

# An Insight of Customer's Behavior Intention to Use Self-Service Kiosk in Melaka Fast Food Restaurant

Nlizwa Rashid<sup>a,\*</sup>, Susandra Ketimin<sup>a</sup>, Samer Shami<sup>b</sup>

<sup>a</sup>Fakulti Pengurusan Teknologi Dan Teknousahawanan

<sup>b</sup>Institut Pengurusan Teknologi Dan Keusahawanan,

Universiti Teknikal Malaysia Melaka (UTeM)

Centre of Technopreneurship Development (CTeD)

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## Abstract

Self-service kiosks (SSKs) are mostly implemented and promoted to substitute traditional service encounters, and researchers have investigated the influencers of SSK acceptance. This research aims to determine important perceived variables in the use of self-service kiosks (SSK) to determine Malaysian's intention to conduct SSK. It would also be possible to display this research's results whether the consumer perceived SSK as a supporting role or already becoming a vital role in daily life. This study includes four independent variables: perceived Ease of use, perceived usefulness, need for interaction, and risk to measure the relationship towards behavioral intention on SSK. Secondary data was used for the literature review; the proposed research framework was the result after analyzing information from the literature review contributed by many researchers. Technology Acceptance Model (TAM) model was adopted for the study with some modifications. It added more perceived factors that have been proven to be significant to SSK in other researchers' research. Primary data was collected from 150 questionnaire surveys using probability sampling technique – cluster sampling method, through the questionnaire. The findings of this study contribute to business management as well as the government.

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*Keywords: Self-service kiosks (SSKs); Technology acceptance model (TAM); behavioural intention*

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## 1. Introduction

The fast-food industry is one of the emerging sectors in Malaysia established since the 1970s. This industry shows significant growth due to the transformation of the business process into ICT. Malaysia's fast-food restaurants have transformed the way of doing business online, which increases their sales. Self-service technology (SST) is one of the ICTs that enables customers to make their services (e.g., personal use, self-service, or a combination of both) without the assistance of employees or service providers or with minimal help from them (Bitner, Ostrom and Meuter, 2002). Malaysian Electronic Payment System Sdn Bhd (MEPS) supports local, development, Islamic and foreign banks. Through its interbank e-payment services for

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\* Corresponding author *E-mail address: nurulizwa@utem.edu.my*

consumers, MEPS provides interbank payment network service that had been a fundamental part of the Malaysian financial landscape (Malaysian Electronic Payment System Sdn Bhd (MEPS). MEPS provides a "Shared ATM Network" that gives any bank users to get their money anywhere from any banks' ATMs. Customers can use debit or credit cards to pay their bills without interacting with employees through various technology and innovative customer service concepts of cashless payment options.

Vakulenko, Oghazi, and Hellström, (2019) demonstrated that an ever-increasing number of customers are eager to receive these innovations to make their services and that 'high-touch and low-tech' tools or devices. For instance, 36% of consumers in the restaurant sector are now less likely than two years ago to accept technological options (National Restaurant Association [NRA], 2017). Self-service technology (SST) plays a role in Malaysian daily life since Maybank announced the first self-service, automated teller machine (ATM) in Malaysia back in 1981 (Lizasoain et al., 2015). After Malaysia's banking industry has announced the self-service kiosk such as cash deposit machine and cheque deposit machine, it helps support the banking industry's substantial daily transaction activities.

By using SSK, customers can individually customize their products, create a meal with greater process control based on their personal choices, and pay conveniently with no time taken. Nearly 80% of consumers consider restaurant technological solutions to be more practical and 70% consider restaurant technology to be accelerating service and more accurate ordering. Kurien, and Das (2017) has shown that customers are prepared to pay higher prices at the fast-food restaurant and pay USD 2.47 on average if service is faster. The promise that the customer will use SSK will undoubtedly be affected by a shortened waiting time (ie, more immediate service) (Kokkinou and Cranage, 2015). All these factors indicate that in the hospitality sector in general, but particularly the fast-food segment, the trend towards SSK is likely to become increasingly significant—a fact which strengthens the importance of today's study.

