

**ENHANCING CUSTOMER SATISFACTION IN ONLINE  
BEAUTY AND HEALTH PRODUCT BUSINESSES  
AMONG STUDENTS IN UNIVERSITI MALAYSIA  
KELANTAN**

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**DEGREE OF ENTREPRENEURSHIP (COMMERCE) WITH HONORS**



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# **Enhancing Customer Satisfaction in Online Beauty and Health Product Businesses Among Students in Universiti Malaysia Kelantan**

by

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A thesis submitted in fulfillment of the requirements for the Degree of  
Entrepreneurship (Commerce) With Honors

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2024

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## LIST OF ABBREVIATIONS

A = Agree  
 CS = Customer Satisfaction  
 CS = Customer Satisfaction  
 CS1 = I agree that the price of the product is very affordable  
 CS1 = I agree that the price of the product is very affordable  
 CS2 = The product meets my expectations at all dimensions  
 CS2 = The product meets my expectations at all dimensions  
 CS3 = Satisfied with the service provider overall  
 CS3 = Satisfied with the service provider overall  
 CS4 = I am satisfied with the online payment system security  
 CS4 = I am satisfied with the online payment system security  
 CS5 = The product packaging is always perfect  
 CS5 = The product packaging is always perfect  
 DA = Disagree  
 DA = Disagree  
 DV = Dependent Variable  
 DV1 = Dependent Variable 1  
 DV2 = Dependent Variable 2  
 DV3 = Dependent Variable 3  
 GF = Google Form  
 H1 = Hypothesis 1  
 H2 = Hypothesis 2  
 H3 = Hypothesis 3  
 IV = Independent Variable  
 IV1 = Independent Variable 1  
 IV2 = Independent Variable 2  
 IV3 = Independent Variable 3  
 N= Neutral  
 P1 = Money saving  
 P2 = Cheaper purchase  
 P3 = Lower expense per transaction  
 P4 = Appropriate or reasonable price  
 P5 = Affordable  
 PQ = Product Quality  
 PQ1 = The product has excellent qualities  
 PQ2 = The packaging is very reasonable and informative  
 PQ3 = I highly recommend it to my friends  
 PQ4 = The product has a very rich taste  
 PQ5 = The product quality is exceptional  
 SA= Strongly Agree  
 SD= Strongly Disagree  
 SN = Subjective Norm

SPSS = Statistical Package for the Social Sciences

SQ = Service Quality

SQ1 = Accept all orders

SQ2 = Short waiting time

SQ3 = Convenient opening hours

SQ4 = Immediately take in orders

SQ5 = Helpful sellers

Std. Deviation / SD = Standard Deviation

## LIST OF SYMBOLS

$N$  = Total Population

$\beta$  = Path Coefficient

$p$  = Significant Value

% = Percentage

\*\* = Multiplication

$r$  = Correlation Coefficient



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## ABSTRACT

This research paper delves into the intricate dynamics of customer satisfaction within the niche market of online beauty and health product businesses, specifically focusing on university students at the University of Malaysia Kelantan (UMK). With Malaysia's e-commerce sector projected to experience rapid growth, this study aims to contribute valuable insights into the factors influencing customer satisfaction in this evolving landscape. This study utilizes the SERVQUAL theory model to examine independent and dependent variables related to customer satisfaction in beauty and health products among students at the University Malaysia Kelantan. The researchers systematically gathered information to enhance understanding in this domain. A total of 265 questionnaires were collected from students in the Bachelor of Entrepreneurship (Commerce) program within the Faculty of Entrepreneurship and Business, representing a population of 13,584 students. Employing a stratified sampling method, the researchers conducted a descriptive analysis of demographic backgrounds and utilized Pearson correlation in SPSS version 26 to analyze the relationships among variables. The findings indicate a positive and strong relationship between all aspects of the SERVQUAL model and the dependent variable, shedding light on the factors influencing customer satisfaction in this specific academic context. The paper concludes by addressing the implications and suggesting directions for future research.

## ABSTRAK

Kertas penyelidikan ini adalah untuk mengkaji kepuasan pelanggan dalam pasaran khusus perniagaan produk kecantikan dan kesihatan dalam talian, khususnya menumpukan kepada pelajar universiti di Universiti Malaysia Kelantan (UMK). Sektor e-dagang Malaysia diunjurkan mengalami pertumbuhan pesat, kajian ini bertujuan untuk menyumbangkan pandangan berharga tentang faktor-faktor yang mempengaruhi kepuasan pelanggan dalam landskap yang berkembang ini. Kajian ini menggunakan model teori SERVQUAL untuk mengkaji pembolehubah bebas dan bersandar yang berkaitan dengan kepuasan pelanggan terhadap produk kecantikan dan kesihatan dalam kalangan pelajar di Universiti Malaysia Kelantan. Para penyelidik secara sistematik mengumpul maklumat untuk meningkatkan pemahaman dalam domain ini. Sebanyak 265 soal selidik telah dikumpul daripada pelajar program Ijazah Sarjana Muda Keusahawanan (Perdagangan) dalam Fakulti Keusahawanan dan Perniagaan, mewakili populasi seramai 13,584 pelajar. Menggunakan kaedah persampelan berstrata, penyelidik menjalankan analisis deskriptif latar belakang demografi dan menggunakan korelasi Pearson dalam SPSS versi 26 untuk menganalisis hubungan antara pembolehubah. Penemuan menunjukkan hubungan yang positif dan kukuh antara semua aspek model SERVQUAL dan pembolehubah bersandar, menjelaskan faktor-faktor yang mempengaruhi kepuasan pelanggan dalam konteks akademik khusus ini. Kertas kerja ini diakhiri dengan menangani implikasi dan mencadangkan arah untuk penyelidikan masa depan.

# CHAPTER 1

## INTRODUCTION

A critical foundation for the research by presenting the background of the study in this chapter with articulating the problem statement related to online beauty and health product businesses satisfaction among students at the Universiti of Malaysia Kelantan, establishing the research objectives, formulating research questions, delineating the scope of the study, and underscoring the significance of the research within the context of e-commerce and student satisfaction.

### 1.1 Research Background

Online business, short for electronic trade, hints at the exchange of items and administration utilizing the web and electronic channels. It has changed the manner in which organizations communicate with purchasers and has turned into an essential piece of present-day life. The web-based business scene envelops a different scope of online exercises, from retail monsters offering a wide cluster of items to private companies and businesspeople work in specialty markets (Sean Seah, 2022). According to Global Data, Malaysia's e-commerce sector is expected to develop at a 19.9% annual pace by 2022, cementing Malaysia's status as one of Southeast Asia's fastest growing emergent e-commerce industries. Based on the Global Data's E-Commerce Analytics, e-commerce sales in Malaysia between 2022 and 2026 are expected to rise at a compound annual growth rate (CAGR) of 16.1% and reaching MYR69.3 billion (\$16.6 billion) in 2026. Sales In 2021, MYR31.9 billion (\$7.6 billion), representing a 22.4% CAGR from 2017 to 2021.

According to Yidan Wang (2021), The cost of internet shopping is more straightforward, and the use is simpler. With the update of advanced mobile phones, individuals can totally



purchase any items they need at home. According to Malaysia eCommerce Statistics and Trends in 2023, Between 2022 and 2023, Malaysia added 362,000 new digital users. Nine out of ten internet users are digital consumers for now. Furthermore, Malaysian internet users with the 61.3 percentage make at least one weekly online transaction. Concurrently, the number of Malaysians shopping online increased by 8.3% annually, reaching 15.63 million by the beginning of 2023.

The meaning of online magnificence and wellbeing item buys is significant, as it reflects changing purchaser ways of behaving, inclinations, and the growth of the internet business industry. The meaning of online excellence and wellbeing item buys is critical for organizations expecting to obtain the developing requirements of buyers and customers. It additionally highlights the significance of concentrating on consumer loyalty factors, as fulfilled clients are bound to return and make future buys in this huge web-based retail area. A great many people have different day to day schedules in decorating themselves. Excellence and wellbeing are care that includes washing consistently, utilizing skincare consistently to deal with the skin in more detail with items that are enlisted and protected to utilize. (Rey Avila & Jennifer, 2021).

Consumer satisfaction in online business is a basic metric that straightforwardly influences the achievement and life span of online organizations. It reflects how well an organization addresses customer assumptions and satisfies their issues in the computerized commercial center. Customer satisfaction surveys are a good way to measure how well a brand ranks in terms of how often customers buy. Customer satisfaction has been generally concentrated in a tremendous of market writing since the Customer satisfaction level is decidedly connected with monetary results and corporate execution (Thuan Thi Nhu et.al, 2020). According to (Ade Permata Surya et. al, 2021), Customer satisfaction completely affects

customer loyalty in buying a product. This is because a satisfied customer will consider buying the same company's product or service again. Students will assess the administration or item in the wake of utilizing it, which will be the reason for their choice to buy once more and even prescribe it to others (Karen Joy et.al, 2023).

In the contemporary scene of buyer conduct, items are not only useful things; they frequently become indispensable pieces of clients' lives, molding their encounters, inclinations, and even characters. The idea of a client's relationship with an item stretches out past simple exchanges, underlining the profound and mental associations that people structure with the products they buy.

## **1.2 Problem Statement**

This study strive to further analyze customer satisfaction towards beauty and health products among students (UMK). In a previous study, students were less likely to buy online because of the quality of the products they received. This is because the pictures displayed online are much more interesting than the items received. According to (Amit Ranjan et. al, 2021) considering that some buyers indicate that the quality of goods cannot be observed and seen individually, and perhaps buyers are worried about buying goods when shopping on the internet. This is because there are various fake products that look like original products and it worries the customer because the product is related to the internal and external of the customer (Mohd Zailani Othman et.al, 2022). However, one of the most important factors is the quality of the product that influence the intention of consumers to buy online. It is possible to see feedback from customers who have made a purchase before making a payment.

In addition, in business relationships with consumers, trust in electronic vendors, e-commerce is very important in assessing the risks in transactions, even students lose trust in

online transactions. This is because nowadays there are various ways that cause students to be easily deceived without them realizing it. According to Vincent Seber (2019), to form consumer trust is so difficult that it requires additional services that should be provided by e-commerce to consumers to form consumer trust such as the use of security codes on every online purchase.

Competitive pricing is essential for drawing in new business and keeping existing ones. However, problems with perceived value, pricing transparency, and shifting pricing structures can drive away clients and undermine their trust. In addition to looking for affordable options, consumers who shop online for beauty and health items are also heavily impacted by the perceived value of the goods they buy. Customer dissatisfaction and a negative effect on the overall customer experience might result from differences between the real pricing structure and the expectations of the customers and any hidden charges, discounts, or price changes. According to Satria Mulia Chaerudin (2021), Cost Sensitive consumers typically find great joy in reduced prices because they will receive excellent value for their money. Also, every consumer will make purchases based on their capacity to refrain from making extravagant purchases.

The service quality is among the issues for every student which is the delivery service that is charged. In addition, delivery also takes a long time for students who want to get the goods immediately. According to Muhammad Turki Alshurideha (2021), in the context of the delivery of goods to customers, this dimension is known as the delivery variable at a certain time period and given the current research interest in studying service quality, it has been called service delivery by time. Delivery of goods refers to the dimension of time, it is the institution's responsibility to provide the product on time that has been given. This is because an institution

has a role in separating the goods and entering the information of the goods into the system. With this, the period of time taken is quite long to achieve maximum customer satisfaction.

### **1.3 Research Questions**

- 1) Is there any significant relationship between product quality and customer satisfaction in online businesses among students at Universiti Malaysia Kelantan?
- 2) Is there any significant relationship between service quality and customer satisfaction in online businesses among students at Universiti Malaysia Kelantan?
- 3) Is there any significant relationship between price and customer satisfaction in online businesses among students at Universiti Malaysia Kelantan?

