

IMPACT OF E-SERVICE QUALITY ON CUSTOMER SATISFACTION IN  
UNIVERSITI TEKNIKAL MALAYSIA, MELAKA (UTeM)

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This project is submitted in partial fulfilment of the requirement to obtain the  
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## **APPROVAL**

The project titled 'The Impact of E-Service Quality on Customer Satisfaction in Universiti Teknikal Malaysia, Melaka' was prepared by Wong Hui San and it is submitted to Faculty of Technology Management and Technopreneurship as part of her academic requirement in obtaining Bachelor of Technopreneurship (Honour).

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## DECLARATION

I hereby declare that this project is entirely done by myself, in my own words, and that all sources used in researching it are fully acknowledged and properly identified. It has not been submitted, in whole or in part, by me or another person, for the purpose of obtaining any other credit or grade.

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## **DEDICATION**

To the Lord Almighty. With You, all things are possible.

For my Papa, Mama and both loving sisters. Thank you for all the  
unconditional love!

## **ACKNOWLEDGEMENT**

My heartfelt gratitude to Dr Muhammad Imran Qureshi for your advice and guidance throughout the supervision of this project. Besides, your knowledge sharing, and encouragement has helped to enhance my understanding on the uncertainty I faced whilst completing this project.

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## ABSTRACT

This study referred to E-S-QUAL model of determinant of electronic service quality in online shopping context and, the purposed of the study is to determine the impact of e-service quality on customer satisfaction. The data were collected from 363 undergraduate students in Universiti Teknikal Malaysia, Melaka (UTeM) by using multistage cluster sampling to identify the respondents. The study result indicated that the overall level of satisfaction on e-service quality by students was at a moderate level. The correlations showed that the customer satisfaction and the dimensions of e-service quality namely; efficiency, fulfilment, privacy and system availability are positively correlated with one another. The result highlighted that the four dimensions in e-service quality are a significant predictor that portrayed 54.2% fit to the model of customer satisfaction. The findings of the study may contribute to the literature of same context and, to the online retailer as a guideline to formulate a new plan in improving customer satisfaction.

## ABSTRAK

Kajian ini merujuk kepada model penentu *e-service quality* iaitu E-S-QUAL dalam konteks pembelian secara online dan tujuan kajian ini adalah untuk menentukan impak-impak *e-service quality* terhadap kepuasan pelanggan. Data kajian adalah dikumpulkan daripada 363 pelajar siswazah yang belajar di Universiti Teknikal Malaysia, Melaka (UTeM) dengan menggunakan persampelan kelompok berbilang untuk mengenalpasti responden kajian. Hasil kajian menunjukkan tahap kepuasan keseluruhan oleh para siswazah terhadap *e-service quality* adalah pada paras sederhana sahaja. Korelasi kajian menunjukkan bahawa kepuasan pelanggan dan juga dimensi *e-service quality* iaitu; *efisiensi*, *fulfilment*, *privasi* dan *system availability* mempunyai hubungan korelasi antara satu sama lain. Sementara itu, hasil daripada kajian juga menekankan bahawa keempat-empat dimensi dalam *e-service quality* merupakan peramal penting yang dapat menggambarkan 54.2% kesesuaian model bagi kepuasan pelanggan. Penemuan kajian ini dapat menyumbang kepada literatur yang mempunyai konteks yang sama dan juga sebagai satu garis panduan kepada e-peruncit untuk mereka merangkakan suatu rancangan baru bagi meningkatkan tahap kepuasan pelanggan.

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## LIST OF ABBREVIATIONS

B2C	Business-to-Consumer
DV	Dependent Variable
H1	Alternate Hypothesis
IV	Independent Variable
SPSS	Statistical Package for Social Science
UTeM	Universiti Teknikal Malaysia, Melaka

