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The Relationship between E-Service Quality and E-Satisfaction of Online Food Ordering in the Klang Valley, Malaysia

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Abstract

This paper examines the determinants of the customer's online food ordering experience, which include website trust, customer satisfaction and loyalty. The determinants are represented by website quality and service quality. Significant results reveal that not only is there a significant positive relationship between website quality and website trust but also a significant positive relationship between service quality and customer satisfaction. Within the food and beverage industry in Malaysia, there is an emerging new wave, the online food delivery (OFD) service. Not just restricted to the take-away and eating out, online food ordering is the new eating out. The emergence of the online food delivery services could be attributed to the changing nature of urban consumers. Furthermore, significant positive relationships are also identified not only between website trust and customer satisfaction but also between customer satisfaction and loyalty. Finally, the study also found an unexpected direct link between service quality and loyalty. Overall, the study provides valuable insights for operating online food ordering services successfully.

Keywords: Online Food Delivery, Customer Satisfaction, Service Quality, Behavioural Intention, Perceived Ease of Use, Time Saving Orientation, Convenience Motivation, Privacy and Security, Loyalty.

Introduction

The relationship between e-service quality and e-satisfaction of online food ordering in the recent years has received significant academic interest and attention. E-service quality (eSQ) is mainly recognized as a significant factor and a key determinant to the competitive edge of a firm that results in e-satisfaction for online purchases. The online food delivery has increasingly emerged as a popular means to reach out to various consumers, and this has been observed in Klang Valley, Malaysia. The essence of online food ordering is to capture a huge share, sales, and maximize profits. The relationship between e-service quality and e-satisfaction of online food ordering is understood by examining the independent variables and the dependent variable, respectively. For the purpose of this paper, the independent

variablesidentified include ease of use, availability, and privacy while the dependent variable is satisfaction with online purchase.

Research Background

This study seeks to examine the relationship between e-service quality and e-satisfaction of online food ordering in the Klang Valley, Malaysia. The research offers a perfect understanding of how ease of use, availability, and privacy (independent variable) influence satisfaction with online purchase (dependent variable). Consumer satisfaction is increasingly becoming vital for nearly all organizations and this has a direct impact of the profits obtained. Online users/consumers today anticipate better levels of service quality as compared to the traditional ones. In the absence of high quality services, consumers can seek different online food ordering services in the customer to customer (C2C) emerging business model. As such, using the available resources, improving the e-service quality and consumer satisfaction levels becomes much better. Hence, this is one way of maintaining customer loyalty in the online services.

E-service quality and e-satisfaction are important components in the external relation system and they promote effective competition among firms. The significance of e-service quality provision in the hotel industry has found a huge attention by operators and researchers. Predictably, the quality of e-service is deemed as the main aspect that promotes e-satisfaction among consumers (Rita, et al., 2019). This further promotes incomes and captures a big market share. Based on earlier studies, offering high e-service quality in addition to first class food quality enhances consumer satisfaction even in undesirable food environment. The online food ordering in the Klang Valley, Malaysia has occurred as a new channel of food delivery and is estimated to capture a considerable market share in the region.

Online food ordering in the Klang Valley region has become so popular, particularly among the busy and working residents. Moreover, food ordering in the region has become competitive because of the emerging business entries. This trend has emerged coupled with consumer anticipation resulted from the angst of online food ordering, privacy and time convenience. However, all this occurs at the expense of offering quality products and services. Consequently, it is vital that online food providers understand the extent and the specific requirements, in addition to the pertinent features of the online service business that are considered imperative to promote e-satisfaction among consumers (Lestari & Ellyawati, 2019).

Problem Statement

Based on a study by Yusra (2020), e-service quality is described as the extent to which a mobile application or website offers efficient and effective shopping, buying, and delivery of services and products to consumers. Service quality defines the most common problem associated with online shopping, particularly online food ordering. To some extent, service quality directly affects consumer satisfaction either positively or negatively. According to Monther and Mahadevan (2019), online consumers have no assurance of food offered and so it is crucial for businesses to focus on improved e-service quality to enhance e-satisfaction. The conceptualization of eSQ has its origins in the expectation disconfirmation theory (Ting, et al. 2016). That said, the assessment of service quality arises from linking the perception of service obtained to prior anticipation of what the service should cater. Online consumers anticipate improved levels of service quality as compared to the traditional channel consumers.

Several factors are known to foresee consumer perception of eSQ and e-satisfaction. The relationship between eSQ and e-satisfaction is well observed through the lens of ease of use, privacy, and availability, which in turn determine customer satisfaction with online purchase. Service providers are expected to offer quality service to increase competition and enhance satisfaction (Correa, et al. (2019). The reason for investigating this topic is due to the growing uncertainty in the relationship between service quality and customer satisfaction, especially in Klang Valley, Malaysia. Although earlier studies have operationalized service quality and satisfaction relying on single item scale, the current study examines the relationship between the two by adopting a multi-dimensional approach. This is an implication that both eSQ and e-satisfaction should be operationalized in the same manner to determine how they are related (Monther & Mahadevan, 2019).

Research Aim

The study seeks to establish the relationship between e-service quality and e-satisfaction of online food ordering in the Klang valley, Malaysia. The aim is to determine how the independent variables influence the dependent variable.

Research Objectives/ Question

The objective of the study is to examine the relationship between eSQ and e-satisfaction at the perspective of online food ordering in the Klang Valley. The study aims to scrutinize variables of ease of use, availability, and privacy and to determine how these issues influence satisfaction with online purchase.

The main objectives are summarized as follows;

a. To determine the relationship of ease of use and satisfaction with online purchase
b. To determine the relationship of availability and satisfaction with online purchase
c. To determine the relationship of privacy and satisfaction with online purchase

The research questions identified for the research are the following;

a. Is there positive or negative relationship between ease of use and satisfaction with online purchase?
b. Is there positive or negative relationship between availability and satisfaction with online purchase?
c. Is there positive or negative relationship between privacy and satisfaction with online purchase?

Scope of Research

Online food ordering in the Klang Valley has become popular and is expected to have positive impacts to consumers. Through online food ordering, customers are able to order food from the comfort of their homes and at work. Moreover, they are able to select a delivery method of their choice while at the same time make payments online via the company website or mobile app. The benefits associated with online food ordering are included in this study. For instance, online food ordering supports convenience and this is a major benefit that adds value in terms of e-satisfaction. Nonetheless, the time taken for the delivery of the food ordered via the online providers is not included in this study.

Significance of Research

The study pays more attention on the relationship between e-service quality and e-satisfaction of online food ordering in the Klang Valley, Malaysia. Therefore, the outcome of

the research adds benefits to both sellers and buyers involved in the online food ordering activities in the mentioned region. As such, the study is beneficial to the consumer and business entity in the Klang Valley. The identified factors or variables in the study are significant because they will change the extent of e-satisfaction as far as online food ordering is concerned. A recent research by Yusra (2020) specified that nearly 60% of online food shoppers have experienced bad services. There is a need to change this percentage by creating awareness about the relevant factors that promote satisfaction levels among customers. It is crucial for the online businesses to process and examine the received complaints successfully in regard to offering good values to their respective consumers.