### **1.4 Research Objectives**

- 1) To determine the relationship between product quality and customer satisfaction in online business among students at Universiti Malaysia Kelantan.
- 2) To determine the relationship between service quality and customer satisfaction in online business among students at Universiti Malaysia Kelantan.
- 3) To determine the relationship between price and customer satisfaction in online business among students at Universiti Malaysia Kelantan.

### **1.5 Research Scope**

This research project investigates the elements that influence consumer satisfaction with online beauty and wellness items. The retail industry is the major subject of this study, with a particular emphasis on the beauty and health retail sectors. The research sample consists

of Universiti students from the Universiti Malaysia Kelantan (UMK) at Pengkalan Chepa. The targeted group and respondents for this study are students at the Universiti of Malaysia Kelantan (UMK). The influencing element is recognized through online surveys by delivering the e-questionnaire via social media platforms such as WhatsApp, Telegram, and Instagram.

The enhancement of customer satisfaction within the beauty and health segment is crucial in addressing the problems faced by online purchasers. This can be achieved by taking into account all three elements involved in the online shopping experience.

### **1.6 Significance of Research**

This research is undertaken by considering several pivotal factors, with the primary emphasis placed on service quality, product quality, and pricing as the most crucial and influential elements.

From a theoretical standpoint, this study contributes to enhancing the current body of literature by addressing the identified gaps. Besides, this thesis fills this gap by determining all three factors that affect customer satisfaction on online beauty and health products. The primary objective of this study is to enable the researcher to identify the key factors that influence customer satisfaction. In order to acquire information pertaining to the given topic, researchers have the option of utilizing various sources such as online research, articles, journals, magazines, and other relevant resources.

This study also makes substantial practical contributions. This study, in particular, will eventually supply knowledge to future entrepreneurs who desire to examine the research pertinent to this industry. Based on the findings of the study, new entrants can enhance their corporate strategy and develop more innovative and inventive apps than we can. The researcher's insights or research can also assist the entrepreneur reach their aims in the future.

## 1.7 Operational Definition of Key Terms

### **Online shopping**

Online shopping is mean as the process of purchasing or ordering an item or products directly from the seller without going through another middleman. Online business can be referred to as an activity of demanding and supplying commodities over the internet by sellers.

### **Service quality**

Service quality means benefit, and activity provided by a seller or party that is intangible without any profit and it is seen as a strategic tool by the party to achieve business performance goal (Ramya, 2019). Service quality is crucial for online business the particular reason because it will interact with customers now more adopted in online shopping.

### **Product quality**

The ability and efficacy of a product to fulfil its intended functions is known as product quality, and it includes elements like performance, durability, dependability, accuracy, ease of use, repairability, and other important attributes. (Susanti & Jasmani, 2020).

### **Price**

According to (Malik, 2019), Price is a key factor in customer satisfaction because they always have price in mind when evaluating the value of products and services. Estimate price from customer usually used as an indicator so that can correlate with the perceived benefits of a good or service.

## 1.8 Organization of Thesis

The thesis is organized as five chapters. In this initial chapter, the background of the study, the research topic, identified gaps in the literature, study objectives, and research

questions are covered. Additionally, the chapter delves into the scope and significance of the study. Lastly, the definitions of relevant terms are presented.

Chapter Two will present the main literature in terms of literature review with underpinning theory with journal and article studied. In also including previous study, conceptual frameworks, hypotheses statement and lastly with summary. Chapter 3 describes the methodology of this study with research methods, operationalization of variables, questionnaire research instrument, population and sampling, data analysis procedures and assessment of statistical fit.

### **1.9 Summary**

In this introductory chapter, we provide an overview of the research background and state the problem associated with factors that influence customer satisfaction when it comes to online beauty and health products among students at the Universiti of Malaysia Kelantan. We aim to identify and address the key issues that underlie this research. These issues will serve as the foundation for developing research questions and objectives, which will guide our study. Additionally, we outline the research scope to clarify the boundaries of our investigation and discuss the significance of the current study. Furthermore, we provide operational definitions for key terms used in this research. Finally, we briefly introduce the organization of this thesis.

## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Introduction

Chapter 2 focuses on the literature study on the issue of variables influencing customer satisfaction with online beauty and wellness goods among students at the Universiti Malaysia Kelantan. Researchers will evaluate prior studies for these factors. Product quality, service quality, and pricing are the four considerations. This part also includes previous studies related to internet purchasing.

#### 2.2 Underpinning Theory

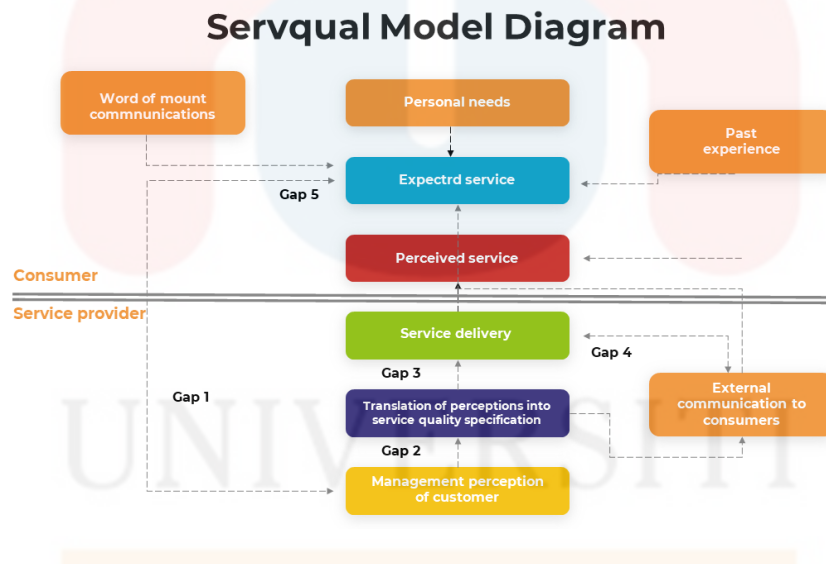


Figure 2.1 SERVQUAL Model Diagram

##### 2.2.1 The SERVQUAL Theory

The SERVQUAL model looks at the effectiveness and accuracy of service performance, employee credibility and skill levels, and the physical facilities of the business. Its five dimensions are tangibles, reliability, empathy, assurance, and responsiveness. According to a Maudy Mikha (2022) study, tangibility, reliability, and assurance have the most significant dimensions and together they have a positive impact on customer satisfaction. Furthermore,



tangibility has the highest mean score and a significant impact on customer satisfaction. Conversely, it seems that the mean score for responsiveness is the highest.

The SERVQUAL model identified ten fundamental criteria—reliability, responsiveness, competence, access, courtesy, communication, credibility, security, customer understanding, and tangibility—by which customers assess particular service attributes (Eirini Peitzika et. al, 2020). According to some academics, brand image and service quality are related (Anurag Pandey et.al, 2019). According to earlier research, service quality both positively and antecedently impacted brand image (Anurag Pandey et al, 2019).

Since product photos and descriptions are the most accurate online representation of the actual product, they must be of the highest caliber. According to (Hee Sio Ching 2021), It shows that when buying skin care products, the majority of Malay students give the following considerations such as brand, price, quality, product safety and halal status.

In order to ensure prompt problem resolution and assistance, online retailers should offer responsive customer support through a variety of digital channels, including email, live chat, and social media. Response time can be defined as an employee's willingness or level of preparedness to assist clients. This variable includes delivering the service promptly, getting back to customers right away, and not delaying the delivery of the service (Muhammad Turki Alshurideh, 2022).

Researchers have been focusing more and more on service quality in the literature on service marketing. The definition of service quality was the ability to adapt how a service is provided to the client's demands, (Maudy Mikha Maria Tambayong, 2022). According to other academics, a customer overall evaluation of a service provider's quality is determined by contrasting their expectations with the perceived quality they received (Sao Mai DAM et al., 2021). In the domains of banking, credit cards, long-distance calling, repair, and maintenance,

for example, SERVQUAL scales have demonstrated to be trustworthy and legitimate. These scales can also be applied to other service fields (Sao Mai DAM et al., 2021).

## **2.3 Previous Study**

### ***2.3.1 Product Quality***

Product quality is a fundamental concept that plays a central role in manufacturing, commerce, and consumer satisfaction. It alludes to the general excellence and reliability of a product, including its design, materials, performance, and durability. Essentially, the quality of a product is a measure of how well it fulfils or surpasses the necessary requirements and standards of its users. Previous research has highlighted the significant impact of customer satisfaction on fostering customer loyalty (Imrie & Mansori, 2018). It has been established that a brand's perceived quality and the satisfaction derived from its products play a vital role in influencing customer contentment. Product quality is a critical factor when it comes to attracting customers. This includes considerations of its general robustness, dependability, precision, user-friendliness, and repairability, alongside the perceived worth of its different features. In line with Kotler and Keller's perspective, product quality is essentially the product's capacity to deliver results or performance that align with the customer's expectations.

Numerous prior research studies have demonstrated a strong link between product quality and its effects and impact on customer satisfaction (Albari & Kartikasari, 2019). When a product exhibits high quality, it tends to positively influence consumers' perceptions of that product, especially in the context of skincare products. High-quality products not only result in customer satisfaction but also promote repeat purchases and positive word-of-mouth referrals. Product quality denotes the product's capability to fulfill both explicitly stated and implicit customer needs, and when it successfully meets these criteria, customers are generally pleased with their acquisition.

Similarly, as demonstrated by (Ekasari et al. in 2019), the discovery was made that superior product quality significantly contributes to enhancing customer satisfaction in the realm of online shopping. According to (Djumarno et al. in 2018), when the quality of a product meets or exceeds customer expectations, it cultivates a perception of acceptability and excellence in the eyes of customers. Consequently, this leads to heightened happiness and satisfaction among customers.

**H1:** There is a positive significant relationship between product quality and factors that affecting customer satisfaction in online beauty and health products businesses among students in Universiti Malaysia Kelantan.

### ***2.3.2 Service Quality***

The quality of service is a fundamental idea that holds a crucial position in the realm of business and customer contentment. Service quality denotes the holistic level of satisfaction and excellence customers encounter during their interactions with service providers or when availing services. It assesses how effectively services align with and surpass customer expectations and requirements. This concept is contingent on three core elements: systems, technology, and personnel. Research on e-commerce satisfaction primarily employed survey-based methods, focusing on latent constructs like trust, value, and service quality as the driving factors, as illustrated by (Wang et al. in 2019).

According to (Kotler & Keller, 2012), service quality involves all the characteristics and features that define a good or service that influence its capacity to fulfill implied customer needs. In essence, service quality reflects a company's capability to deliver services in line with customer expectations. When a company consistently delivers top-notch service quality, it fosters trust in its products or services, thereby earning the trust of its customers. Achieving

such excellence requires continuous enhancement, commencing with the recruitment process, extending to training, and influencing the work culture (Hertati et al. 2020).

In contrast, numerous research studies within the realm of e-commerce argue that customer satisfaction is significantly impacted by service quality, as demonstrated by Vasic et al. in 2019. Consequently, providing excellent services is crucial for elevating customer contentment. The evaluation of service quality entails assessing five pivotal indicators: tangibility, responsiveness, reliability, empathy, and assurance. Service quality stands as a pivotal element for companies striving to attain a competitive edge and establish trust with their customer base, as observed in the study (Fatima et al., 2018).

**H2:** There is a positive significant relationship between service quality and factors that affecting customer satisfaction in online beauty and health products businesses among students in Universiti Malaysia Kelantan.

