Factors Influencing Consumer's Intention to Use Self Service Technology in Retail

Nasser Ali M Khalufi*
School of Management, Universiti Sains Malaysia, Pulau Pinang, Malaysia
College of Business Administration, Jazan University, Jazan, Saudi Arabia
Email: nkhalufi@student.usm.my

Khairul Anuar Mohammad Shah
School of Management, Universiti Sains Malaysia, Pulau Pinang, Malaysia
Email: khairulms@usm.my

* Corresponding Author

Abstract
Purpose: This study proposes the effect of factors that significantly contributes to the intent of consumers in using self-service technologies and simultaneously dig deeper into the factors which are related to the SSTs in retail industry.
Methodology: The study reviewed the literature on the factors of social influence, need for human interaction, technological resistance, technological anxiety, technological failure, perceived usefulness, and perceived ease of use from the reliable databases such as Scopus, ScienceDirect and ProQuest.
Findings: Based on the Innovation Diffusion Theory and Technology Acceptance Model, this study has constructed the relationship between social influence, need for human interaction, technological resistance, technological anxiety, technological failure, perceived usefulness, and perceived ease of use and consumers intention to use self-service technology. These relationships were found significant in various studies.
Research limitations/implications: This study recommends academicians and scholars evaluate the previous knowledge on the factors of social influence, need for human interaction, technological failure, and consumers intention to use self-service technology in other industries, and look for some environmental and cultural factors inability to predict changes in consumers intention.
Practical Implication: The empirical findings will help the researchers, retailer, and consumers to make sustainable decisions in the studying, adopting, and using of self-service technology. The results would also figure out certain applicable suggestions that could benefit the retail industry in using more services to attract customers in the long run.
Originality/value: The results offer the opportunity to understanding of factors influencing consumers intention to use self-service technology in practical of retailing.

Keywords: Self Service Technology, Retail, Consumers, Factors, Intention, Technology, Acceptance.

Introduction
Technology plays a major role in day to day lives of human beings. The fourth-generation industry has transformed into a technological hub wherein life seems meaningless without the

intervention of technology and digital media. The daily daunting tasks require the use of technology for completion, that is the reason it is gaining much importance in present day scenario. Intervention of technology and the profitability in a retail industry is largely dependent on the intention of consumers to use the self-services (Rahman, 2017). This paper entails the nuances of aspects related to the intent of customers with respect to use of SSTs. In other words, it determines the scope to do much research based on perspective of consumers.

The quality of service has been a topic of discussion for many eminent scholars, market researchers and business leaders. Lot of things are dependent on the customers' perspective of the services they use. The convenience that customers desire, security and attitude or behavioral intention are major concerns of retail industries for providing better customer experience and satisfaction. Various research has proven the fact that factors such as economy, ease of handling, convenience and security are indeterminately related to the value associated to self-service even if they differ in contribution. These factors influence the repurchasing behavior of customers. Self service provides a scope for developing the economy since the service industry is at a high rise in this era (Scherer, 2015).

Innovation is the key to keep pace with the booming phase of technology. Self-service in the service industry is in huge demand. It has become a need of the hour for developing the economy. The world has become smaller with the use of technology. Information systems have advanced and has helped to build a great network among different parts of the world. With communication, networking and huge amount of information, correspondence and advancements in network innovation, the service model of the conventional service industry should be changed into three major aspects namely, technological methods, scientific and a competitive climate, to make profit out of expectations of the consumer (Pereira et al., 2020). The intervention of technology has seeped deeper into the lives of human beings such that a world without technology cannot be imagined in the present-day scenario. Consumer readiness is said to be a primary factor associated to the general behavior of customers. The business leaders must understand the impact which self-service can create in the customer attraction and retention. The services such as Automated teller machines (ATMs), gas stations, kiosks in the banks, post offices, supermarkets and so on are certain examples of the self-services which are widely used by consumers (Gunawardana & Perera, 2015). The service industry is using more of these technologies for gaining a competitive advantage over conventional businesses.

Banking transactions, placing online orders, buying stocks, withdrawing funds, auto parking spaces, ticket machines, coffee vendors and so on are some other self-service technologies used and appreciated by consumers. These SSTs are totally driven by ease of handling or using these services. Perceived usefulness is a major factor influencing the intention of customers. It is believed that consumers are of the view that the readiness, clarity of usage and ability to use the self-service technology, are the key players in their intent to use them.

