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Transformation of Technology in the Transportation Industry

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e-ISBN: 978-629-7555-11-9

First Edition: March 2023

Published by:
Faculty of Entrepreneurship and Business
Universiti Malaysia Kelantan
City Campus, Pengkalan
Chepa Kota Bharu, Kelantan
Malaysia

PREFACE

The FKP Undergraduate Colloquium 2022/2023 was held in Kampus Kota, Universiti Malaysia Kelantan on 30 January 2023. It was a delightful event with consists of students and lecturers and had many fruitful discussions and exchanges that contributed to the success of the colloquium.

The main objectives of the FKP Undergraduate Colloquium 2022/2023 with the theme "5th Multidisciplinary Research on The Entrepreneurship and Business Colloquium" are to expose the final year students to article writing, colloquium presentation and to enhance the understanding and enthusiasm of final year students to high impact studies and the documentation of their respective studies.

The FKP Undergraduate Colloquium 2022/2023 especially in Logistics with the subtheme "Transformation of Technology in the Transportation Industry" provides the platform for Logistics undergraduate students to engage, collaborate and disseminate ideas and research findings across a broad spectrum of audiences. Moreover, it gives knowledge to them about high-impact of publications and enables them to encourage their understanding of basic research on issues in current logistics.

All in all, the FKP Undergraduate Colloquium 2022/2023 was very successful. The editors would like to express their gratitude to all participants and the committees that have helped in ensuring the smooth sailing of making the colloquium a reality.

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The Study On Factors Affecting Consumer Intention To Use E-Hailing Application Among Undergraduates Students In Umk City Campus

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Abstract

These advancements in technology have a significant impact on modern society's personal and professional lives. People are becoming more aware of technological advancements, and they are ready and willing to use and adopt this technology. The most innovative mode of transportation is a cab/taxi, which can be booked via smartphone E-hailing apps. This study investigates the factors that influence people using e-hailing application. This study also using theoretical model technology acceptance model (TAM) and use quantitative approach to collect data. There are 381 number of respondents need to collect and by using SPSS software to generate result. The results show from the data that all hypothesis is supported and discovered that perceived ease of use, social influence, and perceived risk are the major factors influencing behavior intention among e-hailing application usage.

Keywords: *behavior intention, perceived ease of use, social influence, perceived risk*

1 Introduction

Every sector of the global industry has undergone enormous changes in the digital revolution and technology. Industry is seeing remarkable technological advancements. Every business has been influenced by the widespread use of information and communication technologies (ICT), (S. A. Mokhtar et al, 2018). These advancements in technology have a significant impact on modern society's personal and professional lives. People are becoming more aware of technological advancements, and they are ready and willing to use and adopt this technology. Their expectations, desires, and needs have shifted dramatically as a result of the adoption of digital and information technology. This rapid change in customer desires has compelled businesses to adapt their business models in order to provide consumers with more elastic, comfortable, and appropriate services via mobile apps. Several manufacturers and service providers have begun to conduct their business and trade solely through websites and mobile apps. The introduction of mobile applications has changed the pattern of living of many, such as e-health, online banking- ticketing, shopping, e-learning and etc.

Due to inefficiencies and connectivity gaps in the first and last miles of the regular transportation networks, the service was started. Freischlad N., (2015), the service provides customers with an inexpensive and convenient alternate mode of transportation. Due to the rising rate of motorization on the road, severe traffic jams, parking issues, and limited infrastructure for public transportation, people start to prefer this mode of transportation (Frost & Sullivan, 2016).Since then, many e-hailing customers have been utilizing the services offered to further take advantage of the transportation networks' interconnectedness in order to reach their destinations quickly and affordably (Frost & Sullivan, 2016). In Malaysia, there are multiple e-hailing applications are popular among the public, such as grab, maxim car, AirAsia ride, go car and my car. In 2011, Uber is the first e-hailing platform was introduced in Malaysia. Eventually, many other new apps are developed using the same method. The adoption of these kinds of applications is still based on a number of issues, though. There are 3 objectives conducted in this study first, to identify the relationship between perceived ease of use and the consumer intention in using e-hailing application. Second, to identify the relationship between social influence and the consumer intention in using e-hailing application and too identify the relationship between perceived risk and the consumer intention in using e-hailing application.