### **2.3.3 Price**

Price is a crucial factor in the realm of customer satisfaction, playing a pivotal role in influencing consumer choices and overall contentment with a product or service. This paragraph underscores the critical role of management teams in achieving success in the competitive landscape of E-business, emphasizing the need to provide high-quality products, exceptional service, and competitive pricing (Patmawati & Syarif, 2020). It also highlights a finding from (Suciningrum & Usman 2022) that emphasizes the significant and positive impact of pricing when aligning it with product quality. Customers often consider cost to be a sign of quality and are prepared to pay more for an item if they feel the quality is greater.. Furthermore, price serves as a key factor that influences and enhances customer satisfaction (Albari & Kartikasari 2019). This is because, after evaluating the worth of a product or service, consumers routinely consider the price as a determining factor in their overall satisfaction.

Products within a brand often come in various types, each with a different price point, catering to a wide range of customer preferences. The pricing strategy plays a significant role in customers' purchasing decisions. Price is essentially the monetary value associated with a product or service, representing what customers will be preparing to exchange for the benefits they receive. According to (Kotler and Armstrong, 2012), evaluating price involves considering four aspects: affordability, the alignment of price with product quality, the relationship between price and benefits, and competitiveness in the market. Affordability, in particular, is a critical factor as it determines whether the price set by the company is within the reach of the target customers (Syafarudin Saluy & Masyhudzulhak, 2020).

**H3:** There is a positive significant relationship between price and factors that affecting customer satisfaction in online beauty and health products businesses among students in Universiti Malaysia Kelantan.

#### ***2.3.4 Factors that affect customer satisfaction on online beauty and health products.***

According to (Wang et al., 2019) proposed that latent constructs such as service quality make an impact on consumer satisfaction in online shopping. This suggests that offering top-notch services likely will result in satisfied customers. In the relation of online commerce, (maudy et al., 2019) have underlined the correlation between customer satisfaction and service quality. Their findings support the idea that enhancing the quality of services provided may increase customer satisfaction.

According to a Smith et al., (2020) study, customer satisfaction is significantly impacted by product reliability. Product quality is determined by a number of factors, including features, performance, dependability, and durability. Several studies have found that satisfied customers are more likely to maintain loyal to a brand or company, which can result in long-term profitability and growth. A study by (Chen et al., 2022) empirically demonstrates

that high product quality not only leads to greater customer satisfaction but also enhances customer loyalty. Research conducted by (Anderson et al., 2019) shows that higher product quality is consistently associated with greater customer satisfaction. Customers tend to be more satisfied when they discover a product to be of high quality.

Empirically demonstrates that customers frequently use price as their indicator of quality; if they perceive a difference in two things, they will frequently prefer the higher price. (Hertati et al., 2020). Customers typically believe that greater price corresponds to higher quality. A study conducted by (White, E. et al., 2023) shows that due to affordability, cheaper prices are sometimes linked to higher satisfaction levels; in other situations, premium pricing is linked to higher satisfaction levels because it is thought to be of higher quality or exclusivity.

## 2.4 Conceptual Framework

Specifically, this study examines customer satisfaction in online beauty and health products businesses among students in Universiti Malaysia Kelantan. The framework model show both independent and dependent variables. Each of the independent variables underwent testing to assess whether there existed a significant relationship with the dependent variables.

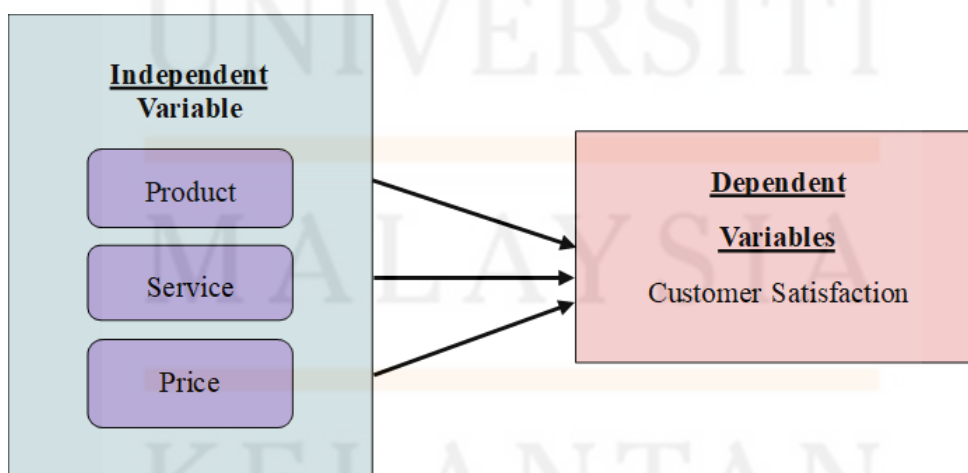


Figure 2.2 Conceptual Framework

## 2.5 Hypotheses Statement

H1: There is a positive significant relationship between product quality and factors that affecting customer satisfaction in online beauty and health products among students at Universiti Malaysia Kelantan.

H2: There is a positive significant relationship between service quality and factors that affecting customer satisfaction in online beauty and health products among students at Universiti Malaysia Kelantan.

H 3: There is a positive significant relationship between price and factors that affecting customer satisfaction in online beauty and health products among students at Universiti Malaysia Kelantan.

Research objectives	Research questions	Research hypotheses
1) To determine the relationship between product quality and customer satisfaction in online business among students at Universiti Malaysia Kelantan.	Does there any significant relationship between product quality and customer satisfaction in online businesses among students at Universiti Malaysia Kelantan?	H1: There is a positive significant relationship between product quality and customer satisfaction in online beauty and health products businesses among students in Universiti Malaysia Kelantan.
2) To determine the relationship between service quality and customer satisfaction in online business among students at Universiti Malaysia Kelantan.	Does there any significant relationship between service quality and customer satisfaction in online businesses among students at Universiti Malaysia Kelantan?	H2: There is a positive significant relationship between service quality and customer satisfaction in online beauty and health products businesses among students in Universiti Malaysia Kelantan.

3) To determine the relationship between price and customer satisfaction in online business among students at Universiti Malaysia Kelantan.	Does there any significant relationship between price and customer satisfaction in online businesses among students at Universiti Malaysia Kelantan?	H 3: There is a positive significant relationship between price and customer satisfaction in online beauty and health products businesses among students in Universiti Malaysia Kelantan.
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Table 2.1: summary of hypotheses statement

## 2.6 Summary

This chapter introduces our dependent variable as customer satisfaction, and delves into the independent variables of service quality, product quality, and price. Towards the chapter's conclusion, significant relationships have been identified among these three independent variables (IV) and the dependent variable (DV). Importantly, it is observed that these relationships exert a positive impact on customer satisfaction in relation to internet online shopping among students at the Universiti Malaysia Kelantan. The dependent variable can be implemented fully due to being strongly related to the independent variable. This chapter serves as a foundation for our research, paving the way for a deeper exploration of these relationships and their implications for online shopping experiences.



## CHAPTER 3

### RESEARCH METHODOLOGY

#### 3.1 Introduction

In this chapter, we outline the methodology and data analysis procedures employed in our research. To explore the theoretical implications of our research, this chapter emphasizes the chosen research paradigm as the guiding framework. We will provide an overview of the research approach used to attain our objectives, followed by a discussion on the research process and the operationalization of measurement tools. Subsequently, we will delve into topics such as the research instruments, the target population, sampling methods, and data analysis procedures.

#### 3.2 Research Paradigm

By examining the underlying process that gives rise to the occurrence, research paradigms offer a methodical approach to defining and explaining the relationship between various phenomena (Krishna, 2020). The research paradigm, often known as the theoretical or philosophical basis of a research project, serves as its foundational framework. (Krishna, 2020). The four main philosophies used in management research are positivism, realism, interpretivism, and pragmatism.

##### 3.2.1 *Research Philosophy*

According to positivism, science gives us the most precise definition of knowing imaginable Vibha Kaushik et al., (2019). This worldview refers to the standpoint, mindset, philosophical orientation, or set of convictions that directs the interpretation and understanding of research data Krishna (2020). The positive assumptions that underpin this study's philosophy represent the conventional research approach, and they are more applicable to quantitative research than to qualitative research Krishna (2020). Additionally, the SERVQUAL model

examines the physical facilities of the company, employee credibility and skill levels, and the accuracy and efficacy of service performance. This research is guided by its five dimensions: responsiveness, tangibles, empathy, assurance, and dependability.

### **3.2.2 Approaches**

Additionally, this study aims to refute, validate, or support the conclusions of other researchers in a different research setting. Tapiwa Muzari et al. (2022) stated that the deductive method is appropriate for researchers to use when developing theories and hypotheses as well as when designing a research plan to test the hypothesis. Further, Tapiwa Muzari et al. (2022) Among the aforementioned methods, a unique logical structure for gathering data, analysing it, and then publishing the results is methodically followed in order to solve a specific issue. The qualitative research paradigm, a crucial research strategy for academic researchers, is theoretically summarized in this paper. Qualitative research lends itself well to the inductive method of developing new theories, which can then be tested through additional deductive reasoning because of its emphasis on everyday life experiences.

### **3.2.3 Strategies**

Our objectives are fourfold, first, researchers will examine the main philosophical foundations and methodological issues surrounding pragmatism. Next, scholars will integrate the contributions of researchers who have explored the philosophical concepts of pragmatism and have enriched our comprehension of pragmatism as a research paradigm. Following that, the researchers will articulate their perspectives on how pragmatism aligns with social work research and demonstrate its connection to the pursuit of social justice Vibha Kaushik et al., (2019).

### **3.2.4 Choice**

To fulfill the goals of the research and provide answers to the research questions, the researcher will, in any case, decide whether to use multiple data collection approaches and analysis procedures or just one data collection technique and related analysis procedures. Krishna Kumar Khatri (2020). Having a thorough grasp of the specific is the ultimate aim of the qualitative tradition, Tapiwa Muzari (2022). Consequently, the mono method was chosen for this study over the other two options since it is suitable and equitable for accomplishing the study's goals. The study's mono method combines quantitative data analysis techniques with a single quantitative data collection method—questionnaires.

### **3.2.5 Time Horizons**

The decision regarding the research method or strategy is intricately linked to the selection of time horizons employed in a study. For instance, a cross-sectional approach involves examining a specific phenomenon or phenomena at a particular moment. Saunders et al., (2013), whereas a longitudinal study is conducted at multiple points in time to observe changes in dependent variables (Sekaran and Bougie, 2010). Since this research adopts quantitative method through survey distribution, cross-sectional study is a best fit to this situation as it is widely used in related studies (Gunasekaran & Spalanzani, 2011; Amlus et al., 2015).

### **3.2.6 Techniques and Procedures**

As mentioned in previous discussion, this study follows a quantitative data collection approach, using questionnaires, and employs quantitative data analysis procedures. Questionnaires are typically used in correlational field (survey) designs, involving visits to respondents and sending out questionnaires via mail. Furthermore, the data was randomly divided into two sets. One set of samples was used for Exploratory Factor Analysis (EFA) to

identify the underlying factors of the measurement items, and the second set of the sample was used in Confirmatory Factor Analysis (CFA) to validate the findings from EFA. Mediation analyses were then carried out using the Bootstrapping technique within SEM-AMOS software, as recommended by (Preacher and Hayes, 2004; 2008). Moderation analyses were analyzed based on the output from the structural model, which is automatically generated by the Stat Wiki tools following the steps suggested by Gaskin (2013).

### 3.2.7 Unit of Analysis

To explain the population and sample of this research, the part that follows describes the unit of analysis for this study. Unit of analysis in this study is individual. This means that the primary focus of the study is on gathering and examining data at the level of individual people. The researchers are primarily interested in understanding the specific behaviors, characteristics, and experiences of each person who participates in the study. This approach allows for a detailed examination of how each individual responds to the study's variables, treatments, or interventions. For a clear understanding of the research design utilized for this study, Table 3.1 has summarized the research design discussed in this chapter.

