

# Analysis of Customer Satisfaction towards Customer Loyalty of Courier Service Industry among UTHM Students

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## Abstract

The courier services business is growing quickly and is at the cutting edge of the transportation field. However, the courier service acknowledges the significance of customer satisfaction and brand loyalty when evaluating consumer buying patterns for long-term success. This study proposes to identify the level of customer satisfaction attribute in courier service among UTHM students and to identify the level of customer loyalty of courier service among UTHM students. Other than that, to identify the relationship between the customer satisfaction and customer loyalty in courier service one of the objectives that need to be revised. This study was conducted among University Tun Hussein Onn Malaysia students. The survey method will be employed in a quantitative research approach. The Statistical Package for Social Sciences (SPSS) version 27 and Microsoft Excel are utilized to analyse the data. Furthermore, the results confirmed a significant effect of the accuracy of delivery, price of delivery, information quality, ease of payment, security of payment and customer satisfaction towards courier service industry. According to the findings, the research highlights how crucial it is to the courier service providers to enhance their service to increase customer loyalty and customer satisfaction. Additionally, by engaging with and addressing feedback from customers is essential for establishing trust and confidence in the courier service company's dedication to customer satisfaction.

## 1. Introduction

The courier services business is growing quickly and is at the cutting edge of the transportation field. With low prices and flexible services, new private courier companies have grown quickly and broken Express Mail Service's monopoly. By the end of 2015, the global courier services market will be worth about \$220 billion. The United States is the biggest market, followed by China, India, Europe, and Latin America, which are all growing markets. The market is projected to do a lot of business, and by 2018, it could bring in about \$2.4 trillion. Since the global economic slowdown a few years ago, the courier services business has been able to get back on its feet. However, there is no question that the ecommerce industry has had a significant positive impact on the courier industry and has helped to the expansion of that industry. that generally agreed that trade conducted through e-commerce platforms is one of the primary drivers of the worldwide courier services business. It is anticipated that it will reach more than \$2 trillion by the end of this year, and it is anticipated that it will continue "double-digit growth" to top \$4 trillion over the next five years (Gómez *et al.*, 2006). Delivery methods capable of handling such massive quantities of parcels will need to be both effective and secure. This would open

up massive prospects for companies that supply courier services. However, this leads to in more costs, a larger infrastructure, and higher prices as a result of the increased demand. It will be necessary to have a larger labour base that is able to meet shorter delivery deadlines as the number of online orders and deliveries continues to rise. This would need the adoption of automation by service providers for routine tasks such as the weighing, measuring, and certifying of packages, as well as the printing and labelling of boxes and the routing of items. This can help businesses attain higher levels of efficiency while also lowering their costs. The entire sector of courier services has become a dynamic and expanding services industry as a result of major liberalization and privatization, as well as globalization and the development of ecommerce. As a result, the business is facing an increase in the amount of competition because of the intense competition, the existing courier service providers are being forced to re-evaluate their business methods in order to strengthen their competitive advantages (Leninkumar, 2017). Firms that provide courier services are under pressure to use a variety of strategic and tactical initiatives, in order to both bring in new clients and keep the ones they already have. According (Soh *et al.*, 2015) in order for businesses to effectively compete in a globalized courier market that has grown more difficult, they need to discover strategies to position themselves in ways that will allow them to take advantage of new possibilities and neutralize possible threats that may be coming in the near future.

### 1.1 Problem Statement

A lot of problems happen during the shipping process. The most common ones are human mistake in receiving, not having an automated system for picking, bad route planning, and driver error. Next, the large number of delivery services in Malaysia has caused problems because many of them charge customers a lot of money. So, there are no rules from the government that control and set maximum charges for delivery services. Instead, shipping companies give customers the option of paying high rates. To fully handle the COVID-19 problem, it is necessary to have good delivery and payment systems for goods and services, as well as happy customers. Due to this, businesses need good strategies to keep looking at and improving all of their different service activities, such as responding to customer questions and complaints, fixing their problems, and meeting their needs. But factors that make people loyal to a brand were grouped into four groups: free samples, how valuable the brand was seen to be, training, and communication through word of mouth to keep customers from moving brands. In a similar way, an airline service delivery study used airline tangibility, terminal tangibility, and affinity with an airline's image as ways to improve passengers' happiness with the level of perceived service quality.

Therefore, to achieve the research objectives the level of customer satisfaction attribute and customer loyalty in courier service among UTHM students are determined. Consequently, the relationship between customer satisfaction and customer loyalty in courier service is identified

### 1.2 Research Scope

This study was conducted among University Tun Hussein Onn Malaysia students. The survey method will be employed in a quantitative research approach. The students from UTHM who using courier service would be the respondents in this study. The survey will be developed and distributed to 375 students who are using courier service. This study was selected for inclusion in the state of Parit Raja, Johor because this study will cover more than 300 people of one particular area and examine their use of the courier service among university students.

