

**CUSTOMER PREFERENCE TOWARDS WEB DESIGN OF  
ONLINE BUSINESS**

**NUR SHAZRINA BINTI MOHD SHAIDIN**

**B061610356**

**UNIVERSITI TEKNIKAL MALAYSIA MELAKA  
FACULTY OF TECHNOLOGY MANAGEMENT &  
TECHNOPRENEURSHIP**

**JANUARY 2020**

## SUPERVISOR'S APPROVAL

I hereby declared that I have read this thesis and this research is sufficient in term of scope and quality. This project is submitted to Universiti Teknikal Malaysia Melaka (UTeM) as a requirement for completion and fulfilment of Bachelor Degree of Technopreneurship with Honours (BTEC).

Signature :

Name of Supervisor : Mr. Hasoloan Haery Ian Pieter

Date :

Signature :

Name of Panel : Prof. Madya. Datin. Dr. Norizah Mohamad

Date :

## DECLARATION

I hereby declared this report entitled “Customer Preference towards Web Design of Online Business” is results of my own research except as cited in references.

Signature :

Name : Nur Shazrina Binti Mohd Shaidin

Date :

## DEDICATION

*This thesis is dedicated to my beloved parents for their endless love, support and encouragement.*

Mr. Mohd Shaidin Bin Hussain.

Mrs. Julaiha Binti Mohd Nor.

*For my supportive supervisor,*

Mr. Hasoloan Haery Ian Pieter.

## ACKNOWLEDGEMENT

All praise to Almighty Allah SWT that make it possible for me to accomplish this thesis successfully. I also would like to take this opportunity to express my gratitude and appreciation to the people who gives me guidance, support and contribution in preparing this thesis.

Firstly, a thousand thanks to my beloved and supportive supervisor, Mr Hasoloan Haery Ian Pieter or Pak I.P for his guidance, advices and encouragement throughout the process of preparing this thesis from day one until the end. Not forgetting my lovely panel, P.M. Datin Dr. Norizah for the advices and encouragements.

Next, I would love to express my gratefulness to my beloved parents, Mr Mohd Shaidin Bin Hussain and Mrs Julaiha Binti Mohd Nor, and other family members for the endless support.

Not to forget to a special person in my heart, Mr Samin for giving me strength and enthusiasm with his good singing that accompany me all the way in completing this thesis.

Also, to my teammates, housemates, and friends who always be there through thick and thin and helped me a lot in giving guidance and cooperation in doing this thesis. I will never forget our bitter sweet memories together.

Lastly, I would like to thank all my respondents of this study and lecturers that involved directly or indirectly in the process of completing this thesis.

## ABSTRACT

For a company that uses online platform as an initiative to better approach users and further develop their business, an ideal website design is very important. As for the e-service sector, Web site design and attributes are very important in order to provide the best service and satisfy the customers. As well as providing a satisfying experience for users in using the Web sites, first impression is crucial where attractive and easy-to-use design of Web sites can attract more users. This study examined on 3 popular food delivery e-services in Melaka area which are Delivery Squad, Food Panda, and RunningMan. The main objective of this study is to identify the correlation between customer preference and aesthetic of web design. In order to obtain objective results, a study of 3 food delivery e-service websites was conducted on 150 respondents using Kansei Engineering method and 15 respondents involved in the Eye Tracking survey. The results of this study were then being manipulated using SPSS-15 and the suggestions for further study were being discussed. Next, the results of the study found that the information provided was the choice of the majority of respondents as it helps them to understand the ordering process better which proves that the aesthetic of website design has nothing to do with the use of food delivery e-service to respondents because they are more concerned with information than the design of a website. After collecting the data in Eye Tracking survey, the highest gazed area of the website found out in this study is at the middle of the website page where the pictures and information located at.