2 Literature Review

2.1 Behavior intention

A behavior intention is a set of motivational elements that affect a particular activity; the stronger the intention, the more likely it is that the behaviour will be carried out. Customer behavioral intentions are signals of actual purchasing choice, and thus are desirable to monitor (Zeithaml, Berry, & Parasuraman, 1996). There are different ways of operationalizing behavioral intentions in the literature. An individual's attitude is characterised as their overall assessment of engaging in a behaviour (Davis, Bagozzi, & Warshaw, 1989). Nicholas and Yasaman (2018) characterize e-hailing attitude as a manner of thinking about the service. They contend that an individual's desire to participate in e-hailing is a sign that they are prepared to use the services. A person's attitude toward a behaviour is often their belief about whether it is good or bad to carry out a particular conduct. Individuals with a good attitude about e-hailing have increased behavioral intention to engage in e-hailing (Yasaman and Nicholas, 2018).

2.2 Perceived ease of use

Davis defined this as "the degree to which a person believes that using a particular system would be free from effort" (Davis 1989). This is inferred from the meaning of the word "ease," which is "freedom from hardship or excessive effort." An individual can only devote a certain amount of effort to the many tasks for which they are accountable (Radner and Rothschild, 1975). We assert that, other things being equal, a user is more likely to adopt an application that they view as being simpler to use than another. If the technology is easy to use, then the barriers conquered. People belief that using it digital technology e-hailing will make their work easy. Since majority, people who do not own a vehicle are using e-hailing platform as their transport system.

2.3 Social influence

In the study by Venkatesh et al. (2012, p. 451), social influence (SI) states the "degree to which an individual perceives that important others believe he or she should use the new system" and can be additionally categorized as interested in interpersonal and external influence. Users specifically conform to majority practices which are interior referents such as families, friends, and social groups while mass media such as newspapers, television, and magazine (Wong et al., 2015). Several users decide to use e-hailing apps if their peers, colleagues, friends, and so on use them as well, and they recommend them to others. The construct has been found to have a direct and significant effect on the continued intention to use e-hailing apps in the context of app adoption (Joia and Altieri, 2018). Tan and Ooi (2018), clarified that in a collective culture, a consumer would most expect to refer to their family and friends before making a choice. Ooi et al (2018), discovered that consumers may decide not to carry out a specific behaviour due to a lack of experience. Nonetheless, if their influential factors believe they should do so, users are more likely to follow through. Social influence is a very important thing in a business that involves services. Based on Arora (2021), if their peers, colleagues, friends, and so on use and recommend e-hailing apps, many users will use them.

2.4 Perceived risk

Perceived risk is also becoming a significant factor in today's digital and technological era. It has piqued the interest of both academics and business executives in the context of electronic and mobile commercial transactions. Previously, product quality and fraud were regarded as the primary risks, but when consumers conduct online transactions, other types of risks such as psychological, physical, social, financial, product performance, and time are gaining importance (Sims and Xu, 2012). According to Jiang and Zhu (2018), consumers face various risks when transacting online because they must provide the seller with personal information such as their location, phone number, mailing address, and debit/credit card number. If technology fails to achieve the expected results, it will have a bad impact on user behaviour.

2.5 Hypothesis statement

H_1: There is a significant relationship between the perceived ease of use factor and consumer Intention.
H_2: There is a significant relationship between the social influence factor and consumer intention.
H_3: There is a significant relationship between the perceived risk factor and consumer intention.

2.6 Conceptual framework

From the framework below, the researcher found that it could be the source of the build framework. This study is to focus on factors that influence consumer intention towards e-hailing. Therefore, the researchers selected perceived ease of use, social influence, and perceived risk.