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## CHAPTER 1

### INTRODUCTION

#### 1.1 Background study

The internet has been widely used for purposes like social activities and electronic commerce. To date, the internet user has already surpassed half of the world's population which is at 3.6 billion (Meeker,2018) and this practice is still expanding and has inevitably become a game changer to the society, like changing consumer innovativeness and shopping style, provides a conducive business environment for firms or business person to commercialize their product around the globe without limit. While the phenomenon is steadily increased, AT Kearney (2015) provided a precise online retail statistic in 2014, which increased almost \$840 billion, 20 % difference compared to the year 2013. The statistic also demonstrates the emergence of internet and online retails have allowed consumer to visit shops frequently through online, as a result, develop into a popular channel within the internet world (Bourlakis Papagiannidis & Fox, 2008). In another survey conducted by Klynveld Peat Marwick Goerdeler (KPMG) on the frequency of online shopping among 18,430 respondents in the year 2016, the report showed that the consumers made purchased at least once on the internet in the past 12 months (KPMG,2017), this likewise shows that the online shopping has not solely provided functional and practical advantages over the conventional shopping among respondents (Vijay & Parsad, 2016), it is affordable and offering lower process that eventually leads to

accretion of online shopping's user. As the user of online shopping drastically increased, the online shopping has become more diversified in many areas such as apparel, cosmetics, electronic devices and financial services.

The use of internet as a mean of purchasing and shopping is a growing trend. To retain the loyalty of customer on the product, organisation understood the importance of customer to any organisation, and when an organisation failed to provide good services, the firm has no revenues, profits and market values to compete with other organisation (Grönroos, Helnomen, Isoniemi & Lindholm, 2000) because customer does not only buy goods or services, but they buy because of its good services provided. This likewise indicates that online retails should provide a good service to ensure that the consumers are satisfied with the services and this probably aids the retailer to stay competitive.

In relation to online shopping, Karim (2013) stated that customer satisfaction in online shopping could motivates the consumers to shop online and revisit the store. Therefore, the trend of maintaining a certain level of satisfaction in order to sustain their current consumers and attract prospective consumers as well as distinguish themselves apart from the others in electronic commerce market.

## **1.2 Statement of Problem**

Electronic service (e-service) - an 'extent of which a web site ensures efficient and effective shopping, purchasing, and delivery' (Parasuraman, Zeithaml & Malhotra, 2005) is a growing phenomenon. To ensure the survival of online business in marketplace, retailer tries to fulfil customers' expectation and becoming a pioneer in presenting new services (Sharma, 2017), they also try to satisfy the customer by providing high service quality like presentable websites and lower price (Hung, Chen & Huang, 2014). However, most of the online retailers failed to provide quality services, as a result, they fail in business due to poor-quality services to the customers. To avoid such failure in online marketplace, it is important to investigate the online service quality and its impactful predictor on the customer satisfaction. As indicated by Yang & Fang (2004), retailers need to differentiate themselves through providing



competitive service quality as online retailing is becoming competitive with numerous of player entering into the market. The growing of online retailer is tremendous which affect some of the start-up retailer unable to withstand the competition with the existing retailers.

Besides that, the level of satisfaction can vary depending on the interaction of customers with e-service quality in online shopping. It is difficult for online retailer to reconstruct their services by solely using a rough estimation of satisfaction assessment, which may lead to failure in aiding their business. Moreover, there is also lack of sufficient study on the correlations between e-service quality and customer satisfaction in relation of online shopping context.

Therefore, this research tries to determine the effect of e-service quality towards customer satisfaction in online shopping as well as to distinguish the level of satisfaction and, also to illustrate the correlations of the dimensions with customer satisfaction. This research problem needed to be address as to aid the online retailer to survive in the marketplace as well as to provide a guideline on rendering a better service quality to customers.

### **1.3 Research Objectives**

In general, the main objective of the study is to analyse the impact of e-service quality on customer satisfaction in online shopping, however the objective can be further specified into specific objectives which shown as below: -

- i) To identify the level of satisfaction on e-service quality for online shopping
- ii) To describe the correlation between the dimensions of e-service quality and customer satisfaction of students in online shopping.
- iii) To determine the dimensions of e-service quality that have strong impact on customer satisfaction.

#### **1.4 Research Questions**

The present research discovers the effect of e-service quality towards customer satisfaction in online shopping. Its attempts to fill the research gap by investigating the following research questions: -

- i) What is/are the level of satisfaction on e-service quality for online shopping?
- ii) What is the correlation between the dimensions e-service quality and customer satisfaction among UTeM students in online shopping?
- iii) Which is/are the most impactful dimension of e-service quality on customer satisfaction?

#### **1.5 Significance of study**

The major finding from the study could be utilise by online retailers for formulation of plan and alternative to enhance their store management and growth, as well as to enable the retailer to customise their online store to become more efficient. The retailers could also refer to the findings as a guideline since the study provides a better insight on achieving customer satisfaction through e-service quality.