**Keywords:** *Kansei Engineering, Food Delivery E-service, Eye Tracking Survey, Customer Preferences.*

## ABSTRAK

Bagi syarikat yang menggunakan platform dalam talian sebagai inisiatif untuk mendekati pengguna dengan lebih baik dan mengembangkan perniagaan mereka, reka bentuk laman web yang ideal sangat penting. Bagi sektor e-perkhidmatan, reka bentuk laman web dan atribut adalah sangat penting untuk memberikan perkhidmatan yang terbaik dan memuaskan pelanggan. Serta menyediakan pengalaman memuaskan bagi pengguna dalam menggunakan laman web, kesan pertama sangat penting di mana reka bentuk laman web menarik dan mudah digunakan boleh menarik lebih banyak pengguna. Kajian ini diperiksa pada 3 e-perkhidmatan penghantaran makanan popular di kawasan Melaka iaitu Delivery Squad, Food Panda, and RunningMan. Objektif utama kajian ini adalah untuk mengenal pasti korelasi antara keutamaan pelanggan dan estetik reka bentuk web. Untuk mendapatkan keputusan yang objektif, kajian 3 laman web penyampaian e-perkhidmatan makanan dilakukan pada 150 responden menggunakan kaedah Kansei Engineering dan 15 responden yang terlibat dalam tinjauan *Eye Tracking*. Hasil kajian ini kemudian dimanipulasi menggunakan SPSS-15 dan cadangan-cadangan untuk kajian lanjut sedang dibincangkan. Seterusnya, hasil kajian mendapati bahawa maklumat yang disediakan adalah pilihan majoriti responden kerana ia membantu mereka memahami proses pesanan yang lebih baik yang membuktikan bahawa estetika reka bentuk laman web tidak ada kaitannya dengan penggunaan penghantaran makanan e- perkhidmatan kepada responden kerana mereka lebih prihatin terhadap maklumat daripada reka bentuk laman web. Selepas mengumpul data dalam kaji selidik *Eye Tracking*, kawasan terlewat tertinggi laman web yang dijumpai dalam kajian ini adalah di tengah-tengah halaman laman web di mana terletaknya gambar dan maklumat servis.

## TABLE OF CONTENT

<b>CHAPTER</b>	<b>CONTENT</b>	<b>PAGE</b>
	<b>SUPERVISOR’S APPROVAL</b>	1
	<b>DECLARATION OF ORIGINAL WORK</b>	II
	<b>DEDICATION</b>	III
	<b>ACKNOWLEDGEMENT</b>	IV
	<b>ABSTRACT</b>	V
	<b>ABSTRAK</b>	VI
	<b>TABLE OF CONTENT</b>	VII
	<b>LIST OF TABLES</b>	X
	<b>LIST OF FIGURES</b>	XII
	<b>LIST OF ABBREVIATIONS</b>	XIV
	<b>LIST OF APPENDICES</b>	XV
<b>CHAPTER 1</b>	<b>INTRODUCTION</b>	
	1.1 Project Background	1
	1.2 Problem Statement	2
	1.3 Research Objectives	4
	1.4 Project Scope	4
	1.5 Framework of Study	5
	1.6 Summary	5
<b>CHAPTER 2</b>	<b>LITERATURE REVIEW</b>	
	2.0 Introduction	7



2.1	Customer Preference	7
2.1.1	Customer Preference Model	8
2.2	E-service	9
2.2.1	E-service Quality	10
2.2.2	Conceptual Model Framework	11
2.3	Kansei Engineering	12
2.3.1	Process of Kansei Engineering	12
2.4	Web Design	14
2.4.1	Visual Design	14
2.4.2	Principle of Web visual design	15
2.5	Aesthetic	15
2.6	Summary of Literature Review	17

### **CHAPTER 3 METHODOLOGY**

3.0	Introduction	42
3.1	Methodology of the Project	43
3.2	Population and Sampling	46
3.3	Literature study	47
3.4	Data Collection	47
3.4.1	Questionnaire	47
3.4.2	Eye Tracking Survey	48
3.4.3	Survey Process Layout	49
3.5	Data Analysis	51
3.6	Data Processing	51
3.6.1	Validity Test	51
3.7	Analysis	51

3.8	Gantt Chart	52
3.9	Summary	52
<b>CHAPTER 4 RESULT AND DISCUSSION</b>		
4.1	Introduction	55
4.2	Developing Questionnaire and Eye Tracking Survey.	56
4.3	Main Survey	57
4.3.1	Demographic Analysis	57
4.3.2	Service Background	61
4.3.3	E-Service Platforms	66
4.3.4	Customer Preference	68
4.4	Kansei Words	69
4.5	Correlation Result	71
4.6	Eye Tracking Survey	72
4.7	Summary	75
<b>CHAPTER 5 CONCLUSION AND RECOMMENDATION</b>		
5.1	Introduction	76
5.2	Conclusion	76
5.3	Limitation	77
5.4	Recommendation	78
	<b>REFERENCE</b>	79
	<b>APPENDIX</b>	84