Many studies have helped us understand why customers use SSK, identifying the factors that affect this study. The majority of SSK studies were conducted in hotels and airport settings in a hospitality context. Relatively few have been undertaken in fast food restaurant settings, and fewer customer satisfaction with technology acceptance has been studied (Kim and Qu, 2017). This study presents a conceptual model combining a technology acceptance model to address these differences (Venkatesh and Davis, 2000). Therefore, this argument illustrates the perception and appraisal of SSK by the customer in a fast-food restaurant. This study aims to identify and explain the relationships between the factors that influence customers' intent to continue using SSK in fast food restaurants.

## **2. Literature Review**

### *2.1. Self-Service Technology*

Self-service technology (SST) is defined as technological interfaces that allow consumers to harvest a service from the direct service-employee involvement interaction. The automated teller machine (ATM), invented in 1967 and first installed by Barclays Bank in London, is one of the most well-known self-service technologies. Maybank introduced ATM to Malaysian only by 1981. Also, SST includes online banking, check-in kiosk, self-service laundry, m-commerce, airport or hotel, and so on (Meuter, Ostrom, Roundtree, Bitner, 2000).

SSK's role in smart services is to offer end-user interfaces for customer requests to be sensed, actuated, processed, and communicated. In the hospitality industry, SST includes self-check-in and online booking reservation systems, printing boarding pass kiosks at airports, mobile food ordering apps, and self-ordering and paying through restaurant kiosks. SST has been used in hotels in various ways, website or app self-preservation systems, self-check-in kiosks, hotel television self-check-out services, in-room minibars, and

room service. Through self-ordering systems. Despite the use of SST, personal or face-to-face services in the hotel industry are especially important for determining hotel consumers' satisfaction and commitment (Kaushik and Kumar, 2018).

Employees once delivered services through an inter-personal interaction and now are commonly obtained by customers using SST. SST is defined as any technology that allows the consumer to produce and use the services without company workers (Meuter et al. 2000). One of Malaysia's famous self-service technology is the AirAsia self-check in kiosk, which requires the customer to use the web and mobile check-in services. Once they have checked in, passengers will print their baggage tags before proceeding to a series of baggage drop counters. Self-service technology also includes self-service laundry, online banking, check-in kiosk in hotels, e-commerce, etc.

## 2.2. *Self-Service Kiosk*

Self-service kiosks (SSK) can be defined as interactive, intended for public use, and capable of processing information (Meuter et al., 2000). SSK is the most diverse type of SST, including information kiosks, ATMs, vending machines, and other kiosks. SSK has been implemented in many industries and research areas. Most SSK-related results arise from the wider SST research field, resulting in a high degree of generalization when assessing SSK performance and its value to the participating actors. In this study, customer value is described as "a customer's perceived preference for and assessment of these product attributes attribute performance and use-related consequences that facilitate (or block) the achievement of customer's goals and purposes in use situations." Thus, customer value probably includes different elements that appear in the customer service experience at various stages.

Highlights of kiosks' use include the ability to order meals and receive customized service (Bitner et al., 2000) quickly and suitably. For example, the system can be saved their order history once customers set up their accounts on a kiosk system. In turn, customers can take regular menu items or discounts on the kiosk system's next use. It can also help the restaurant determine which menu items it needs to remove, modify, or maintain to increase profit. A kiosk allows providers to improve their service performance and leads to other optimistic results (Baba, Mohd Shahril, Hanafiah, 2020).

Fast food restaurant has implemented service differentiation kiosks (Bitner et al., 2000), increased operational flexibility, and increased revenue. By using kiosks, the fast-food industries have received positive feedback from their customers or increased their income. For example, Subway customers testified using drive-thru kiosks as the kiosks are more comfortable to order from and accelerate the payment process compared to meeting employees. The drive-thru kiosks help the company increase its drive-thru sales from 10.5% of its total sales to 35%.