The research community will benefit from this research in term of the online shopping context presents in this study, which was less common in South East Asian context. Besides that, the researcher who are interested in the same topic could have an in depth of understanding on this study. Longitudinal study of e-service quality related to this sector should also be considered, as the trend of online shopping are constantly changing.

The policy maker could employ the findings of this research to devise an appropriate framework to aid the start-up online store to attain the customer satisfaction and enable them to stay competitive within the e-commerce market. The framework would be a guidance for the start-up online store to have a basic understanding of a good online service quality.

Besides, this research could provide an insight to the general public such as brick-and-mortar firms, academy and government which related to the characteristics

of service quality affecting the customer satisfaction. The general public needs to have awareness on this matter as online services are gradually being used in almost every sector.

### **1.6 Scope of research**

There are numerous studies that related to e-service quality. The present research will be made to determine the effect of e-service quality on customer satisfaction through correlation research design. The geographical survey used in this research mainly in Malaysia, specifically at Universiti Teknikal Malaysia, Melaka (UTeM). Besides, this study only focuses on business-to-consumer (B2C) commerce in order to develop a robust understanding of consumer's perspective and pattern to achieve satisfaction in online shopping through e-service quality.

### **1.7 Limitations**

Every research consists a limitation that will eventually affects a study's result. One of the research limitations are the specification area conducted in this study as the area only focuses on Universiti Teknikal Malaysia, Melaka (UTeM), which neither represents the entire Malaysia nor the culture and background of the nation. Furthermore, time restriction has caused the research to be less validating since the time frame given are insufficient to collect high-calibre information and it is also insufficient for the researcher to examine more characteristics on this study. Therefore, a longer time research could result a better study for this topic.

## **1.8 Summary**

The Chapter 1 focuses on the background study of online shopping's growth, customer satisfaction and e-service quality. Then, the statement of problem in this chapter discussed about the online service quality in online shopping. Thus, the present study has determined the research questions and also the research objectives needed in this study. The chapter 1 also highlighted the significance of study, scope of research and limitations.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

The purpose of literature review is to gain an understanding of the present study and Hart (1998) defined literature review as “the use of ideas in the literature to justify the particular approach to the topic, the selection of methods, and demonstration that this research contributes something new”. Accordingly, this chapter will provide an overview of independent variables that is the e-service quality, as well as the dimensions of e-service quality which based on the scale used in this study. The dimensions that will be discussed are efficiency, fulfilment, privacy and system availability. In this chapter, the customer satisfaction which known as the dependent variable, will also be critically reviewed and the literature review in this present study will primarily focus on online shopping settings.

#### **2.2 E-service Quality**

The existence of e-service quality concept was derived from the traditional service quality to assess the website quality. According to Kandulapati and Bellamkonda (2014), the concept of service quality first arises in the early 1980s after

the practitioners notice that the product quality solely could not gain any competitive advantage in a business. Service quality is meant to assess the excellence of services in a business. As stated by Parasuraman, Zeithaml and Berry (1988), service quality is a global judgement relating to the delivered services by an organization whereas Hoffman and Bateson (2017) defined service quality as “an attitude formed by a long-term, overall evaluation of a firm’s performance”. Service quality is generally a subjective concept whereby understanding customer’s judgment upon the service quality is essential to achieved effective management (Rust & Oliver, 1994). In order to measure the service quality, Parasuraman, Zeithaml and Berry (1988) have created a gap analysis model which known as SERVQUAL that provides numerous of potential applications. The SERVQUAL model is made based on five different dimensions which are tangible, reliability, responsiveness, assurance and empathy. The scholar Parasuraman, Zeithaml and Berry (1988) also mentioned that the SERVQUAL model can help various of service sector and retailing organizations in assessing customers expectation and perceptions of the service quality. It is also agreed by Ghotbadi, Feiz and Baharun (2015), that the service quality measurement is an important tool for managerial to analyse the customer’s experience based on the service provided and it also enabled the organization to understand the needs of the customers. The SERVQUAL model has been widely adapted and utilised by various sector such as healthcare (Ali, Basu & Ware, 2018), bank (Rijwani, Patel & Patel 2017), automotive repair (Izogo, 2015) and hospitality industry (Musaba, Musaba & Hoabeb, 2014).