## LIST OF TABLES

Table 2.1	Summary of Customer Preference	17
Table 2.2	Summary of E- Service	21
Table 2.3	Summary of Kansei Engineering	28
Table 2.4	Summary of Web Design	32
Table 2.5	Summary of Aesthetic	37
Table 3.1 (a)	Gantt Chart PSM1	53
Table 3.1 (b)	Gantt Chart PSM2	54
Table 4.1	Statistics of gender	57
Table 4.2	Statistics of age	58
Table 4.3	Statistics of race	58
Table 4.4	Statistics of class.	59
Table 4.5	Statistics of student year.	60
Table 4.6	Age Start	61
Table 4.7	Frequency to Buy	62
Table 4.8	Values of every spending.	63
Table 4.9	Frequency of main factors.	64
Table 4.10	Frequency of influence of website homepage design and features.	65
Table 4.11	Mean and Frequency of Priorities.	67

Table 4.12	Mean & Frequency of Situation Encouraged.	68
Table 4.13	Cronbach's Alpha	69
Table 4.14	Mean and Cronbach's Alpha of the Factors.	69
Table 4.15	Kansei Words.	70
Table 4.16	Correlation analysis of respondent's priorities.	71
Table 4.17	Correlation analysis on respondent's situation.	72

## LIST OF FIGURES

Figure 1.1	Framework of Objectives	6
Figure 2.1	Structural model of how consumer preferences	9
Figure 2.2	Conceptual Model Framework	11
Figure 2.3	Model of e-Service Quality	11
Figure 2.4	The Process of Kansei	13
Figure 2.5	Kansei Engineering Based On Human Feelings.	14
Figure 2.6	Theoretical Framework of Online Consumer Responses to Product Aesthetics	16
Figure 3.1	Methodology of Project	44
Figure 3.2	Framework of Objectives	45
Figure 3.3	The calculation of sampling for the study	46
Figure 3.4	Logitech HD Webcam C310	48
Figure 3.5	Gaze Recorder Software to trace heat maps	48
Figure 3.6	The Heat Map	49
Figure 3.7	Survey Process Layout	50
Figure 4.1	Sample size calculation	56
Figure 4.2	Gender	57
Figure 4.3	Age	58

Figure 4.4	Student's year analysis of respondents	59
Figure 4.5	Class analysis of respondents.	60
Figure 4.6	Student's year analysis of respondents	61
Figure 4.7	Age Start	62
Figure 4.8	Frequency to buy	63
Figure 4.9	Analysis of spending	64
Figure 4.10	Analysis of main factors	65
Figure 4.11	Analysis of the influence of website homepage design and features	66
Figure 4.12	Analysis of priorities	67
Figure 4.13	Analysis of situation encouraged	68
Figure 4.14	Kansei Words analysis	70
Figure 4.15	The heat maps of one respondent	73
Figure 4.16	PhiMatrix measurement on Delivery Squad website	73
Figure 4.17	PhiMatrix measurement on Food Panda website	74
Figure 4.18	PhiMatrix measurement on RunningMan website	74

## LIST OF ABBREVIATIONS

UTeM	Universiti Teknikal Malaysia Melaka
FPTT	Fakulti Pengurusan Teknologi dan Teknousahawanan
KE	Kansei Engineering
E-Service	Electronic Service
PSM 1	Projek Sarjana Muda 1
PSM	Projek Sarjana Muda 2
SPSS	Satisfaction Package for Science Social
QTY	Quantity

## LIST OF APPENDICES

Appendix A	Main Survey	84
Appendix B	Heat map Result	87



# CHAPTER 1

## INTRODUCTION

### 1.1 Project Background

In this modern era, the role of technology such as business website has becoming more prominent. In this context, the growth of web-search self-service or usually called e-service has enhanced the importance of service sector roles in today economies. A website has become an importance hub since it provides several of services and information of a business (Affandy *et al.*, 2016). The fact, to create a good website is never being an easy job. Affandy *et al.*, (2016) said that there would be some challenges where to make sure the visual design of website should concern an aesthetical visual that advocate overall positive usage, beside the performance of website itself.