Research design elements	Selected elements for this study
Philosophy	Positivism
Approach	Deductive
Strategies	Survey
Choice	Quantitative method
Time horizons	Cross-sectional
Technique and procedures	Data collection- questionnaire Data analysis - descriptive analyses
Unit of analysis	Individual

Table 3.1 Summary of Research Design Elements

### 3.3 Operationalization of Variables

Based on the literature analysis and conceptual framework outlined in chapter three, it is evident that all the constructs examined in this study consist of multidimensional constructs. These constructs exhibit enhanced reliability and validity in comparison to measurement based on single items. Operationalization is the procedure by which researchers conducting quantitative research specify in detail how a concept will be evaluated. It entails determining which particular research methods will be implemented to collect data pertaining to our concepts (Matthew, D. 2018). The absence of clear and precise operational definitions may lead researchers to measure topics that are not pertinent or to apply procedures in an inconsistent method. The process of operationalization helps minimize subjectivity, mitigate the possibility of research bias, and enhance the overall reliability of a study (Bhandari, P., 2022). There exist various methods for operationalizing a variable, and the suitable look at relies on the inherent nature of the concept being investigated. Nonetheless, in a broad sense, operationalization involves delineating the circumstances whereby a specific activity or response is thought about to have taken place (Learnovate, M. I. M., 2022).

#### 3.3.1 Measurement for Demographic Profile

The elements and items for demographic profiles were tailored from the literature. The item and question have been updated and edited into the research project context that is mentioned in the table. A description of each question is included in the table along with the reason why the question was asked of the selected respondents.

Information Required	Explanation of Question Content
Qs1 –Gender of respondent	Information about the gender of respondent
Qs2 – Respondent age	Information about the age of respondent
Qs3 – Respondent race	Information about respondent race.

Qs4 – Respondent Courses year	Information about which year Universiti courses study by respondent.
Qs5 – Frequency of respondents in buying products	Information about frequency of respondents buying beauty and health products.

Table 3.2 Summary of demographic profile questions

### ***3.3.2 Measures for Hypothesis Testing***

Following the development of hypotheses, the following step is to create adequate and reliable measuring scales to capture the constructs required for analyzing them. Hypothesis testing is a form of statistical analysis designed to assess assumptions about a population parameter. It involves determining the correlation between two statistical variables (Biswal, A. 2023) and entails comparing two exclusive propositions about a population to ascertain which one is best supported by the sample data (GeeksforGeeks., 2023). When scrutinizing research findings, researchers must consider the possibility of chance occurrences. Hypothesis testing provides a systematic approach to ascertain whether the outcome of the research study lend support to a specific hypothesis applicable to a population. In evaluating a hypothesis regarding a population, hypothesis testing utilizes sample data. The test seeks to establish whether the observed result is exceptional, attributable to reasonable chance variation, or too significant to be attributed to chance variation (Turner, M. 2023).

#### **3.3.2.1 Measurement for Product Quality, Service Quality and Price**

The first construction is product quality. The items chosen for analysis were obtained from specific questionnaires related to loyalty and customer satisfaction. Items addressing the impact of product quality on customer satisfaction and loyalty were derived from the questionnaire developed by (Sambo et al., in 2022). The second category, focusing on service quality, utilized items sourced from the questionnaire on the influence of product quality, service quality, and price on customer satisfaction and loyalty by (Kartikasari, 2019). The items

related to the construct of price were selected from the questionnaire on the consequence of online shopping determinants on customer satisfaction in the Serbian market, developed by (Vasic et al., in 2019). All three constructs—product quality, service quality, and price—were measured with five items each, utilizing a five-point Likert scale. Respondents instructed to rate these items on a scale from 1 (strongly disagree) to 5 (strongly agree). Table 3.3 summarizes the sixteen items measuring entrepreneurial characteristics.

Label	Items	Source
PQ1	The product has excellent qualities	Sambo et al. 2022
PQ2	The packaging is very reasonable and informative	
PQ3	I highly recommend it to my friends	
PQ4	The product has a very rich taste	
PQ5	The product quality is exceptional	
SQ1	Accept all orders	Kartikasari, A. 2019
SQ2	Short waiting time	
SQ3	Convenient opening hours	
SQ4	Immediately take in orders	
SQ5	Helpful sellers	
P1	Money saving	Vasic et al. 2019, Kartikasari, A. 2019
P2	Cheaper purchase	
P3	Lower expense per transaction	
P4	Appropriate or reasonable price	
P5	Affordable	

Table 3.3 Items measurement of Product Quality, Service Quality and Price.

### **3.3.2.2 Measurement for Customer Satisfaction**

The variable under examination in this research was customer satisfaction, denoted as CSAT. Customer satisfaction which is a metric gauging a customer's contentment with a business-related product, service, or overall experience, is assessed through customer satisfaction questionnaires. These surveys inquire about a consumer's sentiments regarding their experience, with response options ranging from "highly unsatisfied" to "highly satisfied" (Bernazzani, S. 2022). Evaluating customer satisfaction aids a business in identifying the effectiveness of its products, services, and internal processes, offering insights into areas for improvement or modification. It encompasses a customer's impression of the business's quality, value, and fulfillment of expectations (Indeed Editorial Team. 2021). Customer satisfaction considers several aspects of the customer experience, such as product availability, purchasing process, steps after purchase, and employee attentiveness when resolving difficulties (Bernazzani, S. 2022).

Surveys are one of the most prominent techniques used to determine customer satisfaction. Respondents give their responses to a variety of survey items, including multiple-choice, rating, and open-ended questions. By employing online surveys, customer satisfaction measurement tools can assist in the acquisition of up-to-date information and the provision of exceptional experiences (Bhat, A. 2020). Three items (measuring customer satisfaction in aspect of affordable price, meets expectations and product packaging) were adopted from Sambo, E., Ukpata, I. S., Atiga, M. M., & Fumba, J. (2022) and two items were adopted from Kartikasari, A. (2019) and Mustakim, N. A., Hasan, Z., Sauid, M. K., Ebrahim, Z. B., & Mokhtar, N. (2022). Table 3.4 summarizes the five items measuring customer satisfaction.



Label	Items	Source
CS1	I agree that the price of the product is very affordable	Sambo et al. 2022
CS2	The product meets my expectations at all dimensions	Sambo et al. 2022
CS3	Satisfied with the service provider in overall	Kartikasari, A. 2019
CS4	I am satisfied with the online payment system security	Mustakim et al. 2022
CS5	The product packaging is always perfect	Sambo et al. 2022

Table 3.4 Items measurement of Customer Satisfaction

### 3.3.3 Instrument Design

Instrument design for research entails the construction of instruments that collect dependable and high-quality data. A research instrument design is a method for solving an issue in research through the use of empirical data. A meticulously devised research design ensures the alignment of procedures with research objectives and guides the researcher in employing the suitable form of data analysis, as noted by McCombes (2023). Our research report will employ quantitative data collection methods, a approach focused on studying a particular group of individuals known as a sample population, as explained by Allen (2023). The chosen sample consists of students from the Universiti Malaysia Kelantan situated in Pengkalan Chepa, Kelantan.

The development of a survey questionnaire was accordance with an thorough analysis of the pertinent literature. Based on comprehensive feedback provided by respondents, the identified target demographic comprises students enrolled at UMK, typically falling within the age range of 20 to 27. This group predominantly utilizes the internet for a multitude of activities, including online shopping. The researchers intend to distribute the questionnaire to individuals who possess familiarity with the practice of online shopping. Furthermore, data is collected

from respondents with prior online purchasing experience in the context e-commerce to examine the variables that have impact on the customer satisfaction.

### ***3.3.4 Pre-Testing and Pilot Testing of Questionnaire***

This study's primary objective is to explore the complex processes that affect student satisfaction with online beauty and health products businesses among Universiti Malaysia Kelantan (UMK) students. The primary goal is to find and thoroughly understand the multiple factors influencing UMK students' satisfaction levels when interacting with e-commerce platforms selling beauty and health products. The research aims to provide detailed insights into the preferences, online buying experiences, and quality expectations of the Universiti Malaysia Kelantan student population through the perspective of customer satisfaction. Additionally, the study aims to investigate how students' happiness with online purchases is affected which is including product quality, pricing tactics and service quality. In addition to providing an overview of the existing situation, the research is meant to lay the groundwork for further investigations and initiatives that try to maximize the meeting point between student satisfaction and the online market for beauty and health products. The goal is to create a strong framework that not only clarifies the variables impacting customer satisfaction but also offers a sophisticated comprehension of the distinct contextual factors operating within the Universiti Malaysia Kelantan student through a rigorous approach.

Before delving variables that impact students at Universiti Malaysia Kelantan (UMK) satisfaction with online beauty and health products, a thorough pre-testing stage has been designed to improve the accuracy and effectiveness of the questionnaire. Understanding how crucial it is for the questionnaire to be relevant and clear, a specific group of Universiti Malaysia Kelantan students—different from the main study cohort but representative of its varied demographics—will participate in the pre-testing phase. A crucial step that comes before

the real data collection is called a pretest. The sample that is collected must match the final model analysis exactly. Pretesting the survey questions ensures that the participants understand the questions and that there are no grammatical errors (Sekaran & Bougie, 2016; Stockemer, 2019).

When the questionnaire scale alludes to a particular context—such as students enrolled in commerce courses—it is essential. After receiving the questionnaire, participants will be invited to share their opinions on its overall comprehension, the relevance of its content, and the clarity of its questions. The foundation for iterative modifications that aim to remove any ambiguities and guarantee that questionnaire is perfect alignment along with the intended research objectives will be laid by this qualitative feedback. Pre-testing is not just a formative exercise rather it is a deliberate effort to refine the instrument in order to reduce potential biases and improve its suitability for use with Universiti Malaysia Kelantan students in their context. Through the process of examining and adjusting the questionnaire using this pre-testing lens, the research aims to strengthen the base upon which the main study that follows will be constructed, guaranteeing that the data gathered is not only precise and trustworthy but also sensitive to the nuances of the Universiti Malaysia Kelantan student experience with online beauty and health products.

The study moves on to a crucial pilot testing stage that is intended to evaluate the viability and efficacy of the complete research procedure after the perceptive pre-testing phase. A carefully chosen sample of Universiti Malaysia Kelantan students, representative of the larger study population and with a range of demographics, will take part in the pilot test using the improved questionnaire that came from the pre-testing. In order to replicate the circumstances of the primary study, this cohort will respond to the whole questionnaire. A research effort must include a pilot test particularly if it will be using a novel technology. This

essay demonstrates how relevant the same is. It is the authors' intention to communicate the significance of recording a pilot study's procedures, problems, and solutions (Menon, 2021).

In addition to assessing the goal is to appraise the whole study process, from data collection to analysis. The information gathered from the pilot test will be carefully examined to find any unexpected trends or problems that could have gone undetected in the pre-testing stage (Unni CS, 2021). Therefore, the phase of pilot testing acts as a strategic checkpoint, enabling the research team to refine and improve their approach based on actual interactions. The information gathered will be crucial in improving the study process as a whole as well as the questionnaire (Unni CS, 2021). This iterative method guarantees a strong study design, an effective data gathering procedure, and proactive resolution of probable issues. The purpose of the research show the validity and reliability of the application by conducting a pilot test among the real study population. This will help to ensure that the main study runs smoothly. This prepares the ground for an extensive and methodologically sound study of the variables influencing UMK students' satisfaction with online beauty and health products.

Test	Participants	Expertise
Pre-testing	3 UMK students	Expertise in the course of entrepreneurship.
	1 lecturer of UMK	The experts' judgment
Pilot testing	10 UMK students	Expert in the course entrepreneurship, health and beauty and commerce.
	1 lecturer of UMK	The experts' judgment

Table 3.5 Pre-testing and Pilot testing

Pilot research can be several ways to characterize. It is defined as a a small-scale trial or series of observations made in order to determine whether and how to start a full-scale project A brief study carried out ahead of a planned project, mostly to evaluate components of

the research concept (such as stimulus material) and to allow required adjustments before final commitment to the design, that's what research describes it as (Delh, 2020). The pilot research produced insightful and useful feedback to enhance the questionnaire. The survey's phrasing was found to be "too academic" in the pilot research, and several topics required further explanation. Following that, the questions underwent revisions and reredits in light of the input that was gathered. Respondents felt that there were too many questions.