### 1.3 Significance of Research

Courier service have grown particularly rapidly in Malaysia in recent years. Hence, this study is conducted to identify the level the relationship between the customer satisfaction and customer loyalty in courier service among UTHM student. This study is conducted to enhance the knowledge of researchers about the topics studied, they will be more understanding about the courier service in Malaysia. The analysis of customer satisfaction towards customer loyalty in courier service industry among UTHM students enables courier companies to align their services, technology, and marketing strategies with the preferences and expectations of this important customer segment.

## 2. Literature Review

A literature review is an important part of the study. The literature review should relevant to a search and evaluation of the existing literature in the researcher selected topic area or subject. It gives the researcher a broad perspective of current knowledge, helping the researcher to spot applicable ideas, methodologies, and research gaps. The definitions of the topic and term will be covered in this chapter.

### 2.1 Customer Loyalty

According to (Chiguvi & Guruwo, 2015) says that the word "customer loyalty" refers to a consumer's "commitment to continue buying a preferred product or service consistently, regardless of situational factors and marketing efforts that might cause switching behaviour." (Sugandini & Wendry, 2017) say that customer loyalty is when a customer promises to keep doing business with a certain organisation, to always buy that organization's goods or services, and to tell other people about that organisation. (Bramulya *et al.*, 2016) say that the relationship should continue as long as customers think they are getting more value from the business than they would from rival suppliers. Customer loyalty is built when a customer continues to be happy with the service they receive and feels emotionally connected to the service provider. This emotional connection makes the relationship more willing and stable, which is rewarded with preference, patronage, and premiums. Loyalty on the part of the consumer is extremely important to the relationship that exists between the client and the supplier. According to (Lam *et al.*, 2004) increasing customer loyalty in conjunction with lowering transaction costs leads to increased profits. According to (Muhammad & Yaqub, 2017) the goal of developing a loyal customer base is to cultivate a relationship with each individual client in order to win that customer's support in terms of future repurchase behaviour. However, loyal relationships are beneficial not just to the firms involved but also to their respective customers.

## 2.2 Factors Affecting Customer Loyalty

### 2.2.1 Quality of the Product

The quality of the products a company makes is closely related to how well it does and how much it can grow. When a product is better made and has more uses, people are more likely to enjoy using it, especially if it helps them meet their everyday needs. Some of the things that can be used to figure out who the consumers are the level of quality in goods that are in high demand, the price, the quality, and the benefits that consumers get from the product. If the product is of good quality, customers will be more likely to stick with it, which will lead to more money for the people who make it. The (Yusuf *et al.*, 2019) high-quality products will help to keep customers coming back.

### 2.2.2 Brand Image

The level of competition between different brands is rising. The significance of branding is being recognised by an increasing number of firms. The image is a perspective of the company's goods and services that is both emotional and communicative, and it contributes to the success of the business (Išoraitė, 2018). One of the most essential aims of the organisation is to the best way for a business to determine whether or not its operations will generate a profit is to publicise those operations, as well as the products and services it offers, to the greatest number of customers feasible, and to gauge both their popularity and its standing in the community in this way.

### 2.2.3 Advertising of the Brand

According to (Omoruyi & Chinomona, 2019) brand advertising can be defined as the amount to which customers are familiar with the functions, values, attributes, distinctiveness, taste, and image of a specific brand of goods or services. However, the organisations with high brand advertising gain more competitive advantage and enjoy the opportunity for successful extensions, resilience against the promotional pressures of competitors, and creation of barriers to competitive entry as stated by (Sasmita & Mohd Suki, 2015)

### 2.2.4 Satisfaction after Buying Process

In the banking business, competition has made it important for every bank to keep and get new customers. One way to do this is to improve the quality of service. Customers will look for banks with good service, and if they are unhappy with a bank's service, it will be easy for them to switch to another bank. (Zeithaml *et al.*, 1996) said that the level of service has an effect on customer satisfaction. (Parasuraman *et al.*, 1985) Customers always look at the services they get and compare them to what they wanted or expected. Services can be thought of as what service companies (like banks) do to meet the needs and wants of customers and make them happy. Customers who think the service is good will be happy and keep coming back to buy more, so the service quality will be done to meet the customers' standards.

### 2.2.5 Accessibility of the Brand

First of all, names that are easy to find make sure that people who like a brand will buy that brand. Accessibility helps brands grow by getting their current customers to buy more and by bringing in new customers (Shahid, 2017). However, the bigger names have many advantages, even beyond economies of scale and network effects. They are better known, have a bigger part of the market, are more popular, and, oddly enough, have more loyal customers. Even goods whose appeal is that they are hard to get have to be available to people who want to buy them in some way. People may not buy these expensive names and goods because they are too expensive. Most people will care about price, but not the ones you want to buy from you. But there should still be an easy way to spread the word and the use of the Internet is one option.