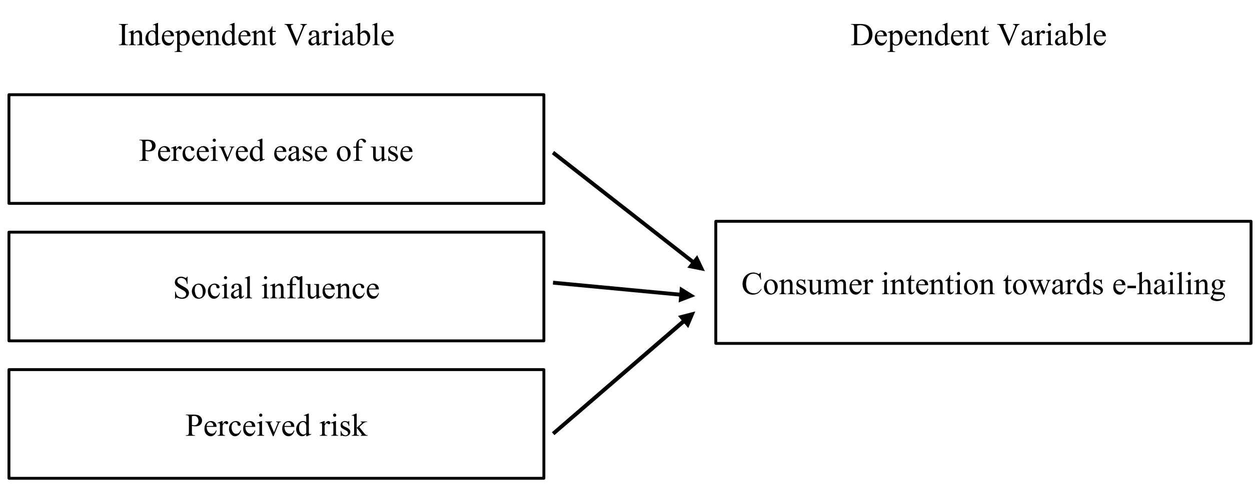

Figure 2.1: Factors Affecting Consumer Intention To Use E-hailing Application among Undergraduates Students in UMK City Campus.

3 Research Methodology

Thus, this section described the methodology of the research that covered sections of research design, population and sampling, theoretical framework, data analysis and research instrument.
The purpose of this study is to analyze the relationship between dependent variable and independent variable. That is behavior intention for dependent variable and perceived ease of use, social influence and perceived risk for the independent variable. For this study the data obtained is from people who use e-hailing services. We get data by having people answer surveys online. We need 392 respondents from the students of University of Malaysia Kelantan Pengkalan Chepa only, where they have 6914 students.

For the questionnaire we have three sections. Section A collected data on the respondents' demographic characteristics, whereas Section B as well as dependent variables such as the respondent's behaviour intention. Section C will collect data on independent variables such as perceived ease of use, influence social, and perceived risk. For measurement of the variable, only nominal and interval scales are used in this study. The study's outcome will be measured using a Likert scale. For procedure data analysis we use SPSS. Where the data gathered for this study will be computed and analysed. Descriptive analysis, reliability test, univariate analysis, normality test, spearman's correlation coefficient analysis and multiple linear regression analysis will be used in this data study.

4 Result and Discussion

4.1 Reliability Analysis Result

Table 4.1: Result of Reliability Coefficient Alpha for the Independent Variables and Dependent Variable

Variables	**No of Item**	**Cronbach's Alpha Value**	**Strength of Association**
Behaviour Intention	5	0.847	Good
Perceived Ease of Use	5	0.830	Good
Social Influence	5	0.859	Good
Perceived Risk	5	0.935	Excellent

Based on Table 4.1, Cronbach's Alpha analysis showed high reliability for each element. The value of Cronbach's Alpha for behaviour intention toward e-hailing applications is 0.847 and has 5 questions. Part B which is independent variables which consist of perceived ease of use, social influence and perceived risk also has high reliability. The Cronbach's Alpha value for perceived ease of use is 0.830, social influence is 0.859 and perceived risk is 0.935. According to Nunnally & Bernstein (1979), as each construct's Cronbach's Alpha value reaches 0.7, this indicates that the instruments in this study are very good and accepted for further analysis.

4.2 Overall Demographic Profile Result

The study was designed to collect data from 361 valid samples based on the minimum sampling theory of Krejcie and Morgan (1970). The final result of the 392 questionnaires was complete fully and was eligible for data analysis.

Table 4.2 shows a summary of the demographic profiles of the respondents who have provided feedback. There were almost 213 male and 179 female with the percentage of 54.3% and 45.7%. This have indicated that most of the respondents are male have response to the questionnaire. The respondents were categorized into 4 groups of age and the highest number of respondents for age 23 to 24 years old were 176 respondents with percentage of 44.9% meanwhile the respondent of age 21 to 22 years old were 126 of them equal to 32.1%. For respondents of age 19 to 20 years old 62 respondents with the percentage of 15.8%, while ages 25 and above were the lowest, this is only 28 of them with 7.1%.