Customers provide chances to make and change the decision flexibility related to the acceptance and improve their commitment to the innovation; the perceived risk is likely to be reduced. It conveys to the essential advantage of self-service technology is that it enables customers to make quick checkouts. This service's proficient payment system has allowed the client to escape long lines, especially during peak service hours and holiday season. Along these lines, retailers urge to introduce more self-benefit stands at their stores to diminish client hold up time and checkout lines.

## 2.3. *Theory of Technology Acceptance Model (TAM)*

The Technology Acceptance Model (TAM) is used to study individuals' perceptions that affect their intent to use a particular type of technology and actual use. Different researchers used TAM to measure the level of acceptance in new technology from two core perspectives, i) perceived usefulness and ii) perceived ease of

use. From these two-core constructs to check the system's attitude that will reveal the user's behavioral intention and the technology's behavioral use.

In TAM, perceived Ease of use and the perceived usefulness of a new technology influence customers' attitudes towards the use of technology, which directly influences the technology's intentions. Also, perceived usefulness as the degree of one's belief that used a particular technology could enhance job performance, which was a powerfully influential factor in the user's acceptance and adoption of a specific technology through intent and behavior. However, perceived Ease of use is the degree to which one considers that using a particular technology is effort.

TAM has become the practice most accepted to explain the intention of users to use some technology. Many empirical studies have shown that this model explains users' intention to adopt a new technology accurately (Kim & Qu, 2017). TAM is known to be the empirical study most widely known by validations, applications, and replications (Lee, Ng, Lv, Tazoon, 2014). However, the TAM overview study found that this model could be better identified if the gap in rigidity and relevance was met.

Many researchers subsequently modified the original TAM construction to include more factors that are believed to be somehow more relevant to measure the impact on the attitude towards technology that reflects a significant influence on the technology's intention & behavior. For instance, Bobbitt and Dabholkar (2001) modify TAM by incorporating previous self-service experience over the individual's attitude to the use of the technology. A slight modification of the TAM model will be performed in this study to fill the relevant gap to identify perceived factors influencing SST acceptance and adoption.

### *2.3.1. Ease of Use*

In 1989, Davis, Bagozzi & Warshaw defined Ease of use as "the degree to which a person believes that it would be effortless to use a particular system." In TAM, Ham, Kim and Forsy (2008), the variable Ease of use included one of the four benefits of online shopping. Therefore, it is possible that the two variables in TAM, i.e. Ease of use and usefulness, as a part of the benefits of self-service technology, but they could not explain all the variance in SST adoption. On the other hand, the entire set of advantages of the particular SSK can account for all the conflict to use technology and further adopt SSK understanding.

Ease of use is the degree to which a consumer would discover the usage of a specific technology to be free from the effort on their part (Curran & Meuter, 2005; Montazemi & Qahri-Saremi, 2015). SSK's Ease of use must be higher-ranking to its traditional service channel counterpart from the customer perceived value perspective. It is because customers would consider using self-service technology due to the benefits gain. Ease of use is, therefore, an advantage of consumer self-service technology. Since one of the critical variables in TAM, Ease of use has proved crucial in positively impacting SST adoption. The facility of use strongly influences consumers' attitude and intention towards the use of various types of SSTs, including online banking, e-government services, and self-scanning in retail stores.

### *2.3.2. Usefulness*

Perceived usefulness is one of the most impactful factors in the Technology Acceptance Model (TAM) affecting consumer behaviors that also have a causal relationship on consumer behavior intention and the actual use of a particular technology. Perceived usefulness was defined as the degree to which a person believes in using a specific technology system to improve productivity, performance, and efficiency. Perceived usefulness was an essential factor influencing behavior and was widely used in self-service technology as part of TAM to measure the level of acceptance and adoption. Perceived benefit is critical to the study of self-service technology to look into the possibility of adoption in apparel retail settings; the perceived usefulness results show a significant relationship to consumer behavior.