### 2.2.6 Sales Price of the Brand

Price is the value or cost that buyers have to pay for a product or service. It is thought to be the most important measure of a consumer's ability and willingness to pay for a certain brand (Rajh & Ozretić Došen, 2009) Most of the time, brands with the highest prices are thought to be better or more superior. This is because there is a good relationship between brand image and price. In the end, this relationship between perception and brand equity makes a business stronger. (Yoo *et al.*, 2000) say that the price of a product is a good way to show how it is different from other products or brands. Even though price has a good relationship with quality, it has a negative relationship with brand loyalty. This is because, most of the time, a high price does not mean that the product is of high quality. Instead, it shows that a lot of money is going to the industry sector. As a result, it changes how loyal people are to the brand. On the other hand, a study found that price shows how satisfied customers are with the brand, which leads to more brand loyalty.

### 2.2.7 Perceived Quality

The consumer's opinion of a product's overall excellence or superiority is thought to be a measure of its perceived quality. (Al-Dmour *et al.*, 2013) say that a key part of a brand's worth is how good it is seen to be, however the marketing mix also works well with the idea. (Abd Aziz & Mohd Yasin, 2010) say that service quality and product quality are both needed to measure how good a brand is seen to be. It's important to note that both of these depend on how the customer sees the brand. If the things that consumers think determine the quality of a product are taken into account and their perceptions are managed well, this knowledge can be a big part of how people see the quality of a business.

## 2.3 Importance of Customer Loyalty

Customers choose to buy the goods and items that they do rather than ones that are comparable and available on the market. The company needs marketing in order to advertise its products so that existing customers will remain loyal to the brand and encourage new customers to buy its goods and services. A customer's devotion to a brand can be measured by how positively they speak about the merchandise. Any marketing strategy for a company should include devoting significant amounts of time and effort to cultivating the loyalty of existing and potential customers. As is common knowledge, loyal consumers provide a greater return on investment and generate more revenue than other types of customers. Every firm needs to work to maintain and grow their client loyalty in order to increase their operations. Customers who remain loyal to a business are more likely to make repeat purchases of its products or services. It's possible that, depending on the business kind and sales cycle, the suppliers will wind up selling more to their repeat clients over the course of a year than they will to their first-time buyers. The loyalty of customers is essential to ensuring that they will continue to buy the company's products and services in the future. It not only boosts the good approach in which the business should be managed, but it also increases the number of clients and sales. Dedicated clients have faith in the products of the company and make consistent use of them. As an illustration, women are accustomed to purchasing veggies and fruits from a seller on a regular basis. This is due to the fact that women have faith in the vendor and know that he would provide them with fresh produce at an affordable price. They always believe and have faith in their sellers that they will give them good products and services. This will help create a great chance to meet all of the clients' wants, not just the standard needs that the suppliers are already meeting. The vendors can make more money if they sell their things to people who buy them again and again across all product lines. The volume without putting as much focus on getting new customers. When a customer shows loyalty to a brand, they have built a relationship with the company. The clients trust both the things and services that are given to them and the services that help them. This gives a great chance to meet a wider range of customer wants than the traditional ones do now. When a business has a larger number of loyal customers, it is usually safer from the threat of its competitors. Putting in the work to build strong relationships with customers could help a business stand out from its competitors. Touch Dynamic (2018) says that loyal customers are always willing to pay more for goods that protect the company from the threat of a competitor and reduce the risk of price sensitivity. Loyal customers are a company's best form of word-of-mouth advertising because they talk about the company often and are likely to continue doing so in the future. They are always in charge of

getting new customers for the company. Customers who are happy with a certain brand or product will always go back to that shop to buy more, and they will also tell other people to use the same product. When it comes to your brands, they always give people who don't know your company a good start (Robb, 2015).

## 2.4 Customer satisfaction

Customer satisfaction gauges the level of contentment that customers experience with a company's products, services, and competencies. The term satisfaction originates from the Latin terms "Satis" meaning "thus, sufficient" and "end factio" as documented by (Zaato *et al.*, 2023) Customer satisfaction with a company's goods or services is achieved when specific behavioural criteria are fulfilled, such as precise delivery procedures, cost-effective delivery, reliable information, convenient payment options, and secure payment methods. The post-purchase behaviour of an individual, reflecting their overall satisfaction or dissatisfaction with a product, is commonly known as their "consumer satisfaction" or "consumer dissatisfaction" behaviour. Each customer's unique values are determined by their preceding psychological, behavioural, and mental settings, which influence their prospects for greater items or services. These prospects may include specifications, perks, or detailed information. According to Oliver's theory (1980), the overall satisfaction method considers customer satisfaction as an accumulation of specific and diverse satisfaction attributes associated with the product. In addition, by ensuring customer happiness is vital for maintaining long-term consumer loyalty and has a significant influence on brand loyalty. They are content as their expectations are fulfilled, and their experiences correspond with the company's products.