Hence, this study assists the business entity to recognize the connection between e-service quality and e-satisfaction of online food ordering. Furthermore, it helps online food providers to identify the fault between customer and online shopping websites and applications. This move is necessary to ensure the attainment of profits while at the same time improving e-satisfaction. By improving ease of use, ensuring increased availability, and guaranteeing privacy, consumers are likely to engage in online services without the fear of uncertainty and fraud (Ting, et al. 2016). In a nutshell, by relying on these elements as a guideline, the business entity may eliminate complaints and the negative reviews. Such move will improve online food ordering in the region and create a good reputation, which further will aid in increasing sales and e-satisfaction levels among the consumers.

Most remarkably, the government of Malaysia can investigate the significant issues shaping the relationship between e-service quality and e-satisfaction by using this study as a guide. Afterwards, the government can offer support in terms of tax policy, foreign exchange sustenance, and making relevant laws to encourage online food ordering activities. The study may offer a guideline for forthcoming researchers to examine the factors influencing e-service quality and e-satisfaction in other fields apart from the food sector. Consequently, the study helps other scholars to carry out advanced research concentrating on different factors to improve online businesses and satisfaction levels.

Limitation of Study

There were notable constraints faced during the study. These included time constraints, resources, and financial. The time allocated for the study was not appropriate and performing some tasks required additional time to ensure success in the study. The inputs required to complete the whore research were limited. Performing the task required some financial support and this was a major limitation because the amount allocated was inadequate.

Conceptual Review

A conceptual review demonstrates what the researcher anticipates to discover during the research. That said, it describes the relevant variables involved in the study. Both e-service quality and e-satisfaction are important aspects required in online food ordering. In this research, the determinant is obligatory to establish how the three aspects of independent variables (ease of use, availability, and privacy) influence the dependent variable (satisfaction with online purchase).

Defining and Explaining Key Concepts

Online food ordering in the Klang Valley has reached explosive growth because it represents a high economic benefit that the traditional mode of purchasing. However, the changeover from the old to the current has developed a major concern among consumers

and online users with regard to the following: ease of use, availability, and privacy. It is important to define various concepts as applicable to the current study.

Ease of Use

Perceived ease of use denotes the extent to which a given innovation is professed to be easy to understand and use. As stated by Vasic and Kaurin (2019), ease of use defines the degree to which consumers are able to interact and operate with technology with reduced efforts. Hence, the manner consumers in the Klang Valley find online food ordering effective and assess its benefits easily has been questionable. The ability of consumers to evaluate the benefits of innovate technology, such as ordering food online has been acknowledged as a crucial aspect to alter their attitudes and improve satisfaction levels. Acceptance of innovate technology among users is possible where a friendly interaction is offered in the websites and the available mobile apps. The effect of ease of use eventually influences customer behaviour and satisfaction levels in online purchasing environment (Tirtayani, 2018). Hence, it has considerable positive effect on shopping intentions and satisfaction.

To inspire more consumers to rely on the new technology, it is recommended that companies and hotels in Klang Valley, Malaysia should create systems, websites, and mobile applications that are easy to use. It is worth noting that ease of use positively affects the continuation of consumers in the context online food ordering. Consumers are reluctant to engage in online purchases if the perceived ease of use is hindered by various barriers, including poorly designed apps and websites. Therefore, it is significant that the design of the website and mobile apps be friendly to improve customer interaction and enhance satisfaction levels. It can be conjectured that ease of use is fundamental towards promoting satisfaction with online purchase.

Availability

Different customers expect online food providers to offer all accurate and relevant information concerning the foods available. Owing to the fact that customers infrequently have the chance to touch or feel the food items before giving their final decision, online sellers are required to offer that information, respectively. Most online shoppers appreciate information that meets their unique demands. Several authors agree that the credibility and quantity of information is crucial in enhancing the quality of services in online food ordering services (Rita, et al. 2019). The quantity of information as used in this context denotes the capacity to access satisfactory information during online buying. For instance, price comparison and the nutrients available in the food.

Credibility herein defines the extent of shopper's self-assurance in information offered by online vendors. Offering relevant information can assist online sellers to dismiss fears and concerns of shoppers towards a specific product. Rather than have byte sounds, online shoppers want comprehensive access to important information that will help them make final decision concerning online foods as well as other services. Collaborative online tools for product comparison are deemed to be the indispensable means of attaining information that will enable quick decision making by the consumer. Furthermore, this aspect makes the customer more satisfied. Information about the product, in terms of profusion and quality are considered as the elements of e-satisfaction.

Privacy

Privacy as described by studies refers to the possibility to access, use, and destroy individual information. A good example of such information includes bank account, phone number, mailing address, password, among others (Noorshella & Abullah, 2015). In the wake of online shopping, more cases about breach of individual and private data have been reported by renowned companies in Malaysia. That said, more consumers are progressively feeling doubtful on how and where their private information is used in the event of online transactions. Privacy and security present a threat linked to safety of payments and storage of personal information via online transactions (Monther & Mahadevan, 2019).

Numerous shoppers evade online shopping because of privacy concerns, credit card fraud, and non-delivery service, and so on. It is established through research that the extent of trust will influence consumer intention to engage in online activities such as ordering food from online vendors (Lestari & Ellyawati, 2019). Privacy has increasingly become a major concern for online consumers. To ease consumer's minds on the concerns of privacy, several websites have introduced regulations to allow customers audit, verify, and certify privacy rules for online transactions. The more privacy is guaranteed to the online shoppers, the higher the level of confidence and satisfaction of consumer order food products as it is in the case of Klang Valley, Malaysia. Trustworthiness is imperative while performing online activities and a mutual agreement has to be achieved between the buyer and seller to promote privacy measures. The absence of trust in firms handling sensitive customer information has prompted some consumers to evade online food ordering activities. Online vendors that facilitate verification system in their mobile apps or websites make customers feel more secure. So, it can be hypothesized that privacy is crucial towards promoting satisfaction with online purchase.

a. Critical review of related theories

Electronic service quality (eSQ) is gradually significant in shaping consumer assessments and judgments concerning the quality of service provided. According to Ting et al. (2016), transactions between online consumers and sellers are performed via websites and smooth dealings are attained through great levels of e-service quality. As such, website's quality takes a huge role in shaping the web experience of the online shoppers. In simpler terms, a website is considered as a leading tool for conveying the quality of e-products to online consumers. Several studies have been conducted to establish the dimensions and relations of eSQ and e-satisfaction (Alalwan, 2020). Based on the studies, e-SERVQUAL is broadly used. Created by Zeithaml, e-SERVQUAL is a technique for assessing website eSQ on the basis of online shopper's discernment of how best the website fulfils their online transaction needs and improves their satisfaction in purchasing. The major dimensions of E-S-QUAL include efficiency, fulfilment, reliability and privacy (Suhartanto, et al. 2018).