The SERVQUAL model was a useful tool for services that required face-to-face interactions while, it will be less effective to use in online services. The SERVQUAL model has been receiving criticism upon the applicability in any services regarding online context. Past researcher Yoo and Donthu (2001) explained that they required a different mean for measuring service quality in internet shopping, as online shopping sites are highly dissimilar from physical store. Yang, Jun and Peterson (2004) also argued that the SERVQUAL model might not be sufficient to measure the service quality across industries, especially online service quality as the model are primarily for customer-to-employee, and not for customer-to-web site interactions. Based on van Riel, Lijander and Jurriens (2001), the description and scale items of SERVQUAL model need to be reformulated in order to use in an e-service context as the dimensions

of SERVQUAL were created from, and for interpersonal encounters. The dimensions of service quality model are also not quite suitable to measure the online sites. SERVQUAL is a well-established model of service quality however, some dimensions are addressed less well for e-commerce sites (Barnes & Vidgens, 2000). The SERVQUAL model is still widely used in many industries to measure the customer's expectations and perceptions of service quality, although the model's validity has been criticised and challenge by other researcher and scholar.

Based on Santos (2003), e-service quality can be defined as the consumer overall judgement and evaluation on the standard of electronic service that provided in online marketplace. As the application of ICT increased in various disciplines, the e-service quality measurement has become popular in measuring the service quality of all these applications. Accordingly, there are multiple of researcher which had already developed a few instruments that are fit to measure e-service quality. Majority of e-service quality measurement was developed based on the combination of traditional service quality dimensions and also the web site features (Alnaser, Almsafir & Alshoura, 2014). A few examples of well-known measurement scale for e-service quality are SITEQUAL, WEBQUAL, eTailQ and E-S-QUAL. The WEBQUAL (Loiacono, Watson & Goodhue, 2002) scale mainly focuses on the customer's perception of website quality by predicting the customer's behaviour based upon the reuse of the web site and, it consists of 12 dimensions. As for the SITEQUAL (Yoo & Donthu, 2001), the scale contains 4 dimensions and the purpose of the scale is solely to measure the perceived quality of internet shopping sites, whereas the eTailQ (Wolfenbarger & Gilly, 2003) scale consists of 4 dimensions which can be compared to the traditional SERVQUAL model.

While all the scale is developed to measure the online service quality, most of the scale dimensions has oversees the service delivery and its lack of information for the researcher to distinguish the service attributes completely. The WEBQUAL has been criticised for solely focusing on the website technical quality rather than capturing the service quality as a whole (Zeithaml, Parasuraman & Malhotra, 2002) and, the SITEQUAL also been criticised for not capturing all the aspect of the purchasing process which makes the scale incomplete (Parasuraman, Zeithaml & Malhotra, 2005). Likewise, eTailQ was also been questioned for the scale's

dimensions as the author carried out a multi-group study during the process of developing the scale (Santouridis, Trivellas & Tsimonis, 2012).

E-S-QUAL will be used in this study to measure the customer satisfaction as the dimensions consists all phases between the interaction of customer and website (Kim, Kim & Lennon, 2006) and, E-S-QUAL scale is still a valid instrument to measure the online service quality as well as being a useful resource for academics, despite being published 10 years ago (Petnji Yaya, Marimon & Casadesus, 2016). The E-S-QUAL was developed by Parasumaran, Zeithaml and Malhotra (2005) with four core dimension which are efficiency, fulfilment, privacy and system availability. The E-S-QUAL was carefully constructed through empirical test and the model has tested to be fit in data by using the structural equation modelling. The validity and reliability of E-S-QUAL scale test also shows that it is a good psychometric property (Kim & Nitecki, 2014).

Additionally, Ghosh (2018) explained that majority of researchers are appeal to E-S-QUAL model as it consists of holistic assessment of internet service quality which able to detain before and after aspects of e-service quality. There are many studies been conducted using the E-S-QUAL model such as online accommodation (Mihajlovic, 2017), online banking (Nyoni, Chiguvi & Nhlane, 2017), online tourism (Mohammed *et al.*, 2016) and online apparel (Noorshella, Abdullah & Nursalihah, 2015). This shows that the E-S-QUAL is suitable to measure in various online services and in different geographical settings.

### **2.2.1 Efficiency**

Efficiency are generally one of the main factors needed in operating a web site. Parasuraman, Zeithaml and Malhotra (2005) explained efficiency as the facilitation of customers and also the speediness in accessing and utilizing the web site. In other word, efficiency could be considered as time saving and convenience use of website. Khan, Liang and Shahzad (2015) mentioned that convenience is essential in online shopping web site as the longer process needed in purchasing a product could result loss of customers, especially for those who are first timer which they will not revisit