## 2.5 Courier service industry in Malaysia

In Malaysia, the courier service industry is a very important part of getting goods and documents to different parts of the country. It is a sector that is growing quickly because of the growing popularity of e-commerce and online shopping and the need for better logistics solutions (Izzah *et al.*, 2021). Pos Malaysia is the country's national mail service and one of the biggest courier companies. It offers a wide range of services, such as domestic and international courier delivery, express mail service, and e-commerce solutions. Moreover, DHL is a global logistics company that has offices in Malaysia and offers international express delivery services. It is known for having a large network of delivery options that work well. City-Link is a well-known courier company in Malaysia that delivers packages both in the country and around the world. It has a strong presence in major cities and offers businesses and people a wide range of services. GDEX, which stands for "GD Express," is a local courier service that focuses on fast delivery within Malaysia. It can deliver to your door, deliver the same day, and help businesses with their logistics. J&T Express is a relatively new player in the Malaysian courier market, but it has become very popular in a short amount of time. Its main goal is to offer fast and cheap domestic delivery services, especially for online stores. Overall, the courier service industry in Malaysia is growing quickly. E-commerce and higher customer expectations are driving this growth. As the industry changes, businesses will have to adapt to new trends, invest in technology, and put sustainability at the top of their list of priorities if they want to stay competitive in the market.

## 3. Research Methodology

This chapter dealt with the research methodology, which was tied to the researcher's general procedure and methods for collecting and obtaining appropriate data for this study. The research design, research population and sample, data collection, pilot study, research instrument, and data analysis were all covered in this chapter.

### 3.1 Research Design

According to (Akhtar, n.d.) the research design is the framework of research, it is the "Glue" that ties all of the pieces of a research project together, in other words, it is a blueprint for the intended research effort. The quantitative research method was employed to conduct the analysis in this study. Quantitative research is a technique for generating numerical data and converting it to statistics. Quantitative research is concerned with quantifying and analysing variables in order to arrive at conclusions. It entails the use of statistical tools to analyse numerical data in order to answer questions such as who, how much, what, where, when, how many, and how.

### 3.2 Research Population and Sample

In this study, the target population in this study will be the courier services customer. The study conducted among UTHM students in Johor because the students there are using courier service the most at the university. The size of the sample a sufficient number of the right components from the population such that a study of the sample and comprehension of its properties or characteristics allows us to generalise those properties or characteristics to the population elements is known as sample size. Based on Krejcie and Morgan (1970) table, there is approximate 375 respondents who studied in UTHM. a sample size for this research.

### 3.3 Sampling Method

The two types of sampling methods probability and nonprobability, are described and their types are presented. According to Lunsford (1995), probability sampling entails random selection, which allows you to make strong statistical inferences about the entire group, but non-probability sampling entails non-random selection based on convenience or other criteria, which allows you to collect data quickly. This study employed a non-random sampling technique. Convenient, purposive, quota, snowball, and self-selection are the five basic forms of non-probability sampling. Convenience sampling was employed to gather information (Al-Subaihi, n.d.). The most common nonprobability sample is this one. Because of the convenience of the researcher and the simplicity of sampling, the researchers chose this strategy.

### 3.4 Data Collection

The procedure of collecting, measuring, and evaluating correct insights for study using established approved procedures is known as data collection. On the basis of the evidence gathered, a researcher might evaluate their hypothesis. Regardless of the subject of study, data collecting is usually the first and most significant phase in the research process. Depending on the information needed, different approaches to data gathering are used in different disciplines of study. There are two types of data used in this study which are primary data and secondary data.

#### 3.4.1 Secondary Data

Secondary data is information that has been acquired by someone or that has been made public and can be seen by anybody. Secondary data refers to information gathered from sources such as journals, books, public statistics, theses, and websites. The researcher in this study developed the study using web data to achieve the research objective.

### 3.5 Pilot Study

Pilot study can be quite useful before embarking on a full-scale research endeavour. A pilot study is a small-scale preliminary study undertaken before any large-scale quantitative research to assess the feasibility of a larger undertaking in the future. Before the main research, a pilot study can help uncover design difficulties and evaluate the feasibility, practicality, resources, time, and cost of a study. Prior to distributing the questionnaire to the general population, a pilot test was undertaken throughout the study. A total of 30 questionnaires were employed in the pilot test.

### 3.6 Research Instrument

A research instrument is a tool that the researcher can use to collect, measure and evaluate data on their study topics. Questionnaires, surveys, interviews, checklists, and simple tests are examples of research instruments. The data research instrument in this research study is a questionnaire. The questionnaire is using five points Likert-Scale.

### 3.7 Data Analysis

The researcher must arrange and analyse all data received through the data collection process so that the researcher can understand it. Data analysis to determine research findings and determine whether research will achieve its objectives. Data will be collected from primary sources through the distribution of questionnaires.

#### 3.7.1 Descriptive Analysis

Statistical Package for Social Sciences (SPSS) Version 27 was used to analyse the data collected from the survey in this study. The SPSS software framework includes advanced statistical analysis, a vast library of machine learning algorithms, text analysis, open-source extensibility, big data integration, and easy application integration. Because of its ease of use, adaptability, and scalability, SPSS is accessible to users of all skill levels

#### 3.7.2 Correlation Analysis

Correlation analysis is a tool that examines the relationship between a dependent variable and multiple independent variables. According to (Senthilnathan, 2019) correlation analysis normally used in research include Pearson and Spearman correlations. In this study, the Spearman correlation will be used to understand how to measure the strength of the association between two ranking variables. Spearman rank correlation requires that the data be sorted and values are assigned a specific rank, with 1 being assigned the lowest value. The closer the coefficient is to zero, the weaker the association between the ranks.