As established by Ting et al. (2016), e-satisfaction is defined as the enjoyment of the online shopper that comes from their previous purchasing experience with a specified e-commerce firm. It is important to note that consumer satisfaction is essential towards developing long-term relations with customers, and in maintaining profitability of online vendors. Lau and David (2019) found that serviceable decision and shopping experience in various online activities will determine client e-satisfaction levels. Hence, e-satisfaction of online consumers is determined by the website's performance and product (food) offered by the website. Improving online buyer and seller relationship and their joint benefits of satisfaction through improved eSQ has been a concern of both researchers and marketers.

ESQ is a crucial predecessor of online consumer's valuation of value and quality that will affect their e-satisfaction (Tirtayani, 2018). Indisputably, eSQ dimensions are direct projecting of the satisfaction of online shoppers.

Evidence drawn from Monther and Mahadevan (2019) reveal that eSQ is directly linked to online shopper satisfaction, and various similar studies have shown a positive relationship between e-service quality and e-satisfaction of online consumers. In essence, it can be theorized that eSQ is significantly and positively linked to e-satisfaction of consumers engaging in online activities. Clients are eager to know more about electronic food ordering and how it works. The increased tendency and behaviour among consumers in termed as behavioural intention (Li & Mirosa, 2020). Notably, behavioural intention describes customer's tendency to subscribe to the website in the future. Increasingly, the intention can be employed by retailers to foresee client purchase behaviour and satisfaction in online activities. Based on a study by Suhartanto, et al. (2018), a person's action will rely on the principle of the behaviour that they hold and an optimistic attitude will then lead to the conduct to accept the product or the technology used.

As pointed out by Lestari and Ellyawati (2019), inhibitions and motivations are the main explanations that influence online spending. It has been established that online food ordering is easy and saves a lot of time. Although delivery systems often fault, online personal privacy, ease of use and payment systems has been recorded as the major issue for online shoppers. These aspects are deemed as the hindrances to online shopping. Based on this motive, these factors are likely to influence the satisfaction of customers towards online shopping. Notably through another study by Correa, et al. (2019), individual security and privacy plays a considerable role in purchasing products online. Furthermore, the safety of various payment options available for use is a major concern, which has influence on satisfaction on online purchases. It is necessary for online retailers to recognize all these elements and increase satisfaction in online activities.

Based on consistency theories, online shoppers tend to feel tension when their expectations are not in line with the actual product received (Emad & Parameshwar, 2020). The consumers in some instances adjust their anticipation to the product performance to lessen the tension. Consumers are likely to be satisfied when the product performance agrees with their expectation. Most remarkably, consumers are, consumers will much satisfied when the product performance goes beyond their expectation. Such propensity increases their chances of satisfaction and engaging in online activities.

Lau and David (2019) pointed out that the quality of services and products within online business results in direct impact on consumer satisfaction. Hence, they further revealed that reducing the product cost and increasing its quality is considered as a contributing factor in the success of e-business. The perceived product performance in this case is deemed as the main determinant linked to satisfaction. Conversely, numerous studies concerned with online business claim the service quality results in positive influence on the overall e-satisfaction. The quality of service largely determines whether the online shoppers will develop loyal relationships with the specific online vendors. Online sellers that provide higher service quality meet the expectations of their potential clients and therefore, improve their satisfaction levels. Through the provision of relevant information in their platforms, online retailers increase customer expectations and also add value to their services and products. That said, there is a need to maintain the quality in online business to guarantee excellent service quality for customers. Service quality as described here is the capacity to anticipate first and second meeting consumer requirements. This fact justifies the reason why offering

the service quality has a huge role in increasing consumer satisfaction. Improved website quality expressively influences customer decision to shop online.

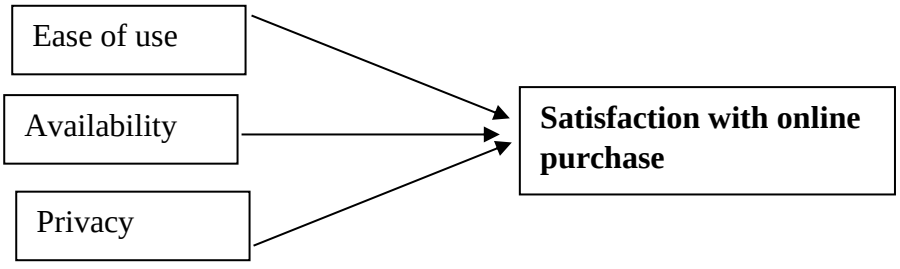
Current Research

Empirical research is established on a measured phenomenon and therefore, develops knowledge from concrete experience instead of theory. In this section, the identified research questions will be answered correctly. Indeed, there is a direct relationship between e-service quality and e-satisfaction. The relationship between ease of use has been found to have positive impacts on satisfaction with online purchase. It is evident that consumers in the Klang Valley, Malaysia are more willing to engage in online activities where the website is user-friendly to operate and order food. In this case, customer satisfaction with online purchase is a direct antecedent of ease of use and consumer loyalty.

Furthermore, it has been established that the extent of information availability from these perceived websites and mobile apps has a positive connection with consumer satisfaction with online purchase. Customers in the Klang Valley prefer websites that provide relevant information concerning their products and specific details about food nutrients and their prices. Availability translates to transparency of the product being sold and this further motivates customer's satisfaction with online purchase. As far as privacy in the online transactions is concerned, there are both positive and negative attributes. First, privacy translates to positive influence when customers feel safe with the website verification process. The approach used in the verification process in a company's website will determine customer's attitude and satisfaction with online purchase (Emad & Parameshwar, 2020) Customers are likely to purchase more in websites where issues of fraud and money laundering are not reported. On the second note, it has been found that the website design can negatively influence customer decision and satisfaction with online purchases. If the verification process in the website is poor and cases of fraud have been reported, customers are likely to seek other options, and this result in dissatisfaction with online purchases.

Conceptual Framework and Justification of Hypothesis

A conceptual framework simply demonstrates what the researcher expects to discover in the research. It describes the relevant variables identified in the research and maps how these variables relate to one another. For the well-defined hypothesis to be studied and demonstrated in clear details, a conceptual model is presented and showed in *figure 1*.



Research Philosophy

The entire research relies on realism research philosophy. There are different research philosophies, which have been formulated by scientists, including positivism, pragmatism, and realism. Each of these models is suitable to diverse research studies. For the current research, realism research philosophy is chosen because it depends on the notion of

independence of authenticity from the human mind. In simpler terms, this philosophy is suitable for this research because it is established on the supposition of a scientific approach to the advancement of knowledge. Under realism are two categories namely direct and critical. The direct realism further suits this research because it is defined as "what you see is what you get". In this case, direct realism depicts the society through individual senses. To the online businesses, this is an implication that what you see displayed in online stores is what you get after completing the payment.