In e-service sector, website plays the biggest role as it shows that the standard and rapid service of using Internet is as the way to provide the service for the both customers and business (Bataineh, & Mutawa, 2016). In service context, the service quality is as the action designed refers to the action and effort for the long-term, while the evaluation is to the company's overall performance (Calisir & Gumussoy, 2008; Heinze & Hu, 2006; Candra & Juliani, 2018). Since to form an ideal website must be tally to a business needs based on their target (*i.e.* customers first, etc.), to satisfy customers in using e-service is therefore the business must provide their offers at the best service that suits to user's aesthetic preference. To give a good impression to the customers is very crucial, as they need to decide to use company's e-service or not. This is due to every customer has different preference in accordance their current situation. In this context, the subjective tastes calculated by use of different product packages are customer preferences. According

to Eroğlu, (2013: 46), Some of the variables are tradition, employment and personal tastes that determined the individual consumer's set of preferences. Nonetheless, it is the business' responsibility to supply an excellent service to the customer in order to increase the value of marketability and gain customer trust. Khadka and Maharjan (2017) argued that satisfaction can be defined as the feeling of fulfilled after what a person desired or wanted. Candra and Juliani (2018: 126) underlined that when customer's needs, wants and assumptions can be met and achieves the level of customer satisfaction, then it will generate the repeat purchases and ensure continuous customer loyalty.

Specifically, Kansei Engineering is the most suitable tool that can be used to achieve the higher satisfaction level of customer based on what the great service that suits to customer's aesthetic preference. Schütte *et al.*, (2004) stated that Kansei Engineering is an instrument that translates a customer's emotions into specific product criteria and facilitates future product creation. In this context, aesthetic is usually defined as the meaning of allure or beauty and the contrast is ugliness (Huron, 2008). The facts, the functional and aesthetic elements are usually independent, but now customer is giving attention to both attributes (Hethorn, 2005). Based on this reason, to get the customer attention for using the service, the website designers have therefore to consider and understand the aesthetic preference of the customer which not only focus on the quality and functions of the service. Meanwhile, the statistical approach will be employed to find the correlation between what customer's articulation related to their preference using Kansei Engineering towards what the focus of customer's eyes to the certain design appearances in the website design.

## **1.2 Problem Statement**

At this time, the information technology revolution has dramatically changed the daily lives of the people. They tend to use online services more as wiser alternatives to facilitate their daily life. E-service is not a bizarre to the society today. Various types of e-services are now easily accessible by individual. Since the beginning of year 2000, researcher and practitioners have been using the concept of e-service. Bataineh and Mutawa,(2016)

defined e-service is as a standard and rapid service using the internet as the way to provide the service for the both customers and business. Hence, a lot of businesses are now using this opportunity to develop their e-service to get closer to users and to provide the best possible service.

The facts, Melaka state is often associated with traffic congestion due to its small state. The road is filled with lots of vehicles that feed on their destination. This has prompted the people in Melaka to change their way of life. Most people have wisely choose other alternatives in their daily lives which among them is, aside from spending time on the road to go to the restaurant, residents of Melaka choose to use food delivery e-services that can deliver the food they want at the time required. Customers are currently using the popular online food delivery service such as Food Panda, RunningMan, McDelivery & and Delivery Squad. These food delivery e-services help them to ordering food that they want by online without wasting their energy to go out. Not only to customer, have these e-services also given more benefits to the restaurants and provider itself. It is important for a business to gives the best service since most of todays' businesses should realize that the key to success of a business in the future is lies on customer satisfaction (Khadka & Maharjan, 2017). The online food delivery services should give a convenient and faster service for the users as they provide food delivery straight to customer's door. According to Rathore and Chaudhary (2018), convenience is when only few simple steps required for customer in making orders by using their mobile devices or laptops.

Nonetheless, the most important thing in this food delivery service is time. Fast and on-time delivery can provide maximum customer satisfaction. It can next drive the user's interest in continuing to use their services. It is important to keep the e-service quality at the very best level as it defines the customer satisfaction and loyalty. Satisfaction can be defined as the feeling of fulfilled after what a person desired or wanted. (Khadka and Maharjan, 2017: 1). Customer satisfaction is the most crucial for any online service sectors as they gain trust from target customer by the relevant and helpful review by previous customer as the reference to the others to make choices. This would lead to the customer preference in choosing which website is giving the superior service to the customer.

