

## Factors Affecting Consumer Acceptance of E-Menu in The Klang Valley Restaurant Sector in Malaysia

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### Abstract

The procedure of placing an order for meals could be made easier by using E-Menu. However, the consumers need to have a significant level of trust in the technology that is used in E-Menu which replace humans in taking consumer orders. The purpose of this study aims to explore the factors affecting consumer acceptance of E-Menu in the Klang Valley Restaurant Sector in Malaysia. There are four factors to study which are perceived ease of use, perceived usefulness, perceived trust, and perceived risk. This study is based on quantitative research. Questionnaires were distributed to the consumer in the Klang Valley in Malaysia to understand the factors affecting consumer acceptance of E-Menu. As a result, the study was based on the analysis performed on data from 384 respondents using SPSS system V28.

The results find that perceived ease of use, perceived usefulness, and perceived trust show a positive and strong significant relationship with the acceptance of E-Menu. However, there is a positive but weak significant relationship between perceived risk and consumer acceptance of E-Menu. This means that consumers are more concerned about the ease of use, usefulness, and trust that modern technology will bring to them when ordering food at restaurants. On the other hand, perceived risk in the adaption of modern technology is no longer a factor that could impact consumers' acceptance.

**Keywords:** E-Menu, Consumer Acceptance, Restaurants, Klang Valley, Malaysia

### Introduction

Restaurant menus are a crucial means of communication that influence consumer behaviour. In the highly digitalized era, traditional menu cards in restaurants have been replaced with digital menus. E-Menu is known as information about the food and beverages of a restaurant displayed electronically (Sahin, 2020). E-Menu is utilized often today on devices including

tablets, kiosks, boards, and smartphone applications. Digital menus on devices have been observed to go by different names, including electronic menus, E-Menu, and tablet menus (Sahin, 2020).

Consumers need to have a significant level of trust in the technology that is used in E-Menu which replace humans in taking consumer orders (Tussyadiah et al., 2020). Consumer acceptance toward E-Menu associated with consumers' purchase intentions represents a type of uncertainty due to the risk of technology that leads to unauthorized dissemination of personal and financial information of consumers. According to Wei et al (2018), over the past several decades, perceived risk has been identified as a significant factor influencing consumer acceptance of online shopping, and online shopping risk can be categorized into economic risk, performance risk, psychological risk, and time risk.

The technological era in which we live is expanding quickly. Applications of information technology have already been adopted in a wide range of business sectors (Razzakova, 2021). In terms of adopting innovative technology, the restaurant business is trailed behind other industries although restaurants encounter high demand to include automation, especially in the food ordering process (Meshram et al., 2022). Consumer acceptance research provides a deeper understanding of consumers' requirements, desires, expectations, and behaviours. Satisfaction is directly tied to consumer acceptability. The notion of consumer acceptance of technological innovation, for example, E-Menu should be researched before its diffusion. According to Abhari (2019), it is essential to do research on the level of acceptability that consumers have for electronic menus in restaurants to provide an overview of customers' preferences, levels of cognizance, and concerns in relation to the adoption of innovative technology. The four factors—perceived ease of use, perceived usefulness, perceived trust, and perceived risk that affected E-Menu acceptance were examined in this study.

Perceived ease of use is a basic concept that defines how simple it is for users to use a product. Consumers have lots of choices when making the order, and by physical menu or by the waiter, once the order has been placed, it is kind of hard for the consumer to want to amend anything on the order (Filimonau et al., 2020). During peak hours, consumers may have to wait longer for the waiter to serve them, such as bringing them the physical menu and explaining the dishes. Consumers' emotional reactions will be influenced by an unpredictable waiting period, which will affect how they will rate the restaurant's service (Vries et al., 2018). Perceived usefulness for consumers as the menu is readily accessible by using smartphones, tablets, and kiosks compared to the traditional menu card or physical menu (Esra, 2020). Restaurants can change and update the menu, pictures, and promotions at any time (Zaki & Zainal, 2021). In the situation in the restaurants right now, where they usually use a physical menu, the item that is no longer available on the menu will be just a strike on it or put a sticker on it to cover it. This is not presentable to the consumer. Using the E-Menu as a high-resolution image, eye-capturing can grab the attention of the consumers (Pawar et al., 2018). Consumers will be attracted to the most outstanding picture on the menu as it plays with the emotion of the consumer to try it. By using the E-Menu, one can group the food according to its type and tell if the food is available or not in it (Shah et al., 2018).