Thus, prior to conducting the interview, the items were reworded to use clearer English while maintaining their original meaning, and the survey was made available online. Since English is the primary language utilized for this questionnaire. However, there was also a Malay translation of the questionnaire. They involve a need to verify that the questionnaire's terminology is clear, that its questions are acceptable for the study's target population, that the most important ones are removed, and that it can be finished within a reasonable amount of time (McLeod, 2020).

Following the advice of the research, the pilot project for a new questionnaire designed to investigate how students feel about online shopping on health and beauty was organised and carried out step-by-step (Hiwarkar, 2019). Our pilot research's results made it clear that, with a few small adjustments to the questionnaire instrument, the planned main study with its intended aims will be viable. After the pilot study's results were analysed, a sample size could be determined.

### **3.4 Population and Sampling**

Several factors were taken into account in determining the population for this research. First, the population is limited to the Universiti Malaysia Kelantan campus which is Umk Pengkalan Chepa which has been chosen by the researcher to conduct the study. Umk is divided

into 3 branches which are in Bachok, Pengkalan Chepa (Kota) and Jeli. There are as many students as can be seen in the table below. That total of 3 UMK Campus is 11, 367 students.

<b>UNIVERSITI MALAYSIA KELANTAN CAMPUS</b>	<b>TOTAL</b>
Campus Kota	6448
Campus Jeli	2552
Campus Bachok	2367
	<b>11, 367</b>

Table 3.6 Universiti Malaysia Kelantan Campus 2023

The 9th Malaysia Plan includes the construction of a Universiti in the state of Kelantan as a means of fostering the growth of skilled labourers in the nation's higher education industry. The Council of Ministers gave its approval for this Universiti's founding during the June 14, 2006, Cabinet Meeting. The Council of Ministers also decided that entrepreneurship education and enterprises should be the cornerstones of all study programmes at Universiti Malaysia Kelantan (UMK). The Universiti Malaysia Kelantan campus in Bachok is the main campus while the Pengkalan Chepa and Jeli campuses are branches of the Universiti Malaysia Kelantan campus.

<b>FACULTY</b>	<b>TOTAL</b>
Faculty of Entrepreneurship and Business (FKP)	3559
Faculty of Veterinary Medicine (FPV)	220
Faculty of Hospitality, Tourism and Wellness (FHPK)	2669
Faculty of Creative Technology and Heritage (FTKW)	1958
Faculty of Language Studies and Human Development (FBI)	209
Faculty of Architecture and Ekistics (FSE)	385
Faculty of Agro Based Industry (FIAT)	7411
Faculty of Earth Science (FSB)	817

Faculty of Bioengineering and Technology (FBKT)	809
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Table 3.7 Universiti Malaysia Kelantan by Faculty

At the Bachok campus, three faculties exist, namely the Faculty of Creative Technology and Heritage (FTKW), the Faculty of Language Studies and Human Development (FBI), and the Faculty of Architecture and Ekistics (FSE). Campus Kota also comprises three faculties: the Faculty of Entrepreneurship and Business (FKP), the Faculty of Veterinary Medicine (FPV), and the Faculty of Hospitality, Tourism, and Wellbeing (FHKP). Similarly, the Jeli campus houses three faculties, namely the Faculty of Agro-based Industry (FIAT), the Faculty of Earth Sciences (FSB), and the Faculty of Bioengineering and Technology (FBKT). The total number of faculties in Universiti Malaysia Kelantan campus is total 11 367 students.

PROGRAMME	TOTAL
<b>CAMPUS KOTA</b>	
SAR-Bachelor of Entrepreneurship (Retailing) with Honours	729
SAA- Bachelor of Accounting with Honours	216
SAB-Bachelor of Business Administration (Islamic Banking and Finance) with Honours	848
SAE-Bachelor of Entrepreneurship with Honours	167
SAL-Bachelor of Entrepreneurship (Logistics and Distributive Trade) with Honours	783
SAL 0	15
SAK- Bachelor of Entrepreneurship (commerce) with Honours	801
SDV- Doctor of veterinary Medicine	220
SAH- Bachelor of Entrepreneurship (Hospitality) with Honours	675
SAP-Bachelor of Entrepreneurship (Tourism) with Honours	1312
SAS-Bachelor of Entrepreneurship (Wellness) with Honours	682
	<b>6448</b>
<b>CAMPUS BACHOK</b>	
SCK-Bachelor of Creative Technology with Honours	1058
SCW-Bachelor of Heritage Studies with Honours	900
SLA-Bachelor of Arabic Language with Entrepreneurship (Honours)	56
SLB-Bachelor of Business communication with English (Honours)	153
SGA- Bachelor of Science in Architecure with Honours	119
SGD- Bachelor of Interior Architecture with Honours	147
SGL- Bachelor of Landscape Architecture with Honours	119
	<b>2552</b>

<b>CAMPUS JELI</b>	
SBF-Bachelor of Applied Science (Food Security) with Honours	231
SBH-Bachelor of Applied Science (Animal Husbandry Science) with Honours	199
SBC-Bachelor of Applied Science (Agrotechnology) with Honours	243
SBP-Bachelor of Applied Science (Product Development Technology) with Honors	68
SEG-Bachelor of Applied Science (Geoscience) With Honours	238
SEL-Bachelor of Applied Science (Sustainability Science) With Honours	132
SEN- Bachelor of Applied Science (Natural Resource Science) With Honors	264
SES- Bachelor of Applied Science (Environmental Sustainability Science) With Honours	183
SBT-Bachelor of Applied Science (Bioindustrial Technology) With Honours	291
SEB-Bachelor of Applied Science (Materials Technology) With Honours	260
SEH-Bachelor of Applied Science (Forest Resources Technology) With Honours	258
	<b>2367</b>

Table 3.8 Universiti Malaysia Kelantan by Programme

For conducted by research, researchers have chosen Campus Kota to conduct research on students at the Campus. Researchers categorize them according to the courses available at the Universiti Malaysia Kelantan campus in Pengkalan Chepa (Kota) which are SAA, SAB, SAE, SAK, SAL, SALO, SAR, SDV, SAH, SAP, SAS as shown in the Table above. From all the courses available in Campus Kota, we decided to choose SAK courses consisting of 801 students for our population.

<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3200	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Note.—*N* is population size. *S* is sample size.  
Source: Krejcie & Morgan, 1970

Source: Krejcie & Morgan Table

Figure 3.1: Determining Sample Size of a Known Population



### **3.4.1 Key Informant**

The sample was selected among the students of Universiti Malaysia Kelantan in Pengkalan Chepa. The primary respondent for this study is someone who has specific knowledge, skills, or information about a particular topic, group of people, or situation. Researchers, organizations or authorities often seek the advice of these people for important information and insights. In many professions, such as research, public health, social work and community development, key informants can be very important. The researcher contacted in advance to obtain permission to obtain information about the population in Universiti Malaysia Kelantan. They were invited to participate in this study and provided information to complete a set of questionnaires via an email survey. If the advisor agrees with the set of questionnaires that have been approved, then the set of questionnaires will be distributed to the students. This study used a data collection method to satisfy respondents' preferences to answer the survey using a set of questionnaires containing a survey link sent to those who requested the online survey.

### **3.4.2 Data Collection Process**

A data collection process refers to the specific approach or technique employed to gather information and data for research or analysis, and it is chosen based on the research objectives, data type, target population, available resources, and ethical considerations. A large-scale survey was conducted using stratified random sampling of 801 students SAK in Universiti Malaysia Kelantan. The data collected will involve the operationalization of variables through the utilization of a research instrument in the form of a survey questionnaire, administered both online and face-to-face. A total of 265 questionnaires will be collected from respondents, which encompasses a population of 13,584 students in Universiti Malaysia Kelantan. We used stratified sampling method to collect the data. We conduct a detailed

analysis specifically focusing on the responses from Universiti Malaysia Kelantan students and further narrow the analysis to students located at the Campus Kota of Universiti Malaysia Kelantan. Then we restrict the analysis to students within the Faculty of Entrepreneurship and business (FKP) at Campus Kota. Then we narrow the scope even further by focusing on a specific academic program within the Faculty of Entrepreneurship and business which is SAK (bachelor of entrepreneurship (commerce) with honours. This would involve filtering the data to include only responses from students in the targeted academic program. Refer to the krejcie & morgan table our sample saiz is 265.

### **3.5 Data Analysis Procedures**

The data analysis will focus on evaluating the impact of three independent variables that product quality, service quality, and price. There will be a descriptive analysis carried out to summarize the respondents' perceptions of each variable. This will involve calculating means, medians, and standard deviations to gauge the central tendencies and variability of the data. Next, graphical representations, such as charts or graphs, may be employed to visually communicate the findings. The comprehensive data analysis aims to unveil insights into the relationships between the independent variables and the overall satisfaction of Universiti Malaysia Kelantan students.

### **3.6 Summary**

This chapter presents the methods for examining the connection between service quality, product quality, and pricing in relation to consumer satisfaction on online beauty and wellness items. According to (Adedoyin,2020) defines quantitative research as the investigation of phenomena with the use of numerical data and computer, statistical, and analytical instruments. This chapter also described the methods used to contact potential respondents and extend an greetings to participate in the study, as well as the procedures for soliciting the target

demographic. Moreover, an explanation was provided on the analysis methodologies employed in this study. This chapter concluded by outlining the customer satisfaction technique and how factors affecting it were utilized to show if the suggested model agreed with the actual data. The study's historical context and the theoretical underpinnings of the theories were the main topics of earlier chapters. The study's data analysis and findings are presented in the upcoming chapter, which is a discussion of the findings.

## CHAPTER 4

### DATA ANALYSIS AND FINDINGS

#### 4.1 Introduction

Chapter 4 presents the analysis and significant research findings of the study, utilizing the Statistical Package for the Social Sciences (SPSS) for data analysis. The analysis aimed to test the questions presented in the questionnaire distributed by the researcher to the respondents in the study area. The researcher thoroughly examined and evaluated 265 responses, which were gathered through the distributed questionnaire. The study comprised descriptive analysis, validity and reliability evaluations, normality tests, multiple regression, and overall hypothesis testing. If confidentiality procedures were in place, the study's results were discussed.

#### 4.2 Preliminary Analysis

Ten participants were chosen to test the validity of the survey questions before it was carried out. This was done in preparation for the pilot test, which aimed to assess the respondents' comprehension of the instructions, the questionnaire's context, and its flow. The results of the pilot testing are shown in the table below:

Cronbach's Alpha	Internal Consistency
$\alpha \geq 0.9$	Excellent
$0.8 \leq \alpha < 0.9$	Good
$0.7 \leq \alpha < 0.8$	Acceptable
$0.6 \leq \alpha < 0.7$	Questionable
$0.5 \leq \alpha < 0.6$	Poor
$\alpha < 0.5$	Unacceptable

Table 4.1: Rules of thumb about Cronbach's Alpha coefficient size table

Factor	No of items	No of respondents	Cronbach's Alpha
Dependent Variable- Customer Satisfaction	5	265	0.935
Independent Variable 1 - Product Quality	5	265	0.945
Independent Variable 2 - Service Quality	5	265	0.938
Independent Variable 3 - Price	5	265	0.929

Table 4.2: Cronbach’s alpha analysis

The pilot test's Cronbach's Alpha reliability test value is displayed in the table above. 265 respondents who are willing to take part in the reliability test for the pilot test, in which respondents only answer 20 questions, are given this pilot exam. Customer satisfaction, service quality and price have total Cronbach's alphas of 0.935, 0.938, and 0.929, This shows that any attribute is in good standing and Excellent. On the other hand, the product quality factor is at the top, at 0.945. Any variable is greater than 0.6. Among the UMK students who adhered to the SAK cost, 265 responders in total were chosen. The pilot test's findings demonstrate that Cronbach's Alpha's value is appropriate and useful.

