahmad, 2020). Accordingly, UTAUT-based studies emphasize embracing organizational social networks, studying virtual technology, repositories of human resources, and applications for electronic commerce. However, taking into account the similarities between UTAUT and other technology acceptance theories, UTAUT was adopted to explain and predict the acceptance of online purchases by private consumers (San Martin & Herrero, 2012), online banking (Abushanab & Pearson, 2007; Kwon et al., 2013) and smartphone and internet services (Money & Money, 2010;), although its application to consumer behaviour is still ongoing

The attitudes toward the use of technology systems are expressed in the original Technology Acceptance Model (T.A.M.) to encourage behavioural intentions to use the system. Or, the relationship of intention attitudes to the behaviours shown in TAM means that people form the intention to perform behaviours that they feel are positive. This relationship is also fundamental to TRAM and Organized Behavior Theory (TPB), and existing research contains empirical evidence that supports the relationship of TAM behavioural intentions in the context of the use of self-service technology.

PROPOSED CONCEPTUAL FRAMEWORK

This study, based on earlier literature, propose a research framework to address the relationship between innovation characteristic, individual differences, types of restaurant as the factor that influence consumer behavioral intention towards SSTs intention to adopt. It is proposed that there is a positive relationship between these variables.



CONCLUSION

The technologies of self-service enable businesses to reduce costs as well as help the company to offer better service quality. The efficiencies can be gained by SSTs for their company, in term of information and technology. In the future, successful companies will be those who are always able to make the maximum use of information and communication technology transition. Consumers are constantly seeking more and more efficient service. The winners will be those organizations who are able to exploit the ability of information and communication technology for create tactical decisions on the enhancement of value services, the operational efficiency and capacity, risk management and the creation of great consumer relationships.

Increasing rivalry, combined with higher consumer expectations and greater use of technology, is bound to give foodservice industry in Malaysia completely new opportunities. Undeniably, Malaysia's restaurants management are attempting their best, but there is still a vast opportunity to enable consumers to make use of technology to ensure the distribution of a product or service is more effective. The nature of human life is being shaped by the assisting from science and technology. Life is never that simple, but science and technology offer people comfort and luxury and feel so pleasure. New technology, however, brings with it not just the potential for improvement, but also a continuous series of questions concerning its design, its importance to its users, its greatest use, and acceptability. In Malaysia, the idea of self-service technology is relatively recent, but the potential is huge. There is a relatively high necessity for doing research in this area.

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REFERENCES

1. Abushanab, E., & Pearson, J.M., (2007). Internet banking in Jordan: the unified theory of acceptance and use of technology (UTAUT) perspective. *Journal of System and. International. Technology*, 9 (1), 78–97.
2. Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50 (2), 179–211.
3. Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Upper Saddle River, NJ: Prentice-Hall.
4. Ajzen, I., & Madden, T. J. (1986). Prediction of goal directed behavior: Attitudes, intentions, and perceived behavioral control. *Journal of Experimental Social Psychology*, 22(5), 453–474.
5. Ali, F., Nair, P. K., & Hussain, K. (2016). An assessment of students' acceptance and usage of computer supported collaborative classrooms in hospitality and tourism schools. *Journal of Hospitality, Leisure, Sport & Tourism Education*, 18, 51-60.
6. Baba, N., Mohd Shahril, A., & Hanafiah, M. H. (2020). Self-ordering kiosk usage and post-purchase behaviour in quick service restaurant. *Journal of Tourism, Hospitality & Culinary Arts (JTHCA)*, 12(1), 1-17.
7. Bakar, N. A., Hashim, N. A. A. N., Nawi, N. M. M., Rahim, M. A., Yusoff, A. M., Aziz, R. C., & Ahmad, G. (2020). Travel Mobile Applications: The Use of Unified Acceptance Technology Model. *International Journal of Innovative Technology and Exploring Engineering (IJITEE)*, 9(3), 3118-3121.
8. Barney, J. (2015). Firm resources and sustained competitive advantage. In *International Business Strategy* (pp. 297-315). Routledge.