Research Approach

There are diverse research approaches that have been developed to help scholars carry out their research and obtain better results. These approaches include induction, deduction or abduction. This research relies on inductive research approach because of its numerous benefits. In inductive approach, the fact of the conclusion is assured based on the facts evaluated and considered. Induction is an approach of reasoning, which involves the aspect of probability. Based on definition, induction denotes implication of a comprehensive conclusion drawn from a given instance. Simply put, it implies developing a generalization based on things known or even observed. For instance, if you observe 3 of your best friends ordering sandwich from an online retailer, then from that observation, you can induce that the sandwich ordered is delicious. Then, you can try to order the sandwich by yourself. Induction comes in play because your nature of thinking is based on the observation made from your friends.

Research Method

This research adopts a quantitative method over qualitative approach. Quantitative method involves gathering and examining numerical data (McCombes, 2019). Hence, it is possible to identify both patterns and averages and be able to make relevant predictions, test underlying relationships and simplify results to broader population. This technique is suitable because a larger study can be performed, involving numerous subjects and enable the researcher to generalize the results. The essence of accuracy and objectivity are linked to this research method. Therefore, few variables are used because data in linked to close-ended information. Qualitative is chosen for bigger target participants sample size and it involves numerous forms of measurement and analysis. The method will allow the researcher to collect and analyse data and use it to test the hypothesis. As such, it is possible to establish the relationship between dependent variable and independent variables, respectively. Relying on quantitative approach will assist the researcher to determine the relationship between independent variable (ease of use, availability, privacy) and dependent variable (satisfaction with online purchase).

Research Strategy

This research will rely on a survey research strategy. A survey denotes a technique for gathering data from a predefined group of participants. The aim is to acquire information and suitable insights concerning a topic of interest. The data under this strategy is often acquired using standardized process to guarantee that every respondent answers the question asked. The questions should be answered correctly to avoid obtained biased ideas that could interfere with the desired outcome of the research. The procedure involves asking individuals for information via a questionnaire. In this case, it will be conducted online using different social networks, URLS, email, and QR codes.

Research Design

The study adopts a correlational research. In essence, a correlational research is employed to determine whether two variables are correlated and to establish relevant predictions on the ground of that relationship. Unlike other research designs, correlational studies seek to establish a relationship of variables, although they cannot provide an explanation for the causation (Teherdoost, 2016). A correlational study is suitable for this research because it defines or predicts behaviour. The truth that two variables are linked does not simply mean that one variable causes the other. This research design has strength in that it is predictive. Given a large sample size, the researcher can rely on one variable to foresee the probability of the other variable, especially when there is a direct connection between the two.

Data Collection Method and Tools

Data collection methods define the most crucial elements of the entire research design. For the purpose of this research, both primary and secondary data will be used. The primary data collection technique used in the research will be the questionnaire. On the other hand, the secondary data collection method will rely on website articles, published researches, journal articles, reports and news. Primary data is often regarded as first-hand data that is gathered direct from individuals. The best approach to obtain primary data is by using interviews, surveys, questionnaire, observations, and so on (McCombes, 2019). Questionnaire will be chosen to support this study and these will be circulated to the respondents via Facebook in Klang Valley, Malaysia using Google form. Secondary data enables the researcher to obtain more relevant information to determine the variables. Secondary data is often obtained from earlier works completed by different scholars in the same field of study. As indicated, website articles, journal articles, and published researches will be employed in this research to gather suitable data.

Population

Population refers to the number of respondent chosen for data collection in the identified region. There will constantly be individuals who are willing to engage in a study and provide honest opinion concerning the question asked. This group of people is considered as the target population.

The success of any given research study depends on the choice of sampling method employed. There are numerous sampling methods, and each has its benefits. This research adopts a probability sampling method. Probability sampling implies that each member of the identified population wins a chance of being chosen (Teherdoost, 2016). This sampling process is adopted in quantitative research. It is considered effective in instances where the researcher wishes to generate results that are representative of the entire population. There are several types of probability sample, and in this includes simple random, systematic, stratified, and cluster sampling. All the classifications are crucial and applied depending on the nature of the study.

In this study, random sampling, which falls under probability sampling technique, was chosen as the sampling technique. Probability sampling enables the researcher to represent the outcome from the population and stand the chance of providing more precise and trustworthy results (McCombes, 2019). Hence, this approach is far much better than nonprobability, which reflects the characteristics of the entire population. Random sampling method is chosen in this study since the population of target population is big and somehow

difficult to identify each single individual. By adopting random sampling technique, every single individual secures an equal chance to be selected as a respondent (Teherdoost, 2016). The sample size defines the amount of chosen persons form the entire population to represent as a subsection of the population. The sample size for this study is 200 respondents. This sample size is chosen meticulously to make the research study more accurate.

Data Analysis

Both descriptive and reliability analysis will be employed in this research. Descriptive analysis involves interpreting of raw data into relevant information with a proper understanding that provides clarification to questions. The overview of demographic data under this technique can be demonstrated using charts. Reliability analysis is a beneficial technique to test data gathered for reliability. It adds value to have reliable data, which is suitable to answer the identified research question. If the arrays of the data contain high varieties, the data may contain low consistency and is problematic to come up with a conclusion (McCombes, 2019). In this study analysis, the reliability of every element is tested using Cronbach alpha test, and this is aimed towards achieving consistency in the desired results. Coding is also necessary as far as data analysis is involved. During the coding process, the data gathered will be mined for the introductory codes and later it will be clarified to obtain codes with better correctness. The aim of data coding in the study is to summarize the obtained data, eradicate needless data and give meaning for the data.

Ethical Issues

Both ethical and legal issues form significant elements of contemporary research, and this even correlated to the researcher and subject. The role of individual respondents is to act as sources of data. Researchers have the obligation to protect the integrity, health, privacy and personal information of the subjects involved in the research. Ethical considerations in research entail respect for individuals, justice, and beneficence. Individuals with diminished autonomy should be protected, and no harm should be caused on personal and societal level. Mistreating the research subjects is considered unethical and therefore, informed consent should be presented and signed by the study participants.