Perceived trust is one of the major variables influencing consumer desire to continue using the E-menu (Cho et al., 2019). As such consumer trust in ordering food via E-Menu ensures that the consumers' order was fulfilled without a mistake that could encounter the conventional way. E-Menu is expected to provide consumers with exceptional service in restaurants by efficiently and effectively placing an order that could quickly send the information to the kitchen (Saber & Fouad, 2018). According to Meshram et al (2022), the

kitchen order ticket delivered through the E-Menu system to the kitchen not only helps to ensure that the order is accurate but also eliminates confusion and speed-up the entire process of the food ordering system.

Perceived risk in the implementation of an E-Menu of Data breaches for the consumers getting tons of messages from the restaurants would be spam to them (Eboibi & Barango, 2019). Besides that, consumers are also exposed to financial risk due to errors in the operating system of the restaurant's online food ordering system. According to a blog on Monei.com (2021), the risk may happen when there is a technology or security error encountered in restaurants.

The objective of this study is to examine the factors affecting consumer acceptance of E-Menu in the Klang Valley Restaurant Sector.

- To examine the relationship between perceived ease of use and consumer acceptance of E-Menu in Klang Valley restaurants.
- To examine the relationship between perceived usefulness and consumer acceptance of E-Menu in Klang Valley restaurants.
- To examine the relationship between perceived trust and consumer acceptance of E-Menu in Klang Valley restaurants.
- To examine the relationship between perceived risk and consumer acceptance of E-Menu in Klang Valley restaurants.

The study aims to answer the relationship between each of these four factors and consumer acceptance of E-Menu in Klang Valley restaurants. Referring to the research objectives, the research questions formulated for this study are as follows:

- Is there a relationship between perceived ease of use and consumer acceptance of E-Menu in Klang Valley restaurants?
- Is there a relationship between perceived usefulness and consumer acceptance of E-Menu in Klang Valley restaurants?
- Is there a relationship between perceived trust and consumer acceptance of E-Menu in Klang Valley restaurants?
- Is there a relationship between perceived risk and consumer acceptance of E-Menu in Klang Valley restaurants?

This study will allow the restaurant industry to make decisions on how to improve consumers' expectations and satisfaction by adopting of new technology E-Menu. Secondly, this study benefits the policymakers to further understand the adoption of E-Menu in preventing the risk of transmitting infectious diseases during dining. Thirdly, the findings can be a reference for those investors who are interested in developing the E-Menu system in different industry sectors, as investors can make decisions on the investment based on the study findings. The structure of the study is determined as follows. The next section reviews the extant literature. The methodology is provided in Section 3, and the analysis results are presented in Section 4. Section 5 provides the discussion, while the last section presents the conclusions.

## **Literature Review**

### **Theory of Planned Behaviour**

The Theory of Planned Behaviour (TPB) was an extension theory derived from the Theory of Reasoned Action (TRA) elaborated by Fishbein & Ajzen (1980), which states that an individual will have the motivation "intention" to perform the behaviour when an individual evaluates a suggested behaviour as positive "attitude", or when the individual believes that others want

them to perform the behaviour “subjective norm”. In other words, attitude and subjective norm correlates positively with behavioural intention, which then leads to actual behaviour. TPB was first introduced by Ajzen (1985), with containing three core elements of the theory, namely attitude, subjective norm, and perceived behavioural control. This model defined those three core elements are factors that shape an individual’s behavioural intention. Compared to TRA, TPB is a better predict actual behaviour by added with the component of “perceived behavioural control”, which refers to the extend a person’s perception on his or her own ability to perform a given behaviour. Then in 1991, Icek Ajzen modified the model of TPB theory without the belief's constructs, and measured the relationships among attitude, subjective norm, perceived behavioural control and intention in the model. Indeed, the Theory of Planned Behaviour (TPB) is a psychology theory that links beliefs to behaviour. TPB can adapt from time to time to the different contents as well as by virtue of its general connotation that can be applied in many fields of study in which the analysis is conducted (Tommasetti et al., 2018). This research supported by Kumar & Smith (2017), that TPB model has been applied widely in many studies in various settings. A comprehensive understanding of consumers’ intention to dining and choose menu items in restaurants can be integrated by applying the TPB (Shin et al., 2018). Based on Lim & An (2021), which many studies have proven that TPB is well applicable in predicting human behaviour and intention especially in the field of food choices.