9. Beatson, A., Lee, N., & Coote, L. V. (2007). Self-service technology and the service encounter. *The Service Industries Journal*, 27(1), 75-89.
10. Bujisic, M., Hutchinson, J. & Parsa, H.G. (2014). The effects of restaurant quality attributes on customer behavioral intentions, *International Journal of Contemporary Hospitality Management*, 26 (8), 1270-1291.
11. Chen, W.C. (2011). *Technology base self-service in hospitality industry*. (Unpublished master's thesis). University of Nevada, Las Vegas, Las Vegas, NV. Retrieved from <https://digitalscholarship.unlv.edu/thesesdissertations/1094/>
12. Dabholkar, P. A. (1996). Consumer evaluations of new technology-based self-service options: an investigation of alternative models of service quality. *International Journal of research in Marketing*, 13(1), 29-51.
13. Dickerson, M. D., & Gentry, J. W. (1983). Characteristics of adopters and non-adopters of home computers. *Journal of Consumer Research*, 10, 225-235.
14. Dixon, M., Kimes, SE, & Verma, R. (2009). Customer preferences for restaurant technology innovations. *Cornell Hospitality Report*, 9(7), 4-16.
15. Emenheiser, D.A., Clay, J.M. & Palakurthi, R. (1998). Profiles of successful restaurant managers for recruitment and selection in the US, *International Journal of Contemporary Hospitality Management*, 10 (2), 54-62.
16. Euromonitor. (2020). Consumer foodservice in Malaysia. Euromonitor: Global Market Information Database, April
17. Frei, F., & Morriss, A. (2012). *Uncommon service: How to win by putting customers at the core of your business*. Harvard Business Press.
18. Ha, J. & Jang, S. (2013). Attributes, consequences, and consumer values: a means-end chain approach across restaurant segments, *International Journal of Contemporary Hospitality Management*, 25(3), 383-409.
19. Hashim, N. A. A. N., Zulkiffli, W. F. W., Aziz, R. C., Nawi, N. M. M., Awang, Z., Muhammad, N. H., & Yusoff, A. M. (2020). Grab Pay App: The Factors Influencing Tourists' Behavioural Intention-to-Use. *Journal of Talent Development and Excellence*, 12(3S), 820-828.
20. Hashim, N. A. A. N., Safri, F. H. M., Yusoff, A. M., Omar, R. N. R., Velayuthan, S. K., Hashim, H., Aziz, R. C., Awang, Z., Ahmad, G., & Fatt, B. S. (2019). Disintermediation Threat: How and What Strategies are Used by Traditional Travel Agency to Survive?. *TEST Engineering & Management*, 59(6S), 1022-1031.
21. Hashim, N. A. A. N., Ramlee, S. I. F., Yusoff, A. M., , Nawi, N. M. N., Awang, Z., Zainuddin, S. A., , Abdullah, T., Ahmad, G., Rahim, M. A., & Fatt, B. S. (2019). Internet Shopping: How the Consumer Purchase Behaviour is Impacted by Risk Perception. *TEST Engineering & Management*, 59(6S), 1014-1021.
22. Hilton, T., Hughes, T., Little, E., & Marandi, E. (2013). Adopting self-service technology to do more with less. *Journal of Services Marketing*, 27 (1), 3-12
23. Jin, N., Line, N.D. & Merkebu, J. (2016). Examining the impact of consumer innovativeness and innovative restaurant image in upscale restaurants, *Cornell Hospitality Quarterly*, 57(3), 268-281.
24. Johnson, R. (2019). 4 Styles of service in the restaurant business. Retrieved on 27 6, 2019 from <http://smallbusiness.chron.com/4-styles-service-restaurant-business-22923.html>
25. Kattara, H. S., & El-Said O. A. (2014). Customers' preferences for new technology-based self-services versus human interaction services in hotels. *Tourism and Hospitality Research*, 13(2), 67-82.
26. Kim, M. & Qu, H. (2014). Travelers' behavioral intention toward hotel self-service kiosks usage, *International Journal of Contemporary Hospitality Management*, 26(2), 225-245.
27. Kim, W. G., & Kim, H. B. (2004). Measuring customer-based restaurant brand equity. *Cornell hotel and restaurant administration Quarterly*, 45(2), 115-131.
28. Kumar, R., & Mittal, A., (2015). Customer satisfaction and service quality perception of technology based-banking services: a study on selected public sector banks in India. *Global Journal Management Business Research*, 15 (5), 39–45.
29. Kwon, J. M., Bae, J. I. S., & Blum, S. C. (2013). Mobile applications in the hospitality industry. *Journal of Hospitality and Tourism Technology*, 4 (1), 81-92