The purpose of the study is to explore the effect of factors that significantly contributes to the intent of consumers in using self-service technologies and simultaneously dig deeper into the factors which are related to the SSTs in retail industry.

Literature Review

Self-service Technology in the retail industry has gained much popularity. It has generated lot many opportunities for serving customers in the best way possible. The businesses run to satisfy the demands of the customers and in return create wealth for themselves. Henceforth, self-service technologies have proven to be a boon for retail industry to meet the needs of demanding customers in an innovative way. These technologies provide an extensive scope for delivering fast and hassle-free services.

Starbuck is said to be one of the pioneers of self-service technology, the image it has created on customers have paved the way for such a requirement in the retail enterprises (Willems et al., 2017). Customers expect a convenient and satisfying experience in all online and offline stores. SST has opened a platform providing immense number of opportunities to buy the intent of customers and satisfy them so that they turn back to the same brands to avail their daily use articles.

The retail industry is adopting self-service technology to enhance the service quality. The kiosks installed in the retail stores are the best examples of self-service technology that provides a human interface helping customers to avail whatever they want. During airline check-ins as well, kiosks are widely used. The various places where self-service technology is used in retail sectors are supermarkets, food joints, departmental stores, pharmacy stores, entertainment centres and bookstores and so on (Berger, 2019). The retailers decide when, what and how the services are to be provided to the consumers. It is necessary to analyse the application of these services in the retail industry. If not optimized, it can lead to huge losses as well. Consumer experience with respect to the service availed by them has a huge role to play in the marketplace. The self-service technologies are widely adopted by the retail sector to provide the best quality of service (Mukerjee, 2020).

The customers are delighted to have a hassle-free service. With the usage of technology, organizations can provide a delightful experience to their customers. Check-in facilities in the hotels and airlines as well as other automated services for ordering room service is very attractive for customers and they are immensely impressed by the smooth process of accessing these facilities. Some of the automated machines are used for finding out the value of products while other machines are made for delivering goods or any other form of information and transaction facilities. There are some kiosks which are used to educate the people. One such example is Colgate; it presents videos on the kiosks to guide people about dental problems and such kiosks are placed in the retail stores (Vakulenko et al., 2019). Individuals connect with themselves in innovations and technology and their behaviour is characterized by four major aspects including:

a) Performance anticipation
b) Expectation of efforts
c) Social impact
d) Facilitated environments

Theoretical Underpinnings
This paper proposes a conceptual model based on Innovation Diffusion Theory (IDT) with Technology Acceptance Model (TAM). seven constructs and seven propositions as depicted in Figure1. Which are social influence, need for human interaction, technological resistance, technological anxiety, technological failure, perceived usefulness, and perceived ease of use and the dependent variable which is consumers intention to use self-service technology.

Innovation Diffusion Theory (IDT)
Likewise, the "Innovation Diffusion Theory (IDT)" an author describes the system through which ideas and developments end up being in the diffusion and adoption of solid networking of people (Wani & Ali, 2015). Diffusion is portrayed as a procedure through which the launch of new product for example any new kind of product or service, is imparted by the method for various channels among the members of a social framework. Innovation as a process of diffusion goes through six phases: awareness, analysis, evaluation, preliminary, continual use,

and responsibility or commitment (Miranda et al., 2016). As the course of innovation, social system moves from starting usage or trials made at an earlier stage, consumer insights change over the long run as they acquire new experiences of technology and innovation.

Technology Acceptance Model (TAM)
Whenever we talk about new technology and its usage by the consumers, we refer Technology Acceptance Model (TAM). Construct Perceived Risk (PR) is tested with extended TAM model to find the positive effects of traditional TAM elements. The components are "Perceived Ease of Use (PEOU), and Perceived Usefulness (PU) Perceived Risk (PR). Among these variables the first two are positive and last one is negative (George and Kumar, 2013). In some other studies, it was found that not only perceived ease of use, (PEOU) perceived usefulness (PU), but Trust (TR), and Self-efficacy (SE) on the adoption of new technology also have a significant role (Shankar and Datta, 2018). Some of the authors have also added Personal innovativeness (PI) and Self-efficacy (SI), and Subjective Norms (Chawla and Joshi, 2018). The upcoming sub-sections describe the development of propositions.