### **Consumer Acceptance Towards E-Menu**

Digitalization is initially being used in business to assist in storing, transmitting information, and accessing replacing paper-based chores and processes (Amoah et al., 2021). Businesses used digitalization to improve systems or products to develop new administrative processes, business strategies, or promotional offerings (Saarikko et al., 2020). The global trend toward digitalization has also affected the service industries such as tourism, hospitals, restaurant, and various other service industries (Jang & Lee, 2021). Restaurant activity is distinguished as a highly competitive market and the adoption of digitalization is crucial for survival and success (Martín et al., 2022). Moreover, the engagement of restaurant consumers in the digital environment was altering interaction patterns between consumers and restaurants (Kim et al., 2020). On top of that, the recent Covid-19 pandemic has accelerated the usage of digitalization and adoption in transforming business strategies, work relationships, and lifestyles (Amoah et al., 2021). As a result of the pandemic, the use of digitalization (E-Menu via QR codes) has increased in the restaurant industry (Martín et al., 2022). This is supported by the research done by Zhao & Bacao (2020), the accessibility and request chain of food has been negatively impacted by the Covid-19 pandemic since consumers' individual consumption preferences have shifted from conventional in-store administration to digital internet administration.

The pandemic has augmented the urge for modification in a variety of sectors, in addition to critically altering consumer behaviour (Amoah et al., 2021). It is difficult to change people's habitual behaviour for them to accept modern technology (Iriani & Andjarwati, 2020). Consumer acceptability is an unavoidable prerequisite for the adoption and execution of any technology. Consumer acceptance of digitalization has a remarkable impact on the successful acceptance of technology (Yean et al., 2020). Acceptance of modern technology necessitates a lengthy process, considering factors of perceived ease of use, perceived usefulness, perceived trust, and perceived risk.

The factor of perceived ease of use that drives consumer acceptance of E-Menu is meant without difficulty, whereby consumers do not necessitate much effort while using E-Menu. Consumers' acceptance of using the E-menu may be affected by how easily they can comprehend the information it provides (Iriani & Andjarwati, 2020). Accessing the E-Menu easily using digital devices is the factor of perceived usefulness that drives consumer acceptance of E-Menu (Esra, 2020). Mobile digital devices such as smartphones allow consumers to access the E-Menu of various restaurants and obtain information required anytime and anywhere. The factor of perceived trust which compels consumer acceptance of E-Menu is the trust that consumers have in E-Menu rather than waiters. One of the most relevant factors in the adoption of cutting-edge technology in the context of online information conditions is perceived trust. The trust and credibility of information provided in E-Menu affect consumer acceptance (Shah et al., 2020). The perceived risk factor that forces consumer acceptance of E-Menu is meant to reduce the risk of transmission of the virus in the context of the Covid-19 pandemic. The adoption of E-Menu which is accessible via scanning QR codes was used in the restaurant to reduce the risk connected with the possibility of being infected by the virus during and post the Covid-19 pandemic (Esposito et al., 2022). However, the perceived risk of consumers' information and data using E-Menu via scanning of QR codes has raised the concern about data security, payment security and phishing activities by hackers (Sharevski et al., 2022). Consumer acceptance that influences consumer purchase intention also caused financial risk to small restaurant owners compel them to shift to E-Menu in the competitive market (Brewer & Sebby, 2021).

### **Perceived Ease of Use**

The perceived ease of use of E-Menu is the propulsion of rapid growth of E-Menu in Klang Valley restaurants in recent years, particularly following the impact of Covid-19 on the food and beverage sector (Gossling et al., 2020). The early lessening of social distance is expected to work in favour of fast-food restaurants rather than dine-in establishments. It would be beneficial to conduct future research on the effects of Covid-19 on mobile ordering applications; safe distancing could result in a rise in the number of consumers who order meals via mobile apps (Al Amin et al., 2021).