30. Law, R., Buhalis, D. & Cobanoglu, C. (2014). Progress on information and communication technologies in hospitality and tourism, *International Journal of Contemporary Hospitality Management*, 26(5), 727-750.
31. Law, R., Leung, R., & Buhalis, D. (2009). Information technology applications in hospitality and tourism: A review of publications from 2005 to 2007. *Journal of Travel & Tourism Marketing*, 26(5-6), 599-623.
32. Lin, J. S. C., & Hsieh, P. L. (2006). The role of technology readiness in customers' perception and adoption of self-service technologies. *International Journal of Service Industry Management*, 3 (2), 193
33. Lorden, A.A., & Pant, G. (2016). 18th Annual restaurant technology study-A supplement to hospitality technology. *Hosp. Technol. Mag.* 1–15.
34. Meuter, M. L., Ostrom, A. L., Roundtree, R. I., & Bitner, M. J. (2000). Self-service technologies: Understanding customer satisfaction with technology-based service encounters. *Journal of Marketing*, 64, 50-64.
35. Meuter, M.L., Bitner, M.J., Ostrom, A.L. & Brown, S.W. (2005). Choosing among alternative service delivery modes: an investigation of customer trial of self-service technologies, *Journal of Marketing*, 69(2), 61-83
36. Meuter, M.L., Ostrom, A.L., Bitner, M.J. & Roundtree, R. (2003). The influence of technology anxiety on consumer use and experiences with self-service technologies, *Journal of Business Research*, 56(11), 899-906.
37. Olshavsky, R.W. & Spreng, R.A. (1996). An exploratory study of the innovation evaluation process, *Journal of Product Innovation Management*, 13(6), 512-529.
38. Ong, L. I. (2010). *Can self-service technologies work in the hotel industry in Singapore? A conceptual framework for adopting self-service technology.* (Unpublished master's thesis). University of Nevada, Las Vegas, Las Vegas, NV.
39. Park, C.H., & Shin, J.K. (2017). "An exploratory study on the determinants of performance in regional industry technology development programs", *Asia Pacific Journal of Innovation and Entrepreneurship*, 11(2), 125-143
40. Ple, L., & Chumpitaz Caceres, R., (2010). Not always co-creation: introducing interactional co-destruction of value in service-dominant logic. *Journal of Service Marketing*, 24 (6), 430–437.
41. Puzder, A. (2016). Why Restaurant Automation Is on the Menu. Retrieved April 20, 2014, from <https://www.wsj.com/articles/why-restaurant-automation-is-on-the-menu-1458857730?mg=id-wsj>
42. Rogers, E.M. (1995). *Diffusion of Innovations*, The Free Press, New York, NY.
43. San Martín, H., & Herrero, Á. (2012). Influence of the user's psychological factors on the online purchase intention in rural tourism: Integrating innovativeness to the UTAUT framework. *Tourism Management*, 33(2), 341-350.
44. Shin, H., & Perdue, R. R. (2019). Self-Service Technology Research: a bibliometric co-citation visualization analysis. *International Journal of Hospitality Management*, 80, 101-112.
45. Siniah, M. (2011). "Sakae Sushi places iPad to take orders". Retrieved on Nov 19, 2017 from <http://www.marketing-interactive.com/sakae-sushi-places-ipad-to-take-orders/>
46. Slade, E. L., Dwivedi, Y. K., Piercy, N. C., & Williams, M. D. (2015). Modeling consumers' adoption intentions of remote mobile payments in the United Kingdom: extending UTAUT with innovativeness, risk, and trust. *Psychology & Marketing*, 32(8), 860-873
47. Sohn, S. (2017). A contextual perspective on consumers' perceived usefulness: The case of mobile online shopping. *Journal of Retailing and Consumer Services*, 38, 22-33.
48. Spears, M.C., & Gregoire, M.B. (2010). *Foodservice organization: A managerial and systems approach* (6th ed.). New Jersey: Pearson Prentice Hall
49. Sur, S. (2008). Technology-based remote service encounters: understanding customer satisfaction and sustainability. *Journal of Foodservice Business Research*, 11(3), 315-332.
50. Tian, Y. (2015). *Impact of Menu Designs and Personal Dietary Behaviours on Young Millennials' Restaurant Menu Choices.* Ohio State University.
51. Tornatzky, L. G., & Klein, K. J. (1982). Innovation characteristics and innovation adoption-implementation: A meta-analysis of findings. *IEEE Transactions on engineering management*, (1), 28-45.

52. Ukpabi, DC & Karjaluo, H. (2017). Consumers' acceptance of information and communications technology in tourism: a review, *Telematics and Informatics*, 34 (5), 618-644.
53. Venkatesh, V., Morris, M.G., Davis, G.B., & Davis, F.D. (2003). User acceptance of information technology: toward a unified view. *MIS Quarterly*, 27 (3), 425–478.
54. Wang, C., Harris, J., & Patterson, P.G. (2012). Customer choice of self-service technology: the roles of situational influences and past experience. *Journal of Service Management*, 23(1), 54-78.
55. Wang, Y. & Qualls, W. (2007). Towards a theoretical model of technology adoption in hospitality organizations, *International Journal of Hospitality Management*, 26(3), 560-573.
56. Wang, Y., So, KKF, & Sparks, BA, (2017). Technology readiness and customer satisfaction with travel technologies: a cross-country investigation. *Journal of Travel. Resources*. 56 (5), 563–577.
57. Yepes, M.F. (2015). Mobile tablet menus: attractiveness and impact of nutrition labeling formats on millennials' food choices, *Cornell Hospitality Quarterly*, 56(1), 58-67.
58. Zulkifly, M.I. (2017). Technology Readiness, Customer Perceived Value, Customer Information Satisfaction and Behavioural Intention on Tablet-Based Menu Ordering Experience. *Management Science*, 2(2), 1-309.