**Table 1** Spearman rho coefficient strength

Range	Strength
0.00 – 0.20	Negligible
0.21 – 0.40	Weak
0.41 – 0.60	Moderate
0.61 – 0.80	Strong
0.81 – 1.00	Very Strong

(Prion and Haerling, 2014)

#### 4. Data analysis and Results

The section below in this chapter will provide the data analysis and discussions regarding the results from the distribution of the questionnaire. The purpose of the data analysis is to provide answers to the research questions and objectives, supported by the results of the study. The data collection is interpreted by using Statistical Package for Social Science (SPSS) software version 27 and Microsoft excel.

##### 4.1 Survey Return Rate

**Table 2** Survey return rate

Population	Sample size	Questionnaire Distribute	Valid Questionnaire Returned	Percentage (%)
15,200	375	375	338	90.13%

##### 4.2 Reliability and Validity Analysis

The Cronbach's Alpha ( $\alpha$ ) coefficient was used to measure the internal consistency or reliability of a set of items in the questionnaire. The test was conducted for the pilot study and the actual study. The value of Cronbach's Alpha ( $\alpha$ ) coefficient was more than 0.7 or greater is mean the questionnaire design is good. Therefore, if the research can get more than 0.7 can be conducted. Table 3 shows the reliability coefficient value.

**Table 3** Reliability coefficient value

Cronbach's Alpha ( $\alpha$ )	Internal Consistency
$\alpha \geq 0.9$	Excellent
$0.9 \geq \alpha \geq 0.8$	Good
$0.8 \geq \alpha \geq 0.7$	Acceptable
$0.7 \geq \alpha \geq 0.6$	Be Disputed
$0.6 \geq \alpha \geq 0.5$	Bad
$0.5 \geq \alpha$	Unacceptable

##### 4.2.1 Reliability and Validity Test for Pilot Test

A pilot test has been conducted in this study to examine that the questionnaire is reliable and valid before the actual study has been carried out. There were 30 targeted respondents involved and 30 questionnaires are used in pilot test to ensure that the design of questionnaire is good. The main purpose of the pilot test is to determine the level of understanding of respondents towards the questionnaire provided. Table 4 showed that the value of Cronbach's Alpha for the pilot test for 30 respondents.

**Table 4** Reliability test for pilot test

No	Variables	Number Of Element	Cronbach Alpha
1.	Accuracy of delivery	4	0.880
2.	Prices of delivery	4	0.829
3.	Information quality	5	0.912
4.	Ease of payment	5	0.895
5.	Security of payment	5	0.897
6.	Customer loyalty	5	0.843

### 4.2.2 Reliability and Validity Test for Actual study

**Table 5** Reliability test for actual study

No	Variables	Number of Element	Cronbach Alpha
1.	Accuracy of delivery	4	0.880
2.	Prices of delivery	4	0.829
3.	Information quality	5	0.912
4.	Ease of payment	5	0.874
5.	Security of payment	5	0.897
6.	Customer loyalty	5	0.843

According to Table 5, the actual test's Cronbach's Alpha ( $\alpha$ ) score for the accuracy of delivery is 0.880 and the Cronbach alpha ( $\alpha$ ) for the prices of delivery is 0.847. However, the Cronbach alpha ( $\alpha$ ) for Information quality and ease of payment is 0.912 and 0.874 respectfully. The Cronbach alpha ( $\alpha$ ) value for security of payment is 0.897 and for the customer loyalty is 0.843. According to the findings, the questionnaire can be employed, and the Cronbach's Alpha ( $\alpha$ ) number indicates that research instrument for full research can be adopted.

### 4.3 Descriptive Analysis (Demographic Analysis)

**Table 6** Summary for demographic Analysis

Item	Frequency	Percentage (%)
Gender		
Male	138	40.9
Female	199	59.1
Age		
18-22years	39	11.6
23-26years	158	46.9
27-30years	97	28.8
31-34years	26	7.7
35years above	17	5.0
Race		
Malay	131	38.9
Chinese	79	23.4
Indian	127	37.7
Education level		
Secondary	23	6.8
Diploma/degree	262	77.7
Postgraduate	44	13.1
PHD	8	2.4
Type of shipping		
Letter	30	8.9
Parcel	282	83.7
Oversize shipment	25	7.4
Service Frequency		



>once per month	48	14.2
Once a month	82	24.3
Once every three months	131	38.9
Once every six months	56	16.6
Once a year	20	5.9
Total	337	100

#### 4.4 Analysis the Relationship between Customer Satisfaction and Customer Loyalty in Courier Service

This section to identify the relationship between customer satisfaction and customer loyalty in courier service industry among UTHM students. This study overall focuses on university tun Hussein Onn Malaysia students. There is total five dimensions with 23 questions in section B which is accuracy of delivery, price of delivery, information quality, ease of payment and security of payment.