The introduction of modern technologies has brought about significant shifts in the manner in which modern businesses operate (Koiri et al., 2019). Consumer purchasing decisions are influenced by perceived ease of use, which makes marketing outcomes convenient (Loketkrawee & Bhatiasevi, 2018). The hospitality sector, including restaurants, is also affected. E-Menu allows its users the convenience to make alterations to their menus via the company's software whenever they like, from any location in the world, and without requiring any assistance (Sahin, 2020). Consumers prefer using mobile applications to place restaurant orders because of the simplicity, convenience, and speed that they provide (Alawan, 2020). E-Menu offerings to consumers also include services like placing orders, monitoring, making payments and tracking orders that do not necessitate assistance to be operated successfully (Sahin, 2020). With the support of an intranet system, users are able to keep records more conveniently, have fast access to resources, ensure that documents are always up to date, save time, and maintain their networks at a cheaper cost (Park et al., 2018).

Additionally, consumer conversion is significantly influenced by E-Menu application features such as content design, graphic elements, collaborative configuration, and navigational layout (Kapoor & Vij, 2018). Tablet menus have several advantages that set them apart from traditional menus. These advantages stem from tablet menus feature digital displays,



enabling customers to easily search for food products (Yim & Yoo, 2020). When consumers have the impression that technical applications are simple to operate, they exhibit favourable attitudes toward employing those applications (Kang & Namkung, 2019). With the perception of ease of use by consumers, payment periods can be curtailed, and purchasing behaviour is expected to soar if convenience is fulfilled (Hor et al., 2020). Tablet menus also offer a large variety of information, all of which may be easily updated without incurring any additional costs (Yim & Yoo, 2020). Consumers are motivated to exhibit a good attitude toward the acceptance of and place their food orders through mobile apps because of the attractive characteristics of E-Menu (Al Amin et al., 2021).

The introduction of E-Menu, which is made possible by advances in information technology, has caused a shift in the way consumers place their meal orders in the restaurants of the Klang Valley. E-Menu encourages consumer participation, resulting in more intense mental imagery of food selection, greater enjoyment, enhanced convenience, increased food selection encouragement, and, most importantly, increased sales (Yim & Yoo, 2020). Therefore, the restaurant industry needs to know and learn to use computerized systems to take consumer's food orders and at the same time, consumers also need to adapt to the change because it is so much different from the manual way. Nonetheless, it is also varied among the types of E-Menus in different restaurants. The restaurant industry and the system developers need to understand consumer expectations regarding how they perceived ease of use on the E-Menu. As such, perceived ease of use will influence the consumer's acceptance of E-Menu.

### **Perceived Usefulness**

Perceived usefulness is defined as the amount to which an information system may assist in enhancing performance for users. Davis (1989) provides a technological adoption paradigm that incorporates this definition. Similarly, Tee (2018) defined perceived usefulness as an individual's perception that using a specific system will enhance the ability to perform the job. Obtaining required information, getting further details, improving effectiveness, making work easier, and the benefits of use here are five indicators in measuring perceived usefulness (Ellitan et al., 2022). This study is also supported by Tamilvizhi et al (2021) which shows it will save time for the consumer to make, place, and change the order before submitting and allows the consumer to make payment without having to queue.

Examples of how E-Menu may be perceived as useful include features such as allowing consumers to browse the menu on mobile apps without regard to area or time constraints (Lee & Kim, 2020). E-Menu allows restaurants to switch from a costly printed format to a digital format that can be personalized for all events (Al Amin et al., 2021). Aside from that, E-Menu allows consumers to place orders or add additional items whenever they choose, and the complete self-service mode makes the food ordering process far faster than it would be otherwise (Sahin, 2020). E-Menu also provides the consumer with the ability to make an order, automatically update their order and pay for the item directly from their tablet (Brewer & Sebby, 2021). It helps save time, improves restaurant operations, and maintains low costs of service and it is widely used in fast food restaurants (Altan, 2018). In addition, Desai et al (2019); Sharma (2019) agree that using E-Menu give the consumer the advantage to control their desired menu.

In addition, Nguyen et al (2019) revealed that the more consumers believe that the mobile food ordering app is useful, the more positive perceptions they generate toward it. This is because the restaurant food ordering service providers can communicate the usefulness of the E-Menu in promoting awareness to the consumers and connecting restaurants by

furnishing features such as meal's nutrition facts, restaurants' location, direct texts and calls, apps coupons and discounts, and special events or promotion alerts. Besides that, E-Menu is useful because nutritional information, meal ingredients, and food preparation procedures are expected to be listed on an E-Menu (Peters & Remaud, 2020). In addition to this, Roh and Park (2018) discovered that consumers' adoption of E-Menu services in South Korea has been favourably influenced by perceived usefulness. As such, perceived usefulness will influence the consumer's acceptance of E-Menu.