In addition to industry appearances, such as banking, airports, and trading, a similar result has also been identified as perceived usefulness as an SST attitude's leading drivers. However, as SST consumers do not own the technology, it is hard to measure perceived effectiveness in SST, even though they are involved in using it. Unless this construct is consistently and accurately measured for a task to be performed (Bagozzi, 2002).

### *2.3.3. Need for Interaction*

One of the barriers for SSK to be implemented on all or processes is the need for interaction with the staff as SSK is not appropriate for complex service and operations. To assess the situation on a case-by-case basis, it may require human analysis and assistance. For example, with ATM, CDM online, and telephone banking services, the banking industry implements SSK. However, obtaining a bank loan is not appropriate for SST, as this is a complex process. In addition to collecting the relevant documentation, the banker must evaluate the applicant's ability to payback, financial background, and other factors that may differ from one individual to another in the decision-making process. He or she may have extensive questions in the applicant's shoes about the loan rate, tenure, clauses, and other non-general issues that required extensive consultation. SSK is not suitable in such cases.

SSK is suitable for serving short, straight, and routine processes, such as Laundromat self-service service requiring only five steps to wash the clothes. Consumers have no problem running the SSK at their own convenient time with a picture and simple instruction wording. Besides, most online sales platforms or websites provide users with frequently asked questions (FAQs) to refer to and clear their doubts when they encounter any problems during transactions.

### *2.3.4. Risk*

Perceive risk is a construction that tests instability beliefs with regards to potential negative (dangers) consequences. Even though the perceiving risk is central to consumer purchasing evaluation, the same varies with non-traditional purchasing methods. Researchers have studied widely and found that consumers' perception of risk is essential for their value and purchasing behaviors. Telephone, mail, and internet purchases are perceived to be riskier than traditional brick and mortar assets. Risk dimensions are very product-specific and can be separate. This study reviews literature specific to consumer behavior towards services that enable information systems such as online shopping, online banking, mobile services, mobile banking, etc. to reach risk components appropriate to mobile payment services. PR, based on the analysis of consumer-specific literature intending to adopt financial, technological innovations in this study, refers to the three critical dimensions—security, privacy, and monetary risk.

Security risk in the online environment refers to security perceptions regarding payment implications and data storage and transmission component (Klopping, and McKinney, 2004). Customers tend to increase purchases as if they perceive specific credit card numbers and other sensitive data. Privacy risk is characterized as the possibility that online businesses might utilize individual information improperly, thus invading a consumer's privacy. This dimension of hazard included the undisclosed capture of data such as consumers' shopping habits. Hence, privacy risk perception is especially notable form-payments.

### *2.3.5. Behaviour Intentions*

Behavioral intentions are markers that demonstrate whether the organization's customers stayed with or defected. Zeithaml, Berry, and Parasuraman (1996) suggested that primary behavioral objectives included saying positive things and prescribing services to others, paying the organization a premium value, and expressing cognitive loyalty to the organization. Pine and Gilmore (1998) characterized consumer experience as an emerging economic offering, focusing on consumer experience management, tourism activities,

experience, fulfillment, and rejuvenation rather than on things and places. Since the extraction of SSTs in service interactions has dramatically shifted the nature of service delivery from human-based to SST-mediated (Kim & Qu, 2017), growing consumer recognition has urged the tourism and hospitality industry to apply or develop SSTs increasingly. This research paper proposes a conceptual framework of novel character traits influencing the consumer's intention to exploit the perceived personality of SSTs in the tourism and hospitality industries.

The introduction of a self-service technology does not automatically bring to public use, which was an issue in technology markets. Many technological innovations for customers are radical or new and cause anxiety for consumers who lack the understanding to use the latest technology. Customers' disinclination to adopt self-service technology has become an obstacle for a firm that wants to increase the usage of their new technical service innovations for the public. Thus, it is vital to improving our knowledge of factors influencing customers' eagerness to receive new technologies.