Results and Discussion

Descriptive Analysis

The analysis in this section gives the descriptive analysis of the demographic factors, the dependent variable, and the independent variable. As Baarda and van Dijkum (2019) stipulates, descriptive analysis helps understand the data distribution and the underlying characteristics. The summary of demographic factors is tabulated below;

Table 1: Frequency distribution of demographic factors

		Frequency	Percent	Valid Percent	Cumulative Percent
Gender	Female	88	44.0	44.0	44.0
	Male	112	56.0	56.0	100.0
Number of times have used online food ordering	Less than 3 times	63	31.5	31.5	31.5
	3 - 5 times	62	31.0	31.0	62.5
	More than 5 times	75	37.5	37.5	100.0
	Total	200	100.0	100.0	

The summary shows that 44.00% of the participants were female, and 56.0% were male. 31.5% of the participants had used online food ordering less than three times, 31.0% had used between 3 to five times, and 37.5% more than five times. This shows that there is enough information that could be gathered from this sample, particularly about e-satisfaction. Notably, most participants have used the online food ordering system at least three times (68.5%). These distributions are illustrated below;

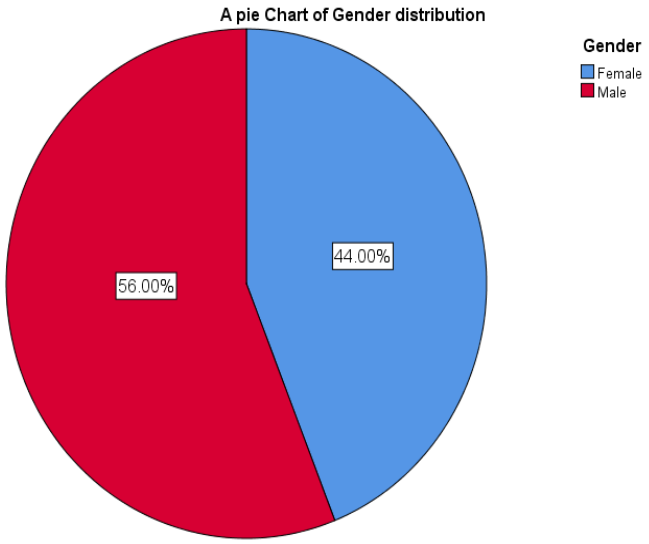


Figure 1: Gender distribution pie chart

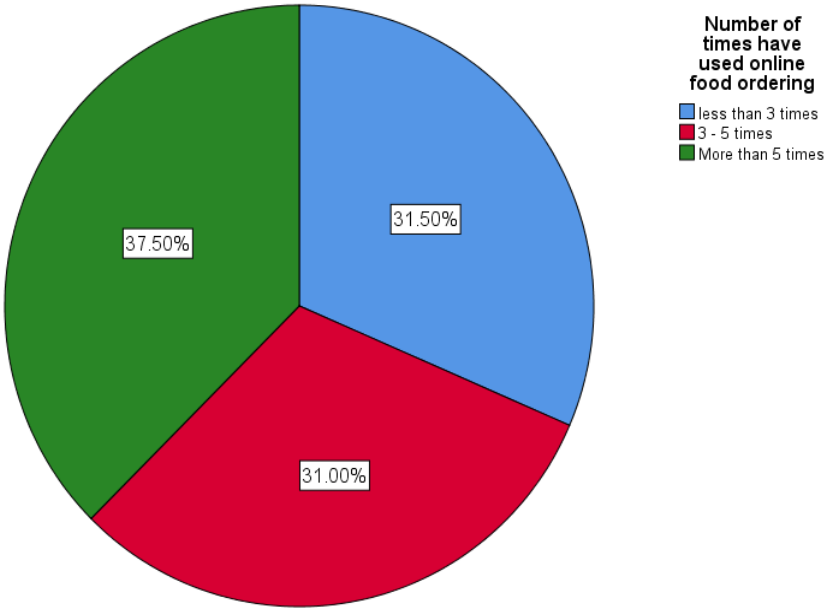


Figure 2: Number of times have used online food ordering

The cross-tabulation of gender and The descriptive analysis for the continuous variable

		Ease of use	Availability	Privacy	Satisfaction
N		200	200	200	200
Mean		3.3850	3.0025	3.2713	3.9813
Median		3.5000	3.0000	3.2500	4.0000
Mode		3.50	3.50	3.25	4.25
Std. Deviation		.73492	.80200	.73872	.63004
Skewness		-.154	-.287	.024	-.607
Std. Error of Skewness		.172	.172	.172	.172
Kurtosis		-.226	-.202	-.607	.171
Std. Error of Kurtosis		.342	.342	.342	.342
Percentiles	25	3.0000	2.5000	2.7500	3.5000
	50	3.5000	3.0000	3.2500	4.0000
	75	4.0000	3.5000	3.7500	4.5000

The average ease of use is 3.385, with a standard deviation of 0.735. The median (3.5) coincides with the mode, and they are slightly higher than the average. The smaller mean indicates that the data have a slightly longer tail to the left (negative skewed) (Campisi et al., 2020). The skewness coefficients support this finding and further indicate that the skewness is small (SK = -0.154). The quartile estimates show that less than 25% of the participants were neutral about the ease of use. In contrast, more than 25% agree or strongly agree that it was easy to interact and operate ordering technology. The average availability score is 3.0025 (SD = 0.802), which is very close to the median (3.000) but smaller than the mode. The privacy concerns have an average of 3.2713 (SD = 0.73872). The mode, median, and median are very close. This indicates that the effect of data skewness on the mean is small.

The average e-satisfaction is 3.9813 (SD = 0.63). The median (4.00) and mode (4.25) are high, suggesting a high agreement of high satisfaction with online ordering of food. The standard deviation is small, indicating consistency in e-satisfaction. The skewness coefficient (-0.607)

shows that satisfaction with online ordering was negatively skewed, where most of the people tend to agree, and a few tended to disagree. The quartile summaries suggest that the middle 50% of the participant's scores were between 3.50 and 4.5. This shows a high level of e-satisfaction. The pictorial illustration of satisfaction distribution is as shown below;

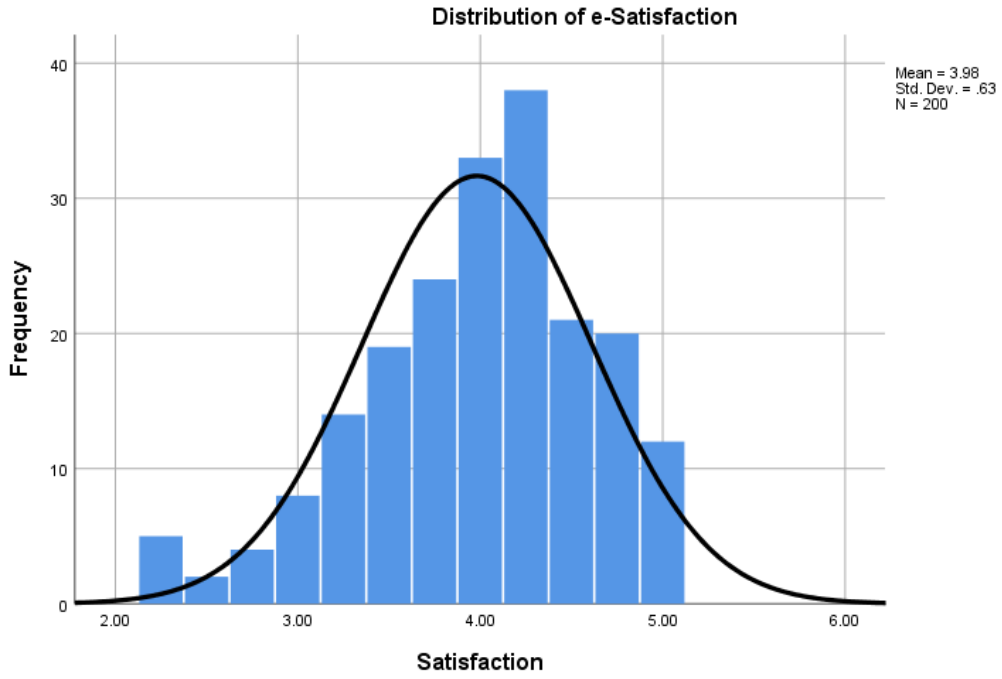


Figure 3: A histogram illustrating e-satisfaction distribution

The bell-shaped histogram indicates that the data might be from a normal distribution. There is a relatively longer tail to the left that supports that satisfaction is negatively skewed (Chambers, 2018). From Figure 3, it can be assumed that satisfaction is from a normally distributed population. It is important to note that this assumption is crucial since it will help in using parametric tests to assess the laid research objectives.