### **Perceived Trust**

Perceived trust is defined as a consumer's expectation through automation such as the E-Menu that an information technology artefact, trustworthy compared to humans in fulfilling the expected responsibilities (Tussyadiah et al., 2020). Besides that, perceived trust also can be defined as how consumers decide to use the E-Menu based on reliability in handling complaints in the transaction process as the entire system has never been a case of fraud, and its convinced consumers that their transactions can go well and meet their expectations (Suleman et al., 2019). Hence, perceived trust is one of the key factors in terms of affecting consumers' intention to purchase (Suleman et al., 2019). This research is supported by Ray & Bala (2019), where perceived trust is one of the significant factors to enhance consumers' intention to use.

The components of human trust are regarded as a key factor in establishing trust in modern technology (Chun, 2019) such as E-Menu due to the risk factor and encounters by consumers. The food ordering process in the conventional system is when orders are made through a waiter, it is prone to human error due to the mistake written by the waiter. In addition to that, the conventional system is also time-consuming when delayed in transferring the orders to the kitchen for the food preparation process (Trupthi, et al., 2019). This statement is supported by Goyal et al (2020) that the E-Menu will increase the accuracy and greater efficiency of the entire billing and ordering system at restaurants where it is human error-free.

This led to perceived trust significantly increasing perceived ease of use and perceived usefulness toward an E-Menu, decreasing the perceived risk and raising consumers' satisfaction (Seo & Lee, 2021). Moreover, the consumers have higher trust in the E-Menu system as the expectation of consumers' desired performance is fulfilled with ease of use and usefulness of E-Menu (Lee et al., 2018). Thus, perceived trust becomes critical in the E-Menu system for the automation service environment (Tussyadiah et al., 2020).

### **Perceived Risk**

Consumers' perception of risk in disclosing personal data toward the E-menu system is aggravated and it may cause the consumers' personal data to be hacked by a hacker (Susmitha, 2021). This research is also supported by Togeer et al (2021) any transaction via e-commerce such as the E-Menu system may have a privacy data concern such as the consumers' identification, home address, name, and location. Because E-Menu is a system programmed to perform food ordering tasks and all the decision is made autonomously without any human interface, consumers should take consideration into the perceived risk of responsibility derived from that E-Menu automation system's performance (Tzavlopoulos et al., 2019). Privacy data is considered a public issue, and a more proper mechanism policy is needed to reduce the risk in terms of disclosed personal data in E-Commerce systems such as the E-Menu (Muneer, 2018).

Subsequently, the possibility of consumers' loss in monetary is getting increased when they are using the E-Menu in restaurants. This statement is supported by Chun (2019), whereby consumers may face consequences such as monetary loss due to a breach of security or privacy performing online transactions. In addition, the consumer was also at risk of monetary loss due to errors in the operating system of the online food ordering system. According to Royel et al (2020), weakness in the operating system is not effective and efficient which could cause liability in electronic transactions. To have a positive and significant effect on perceived risk, restaurant businesses need to understand the factors that reduce perceived risk among consumers, and it is critical (Tzavlopoulos et al., 2019).

Unfamiliarity and uncertainty are strongly associated with the perception of risk (Lee et al., 2018). Perceived risk such as disease risk is the possibility of individuals being infected by the Covid-19 pandemic. As a result, during the periods when a pandemic is at the forefront of people's minds, the perceived risk of pandemic virus transmission can be lowered using E-Menu, which could offer a contactless distance between individuals. (Wan et al., 2021). This statement is supported by Hui et al (2021) that restaurants are suggested to pay more attention to the implementation of automated food ordering services such as E-Menu in a post-pandemic world. Because these food ordering services could create socially distanced ordering and more hygienic during the food ordering process.

During the Covid-19 pandemic, strict lockdowns around the world have urged consumers to shift to online food ordering (Poon & Tung, 2022). This would indicate that consumers will be viewing E-menu via devices to order the food online. According to Tan (2021) interactive design of e-menus influences consumer decision-making. As large chain restaurants with substantial working capital were able to develop functional online ordering systems with appealing menus on their websites, small restaurant owners faced financial issues to keep up with the fast-changing consumer demand (Brewer & Sebby, 2021).