### 4.3 Demographic Profile of Respondents

The data presented in this chapter is the demographic profile of the respondents which consists of gender, age, race, year and frequency of purchase. These respondents consist of UMK students who follow the cost of SAK.

#### 4.3.1 Gender

		Gender			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	70	26.4	26.4	26.4
	Female	195	73.6	73.6	100.0
	Total	265	100.0	100.0	

Table 4.3: Respondent’s Gender

1. Gender :  
265 responses

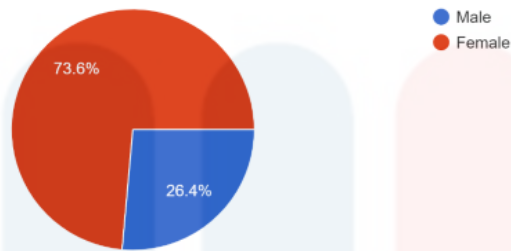


Figure 4.1: Respondent's Gender

Table 4.3 shows the Respondent's Gender. The total amount of female respondents is 195 while the overall number of male respondents is 70. Therefore, in this whole, 73.6% are female respondents while 26.4% are male respondents. With this, female respondents are the highest in this research.

**4.3.2 Age**

		Age			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	19 – 21	53	20.0	20.0	20.0
	22 – 24	187	70.6	70.6	90.6
	25 – 27	25	9.4	9.4	100.0
	Total	265	100.0	100.0	

Table 4.4: Respondent's Age

2. Age  
265 responses

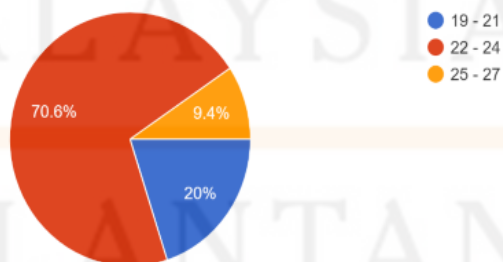


Figure 4.2: Respondent's Age

Table 4.3 shows the age of respondents. The age of UMK students who answered this questionnaire was between 19-27 years old, which is a total of 53 respondent aged 19-21 years (20%). For the age of 22-24 years there are a total of 187 respondent (70.6%). Next for the age of 25-27 years is a total of 25 respondent (9.4%). At the age of 22-24 years (70.6%) are the most respondents.

### 4.3.3 Race

		Race			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Malay	148	55.8	55.8	55.8
	Chinese	72	27.2	27.2	83.0
	Indian	21	7.9	7.9	90.9
	Other	24	9.1	9.1	100.0
	Total	265	100.0	100.0	

Table 4.5: Respondent's Race

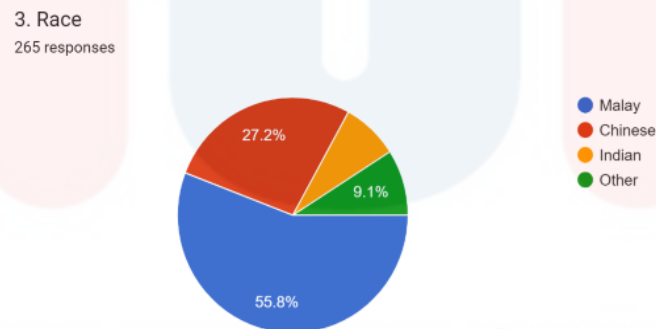


Figure 4.3: Respondent's Race

Table 4.5 shows that the respondent's race. There are 265 respondents which include Malay (148 respondents) which the percentage was the highest (55.8%), Chinese (72 respondents) which the percentage was the second highest between other (27.2%), Indian (21 respondents) which the lowest percentage (7.9%) and others (24 respondents) which the percentage is (9.1%).

### 4.3.4 Year

		Year			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	17	6.4	6.4	6.4
	2	38	14.3	14.3	20.8
	3	32	12.1	12.1	32.8
	4	178	67.2	67.2	100.0
	Total	265	100.0	100.0	

Table 4.6: Respondent's year

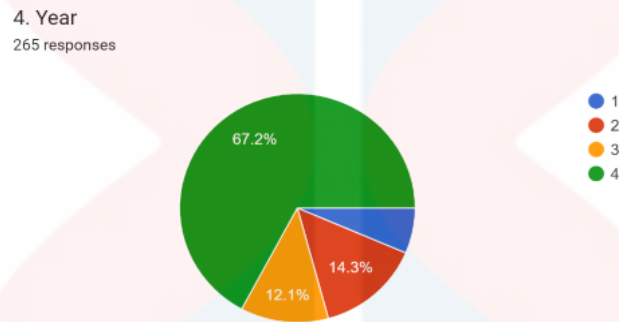


Figure 4.4: Respondent's Year

Table 4.6 shows that the respondent's year. There are 265 respondents which include year 1 (17 respondents) which the percentage was the lowest (6.4%), year 2 (38 respondents) which the percentage was the second highest between other (14.3%), year 3 (32 respondents) which the percentage is (12.1%) and year 4 (178 respondents) which the percentage was the highest (67.2%).

### 4.3.5 Purchase Frequency

		Purchase Frequency			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	237	89.4	89.4	89.4
	No	28	10.6	10.6	100.0
	Total	265	100.0	100.0	

Table 4.7: Respondent's Purchase Frequency



5. Do you often buy health and beauty products?  
265 responses

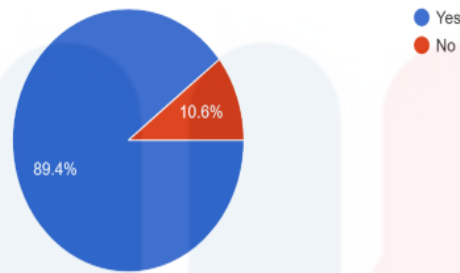


Figure 4.5: Respondent's Purchase Frequency

Table 4.7 shows the Respondent's Purchase Frequency. Number of "Yes" respondents with the total 237 while the total number of "No" respondents is 28. Therefore, in this whole, 89.4% are "Yes" respondents while 10.6% are "No" respondents. With this the majority of respondents who chose "Yes" is higher than the respondents who choose "No".

#### 4.4 Descriptive Analysis

##### 4.4.1 Dependent Variable and Independent Variables

Table 4.8 displays the data set used for the descriptive analysis. Examining the core tendency represented by the mean and standard deviation—is the aim of the descriptive approach. The independent and dependent variables as four variables used in the analysis. Service quality has the highest mean value of any variable (4.34). The customer satisfaction variables have the lowest mean value, 4.24. The data set indicates that the mean values of the variables price and product quality are, respectively, 4.28 and 4.31. With 265 respondents, the data collecting numbers are more precise since the standard deviation is smaller than 1. In the context of the study, the results show the perceived levels of customer satisfaction, product quality, service quality, and pricing.

	Mean	Standard Deviation	N
Customer Satisfaction (DV)	4.24	.705	265
Product Quality (IV1)	4.31	.722	265

Service Quality (IV2)	4.34	.677	265
Price (IV3)	4.28	.763	265

Table 4.8: Descriptive Statistic for DV and IVs

#### 4.4.2 Descriptive Statistics for Customer Satisfaction

Mean and standard deviation for customer satisfaction show in the table 4.9. Based on the table, number 4 is the highest mean which is 4.32. This shows the respondents agree that customer satisfied with the online payment system security. While number 2 shows the lowest mean of 4.17 for the product meets customer expectations at all dimensions, the standard deviation of these two is 0.707 and 0.793. Thus, standard deviation of 5 of item is below than 1 meanwhile it signifies that the mean is not too far from any of the data points.

	Mean	Standard Deviation	N
1. I agree that the price of the product is very affordable	4.23	0.817	265
2. The product meets my expectations at all dimensions.	4.17	0.793	265
3. Satisfied with the service provider in overall.	4.26	0.761	265
4. I am satisfied with the online payment system security	4.32	0.707	265
5. The product packaging is always perfect	4.24	0.866	265

Table 4.9: Descriptive Statistics for Customer Satisfaction

#### 4.4.3 Descriptive Statistics for Product Quality

Table 4.10 list down the mean and standard deviation for product quality. The highest mean is number 3 which is 4.37 where students agreed packaging is very reasonable and informative. While number 5 the product quality is exceptional is the lowest with mean, 4.26. The standard deviation for these two items 0.763 and 0.877 respectively.

	Mean	Standard Deviation	N
1. The product has excellent qualities	4.32	0.747	265
2. The packaging is very reasonable and informative	4.36	0.715	265
3. I highly recommend it to my friends	4.37	0.763	265
4. The product has a very rich taste	4.27	0.875	265
5. The product quality is exceptional	4.26	0.877	265

Table 4.10: Descriptive Statistics for Product Quality

#### 4.4.4 Descriptive Statistics for Service Quality

Table 4.11 display the mean and standard deviation for service quality. There were Five questions were evaluated which the highest mean is 4.38 for the item 1 with the ‘accept all orders’ statement and the lowest is 4.24 for the item 2 with the 'short waiting time' statement. The standard deviation of both is 0.713 and 0.854 respectively. Item 3 and item 4 has same mean with 4.37 with ‘convenient opening hours’ and ‘helpful sellers’ statement.

	Mean	Standard Deviation	N
1. Accept all orders	4.38	0.713	265
2. Short waiting time	4.24	0.854	265
3. Convenient opening hours	4.37	0.738	265
4. Immediately take in orders	4.36	0.725	265
5. Helpful sellers	4.37	0.743	265

Table 4.11: Descriptive Statistics for Service Quality

#### 4.4.5 Descriptive Statistics for Price

Table 4.12 shows the mean and standard deviation for price. Five questions were evaluated, which the highest mean is 4.35 on the item 5 with the ‘affordable’ statement and the lowest is 4.24 for the item 1 with the ‘money saving’ statement. The standard deviation of both is 0.750

and 0.905 respectively. With 265 respondents, the data collecting numbers are more precise since the standard deviation is smaller than 1.

	Mean	Standard Deviation	N
1. Money saving	4.24	0.905	265
2. Cheaper purchase	4.25	0.847	265
3. Lower expense per transaction	4.26	0.824	265
4. Appropriate or reasonable price	4.30	0.806	265
5. Affordable	4.35	0.750	265

Table 4.12: Descriptive Statistics for Price

#### 4.5 Validity and Reliability Analysis

According to (Bujang et al., 2018) a statistical metric called Cronbach's Alpha is employed to evaluate a measuring scale or internal coherence of the questionnaire dependability. It offers a means of estimating the degree to which the items on a scale or test assess the same underlying feature, based on how strongly they are associated with one another. It is frequently employed in internal consistency reliability testing. According to Ursachi et al. (2015), a widely recognised standard states that a dependability level between 0.6 and 0.7 is deemed acceptable, while a level of 0.8 or more is seen extremely good. A Cronbach's Alpha rating that is nearer to one signifies increased internal consistency. The reliability analysis report that SPSS produced for each item in the questionnaire is shown in the following table.