#### 4.5 Descriptive Analysis (Variables)

Table 7 shows the mean and standard deviation of the 5 factor which are accuracy of delivery, price of delivery, information quality, ease of payment and security of payment.

**Table 7** Summary analysis of each average of mean

Item	Mean	Standard deviation
Accuracy of delivery	3.736	0.013048
Price of delivery	4.655	0.042003
Information quality	4.672	0.022643
Ease of payment	4.68	0.019837
Security of payment	4.684	0.029653

The descriptive analysis for independent variable had five elements and each have their own average mean and standard deviation value. The mean for accuracy of delivery is 3.736 which is the lowest among the other elements meanwhile the highest mean value is on ease of payment and security of payment which is 4.68 and 4.684. However, as for the price of delivery has mean value 4.655 and the information quality has mean value 4.672 which is the third highest mean value among five elements. As for the descriptive analysis on dependent variable, the dimension on customer loyalty has their average mean value at 4.706 respectively.

#### 4.6 Customer Loyalty towards Courier Service Industry

This section is to identify the customer loyalty in courier service industry among UTHM students. Part C consists of 5 Likert scale question and the method used to analyze the would be descriptive analysis.

**Table 8** Customer loyalty towards courier service industry

The level of Customer loyalty towards courier service	Mean	Standard deviation
I would recommend courier service to others who ask me for advice.	4.74	0.585
I will continue to use courier service.	4.72	0.649
I only pay attention to courier service	4.69	0.647
I feel loyal to courier service providers	4.72	0.579
I believe courier service is the best among the rest	4.66	0.654

#### 4.7 Correlation Analysis

The function of the correlation analysis describes the strength of a relationship between two or more variables. It was evaluated using data collected from respondents. Therefore, researcher can investigate correlation between the customer satisfaction and customer loyalty in courier service. On the other hand, correlation coefficients such as Spearman's and Pearson's predict a linear relationship between the variables. Even if the correlation coefficient is zero, a non-linear relationship may exist. Table 9 shows the strength of the Spearman's rho coefficient.

**Table 9 Spearman rho Coefficient Strength**

Range	Strength
0.00 – 0.20	Negligible
0.21 – 0.40	Weak
0.41 – 0.60	Moderate
0.61 – 0.80	Strong
0.81 – 1.00	Very Strong

(Prion and Haerling, 2014)

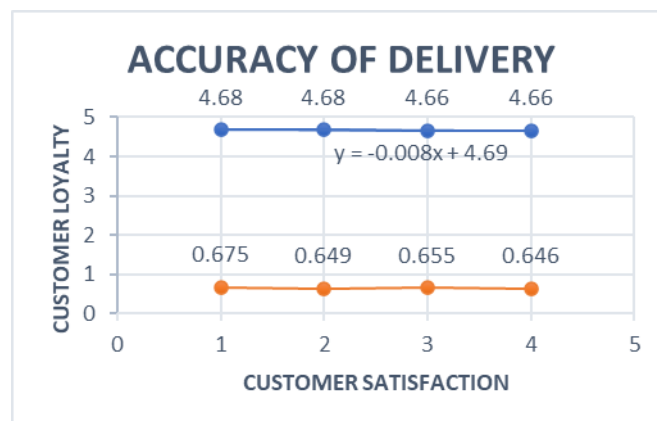
**Table 10 Spearman's correlation**

	ACU	PRD	ING	EPA	SPA	LOY
ACU	1.000	.650**	.728**	.727**	.714**	.660**
	.	.000	.000	.000	.000	.000
	337	337	337	337	337	337
PRD	.650**	1.000	.673**	.715**	.719**	.669**
	.000	.	.000	.000	.000	.000
	337	337	337	337	337	337
ING	.728**	.673**	1.000	.773**	.783**	.713**
	.000	.000	.	.000	.000	.000
	337	337	337	337	337	337
EPA	.727**	.715**	.773**	1.000	.779**	.735**
	.000	.000	.000	.	.000	.000
	337	337	337	337	337	337
SPA	.714**	.719**	.783**	.779**	1.000	.722**
	.000	.000	.000	.000	.	.000
	337	337	337	337	337	337
LOY	.660**	.669**	.713**	.735**	.722**	1.000
	.000	.000	.000	.000	.000	.
	337	337	337	337	337	337

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

In this study, the researcher uses spearman's correlation coefficient to establish the relationship between two variables. Table 10 shows the highest spearman's correlation coefficient, r is 0.735 has the weak relationship between customer satisfaction towards customer loyalty in courier service industry among UTHM students. However the lowest Pearson' correlation coefficient, r is weak 0.660 which was a negligible relationship. The second highest Pearson' correlation coefficient, r is 0.722 which was weak. Three remaining two variables which is factor of price of delivery and information quality shows 0.669 and 0.713 which are negligible correlation.

**4.7.1 Accuracy of Delivery (ACU)**



**Fig. 1** Correlation of accuracy of delivery

Fig. 1 demonstrates that even if the customer loyalty increase, the courier service is crucial for courier companies to incorporate pertinent product information in order to capture customer interest in their particular service and promotions that suits to their requirements.