Development of Propositions

Social Influence
It was determined that people who use technology, the comfort with which the consumers can utilize it has a positive impact on their attitude towards it (Lai, 2016). This has been demonstrated in organizational and consumer behavior research. People love to engage in using technology, they tend to discuss the ease of technology with their friends and relatives and in their circles. Several people become brand ambassadors of such services and spread the word of mouth. These lead to change in perceptions of different people and are influenced by first time buyers while wanting to experiment themselves. This is known as social influence, and it helps to form a particular behavioral trait in the human beings (Scherer et al., 2015).
P1 Social Influence positively influences the Intention to use Self Service Technology.

Need for Human Interaction
The conventional shopping methods have somehow come to a standstill, people are appreciating technology-based shopping experiences and in the retail environment the automated machines or self-service technology-based models are prospering. However, human interaction is getting reduced in the process. Researchers have tagged along this topic for a while now and are trying to find what is the impact being created on human interaction as well. Some evidence-based studies have confirmed that when employees are reacting with customers, the results are better (Shao & Skarlicki, 2014). However, many critics have also stated otherwise. The occupancy cycle must be known by the retailers so that they can use the technology interventions in places which it is required the most.
P2 Need for Human Interaction negatively influences the Intention to use Self Service Technology.

Technology Resistance
The service quality of the retail sectors was emphatically impacted by the intention of the customers. The quality of technology, SST administration quality and its utilization expectations were decidedly influenced by retail business intentions. There is a possibility of resisting the usage of technology for some people. Hence, the involvement of consumers and

their readiness to accept a change also plays a major role in the intention of using SSTs (Kaushik et al., 2015). For many individuals, the benefit of using a technology is not known, that makes a difference in their attitude. Adopting becomes a hassle for such individuals. The psychological barriers create a hindrance in their path to use those self-service technologies.
P3 *Technology Resistance negatively influences the Intention to use Self Service Technology.*

Technology Anxiety

It is a state where consumers face a typical emotional turbulence arising out of the fear of using technology. As it is known, consumers avoid using technology or new innovations when they are not aware of the advantages that shall be provided to them. Furthermore, they fear the fact that the technology might backfire at them by some means. The assurance of safe and easy usage must be provided beforehand so that they do not feel the anxiety or pressure of using such technologies. Apart from this, there are cultural barriers, or some other practices followed by them conventionally, which when forced to change becomes a problem for the older generations (Kucukusta et al., 2014). The consumers are habituated to use the conventional methods such as standing in a queue to get money from the bank, shopping in the retail shops or even airport check-ins. The personal reasons as well as adoption to technology takes time and, in some cases, makes them anxious and worried.
P4 *Technology Anxiety negatively influences the Intention to use Self Service Technology.*

Technology Failure

Most parts of the world are well-aware of the digital interventions. The growth of information technology, communication and vast networking has made the job easy for several people. The automated machines are so robust that they save ample amount of time and money. However, there are few instances that technology fails some way or the other (Bower & Sturman, 2015). The reasons can be innumerable, for instance poor implementation of software, maintenance issues, complexity of the equipment used and so on. Even large companies fail miserably if the technology is not properly monitored and used in a proper manner. These technological failures create an apprehension in the minds of people and makes them intimidated to use the conventional ways of dealing with things. They prefer purchasing goods or services in the way that they have been accustomed to all this while.
P5 *Technology failure negatively influences the Intention to use Self Service Technology.*

Perceived usefulness:

The usefulness of any technology is decided by the experience that has been created by the same in the minds of customers. This is subjective in nature. Some might perceive a particular aspect in one way whereas others might perceive the same in different manner. The most common factors associated to perceived usefulness are time and effort saving, interface, hassle-free, and the overall usefulness of the technology (Ujang et al., 2016). It makes the users believe that the performance of a work is enhanced using self-service technology. For instance, with the advent of internet and technology, online shopping is drastically seeing a rise. It saves huge amount of time and money and is convenient for the users as well. The usefulness as perceived by the consumers gives an insight to the business leaders for making strategies to influence the customers into using SSTs.
P6 *Perceived usefulness positively influences the Intention to use Self Service Technology.*

Perceived ease of use:

Customers will use several technological developments that is straightforward and requires less effort or hard work to get done with going through the ongoing tasks. Davis has presented theories on perceived ease of use in his writings. He has described as how much an individual accepts that utilizing a specific framework or innovation would be easy to use and hassle-free. Moreover, the possible advantages of utilizing SSTs incorporate from the diminished holding up occasions, cost-investment funds, and a more significant control over the service delivery. SSTs empower shoppers to perform and offer their own kind of assistance without direct help from the company representatives, and this permits customers to appreciate proficient and personalized services. For instance, buyers don't have to hang in a long queue for hours during check-in processes either in a lodging or air terminal because of the SSTs innovation that buyers can perform without any kind of assistance from anyone else.