Reliability Analysis

The reliability test help assesses whether there is a high agreement between measurements used. If there is a low agreement, it implies that the factors used to measure a construct are not measuring the same construct (Miller and Smith, 2020). Therefore, all the variables, independent and dependent, should show a high level of reliability.

The reliability test of ease of use is summarized below:

Table 2: Reliability test of ease of use

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Number of items	Cronbach Alpha
Ease1	9.9950	5.171	.562	.702	**4**	**0.761**
Ease2	10.3550	4.984	.587	.689		
Ease3	10.1950	5.504	.529	.720		
Ease4	10.0750	5.336	.558	.705		

The results indicate that four items are used to measure the ease of use. There is high intercorrelation between the items since the Cronbach alpha is greater than 0.70. The

Cronbach alpha shows high reliability between the items measuring ease of use of online food ordering platforms or systems. If any of the items is deleted, the reliability of the ease of use is compromised. Thus, none of these four items should be deleted. The availability score reliability test is summarized below;

Table 3: Availability score reliability test

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Number of items	Cronbach Alpha
Availability1	9.0400	5.817	.690	.700	**4**	**0.795**
Availability2	8.9000	5.940	.665	.713		
Availability3	9.2150	6.441	.535	.778		
Availability4	8.8750	6.542	.537	.776		

The availability measurements have high reliability since Cronbach's alpha is greater than 0.70. The high-reliability scores show high agreement or intercorrelation between the four items used to measure availability. Further, none of the items can be removed or deleted to improve the reliability of availability measurements. The reliability of privacy is summarized below;

Table 4: Reliability test of privacy measurements

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Number of items	Cronbach Alpha
Privacy1	9.9150	5.304	.524	.663	**4**	**0.728**
Privacy2	9.5550	5.133	.609	.614		
Privacy3	9.6750	5.467	.455	.705		
Privacy4	10.1100	5.526	.488	.684		

There is high reliability in privacy measurements, which shows an internal agreement between the items (alpha = 0.728). None of the items should be deleted for that would lower the which is not good. Therefore, the four sets of items used to measure privacy concerns in online ordering should be retained. The reliability test of e-satisfaction is summarized below;

Table 5: Reliability test of satisfaction

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Number of items	Cronbach Alpha
Sat1	12.2900	3.725	.502	.651	**4**	**0.713**
Sat2	12.0700	3.714	.522	.638		
Sat3	11.6450	4.270	.481	.664		
Sat4	11.7700	3.947	.503	.649		

Table 5 Indicates high reliability between the measurements used in the satisfaction (alpha = 0.713). Since the Cronbach alpha is greater than 0.70, there is a high correlation between items used to measure e-satisfaction. If any of the items is deleted, the reliability score

becomes lower than 0.70, which is not ideal. Therefore, the four items should be used to measure e-satisfaction.

Inferential Analysis

This section will be grouped into three main parts, which would cover the three research questions raised.

a. To determine the relationship between ease of use and satisfaction with online purchases

Pearson's correlation analysis is applied to assess the relationship between ease of use and e-satisfaction with online food ordering. The results are tabulated below;

Table 6: Correlation matrix of ease of use and e-satisfaction

		Satisfaction	Ease of use
Ease of use	Correlation	.404**	1
	p-value	.000	
	N	200	200

The evidence shows a moderate positive relationship between ease of use and e-satisfaction ($r = 0.404$, $p < 0.001$). The null hypothesis is rejected, and the conclusion made that positive relationship between e-satisfaction and ease of use. This relationship is illustrated in the scatter plot below;

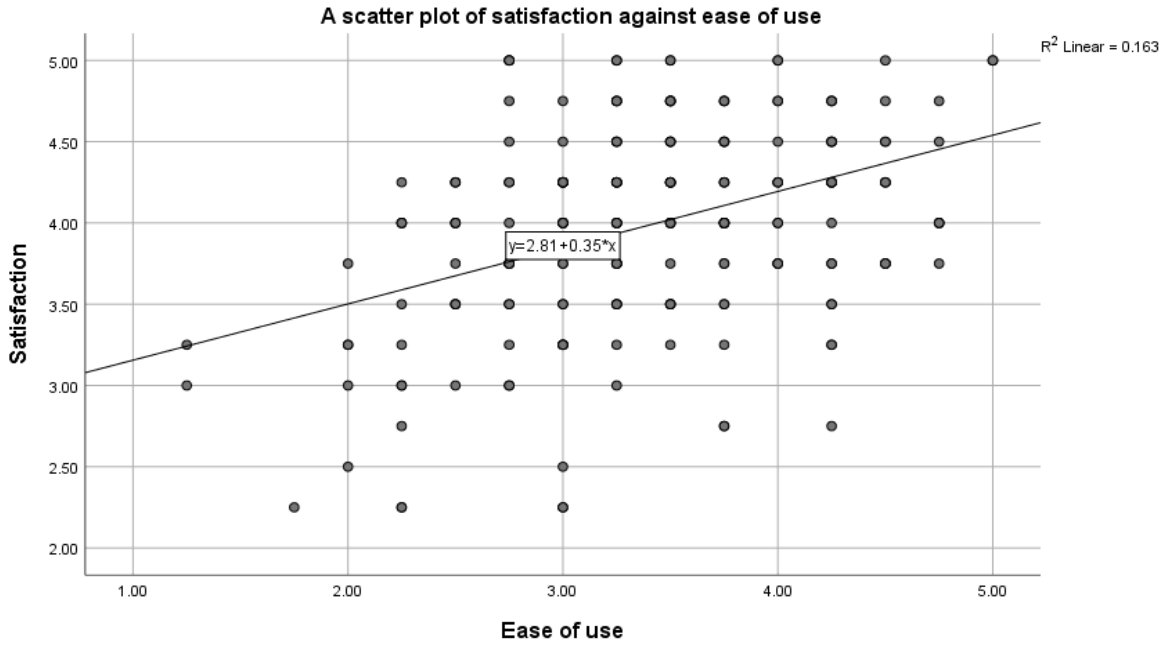


Figure 4: Scatter plot of satisfaction against ease of use

The slanting slope of the scatter plot shows a moderate positive relationship between ease of use and satisfaction.