However, in order to provide the best service for the customer, there are still some drawbacks of each e-service that make it different to the others. The focus of quality is on how to improve their e-service quality in order to maximize profits and expanding

customer loyalty. Jun *et al.*, (2003) said, it is important among online entrepreneurs on how to know in-depth about customer's desire. In reality, each website has its own attraction in terms of details, aesthetic and features that gives customer different experience in using their service. Besides, this research is to investigate the liaison between aesthetic customer preference and customer purchasing behaviour on e-service in choosing the most ideal online food delivery website that provides the best quality and satisfied their needs and demand.

### **1.3 Research Objectives**

This research is related to study and analysis of customer preference towards online food delivery service provided around Melaka. The implementation of this study has used the Kansei Engineering method in identifying customer aesthetic preference.

The objectives of this research are as follow:

1. To identify the correlation between customer preference and aesthetic of web design.
2. To evaluate customer priority factors towards the web design attributes and quality of e-service.
3. To validate the customer preferences based on website appearance using Kansei Engineering and Eye Tracking survey.

### **1.4 Project Scope**

In this project, some approaches are used to validate customer preference in using food delivery e-service that available in Melaka based on the Web sites design and attributes. There are three different food delivery e-service brands rated and compared in this study which are Delivery Squad, Food Panda, and RunningMan which are famous around Melaka as shown in Figure 1.1. In this study, survey conducted in order to determine the

customer preference in using the food delivery e-services based on the Web sites design and attributes.

This study conducted among the students of the Faculty of Technology Management and Technopreneurship (FPTT), UTeM with the population approximately 2000 students in this faculty and the sample size are 150.

### **1.5 Framework Of Study**

Figure 1.1 shows the framework of the three objectives for this project including the data collection, analysis and evaluation of the result of this project.

### **1.6 Summary**

This chapter concluded the introduction, research background, problem statement, research objective and the scope of study of this research. The background of this research related to the study of customer preference towards the websites of food delivery e-services. The objective of this research is to identify the correlation between customer preference and aesthetic web site design on e-service by using Kansei Engineering and Eye Tracking survey method. The scope of the project focuses on the customer preference towards 3 websites of food delivery e-service which are Delivery Squad, Food Panda and RunningMan among the students of the Faculty of Technology Management and Technopreneurship (FPTT), UTeM.