### 3. Research Methodology

This research utilizes a descriptive research design to measure self-service kiosks' factors in a fast food restaurant at Dataran Pahlawan, Melaka. The measurement items for this research shown in table 1 below. The questionnaire survey is selected to collect primary data. These surveys are related to the independent variables that can impact a user's self-service kiosks in fast-food restaurants at Melaka. The questionnaire was built using these four independent variables: Ease of use, usefulness, need for interaction, and control with appropriate instruction for each section of the questionnaire. Therefore, 150 respondents were involved in the corresponding survey respondents. The questionnaire contents were explicitly structured to list down the typical understanding and face them in the factors that influence the user to use the self-service kiosk in a fast food restaurant at Dataran Pahlawan, Melaka. The format of the answer in the form of a Likert scale was specially designed to allow respondents to choose the most suitable response scale for each barrier in a more accessible manner. The scales will be used for respondents to get their response and understanding about self-service kiosk. It has a 7-point scale consists of Strongly Agree / Agree / More or less agree / Undecided / More or less disagree/ Disagree and Strongly Disagree. Respondents of this study are customers who use Self Service Kiosk in the McDonald Dataran Pahlawan, Melaka. Respondents of this study may include students, private workers, government workers who use a Self-Service Kiosk. For the data analysis, SPSS will be selected as an analysis method to analyze and tabulate the research data. The results will show descriptive statistics, reliability and validity analysis, and multiple linear regression analysis.

Table 1: Measurement items for this research.

Label	Items
EOU	Ease of Use
EOU 1	I think SSK is easy to operate.
EOU 2	I would find it is easy to learn to operate the SSK.
EOU 3	The instruction on the kiosk clear and understandable.
EOU 4	I would find it easy to do what I want to do with the use of SSK.
EOU 5	For me, it was easy to become skillful at using SSK.
EOU 6	Interacting with SST does not need a lot of my mental effort.
U	Usefulness
U 1	Using SSK allows me to complete tasks more quickly.

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U 2	Using SSK enhances my effectiveness on the job.
U 3	Using SSK provides clear images of the different menu items.
U 4	Using SSK is more convenient.
U 5	Using SSK provides complete information, such as meal choices and prices.
U 6	Using the self-service kiosk will save my time.

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NOI	Need for interaction
NOI 1	I feel good to have personal contact with an employee.
NOI 2	I feel a decrease in the risk of infringement of my personal information if I interact with a front desk employee.
NOI 3	Personal attention from a service employee is significant to me.
NOI 4	I think the employee can do things for me that no machine could
NOI 5	Talk to a front desk employee is convenient because he/she provides service for me.
NOI 6	It bothers me to use a machine when I could talk to an employee instead.
R	Risk
R 1	I feel secure in conducting my activity when I use SSK.
R 2	I think the confidentiality of my detail is safe while using SSK.
R 3	I am sure the SSK performs satisfactorily.
R 4	There is little risk that something will go wrong when I use the SSK.
R 5	I know that SSK will process my business correctly.
R 6	Overall using the SSK is safe.
BI	Behavioral Intention
BI 1	I intend to use SSK immediately.
BI 2	I wish to complete my task through SST in the near future.
BI 3	I feel that using SSK will save my time.
BI 4	I feel that using SSK is convenient.
BI 5	I would recommend to my friend to use SSK.
BI 6	I will use a self-service kiosk to check-in at the airport or hotel on my next visit.