#### 4.7.2 Price of Delivery (PRD)



**Fig. 2** Correlation of price of delivery

Fig. 2 demonstrates the association between students' satisfaction and customer loyalty is of utmost importance in determining the success of any organization. Customer loyalty is an essential determinant that greatly impacts the buying process.

#### 4.7.3 Information Quality (ING)



**Fig. 3** Correlation of information quality

Fig. 3 says according to (Parasuraman *et al.*, 1985) for courier companies, it is essential to include relevant product information in order to attract customers' attention to their specific service and promotions that meet their needs.

#### 4.7.4 Ease of Payment (EPA)

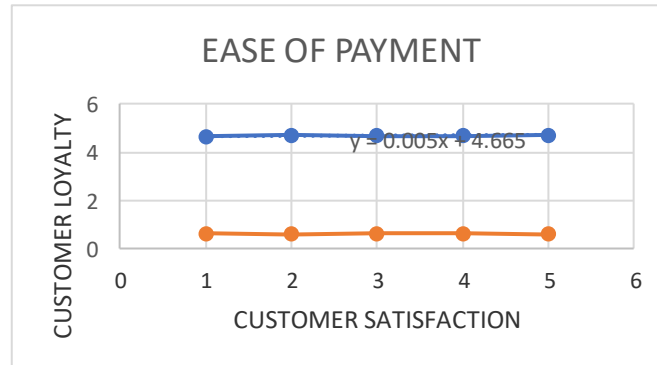


Fig. 4 Correlation for ease of payment

Fig. 4 shows that the payment methods employed by online service providers have a significant impact on the user's purchasing decision as they enhance brand loyalty and consumer satisfaction.

#### 4.7.5 Security of Payment (SPA)

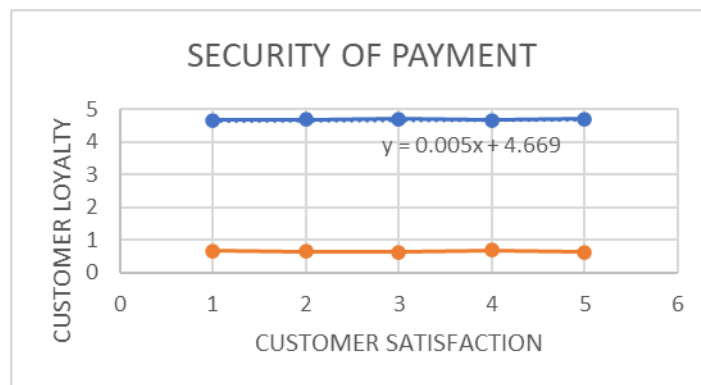


Figure 4.7.5 : Correlation for security of payment

Fig. 5 considering the platforms for purchasing courier services, the payment security is regarded as a vital element in ensuring client happiness and loyalty.

### 5. Conclusion

In this research, the target respondents are the students studied in University Tun Hussein Onn Malaysia (UTHM) which is located at Johor. The researcher distributed the questionnaire through email, Facebook, Instagram, WhatsApp, and other social media platforms. Although there were 375 respondents in the actual sample, only 338 of them agreed to take part in the study. Questionnaire was designed based on 5 main components on customer satisfaction which is accuracy of delivery, prices of delivery, information quality, ease of payment, and security of payment. However, I also have added customer loyalty as the 6th component under dependent variable that significant findings have been obtained. According to the research, 138 of the responders are male, while the remaining 199 are female respondents. Moreover, Malay respondents make up the majority of those who participated in this study, with 131 respondents as the Malay respondents. In addition, this study exclusively includes students from University Tun Hussein Onn Malaysia 314 respondents, or 83.28% percent of the total, are from University Tun Hussein Onn Malaysia. In addition, 257 respondents (80.3%) with the highest academic qualifications, undergraduate, received the most responses from students. Other than that, three objectives will be discussed in this study. They are to determine the level of customer satisfaction attribute in courier service among UTHM students, to determine level of customer loyalty of courier service among UTHM students and to identify the relationship between the customer satisfaction and customer loyalty in courier service among UTHM students.

## 5.1 Summary based on Research Questions

### 5.1.1 Research Questions 1

In this research, there are 5 components used to measure the level of customer satisfaction attributes in courier service among university students, which is accuracy of delivery, prices of delivery, information quality, ease of payment and security of payment. Based on these 5 components, the dominant component is ease of payment and information quality with mean value 4.68 because it has achieved the highest total average mean. According to the study's findings, the students at University Tun Hussein Onn in Malaysia are also influenced by the price of delivery and the information quality with the mean value 4.655 and 4.4.672. This aligns with previous research that has examined the accuracy and timeliness of order delivery (Hamidin & Hendrayati, 2022). Therefore, it serves as an indicator to assess the overall capability of an online service provider, with the precision of delivery being a crucial and essential goal for online clients and having a substantial impact on customer satisfaction.