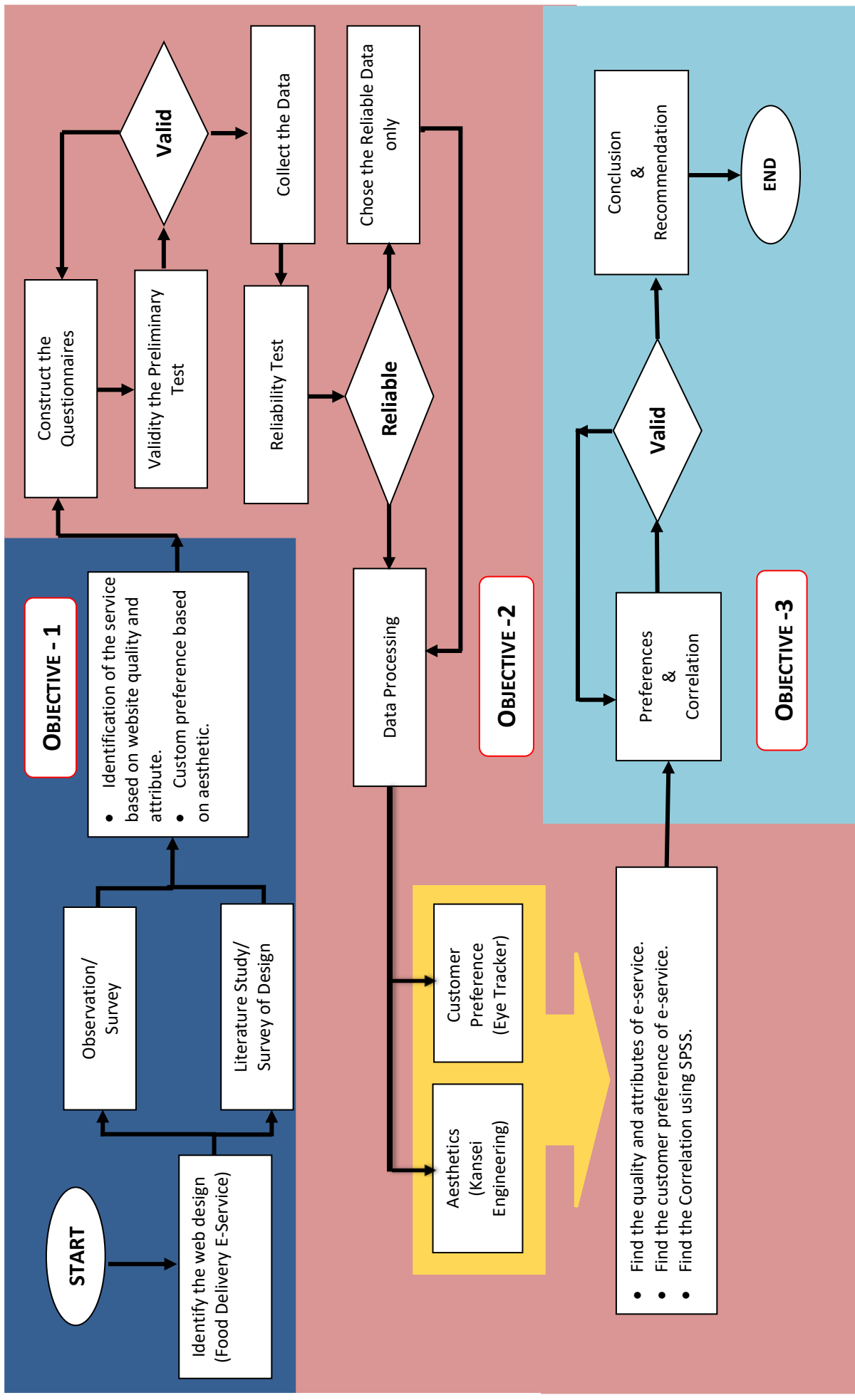


Figure 1.1: Framework of objectives

## CHAPTER 2

### LITERATURE REVIEW

#### 2.0 Introduction

This chapter contains the literature review of this research which related to the topic. Literature review is a significant process of evaluate and research information of the studies. All of the information is based on historical data, published books, journals, thesis, case studies, books and other past studies that related to this research. The entire sources are related to this chapter which discussed about the literature review of customer preference that includes Kansei Engineering.

#### 2.1 Customer Preferences

The main appealing factor of business owner in order to satisfy customer needs and wants in using their online delivery service is the customer preference. (Rathore and Chaudhary, 2018). Therefore, customer preference is very crucial for the company to understand the trend of customer buying behaviour. Customer preference is an individual subjective tastes that measured by their satisfaction on the items they purchased. (Weedmark, 2018). Weedmark (2018) also agrees that customer preference is measured by the satisfaction of the customer on a particular purchase compared to the opportunity cost they lost in buying other similar product. Guillet and Kucukusta (2016) noted that there are major differences on customer preference based on different attributes from same

offered product, service and market. Besides, consumer preference is a positive motivation revealed by emotional compatibility with a form of product, service or trading. (Voicu, 2013). According to Cao et al., (2010), customer usually shows particular preference in similar product attributes such as colour, function, shape and cost whereas the higher concepts can be developed by using the ideas in customer's mind. Plus, preference of customer on a product can be consider as their inner world's reflection which it depends on their action and intention. (Cao et al, 2010).

The facts, it is important for a business to pay attention to customer preference in order to provide the best service for the customers. According to Lubis (2018), the customer shopping preferences is fundamental for both traditional and online transactions which the seller must concern on the customer's profile in order to decide the sales to grow in online market and survive in traditional market. It is crucial to have customer preference knowledge of the activities in every organizational level for the company's survival. (Voicu, 2008). Besides, Kurmiawan (2000) back then explained that customer engagement, convenience, site's offer, online shopping's entertainment aspects and customer satisfaction are some of the aspects contributed to customer preference and stickiness which determined from previous literature.

For instance, Hoffman and Chung (1999) agreed that misconduct of customer complaints may lead to bad customer behaviour including their friend's and family's behaviour through word-of-mouth communications. Hence, all the company need to learn about customer preference in order to build a good relationship with customer so that businesses can be retained in the market and become a consumer favourite choice.

### **2.1.2 Customer Preference Model**

According to (Voicu, M.C. 2008), the basis formation of preference was formed by a theory of where attitude components comprises by rational choice. As shown in Figure 2.1, it may infer that customer expectations and preferences for sales success (functionality), anticipated emotional outcomes and subjective criteria are important to identify product or service that are being used by customers.