### **Methodology**

The quantitative approach is used in this study to examine the relationship between the four independent variables on dependent variables. Data was collected through a questionnaire distributed via Google Online Form to consumers in Klang Valley. The questionnaire was measured using 5 points Likert scale, starting from 1 (strongly disagree) to 5 (strongly agree). The questionnaire was chosen as the research instrument as it would be able to provide the researcher with more data within a specific time frame. Using Google Form, responses will be immediately sent back to the researcher once respondents complete and submit the form. At the same time, the cost of carrying out the research by distributing questionnaires is low as the use of Google Forms is free of charge.

A simple random sampling was chosen to be applied in this research where a subset of a statistical population in Klang Valley in which each resident in Klang Valley has an equal probability of being chosen. This sampling method will take a small sample and a random portion of the entire population in Klang Valley with a random draw to represent the entire data set. According to Cochran (1977), simple random sampling is the most basic probability sampling method, where each element has an equal chance of being drawn from a simple random sample frame.

According to the City Population website above, Klang Valley's population in 2020 was about 6.9 million. Based on Determining Sample Size by Krejcie & Morgan (1970) the sample size required was 384. However, a total of 422 (10% more) sample size was considered for this study due to fear of invalid respondents.



### Data Analysis

Google Forms have been shared with 422 consumers in Klang Valley. The minimum respondent required for this study is 384 based on Krejcie & Morgan (1970) determining sample size.

As we reached the minimum respondent required, we proceeded to perform the analysis using SPSS V28. However, we received 414 responses in total after a few days due to respondents not responding to the survey form at the same time. As a result, the study was based on the analysis performed on data from 384 respondents. A concise demographic analysis of the 384 respondents was performed on the data from demographic questionnaires. A summary of demographic data is illustrated in Table 1 Demographic Profile of the Respondents.

Table 1

*Demographic Profile of the Respondents: n=384*

Variables		Count	Column N %
Q1 - Gender	Female	215	56.0%
	Male	169	44.0%
Q2 - Age Group	18-25	53	13.8%
	26-35	157	40.9%
	36-45	117	30.5%
	46-55	46	12.0%
	56 and above	11	2.9%
Q3 - Academic Qualification	Bachelor's Degree	184	47.9%
	Master's Degree	57	14.8%
	Matrikulasi / Asasi/ A89 Level / Diploma / STPM	89	23.2%
	PhD	6	1.6%
	PMR	8	2.1%
	SPM / SPMV / SKM	40	10.4%
Q4 - Occupation	Private Sector	175	45.6%
	Government Sector	32	8.3%
	Self-Employed	131	34.1%
	Not Employed	46	12.0%
Q5 - Household Income	RM 1500 - RM 3000	119	31.0%
	RM 3001 - RM 5000	92	24.0%
	RM 5001 - RM 10,000	106	27.6%
	RM 10,001 - RM 20,000	45	11.7%
	> RM 20,001	22	5.7%
Q6 - Frequency	Everyday	67	17.4%
	< 3 times a week	147	38.3%
	> 3 times a week	87	22.7%
	< 8 times a month	57	14.8%
	> 8 times a month	26	6.8%

### Test of Normality

The normality test was carried out for 384 data collected. According to Mishra et al (2019), when the  $P > 0.05$ , the data is accepted and is normally distributed. Referring to Table 2 Test of Normality, it is found that the data was not normally distributed where  $P < 0.05$ . Since it has shown a reflection of non-normally distributed data, therefore Spearman Correlation and Coefficient were used to determine the relationship between the dependent variable and the independent variable.