### 5.1.2 Research Questions 2

Based on this research, there are 5 components under customer loyalty element as for the University Tun Hussein Onn Malaysia (UTHM). I would recommend courier service to others who ask me for advice, with the highest mean score 4.74. courier service industry should implement customer loyalty program to recognize and reward loyal customers and offer incentives such as exclusive discounts, special offers, loyalty points, or personalized rewards. This encourages repeat business and strengthens the emotional connection between customers and the courier service industry this could make customers feel appreciated and valued for their loyalty, fostering long-term relationships (Berman, 2006). Meanwhile "I believe courier service is the best among the rest" has scored the lowest mean 4.66. UTHM students has agreed that it's hard to pay attention only in once courier service since the price of other courier service is affordable and flexible. However, it's hard to accept that one courier service is best among the rest.

### 5.1.3 Research Questions 3

After conducting an in-depth study, the objectives of determining the relationship between the customer satisfaction and customer loyalty in courier service have been successfully achieved. The research approach required careful data gathering, analysis, and interpretation, which produced major findings that clarified how customer satisfaction and customer loyalty achieved among courier service industry. Ensuring customer happiness is the primary focus in order to establish meaningful contact with them. Hence, a crucial determinant in the selection of a specific courier service company in Malaysia is the assessment of the top-notch services offered. Exhibiting a superior standard of customer service is a crucial need for courier services and a significant aspect of the competition among customer services. Every courier service in Malaysia competes to generate profit and establish itself as the premier courier service company in society. However, not all courier service firms can provide optimal service to meet consumer satisfaction. Enhancing the quality of service is a key factor in customer satisfaction, since it contributes to a positive client experience during service delivery.

## 5.2 Limitation Research

This study has encountered several constraints. The main limitation was the use of an online questionnaire as the method for collecting data. The study's questionnaire was completed using a straightforward and cost-effective approach. Nevertheless, a small proportion of participants choose not to provide answers, resulting in a decrease in the response rate. Additional deadlines were established for the collection of data. Furthermore, the researcher had difficulties in collecting the data. Obtaining the respondent's participation to fully complete the questionnaire is a difficult task. The researcher obtained a reduced sample size of 338 participants instead of the intended 375, as certain individuals perceived the act of completing the questionnaire as unproductive. Furthermore, due to limitations of time. Due to time constraints, the researcher who was also a student with another assignment due, had to narrow their emphasis to a single public university in Johor instead of examining all public universities in Malaysia.

## 5.3 Recommendations

### 5.3.1 Recommendation for government

Here are some recommendations for the government regarding how to strengthen customer satisfaction and customer loyalty towards courier service providers in the future. However, the formation and improvement of technology has greatly enhanced customer satisfaction by optimising product and service delivery processes among courier service providers. The availability of self-service choices has significantly contributed to the improvement of customer satisfaction (Watson *et al.*, 2015). This is because customers can conveniently access

products and services through digital platforms, such as mobile applications and websites. As a result, clients now experience shorter waiting periods, more convenience, and improved overall satisfaction.

### 5.3.2 Recommendation for future researchers

To create future improvements, there are several recommendations for future research on courier service industry combined technique approach should be used in future studies. To gain a deeper knowledge of students' loyalty, combine qualitative and quantitative methodologies in the analysis. Future research should include a larger and more diversified sample size. For instance, future study should include all public universities in Malaysia. Apart from that, this research only focuses on five components of the customer satisfaction and customer loyalty which are accuracy of delivery, prices of delivery, information quality, ease of payment and security of payment. Future research can be done with the combination of pre- and post-data of the respondents. Furthermore, the future research also can be conducted in the form of qualitative method. By having an interview session with the respondents, the result data will be more accurate and precise.

### 5.4 Conclusion

In conclusion, the aim of this study to identify the level of customer satisfaction attributes in courier service among UTHM students, to identify the level of customer loyalty in courier service among UTHM students and to identify the relationship between the customer satisfaction and customer loyalty in courier service. The developed research questions and objectives have been achieved after all the research process went through. The quantitative research methodology has been applied in this study. The target respondents were 375 students from University Tun Hussein Onn Malaysia (UTHM) and there are only 338 students (90.13%) responded to the questionnaire. Thus, the data are gathered to be used and analysed in this study. According to the findings, the research highlights how crucial it is to the courier service providers to enhance their service to increase customer loyalty and customer satisfaction. Additionally, by engaging with and addressing feedback from customers is essential for establishing trust and confidence in the courier service company's dedication to customer satisfaction. Investing in technology helps optimise service quality through process automation and enhanced communication channels (Azlina *et al.*, n.d.). Companies must allocate resources towards technological advancements in order to enhance their service delivery and maintain a competitive edge.

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### Conflict of Interest

Authors declare that there is no conflict of interests regarding the publication of the paper.

### Author Contribution

The authors confirm contribution to the paper as follows: **study conception and design:** D.P. and R.C.; **data collection:** D.P.; **analysis and interpretation of results:** D.P. and R.C.; **draft manuscript preparation:** D.P. and R.C. All authors reviewed the results and approved the final version of the manuscript.

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