b. To determine the relationship of availability and satisfaction with an online purchase

The correlation analysis is performed to assess the nature of the relationship between availability and e-satisfaction. The results are summarized below;

Table 7: Correlation matrix of availability and e-satisfaction

		Satisfaction	Availability
Availability	Correlation	.628**	1
	p-value	.000	
	N	200	200

The bivariate correlation indicates a significant positive relationship between e-satisfaction and availability (r = 0.628, p < 0.001). The availability of information about the food increases the e-satisfaction. The relationship is illustrated below;

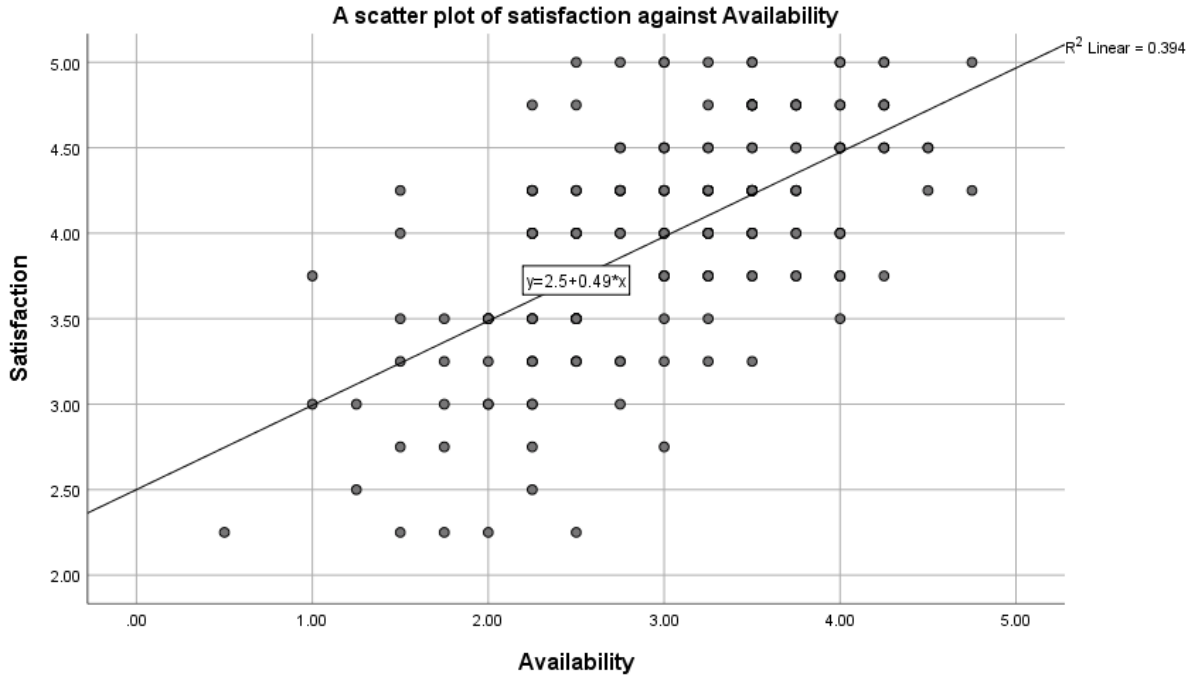


Figure 5: Scatter plot between e-satisfaction against availability

The trend line indicates a linear relationship between availability and e-satisfaction. As availability increases, customer satisfaction increases.

c. To determine the relationship of privacy and satisfaction with an online purchase

The relationship between privacy and online purchase satisfaction is analyzed using bivariate correlation. The analysis was designed to identify the direction of the relationship and the degree of association. The results are summarized below;

Table 8: Correlation matrix between satisfaction and privacy

		Satisfaction	Privacy
Privacy	Correlation	.676**	1
	p-value	.000	
	N	200	200

There is a strong positive significant relationship between satisfaction and privacy (r = 0.676, p-value < 0.001). The enhancement of security of private information is vital to customer satisfaction. The assurance of protection against privacy increases the e-satisfaction. The relationship between privacy and e-satisfaction is illustrated below;

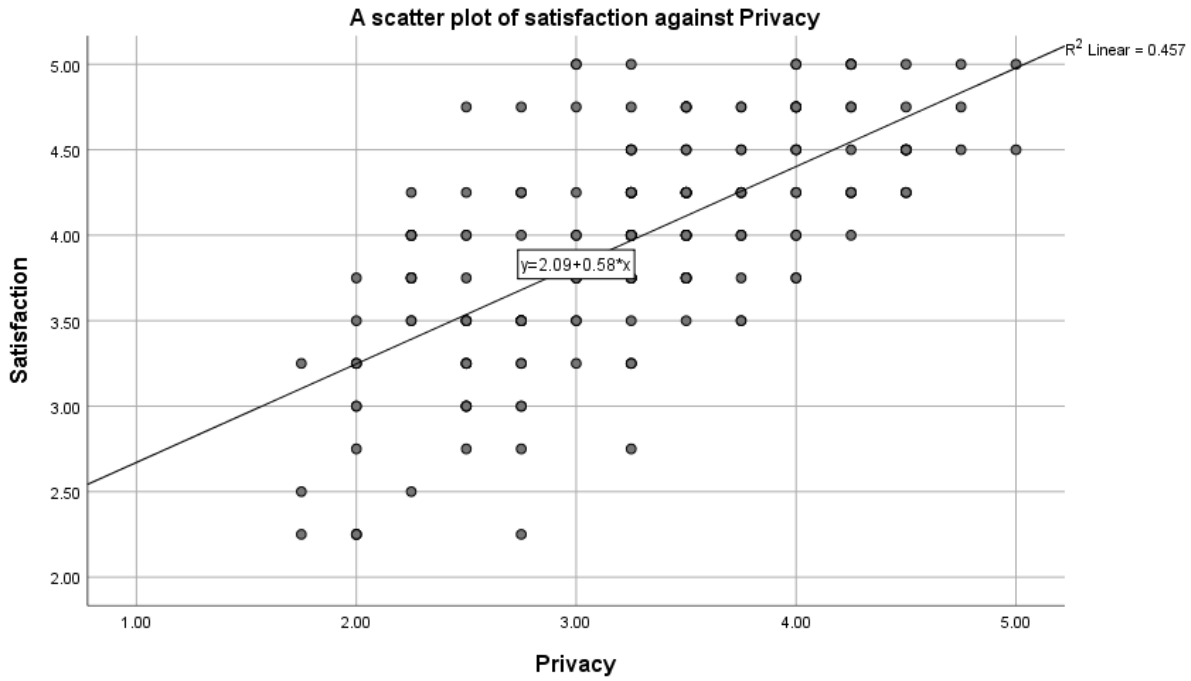


Figure 6: A scatter plot of e-satisfaction against privacy

The trend line shows a strong positive relationship between privacy and e-satisfaction. The higher the privacy level, the higher the e-satisfaction.