Table 2

#### Test of Normality

Variables	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
CA1	0.224	384	<.001	0.872	384	<.001
CA2	0.202	384	<.001	0.880	384	<.001
CA3	0.193	384	<.001	0.887	384	<.001
CA4	0.211	384	<.001	0.874	384	<.001
PEOU1	0.215	384	<.001	0.878	384	<.001
PEOU2	0.202	384	<.001	0.895	384	<.001
PEOU3	0.225	384	<.001	0.867	384	<.001
PEOU4	0.192	384	<.001	0.890	384	<.001
PEOU5	0.215	384	<.001	0.877	384	<.001
PU1	0.220	384	<.001	0.869	384	<.001
PU2	0.227	384	<.001	0.849	384	<.001
PU3	0.220	384	<.001	0.864	384	<.001
PU4	0.218	384	<.001	0.872	384	<.001
PU5	0.145	384	<.001	0.900	384	<.001
PT1	0.227	384	<.001	0.874	384	<.001
PT2	0.201	384	<.001	0.891	384	<.001
PT3	0.165	384	<.001	0.902	384	<.001
PT4	0.204	384	<.001	0.891	384	<.001
PT5	0.198	384	<.001	0.891	384	<.001
PR1	0.259	384	<.001	0.793	384	<.001
PR2	0.253	384	<.001	0.790	384	<.001
PR3	0.201	384	<.001	0.852	384	<.001
PR4	0.240	384	<.001	0.828	384	<.001
PR5	0.178	384	<.001	0.892	384	<.001

### Correlation and Coefficient Analysis

The correlation and coefficient analysis were performed to further examine the strength of the relationship between independent variables (PEOU, PU, PT AND PT) towards consumer acceptance as the dependent variable. According to Akoglu (2018), as shown in Table 3 Interpretation of  $r$  in Spearman Correlation Coefficient, interpretation of  $r$  value whereby weak relationship ( $0.29 < r < 0.20$ ), moderate relationship ( $0.30 < r < 0.39$ ), strong relationship ( $0.40 < r < 0.69$ ), and very strong relationship ( $r > 0.70$ ).

Table 3

*Interpretation of r in Spearman Correlation Coefficient*

Value of r	Correlation Coefficient
> 0.70	Very Strong Relationship
0.40 - 0.69	Strong Relationship
0.30 - 0.39	Moderate Relationship
0.20 - 0.29	Weak Relationship
0.01 - 0.19	No or Negligible Relationship

Source: (Akoglu, 2018), adapted Dancey & Reidy interpretation)

Table 4

*Spearman Correlation and Coefficient Analysis for Dependent Variables and Independent Variables*

Item		CA	PEOU	PU	PT	PR
CA	Correlation Coefficient	1.000	.898**	.857**	.770**	.212**
	Sig. (2-tailed)		<.001	<.001	<.001	<.001
	N	384	384	384	384	384
PEOU	Correlation Coefficient	.898**	1.000	.853**	.766**	.236**
	Sig. (2-tailed)	<.001		<.001	<.001	<.001
	N	384	384	384	384	384
PU	Correlation Coefficient	.857**	.853**	1.000	.825**	.256**
	Sig. (2-tailed)	<.001	<.001		<.001	<.001
	N	384	384	384	384	384
PT	Correlation Coefficient	.770**	.766**	.825**	1.000	.211**
	Sig. (2-tailed)	<.001	<.001	<.001		<.001
	N	384	384	384	384	384
PR	Correlation Coefficient	.212**	.236**	.256**	.211**	1.000
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	
	N	384	384	384	384	384

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Based on Table 4, the findings for the research questions are as follow:

- There is a significant very strong relationship between perceived ease of use and consumer acceptance of E-Menu in Klang Valley restaurants where  $r = 0.898$ ,  $p < 0.001$ .
- There is a significant very strong relationship between perceived usefulness and consumer acceptance of E-Menu in Klang Valley restaurants where  $r = 0.857$ ,  $p < 0.001$ .
- There is a significant very strong relationship between perceived trust and consumer acceptance of E-Menu in Klang Valley restaurants where  $r = 0.770$ ,  $p < 0.001$ .
- There is a significant weak relationship between perceived risk and consumer acceptance of E-Menu in Klang Valley restaurants where  $r = 0.212$ ,  $p < 0.001$ .

**Discussion**

The research framework proposed earlier is to find out the relationships between the factors that effecting customer acceptance using E-Menu in Klang Valley restaurants. There are four factors that are Perceived Ease of Use, Perceived Usefulness, Perceived Trust, and Perceived Risk are the independent variables used in this study. The results of the study show that Perceived Ease of Use, Perceived Usefulness and Perceived Trust shows a positive, very strong and significant relationship with consumer acceptance, while Perceived Risk shows a positive and significant, but weak relationship with consumer acceptance.