The cell phones, these days, are a lot more modest and lighter to convey any information. It has the potential to do any work with customer's need in requiring less effort to complete their check-ins by means of online bookings. Subsequently, most customers incline toward SSTs that offer simple interfaces, direction, and help from the firm to facilitate their change from customary administrations to SSTs. Customers are often of the view that the services they use must be user friendly and effortless to use. Perceived usefulness and perceived ease of use go hand in hand. The customers want an effortless experience (Wang et al., 2020). It influences the acceptance of technology for the consumers and further builds their trust on using the self-service technology. Most existing research on the acceptance and acknowledgment of SSTs have centered the attention in one of the attributes of the innovation (e.g., perceived ease of use), consumer preference and consumer behavior (e.g., technological anxiety), and self-viability as the variables influencing people's acceptance of self-service technology.

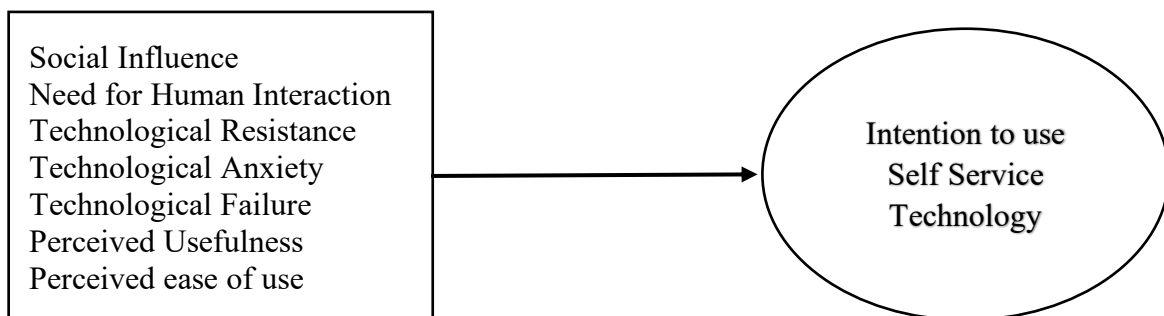*P7 Perceived ease of use significantly influences the Intention to use Self Service Technology.*

Figure 1 Conceptual Framework of the Study

Discussion and Conclusion

The paper has dealt with an analysis of the intent of the customers and the variables which compel them in using the self-service technologies. It has given nuances of technology and the willingness to accept the technological changes in the market. However, apart from the acceptance of these new innovations, the paper has tried to cover the importance of situational factors associated in influencing the consumer perception. It forms a theoretical basis for analyzing the variables impacting the consumer behavior. Self-service technology and its uses are abundant in nature. It is becoming famous all around the globe, especially in retail industry where the people expect an effortless and fast service to purchase their daily use articles. Retail

industries are seen using SSTs to its full potential so that they can attract and retain their employees. The intention of users is dependent on a variety of aspects, some of which have been dealt with, in this paper. The most common factors linked with consumer perception are technological apprehension, social interaction, need for human communication, perceived suitability, technological endurance, and technological failure. These have a direct impact on the acceptance, perception and purchasing behavior of individuals, especially in the retail sector. The business enterprises in the retail industry can formulate strategies that would be helpful in attracting the customers by bringing their attention to the smooth process of availing services. Awareness is the main key. As mentioned earlier, if the people are not aware of the technicalities, they may not adapt the innovations on a positive note. Therefore, retail industries should make it a point to promote the usage of SSTs in the best possible means for the awareness of consumers. If they can tap into the perception of individuals, they would have a larger share in the market. The paper also provides a scope for further research based on the perception of consumers in using SSTs, so that additional work could be done in the field of technology as well as in the retail industry. This study significantly contributes to the existing body of knowledge by clubbing together the six such dimensions which has an impact on the adoption of the SST. It is important to note that most of the previous studies, empirical as well as theoretical either talks about the positively influencing factors or negatively influencing factors. This study proposes a model that includes both types of variables and provide the practitioners and future researchers a guideline to develop the premise of their study.

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