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## 4. Results and Discussion

In this study, the demographic variable will be present to measure the Ease of use, usefulness, need for interaction, and risk towards customer behavior intention. A total of 150 sets of questionnaires were distributed to the customers and mainly focused on Mc Donalds Dataran Pahlawan in Melaka. The Cronbach alpha value for each subscale was acceptable. This finding demonstrated that each subscale's overall alpha coefficient is excellent—all variables designated reliability ranging from 0.808 to 0.903. From the result analysis, each item was stated as a different alpha value. The alpha value for Ease of use ( $\alpha=0.903$ ), usefulness ( $\alpha=0.808$ ), need of interaction ( $\alpha=0.815$ ), risk ( $\alpha=0.815$ ), and behavioral intention ( $\alpha=0.816$ ).

### 4.1. Descriptive Analysis

The respondents for this research range from 95 persons who were male from below 18 years old with 15 people, 18-25 years old with 50 people, 26-35 years old with 25 people and over 35 years old with 5 people,

respectively. Meanwhile, 55 out of 150 who were female. Eight respondents came from below 18 years old, 30 respondents came from 18-25 years old, 15 respondents came from 26-35 years old, and two respondents came from over 35 years old. The overall from bar chart were out of all 150 respondents, the higher is 50 respondents from 18-25 years old are from a male, meanwhile, for female, the higher is from 18-25 years old with 30 respondents. Meanwhile, results showed that 93% (n=140) of respondents say 'Yes' because they know about Self-Service Kiosk (SSK), and 7% (n=10) of respondents say 'No' because some of them did not make sure what is SSK. Mostly respondents understand self-service kiosks used in daily life such as ATM and self-service laundry.

4.2. Multiple regression analysis

Based on table 2 below, the entire summary of findings showed a positive number of the R-value. Multiple regression coefficients,  $R = 0.778$ , indicates a high degree of correlation. Therefore, the R-value is more than  $\pm 0.70$ , which means it has a strong relationship and has a positive relationship. R squared shows the value of 0.605. This result suggests that behavioral intention (dependent variable) is influenced 60.5% by the independent variable (Ease of use, usefulness, need for interaction, and risk), while the rest (100% - 60.5% = 39.5%) were influenced by the other factor or causes which were not discussed in this research.

Table 2: Model Summary of Multiple Regression Analysis

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.778 <sup>a</sup>	.605	.594	5.53850

a. Predictors: (Constant), Ease of use, Usefulness, Need for interaction, and Risk

b. Dependent Variable: Behavioural Intention

F-test is used to determine whether the model is a good fit for the data. The significant testing is used to test the relationship between variables, and the results of the significant value will tell if there is a statistically significant correlation between variables. Table 3 shows the  $F(4,145) = 55.02$  and significant value,  $p < 0.01$ . It was clear that all the independent variables were statistically significant, influencing the dependent variable.

Table 3: Model Summary of Multiple Regression Analysis

ANOVA <sup>b</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	6810.120	4	1702.530	55.502	.000 <sup>a</sup>
1	Residual	4447.880	145	30.675		
	Total	11258.000	149			

a. Predictors: (Constant), Ease of use, Usefulness, Need for interaction, and Risk

b. Dependent Variable: Behavioural Intention

Table 4 indicates that Beta values, which mean individual independent variables, influence dependent variables. The results showed that  $B1 = 0.278$ ,  $B2 = 0.375$ ,  $B3 = 0.091$  and  $B4 = .243$  respectively to all independent variables. It shows that the user has the highest B value among other variables and strong influences on the behavioral intention with a B value of 0.375. It described that 37.5% variation in behavioral intention cause due to usefulness. Whereas Ease of use indicates the B value 0.278 with the variation of



27.8%, the need for interaction exhibited the B value 0.091 with the variation of 9.1%, and risk indicates the B value 0.243 with the variation of 24.3%. This variable also can variance behavioral intention. The unstandardized coefficient (B), the standardized coefficient (Beta), and the significant level were determined by t-test. After examining the B value, independent variable, the Ease of use, usefulness, and the need for interaction were making a significant contribution to the prediction model.