Variables	Cronbach's Alpha Value	Number of Item	Strength
Customer Satisfaction	0.935	5	Excellent
Product Quality	0.945	5	Excellent
Service Quality	0.938	5	Excellent
Price	0.956	5	Excellent

Table 4.13: Cronbach's Alpha Reliability Test Result

The table show the results of the Cronbach's Alpha reliability test for the. Small Customer satisfaction demonstrates a Cronbach's Alpha value of 0.935, proving an excellent level of internal consistency among its four items. While this reliability is considered as a great internal consistency, there will be a good result. Product quality show a Cronbach's Alpha of 0.945, denoting an excellent level of internal constancy among the four items. Thus, service quality demonstrates a Cronbach's Alpha of 0.938 indicating a highly consistent with each other. Lastly, price has the highest Cronbach Alpha with 0.956, with it has high internal consistency, an excellent reliability with make sure that the price is dependable not due to random variation and has high precision. These results suggest that the reliability of the latter three variables is administered. Overall, while all variables show excellent internal consistency, independent variables have a very high and strong consistency and degree of reliability among the four items.

#### 4.6 Normality Test

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Customer satisfaction	.157	265	.000	.884	265	.000
Product Quality	.180	265	.000	.855	265	.000
Service Quality	.188	265	.000	.853	265	.000
Price	.179	265	.000	.847	265	.000

Table 4.14: Test of normality

According to (Robert S. Witte and John S. Witte,2021), normality test is used to ascertain if a particular data set has a normal distribution. The normal distribution is a symmetrical probability distribution with a bell curve or Gaussian distribution where the

majority of values cluster around the central mean and the distribution of values follows a certain pattern. An approach that is frequently used to verify normalcy is the Kolmogorov-Smirnova and Shapiro-Wilk test. It generates a p-value and a test statistic. The null hypothesis is not rejected if the p-value is higher than the selected significance threshold, which is typically 0.05, suggesting that a normal distribution may have been the source of the data.

Based on the table 4.14, the value for significant ( $p=0.000$ ) for Kolmogorov-Smirnova test and Shapiro-Wilk test with value ( $p=0.000$ ) for customer satisfaction, product quality, service quality and price are considered as abnormal as its significant value is less than 0.05 and indicates that there is evidence to reject the null hypothesis.

#### 4.7 Hypothesis Testing

There are three hypotheses formulated earlier in Chapter 2, representing the ultimate objectives of this study.

##### 4.7.1 Hypothesis 1 ( $H_1$ )

**H1:** There is a positive significant relationship between product quality and customer satisfaction in online beauty and health products businesses among students in Universiti Malaysia Kelantan.

**Correlations**

		Customer satisfaction	Product Quality
Customer satisfaction	Pearson Correlation	1	.859**
	Sig. (2-tailed)		.000
	Sum of Squares and Cross-products	131.195	115.415
	Covariance	.497	.437
	N	265	265
Product Quality	Pearson Correlation	.859**	1
	Sig. (2-tailed)	.000	

Sum of Squares and Cross-products	115.415	137.718
Covariance	.437	.522
N	265	265

Table 4.15: Hypothesis of The Determinants of product quality and customer satisfaction

The Pearson Correlation data, which were utilised to ascertain the link between consumer satisfaction and product quality, are displayed in Table 4.15. The two factors, product quality and customer satisfaction, have a positive relationship. The correlation coefficient is 0.859, and the correlation coefficient's p-value (Sig. =.000) is less than 0.01. This suggests that, at the 2-tailed 0.01 level, the connection is statistically significant. Customer satisfaction and product quality have a statistically significant positive association.

#### 4.7.2 Hypothesis 2 (H<sub>2</sub>)

**H<sub>2</sub>:** There is a positive significant relationship between service quality and customer satisfaction in online beauty and health products businesses among students in Universiti Malaysia Kelantan.

#### Correlations

		Customer satisfaction	Service Quality
Customer satisfaction	Pearson Correlation	1	.784**
	Sig. (2-tailed)		.000
	Sum of Squares and Cross-products	131.195	98.828
	Covariance	.497	.374
	N	265	265
Service Quality	Pearson Correlation	.784**	1

Sig. (2-tailed)	.000	
Sum of Squares and Cross-products	98.828	121.031
Covariance	.374	.458
N	265	265

Table 4.16: Hypothesis of The Determinants of service quality and customer satisfaction

Table 4.16 shows the findings of Pearson Correlation, which was used to study the relationship among the service quality and customer satisfaction. The two factors, service quality and customer satisfaction are positively correlated. The correlation coefficient is 0.784, with a p-value less than 0.01 (sig. =.000). This means is a statistically significant correlation at the 0.01 level (2-tailed). There is a considerable positive relationship between the service quality and client satisfaction.

### 4.7.3 Hypothesis 3 (H<sub>3</sub>)

**H<sub>3</sub>:** There is a positive significant relationship between price and customer satisfaction in online beauty and health products businesses among students in Universiti Malaysia Kelantan.

#### Correlations

		Customer satisfaction	Price
Customer satisfaction	Pearson Correlation	1	.775**
	Sig. (2-tailed)		.000
	Sum of Squares and Cross-products	131.195	110.096
	Covariance	.497	.417
	N	265	265
Price	Pearson Correlation	.775**	1
	Sig. (2-tailed)	.000	



Sum of Squares and Cross-products	110.096	153.664
Covariance	.417	.582
N	265	265

Table 4.17: Hypothesis of The Determinants of Price and Customer Satisfaction

The Pearson Correlation data, which were utilised to ascertain the link between consumer satisfaction and product quality, are displayed in Table 4.17. The two factors, product quality and customer satisfaction, have a positive relationship. The correlation coefficient is 0.775, and the correlation coefficient's p-value (Sig. =.000) is less than 0.01. This suggests that, at the 2-tailed 0.01 level, the connection is statistically significant. Price and customer satisfaction have a statistically significant positive association.

#### 4.8 Framework Analysis

The research's Framework Analysis entails a methodical investigation of qualitative information obtained from Universiti Malaysia Kelantan students, with an emphasis on their encounters with internet-based companies offering beauty and wellness products. Thorough data collection, analysis, and familiarisation are part of the first stage. Then, topics that were relevant to consumer satisfaction in the context of online enterprises were found. These themes included product variety, pricing, customer service, quality of product, and user experience. These themes served as the foundation for creating a workable framework, which was created as a matrix with rows denoting specific pupils and columns denoting the themes that had been found.

After that, each respondent's pertinent data was indexed to fill the matrix, and the information was further distilled and summarised throughout the charting phase. In order to provide a thorough interpretation of the data, the analysis sought to identify patterns and

connections both within and between the themes. In addition to addressing concerns about product variety and pricing disparities, the final summary synthesised the findings and highlighted the important roles that affordability, customer service, product quality, and user experience play in determining students' satisfaction with online businesses buying beauty and health products.

#### **4.9 Summary**

In this chapter offers a thorough examination of the data gathered and highlights important discoveries pertaining to the goals of the study. A summary of the methodology, including preliminary analysis, respondent demographics, and the several statistical tests used in the study, is provided at the beginning of the chapter. The efficacy of the questionnaire is ensured by the preparatory study, which consists of a pilot test and reliability testing using Cronbach's alpha.

The demographic profile of the respondents provides insights into their gender, age, race, level of education, and current circumstances. Descriptive analysis involves examining the mean and median values of both independent and dependent variables. The validity and reliability of measuring scales are then evaluated through an analysis based on Cronbach's alpha, indicating the reliability of the collected data.

The researcher elucidates the process of analyzing data to explore the link between the independent factors (prices, service quality, and product quality) and the dependent variable (customers satisfaction) among students in Universiti Malaysia Kelantan. Framework analysis was utilized to systematically organize and analyze extensive amounts of qualitative data, providing an organized and methodical approach. The research findings are carefully reviewed, and the study's consequences are addressed in greater depth in the next chapter. The chapter

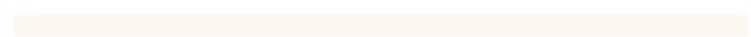
closes with a summary of the most important findings and addresses the study's limitations as well as suggestions for more research.



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## CHAPTER 5

### DISCUSSION AND CONCLUSION

#### 5.1 Introduction

This chapter will detail and discuss of the descriptive analysis outline, which will be based the results obtained from the analysis conducted in Chapter 4. Alternatively, the researcher compared the overall findings of this study with the initial objectives set at the study's commencement. Additionally, in-depth analyses of the connection between the independent variable and the dependent variable, namely customer satisfaction, are elucidated in the primary findings. Significantly, this chapter will address the limitations constraining the scope of this research and propose recommendations for future investigations. A comprehensive conclusion has been presented to offer a lucid overview and encapsulate the entirety of the research study.

#### 5.2 Key Findings

Research Objective	Research Question	Findings
To determine the relationship between product quality and customer satisfaction in online beauty and health products among students at Universiti Malaysia Kelantan.	Does there any significant relationship between product quality and customer satisfaction in online beauty and health products among students at Universiti Malaysia Kelantan?	Referring to the result (Pearson Correlation), the relation between customer satisfaction and product quality is ('r' = 0.859) and the p-value associated with the correlation coefficient is less than 0.01 (given as .000) which indicates that the relationship between customer satisfaction and product quality is strongly positive.
To determine the relationship between service quality and customer satisfaction in online beauty and health products among students	Does there any significant relationship between service quality and customer satisfaction in online beauty and health products among students	Referring to the result (Pearson Correlation), the relation between customer satisfaction and service quality is ('r' = 0.784) and the p-value associated with the correlation coefficient is less than 0.01 (given as .000) which indicates that the

at Universiti Malaysia Kelantan.	at Universiti Malaysia Kelantan?	relationship between customer satisfaction and service quality is strongly positive.
To determine the relationship between price and customer satisfaction in online beauty and health products among students at Universiti Malaysia Kelantan.	Does there any significant relationship between price and customer satisfaction in online beauty and health products among students at Universiti Malaysia Kelantan?	Referring to the result (Pearson Correlation), the relation between customer satisfaction and price is ('r' = 0.775) and the p-value associated with the correlation coefficient is less than 0.01 (given as .000) which indicates that the relationship between customer satisfaction and price is strongly positive.

Table 5.1: summary of hypotheses testing result.

### 5.3 Discussion

#### 5.3.1 Product Quality

Research Objective 1: To determine the relationship between product quality and customer satisfaction in online beauty and health products among students at Universiti Malaysia Kelantan.

Research Question 1: Does there any significant relationship between product quality and customer satisfaction in online beauty and health products among students at Universiti Malaysia Kelantan?

Customer satisfaction would be significantly and positively correlated with product quality, according to the first hypotheses. Customer satisfaction in online beauty and health products is significantly impacted by product quality, according to the results of the Pearson Correlation Analysis. The Pearson Correlation value of 'r' = 0.859,  $p > 0.01$  indicates a strong positive correlation between the dependent variable, customer satisfaction, and the independent variable, product quality.

The first independent variable which is product quality with the statement "I highly recommend it to my friends" has the highest mean of 4.37. This is because when the students

in Universiti Malaysia Kelantan are satisfied with the quality of product that they purchased, they most likely will recommend it to their friends or families. When making a purchasing decision, most customers prioritize referrals from loved ones should take precedence over any other kind of advertising. The higher the quality of a company's product, the more likely it will receive good reviews, recommendations, and shares from customers (Caramela, 2023).

### **5.3.2 Service Quality**

Research Objective 2: To determine the relationship between service quality and customer satisfaction in online beauty and health products among students at Universiti Malaysia Kelantan.

Research Question 2: Does there any significant relationship between service quality and customer satisfaction in online beauty and health products among students at Universiti Malaysia Kelantan?

According to the second hypothesis. customer satisfaction would be significantly and positively correlated with service quality. Customer satisfaction in online beauty and health products is significantly impacted by service quality, according to the results of the Pearson Correlation Analysis. The Pearson Correlation value of  $r = 0.784$ ,  $p > 0.01$  indicates a strong positive correlation between the dependent variable, customer satisfaction, and the independent variable, service quality.

The second independent variable which is service quality with the statement “Accept all orders” has the highest mean with 4.38. This shows that the students in Universiti Malaysia Kelantan as customers are content with the service quality sellers provided from the product that they had purchased. This entails sellers keeping track of all customer orders by understanding the customer's wants, confirming inventory availability, making the product packaging, shipping the product, monitoring the delivery process until it reaches its destination, and conducting post-order follow-up (Ramos, 2021).