A final step was fitting a regression model that could help predict the e-satisfaction using ease of use, availability, privacy, and "the number of times used online ordering" as the predictors. The first assumption in multiple regression is that the observations are independent, and the response variable is on a continuous scale (Gujarati, 2018). In this case, these two assumptions are met. Second, the linearity assumption is met as illustrated by scatter plots above (Figure 5, Figure 6, and Figure 6). Thus, the regression model is fitted, and the results are tabulated below;

Table 9: Regression model summary

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson	F	DF	Max Cook's D
.761[a]	.579	.571	.41274	1.976	67.174	(4, 195)	0.072

a. Predictors: (Constant), number of times have used online food ordering, Ease of use, Availability, Privacy

b. Dependent Variable: Satisfaction

Table 10: Coefficient summary table

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.824	.161		11.329	.000		
	Ease of use	-.132	.053	-.154	-2.491	.014	.565	1.771
	Availability	.327	.046	.417	7.163	.000	.637	1.570
	Privacy	.458	.052	.536	8.745	.000	.573	1.745
	Number of times have used online food ordering	.060	.036	.079	1.678	.095	.966	1.035

a. Dependent Variable: Satisfaction

The overall fitted model is statistically significant (F (4, 195) = 67.174, p-value < 0.05). The model is;

e-satisfaction = 1.824 – 0.132(ease of use) + 0.327(availability) + 0.458(privacy) + 0.060(times of use)

The model shows that when all four are significant predictors of e-satisfaction. The assessment of individual coefficients is an important part of the model assessment (Pal and Bharati, 2019). The ease of use coefficient is significant ($\beta = -0.132$, p < 0.05). When all the factors are held constant, an increase in ease of use reduces the e-satisfaction by 0.132 points. The availability coefficient is significant, and it affects the e-satisfaction positively ($\beta = 0.327$, p < 0.001). An increase in a unit of availability by one unit, when all other predictors are held constant, the e-satisfaction is expected to increase by 0.327 units. The privacy coefficient is significant, and when all the factors are held constant, and privacy increased by one unit, the e-satisfaction is expected to increase by 0.458 units ($\beta = 0.548$ p < 0.001). Last but not least, the number of times a customer has used online ordering is a significant predictor of e-satisfaction at the level 0.10. Particularly, it has a positive effect on e-satisfaction ($\beta = 0.060$ p < 0.10).

The residual analysis helps determine whether the model fit is reliable and could be used in the prediction. The residual plot of the regression model is illustrated below;

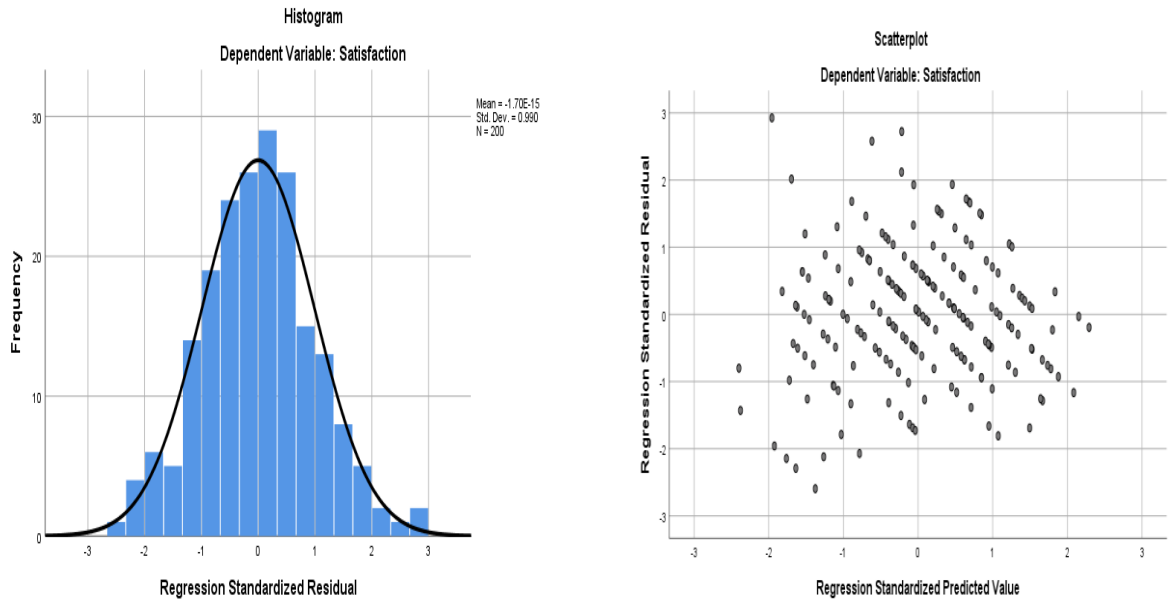


Figure 7: Residual plot of the regression model

The residual plot deduces that the errors are random and bell-shaped distributed. The scatter plot does not exhibit any trend suggesting that the constant variance is met. The Durbin-Watson coefficient (1.98) is close to 2.00, which means there is no serial correlation in residuals. Finally, the maximum Cook's distance value is less than 0.50, meaning that there is no influential data point. Therefore, the model assumptions are met.

Conclusion

This research focused on scrutinizing the relationship between e-service quality and e-satisfaction of online food ordering in the Klang Valley, Malaysia. The suspected factors have been found to be significantly related to e-satisfaction. The research has tackled all three raised research questions and adequately established that there was a significant relationship. The implications of the findings are discussed below.

First, it was established that experience or the higher number of times a customer uses the e-service; they are more likely to be satisfied. The ease of use was also found to have a positive effect on customer satisfaction. The use of online ordering platforms or mobile applications increases the know-how, which might increase customer satisfaction.

The provision of accurate and relevant information concerning the foods available was found to have a significant positive effect on the e-satisfaction. This is an indication that most of the online shoppers appreciate the information regarding available products/food. Therefore, to improve the online shopping experience, the sellers or online food providers should avail all information required to make the ordering successful. For instance, the sellers could indicate the amount available or the number of orders available, and the number of out-of-stock foods.

Privacy was found to affect the overall e-satisfaction among customers. In the wake of the rising of online shopping, sellers should enhance security to avoid or reduce the possibility of access, use, or destroy an individual's information. In most cases, the platforms are linked to bank accounts, phone numbers, mailing addresses, and other identifying personal items. In the wrong hands, this information could lead to loss of money. Therefore, it is imperative for companies to ensure that information collected is secure to build customers' confidence in

online transactions. The increased security has been found to influence the e-satisfaction. Therefore, aspects like the 2-step verification process would boost the level of confidence among the customers. Therefore, to improve customer satisfaction, hotels or sellers should improve on the three highlighted factors. From the model, the most significant factor was privacy since it had the largest standardized coefficient. The second most important factor was the availability and lastly ease of use. Therefore, if possible, the sellers should address these issues in that order of importance.

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