Table 4: Regression Analysis of Coefficients

Model	Coefficients <sup>a</sup>			t	Sig.
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta		
(Constant)	.464	3.152		.147	.883
Ease of Use	.278	.083	.186	3.348	.001
1 Usefulness	.375	.082	.392	4.563	.000
Need of Interaction	.091	.074	.276	1.233	.001
Risk	.243	.074	.102	3.268	.220

a. Dependent Variable: Behavioural Intention

The relationship can be marked as the following equation from the analysis as below:

$$Y (\text{behavioural Intention}) = 0.464 + 0.278 (\text{ease of use}) + 0.375 (\text{usefulness}) + 0.091 (\text{need for interaction})$$

The result showed significant value of ease of use,  $p = 0.001 < 0.05$ . It means that there is a positive relationship between Ease of use and intention to use the self-service kiosk. Therefore, H1 is accepted; the Ease of use positively affects behavioral intention. The result indicated significant value of usefulness,  $p = 0.000 < 0.05$ . It means a positive relationship between perceived usefulness towards the intention to use the self-service kiosk. Therefore, H1 is accepted in this study. Usefulness positively affects behavioral intention. The result indicated significant value of need for interaction,  $p = 0.001 < 0.05$ . It means that there is a positive relationship between the need for interaction towards adopting self-service technology. Therefore, H1 is rejected in this study. The need for interaction positively affects behavioral intention. The result showed significant value of risk,  $p = 0.220 > 0.05$ . It means that there is no relationship between risk and intention to use the self-service kiosk. Therefore, H1 is rejected; the risk negatively affects behavioral intention.

In this study, the hypothetical relation between Ease of Use (EOU) and behavioral intention (BI) in the first set of hypotheses, i.e., "There is a positive relationship between perceived ease of use towards adoption on self-service technology." thus, H1 was accepted. According to the data analysis findings, Ease of use to behavioral intention showed a statistically significant positive direct relationship between both variables ( $\beta = .278$ ,  $p = .001$ ). Ease of use significantly affects students' behavioral choice to use Self-Service Kiosk (SSK). Besides, most of the respondents appreciate perceived Ease of use on SSK, specifically on the easy to use SSK as well as allowing the user to do things effectively and productive. The user agrees that it is easy to learn and use Self-Service Kiosk. SSK is clear and understandable as users can learn through themselves although it is the first time they try to use without the employee's guidance or other. It clearly shows that Ease of use may be regarded as one factor that influences the user to use the technology. The above findings were aligned with several previous studies. Ease of use is an advantage of SSKs for users, and as one of the essential determinants in TAM, Ease of use has been proven vital in the positive influence on SSK adoption.

In this study, the hypothetical relation between Usefulness (U) and behavioral intention (BI) in the second set of hypotheses, i.e., "There is a positive relationship between perceived usefulness towards customer behavior intention on the self-service kiosk." thus, H1 was accepted. According to findings obtained from the

data analysis, usefulness to behavioural intention showed statistically significant positive direct relationship between both variables ( $\beta = .375$ ,  $p = .000$ ), which means usefulness significantly affects students' behavioral intention to use Self-Service Kiosk (SSK). Furthermore, most respondents understand SSK's perceived usefulness, specifically in saving time and allowing users to do things efficiently and productively. Kiosks save consumers from wasting time in a queue and avoid no need to queue at the counter. It clearly shows that the user may be regarded as one factor influencing the user to use the technology. The findings of this study were found in line with several prior studies. In TAM, Perceived user-friendliness and perceived usefulness of new technology influence users' attitudes towards adopting technology that directly influences the intent of using technology. Also, perceived user-friendliness and perceived usefulness were considered the main motivations of IT acceptance to predict or measure end-user satisfaction.