The analysis of perceived ease of use was done based on the simplicity, convenience, and speed that modern technology such as E-Menu could provide the consumers. It has been proven the relationship with consumer acceptance is a very strong and positive significant relationship with consumer acceptance. The correlation is supported by previous research by Alawan (2020). The descriptive analysis was used towards perceived ease of use, by using the mean values obtained from the data by the respondent. The average mean value of 3.5130 indicates that the consumer agrees that perceived ease of use affects their acceptance of using E-Menu in restaurants.

The study on perceived usefulness has a positive and very strong correlation with consumer acceptance, which indicates that consumer acceptance was affected by perceived usefulness. It is due to the consumer could obtain information quickly and effectively via E-Menu saving time for consumers to place an order. Previous studies have also confirmed that using E-Menu in an electronic appliance such as mobile phones have saved consumers time (Lee & Kim, 2020). Furthermore, according to Tamilvizhi et al (2021) it is effortless to place or change orders without having to waste much time. The average mean value of 3.5307 from the descriptive analysis also indicates that the consumer agrees that perceived usefulness affects their acceptance of using E-Menu in restaurants.

The finding on perceived trust also shows a positive and very strong relationship with consumer acceptance. The descriptive analysis with the average mean value of 3.5365 indicates that the consumer agrees that perceived trust affects their acceptance of using E-Menu in restaurants. Perceived trust towards technology compared to human errors were factors that influence consumer acceptance. The previous study has confirmed that trust towards technology influences consumers' attitudes and intentions to purchase (Suleman et al., 2019).

A notable and unexpected outcome of the study is the weak significance between perceived risk and consumer acceptance. This result is not consistent with a prior research study in which a positive and significant effect on perceived risk among consumers, then restaurant businesses need to understand the factors that reduce perceived risk (Tzavlopoulos et al., 2019). One of the reasons is due to the education level of consumers increasingly and they know how to protect themselves and minimize the risk. This statement is supported by the demographic profile of the respondents in this research where 64.3% of them are degree holders or higher education level.

**Conclusion**

This study found that perceived ease of use, perceived usefulness, and perceived trust significantly influence the consumers' acceptance of E-Menu, but the perceived risk does not show any significant relationship. This means that consumers are more concerned about the ease of use, usefulness, and trust that modern technology will bring to them when ordering food at restaurants. On the other hand, perceived risk in the adaption of modern technology

is no longer a factor that could impact consumers' acceptance. Therefore, this research study contributes to improved success in the existing market and provides an awareness of consumers' acceptance of popularised and upcoming restaurant technologies, especially in terms of providing a helpful idea and innovative service. For these reasons, the E-Menu food ordering system may replace waiters or waitress service and traditional paper menus in the future.

The printed restaurant menu is being phased out in favor of the more modern and convenient E-Menu option. E-Menu systems are being adopted by an increasing number of restaurants, particularly quick-service and family-style dining spots, as a method of marketing and interacting with the younger generation. Moreover, the E-Menu system helps to minimize contact, simplifies table management, and consumes less time and effort. Besides that, E-Menu may be a sufficient means of enhancing restaurants' brand identification and encouraging consumers to develop a positive impression of the restaurants, thereby increasing brand loyalty for greater financial returns. This is in comparison to printed menus, which may not be sufficient for achieving these goals.

The region of Malaysia known as the Klang Valley served as the location for the collection of the data used in this study. The scope of future research can be broadened to encompass a larger geographical area such as covering the whole of Peninsular Malaysia or the entire country. Other methods of data collection shall also be considered in the future. Methods such as live interviews should be able to provide more precise responses. The current study focused on only four factors to reveal the study relationships: perceived ease of use, perceived usefulness, perceived trust, and perceived risk. Other factors, such as perceived enjoyment and perceived effectiveness, should be investigated in future research.

This research develops a perception to understand the consumer acceptance of E-Menu in restaurants and then finds out the best way for the restaurant industry in implementing E-Menu while replacing the conventional processes due to technological advancement, green environment sustainability, marketing, and costing purposes. Subsequently, the findings could help to enhance the confidence level of those restaurants that have been involved in the E-Menu system. Secondly, this research benefits the policymakers to further understand the adoption of E-Menu in preventing the risk of transmitting infectious diseases during dining. Thirdly, this research will contribute to the field of study by adding value for scholars and researchers to study the factors affecting consumer acceptance of the E-Menu and the potential to explore more factors in the future.

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