### 5.3.3 Price

Research Objective 3: To determine the relationship between price and customer satisfaction in online beauty and health products among students at Universiti Malaysia Kelantan.

Research Question 3: Does there any significant relationship between price and customer satisfaction in online beauty and health products among students at Universiti Malaysia Kelantan?

Based on the third hypothesis, customer satisfaction would be significantly and positively correlated with price. Customer satisfaction in online beauty and health products is significantly impacted by price, according to the results of the Pearson Correlation Analysis. The Pearson Correlation value of  $r = 0.775$ ,  $p > 0.01$  indicates a strong positive correlation between the dependent variable, customer satisfaction, and the independent variable, price.

The third independent variable which is price with the statement “Affordable” has the highest mean from all five questions with 4.35. This is because as students, students in Universiti Malaysia Kelantan may be searching for affordable products with good quality and cheaper price so that they no need to spend a lot of money to get a product that will be used daily. Particularly for those with limited financial resources, a greater variety of customers can afford to purchase cheaper goods. They offer a cost-effective alternative for fulfilling essential needs without imposing a financial burden (Salman, 2023).

### 5.4 Implications of The Study

The implications of this research hold significant value for businesses operating in the online beauty and health product market, providing actionable insights for refining strategies, enhancing marketing efforts, and fostering innovation to better meet the preferences of students at Universiti Malaysia Kelantan, while also contributing to the formulation of policies that ensure a positive and secure online shopping environment for consumers. Furthermore, the study's academic contribution lies in its potential to serve as a foundational framework for

future research in consumer behavior within the e-commerce landscape, ultimately aiding businesses, policymakers, and academia in fostering long-term customer satisfaction and loyalty.

#### **5.4.1 Managerial Implications**

The research paper's managerial implications underscore the practical significance of the study for businesses, providing actionable insights that can inform strategic decision-making in the online beauty and health product market. The findings offer clear guidance for managers, highlighting opportunities to optimize product quality, pricing strategies, and the overall online shopping experience to effectively meet the specific preferences and needs of students at Universiti Malaysia Kelantan, ultimately fostering enhanced client happiness, steadfastness, and competitive edge in the marketplace.

#### **5.5 Limitations of The Study**

As with any other research, the present study is not without its limitations, and a few limitations have been identified. Firstly, the limitations of the study include the restriction in obtaining responses from a specific level of students, potentially resulting in varied perceptions among students from different academic levels. The sample size used in this study is also limited. Furthermore, the researcher primarily focuses on students, which may not provide a comprehensive perspective. A larger and more diverse sample size would contribute to more accurate findings. While the research findings offer new insights, they should be interpreted considering these limitations. Additionally, the study specifically concentrates on respondents with experience in purchasing and using beauty and health products, which may narrow the generalizability of the findings to a larger populace.



In addition to the previously mentioned limitations, it's important to acknowledge the potential for response bias in the study. The reliance on self-reported data introduces the possibility that participants may provide responses they perceive as socially desirable or that align with expectations, leading to a subjective representation of their experiences with online beauty and health products. This inherent subjectivity may affect the accuracy and reliability of the findings, highlighting a challenge in achieving a completely objective understanding of the elements impacting customer satisfaction among Universiti Malaysia Kelantan students.

Lastly, the limitation of the study is its exclusive concentration on students from Universiti Malaysia Kelantan. While this focus provides valuable insights into the preferences and behaviours of this specific demographic, it may restrict the broader applicability of the findings to a more diverse population. Different age groups, professions, or socio-economic backgrounds may exhibit distinct patterns of behaviour and satisfaction with online beauty and health products that are not fully captured within the confines of a student-only sample. Therefore, the study's outcomes should be interpreted with caution when attempting to extrapolate conclusions beyond the student population, and future research could benefit from incorporating a more varied participant group to improve the external validity of the research.

## **5.6 Recommendations for Future Research**

Despite the valuable insights gained from this research, certain limitations have been identified, prompting recommendations for both practical application and future research. The restricted focus on a specific level of students raises concerns about the generalizability of the findings to a broader student population. To address this, future research endeavors should strive for a more diverse representation of student levels, ensuring a comprehensive understanding of factors influencing customer satisfaction across various academic stages. Additionally, the limited sample size warrants attention, urging researchers to consider larger

and more diverse samples to enhance the robustness and generalizability of the findings. Furthermore, the exclusive concentration on students poses a potential limitation in understanding the perspectives of non-student consumers.

Future studies could expand their scope to include a broader demographic, such as working professionals or individuals from different age groups, to offer a more thorough comprehension of the market dynamics. To address these limitations effectively, researchers are encouraged to adopt mixed method approaches that integrate quantitative data with qualitative insights. This combination allows for a more nuanced understanding of the complexities involved in the research. This holistic approach would not only strengthen the validity of findings but also offer richer insights into the diverse factors influencing customer satisfaction in the online beauty and health product market. Overall, addressing these limitations and incorporating the suggested recommendations would contribute to the refinement of methodologies and the advancement of knowledge in this field, laying the foundation for more comprehensive and applicable insights in future research endeavours.

## **5.7 Conclusion**

To sum up this study has delved into the intricate dynamics of customer satisfaction in the context of online beauty and health product businesses among Universiti students at the Universiti Malaysia Kelantan. Utilizing the SERVQUAL model and employing a quantitative approach with a stratified random sampling method, the research aimed to systematically understand the factors influencing customer satisfaction. The findings, as supported by the Cronbach's Alpha reliability tests, indicate excellent internal consistency and reliability across the variables of customer satisfaction, product quality, service quality, and price. The results affirm the robustness of the research methodology and offer insightful information to companies competing in this internet industry.

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**APPENDIX A: DRAF OF QUESTIONNAIRE****“ENHANCING CUSTOMER SATISFACTION IN ONLINE BEAUTY AND HEALTH  
PRODUCT BUSINESSES AMONG STUDENTS IN UNIVERSITY MALAYSIA  
KELANTAN”**

Greetings to all dear respondents,

We are fourth year students from Faculty of Entrepreneurship and Business (FKP) University Malaysia Kelantan (UMK) pursuing Degree in Bachelor of Entrepreneurship (Commerce) with Honors. We are currently conducting a research survey regarding "Enhancing Customer Satisfaction in Online Beauty and Health Product Businesses Among Students in University Malaysia Kelantan, Pengkalan Chepa". This study aims to further analyze customer satisfaction towards beauty and health products among students (UMK). Your participation in this research is greatly appreciated. The questionnaire will take about 5 to 10 minutes of your valuable time. Your response will be kept fully private and used exclusively for academic purposes only.

THANK YOU,

Chee Hang Fung (A20A1296)

Elyana Ejan Yahya (A20A1319)

Nur Khaireen Nadhirah binti Samsor (A20A1753)

Siti Norhedayah binti Japar (A20A1971)

**SECTION A: DEMOGRAPHIC INFO**

You are required to place a tick (/) at the appropriate answer.

1. Gender:

Male	Female

2. Age:

19-21	22-24	25-27

3. Race:

Malay	Chinese	Indian	Others

4. Year:

1	2	3	4

5. Do you often buy health and beauty products?

Yes	No

**SECTION B: DEPENDENT VARIABLES**

This section will analyze Enhancing Customer Satisfaction on Online Beauty & Health Products Businesses among Students. Please mark your answer based on the scale from 1 to 5.

Strongly Disagree (1) , Disagree (2) , Neutral (3) , Agree (4) and Strongly Agree (5)

<b>Strongly Disagree (<u>SD</u>)</b>	<b>Disagree (<u>D</u>)</b>	<b>Neutral (<u>N</u>)</b>	<b>Agree (<u>A</u>)</b>	<b>Strongly Agree (<u>SA</u>)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>



		<u>SD</u>	<u>D</u>	<u>N</u>	<u>A</u>	<u>SA</u>
1.	I agree that the price of the product is very affordable.	1	2	3	4	5
2.	The product meets my expectations at all dimensions.	1	2	3	4	5
3.	Satisfied with the service provider in overall.	1	2	3	4	5
4.	I am satisfied with the online payment system security.	1	2	3	4	5
5.	The product packaging is always perfect.	1	2	3	4	5

**SECTION C: INDEPENDENT VARIABLE**

This section will measure the product quality, service quality and price effects to customer satisfaction. Please mark your answer based on the scale from 1 to 5.

Strongly Disagree (1), Disagree (2) , Neutral (3) , Agree (4) and Strongly Agree (5)

<b>Strongly Disagree (<u>SD</u>)</b>	<b>Disagree (<u>D</u>)</b>	<b>Neutral (<u>N</u>)</b>	<b>Agree (<u>A</u>)</b>	<b>Strongly Agree (<u>SA</u>)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

<b>PRODUCT QUALITY</b>		<u>SD</u>	<u>D</u>	<u>N</u>	<u>A</u>	<u>SA</u>
1.	The product has excellent qualities.	1	2	3	4	5
2.	The packaging is very reasonable and informative.	1	2	3	4	5
3.	I highly recommend it to my friends.	1	2	3	4	5
4.	The product has a very rich taste.	1	2	3	4	5
5.	The product quality is exceptional	1	2	3	4	5
<b>SERVICE QUALITY</b>		<u>SD</u>	<u>D</u>	<u>N</u>	<u>A</u>	<u>SA</u>
1.	Accept all orders.	1	2	3	4	5
2.	Short waiting time.	1	2	3	4	5
3.	Convenient opening hours	1	2	3	4	5
4.	Immediately take in orders	1	2	3	4	5

5.	Helpful sellers	1	2	3	4	5
<b>PRICE</b>		<u>SD</u>	<u>D</u>	<u>N</u>	<u>A</u>	<u>SA</u>
1.	Money saving	1	2	3	4	5
2.	Cheaper purchase	1	2	3	4	5
3.	Lower expense per transaction	1	2	3	4	5
4.	Appropriate or reasonable price	1	2	3	4	5
5.	Affordable	1	2	3	4	5



## APPENDIX B: GANTT CHART

No	Activities/ week	OCT		NOV				DEC			JAN				
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	The PPTA Course Coordinator will allocate students and supervisors based on student registration and specialization for the Final Year Research Project Briefing I and II. Distribution of guidelines and online meetings will be conducted to facilitate the process.	■													
2	Meetings and discussions with their assigned supervisors to verify the appropriate title of their research project. A draft of the Research Project.	■	■												
3	Discussing in group and dividing the task to each group members. Completing chapter 1 (introduction) after deciding the title.		■	■											
4	Next, chapter 2 (literature review) discussing in group and dividing the task to each group members.			■	■										
5	Then proceed to chapter 3 (Research methodology) dividing the task to each group members.				■	■									
6	Presenting the research proposal to both supervisor and examiner. Then make a correction based on supervisor and examiner feedback and review.					■	■								
7	Corrections to the research project report will be made based on the supervisor's feedback					■	■								
8	The Research Project Proposal Reports will be submitted to the PPTA supervisor and examiner.					■	■								
9	The final step involves submitting the completed research project report PPTA 1, along with the Turnitin result slip, to the coordinator.							■	■						
10	Discuss with supervisor and group members for Poster, Article Paper and PPTA II.								■	■					
11	Submit Poster to Supervisor for any correction and improvement									■	■				
12	Submit Poster and examiner that have been review by supervisor to examiner. Proceed to colloquium poster presentation at UMK City Campus Entrepreneurship Hall.										■	■			
13	Submit PPTA II to supervisor for any correction and improvement												■	■	

<p>The final step involves submitting the completed PPTA 2 research project report, along with the Turnitin results slip, to the coordinator.</p>														
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## PPTA II GROUP (SAK 35).pdf

### ORIGINALITY REPORT

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