In this study, the hypothetical relation between need for interaction (NOI) and behavioral intention (BI) in the third set of hypotheses, i.e., "There is a positive relationship between need for interaction towards adoption on self-service technology." thus, H1 was accepted. According to the data analysis findings, interaction to behavioural intention showed a statistically significant positive direct relationship between both variables ( $\beta = .091$ ,  $p = .001$ ). This result indicates that interaction significantly affects the respondent's behavioral intention to use self-service kiosks (SSK). Furthermore, users can perform simple and straightforward tasks using SSK without having to interact with service employees. Maybe one of the purposes may be that consumers avoid long queues and simply maintain their information privacy. The findings of this study were found in line with several prior studies. A survey by Esman et al. (2010) found that consumers did not perceive the need for interaction with bank employees as significant factors for using SST, as longer waiting times are required. This finding also similar results from the study conducted by Curran and Meuter (2005) found that consumers prefer to use ATM and online banking compared to heading over the counter.

In this study, the hypothetical relation between risk (R) and behavioral intention (BI) in the fourth set of hypotheses, i.e., "There is a positive relationship between risk towards adoption on self-service technology." thus, H1 was not accepted. According to the data analysis findings, the risk to behavioral intention showed no statistically direct relationship between both variables ( $\beta = .243$ ,  $p = .220$ ), which means risk did not affect users' behavioral intention to use self-service kiosk(SSK). This finding is assumed that users think that the kiosk machine is safe to use, but they also have to face the loss if they had lost their ATM card or been hacked. So, users find the risk associated with SSK less significant in predicting their behavioral intention to use it. The findings of this study were found in line with several prior studies. De Ruyter et al. (2001) found the risk is negatively related to consumers' attitudes toward and intention to use e-service. On the other hand, Curran and Meuter (2005) include risk in the research and found that risk negatively influences users' attitudes toward online banking.

## **5. Conclusion and Recommendation**

This study has presented the finding of SSK's customer behavior intention in the fast-food restaurant in Melaka. This research has exposed that SSK's positive results were adopted when using TAM theory, precisely perceiving Ease of use, perceived usefulness, need for interaction, and behavioral intention except for risk. This study shows that users are keen to acknowledge and implement SSK; ATM and CDM machines would be an obvious successful example. On the other hand, the low usage rates for different SST types such as mobile banking and airport or hotel kiosks might differ due to the lack of awareness, exposure, encouragement, enforcement, and trial over other kinds of SST. Nevertheless, the benefits of SST are unquestionable; more effort and time must be allocated to these laggards of technology, helping them to adopt SST through step-by-step guidance.

The users who have experienced using SSK can be a good basis for them to learn new SSK. This finding shows that SSK users were easy to learn and use as SSK is almost the same pattern to access. Furthermore, it has revealed that using SSK can increase their productivity in performing their daily tasks, which can save their time and effort. Also, users expressed their concern that the risk is still when they use SSK because they might hack their card through RFID. This finding is one of the impacts that does not encourage users to adopt SSK. It is hoped that future research will investigate more about the strategies that will make users more desired to adopt SSK into their daily lives.

Finally, the government should actively encourage the public to use SSK at their disposal to enjoy convenient benefits, provide adequate support to the design and development team on SSK, review and perform process improvements where SSK can better fit into serving the public. The government must also encourage the private sector to establish a solid ground for providing SSK services to the public by reducing the chances of SSK interface failure, error, and poor quality service performance, which could cause the public to be disappointed and frustrated. The new way of operating the business model would contribute to the economy of Malaysia.

Some recommendations and suggestions are discussed in the following for future research on this similar area over SST. First of all, four independent variables are used in this study: Ease of use, perceived usefulness, need for interaction, and risk. Thus, more independent factors should be integrated into the model and situational factors such as technology anxiety, culture, perceived behavior control, etc. The questionnaire should adopt a scenario for each measurement for better results. Second, respondents' sample size should focus on a larger group of locations such as other Malaysian state and age groups to conduct multiple group analysis that could explain consumer behavior based on different demographics. Therefore, it can help business owners and governments fully understand their target market behavior and SST-based adoption based on specific target market criteria.

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