Furthermore, respondents with the highest number are students from the Faculty of Entrepreneurship and Business (FKP) with a frequency of 261 respondents and a percentage of 66.6% meanwhile the least number of respondents are students of Faculty of Veterinary Medicine (FPV) with the frequency of 23 respondent and percentage of 5.9%. The other 108 respondents with percentage of 27.6% are from the Faculty of Hospitality, Tourism and Wellness (FHPK). For the programme, 84 respondents of students are SAL programme with the highest percentage, 21.4%. The second higher is 18.9% or 74 respondents of students are SAB programme. The third higher is 14.3% with 56 respondents of students are SAR programme. For the year study of respondents, the highest was year 4 with 155 respondents and a percentage of 39.5% followed by year 2 with 91 respondents with a percentage of 23.2%, year 3 consists of 76 respondents with a percentage of 19.4%. The other 69 respondents, or 17.6%, are in their first year, and one respondent is in their fifth year, with a percentage of 0.3%.

In addition, for the first survey question, the majority of respondent have used an e-hailing application with the frequency of 379 and percentage of 96.7%. Only 3.3% of respondents, or 13 respondents, said they never use an e-hailing app. Moreover, in this study, there have 129 respondents are use the e-hailing application in 2 years with the percentage of 32.9%. Then, 24.2% or 95 respondents that use the e-hailing application in 3 years. 92 or 23.5% of respondents use the e- hailing application in 1 year and lastly only 19.4% or 76 of respondents that use the e-hailing application for more than 3 years.

Table 4.2: Overall Demographic Profile Respondents (n=392)

Demographic	Frequency (392)	Percentage (%)	Demographic	Frequency (392)	Percentage (%)
Gender			Year Study		
Male	213	54.3	Year 1	69	17.6
Female	179	45.7	Year 2	91	23.2
			Year 3	76	19.4
			Year 4	155	39.5
			Year 5	1	0.3
Age			Have You Ever Used An E-Hailing Application?		
19-20 Years old	62	15.8	Yes	379	96.7
21-22 Years old	126	32.1	No	13	3.3
23-24 Years old	176	44.9			
25 Years old and above	28	7.1			

Faculty			How Many Times Have You Been Using The E-Hailing Application?		
FKP	261	66.6	1 Year	92	23.5
FHPK	108	27.6	2 Year	129	32.9
FPV	23	5	3 Year	95	24.2
Programme			More Than 3 Year	76	19.4
SAB	74	18.9			
SAL	84	21.4			
SAR	56	14.3			
SAK	36	9.2			
SAE	23	5.9			
SAW	38	9.7			
SAP	26	6.6			
SAH	35	8.9			
SDV	20	5.1			

4.3 Spearman's Correlation Coefficient Analysis

Table 4.3 Result of Spearman's Correlation Coefficient

Hypothesis	Statement of Hypothesis	Significant Value	Correlation Value	Conclusion
1	There is a relationship between perceived ease of use and behaviour intention to use e-hailing applications.	0.001	0.605	Significant, accepted and strong positive correlation
2	There is a relationship between social influence and behaviour intention to use e-hailing applications.	0.001	0.485	Significant, accepted and moderate positive correlation
3	There is a relationship between perceived risk and behaviour intention to use e-hailing applications.	0.004	-0.134	Significant, accepted and very weak negative correlation

Table 4.3 shows the results of the correlation analysis conducted showing that the statement of hypothesis which is the relationship for the level of behaviour intention to use e-hailing applications for perceived ease of use is a strong positive correlation. The relationship between social influence and behaviour intention to use e-hailing applications shows a moderate positive correlation. However, for the relationship between perceived risk and behaviour intention to use e-hailing applications was a very weak negative correlation. Findings show that the relationship between perceived ease of use and behaviour intention to use e-hailing applications recorded a value of $r=0.605$. Next, the relationship between social influence and behaviour intention to use e-hailing applications recorded a value of $r = 0.485$. Both r values were positive and significant at $p <0.01$. Besides, the relationship between perceived risk and behaviour intention to use e-hailing applications recorded a value of $r =-0.134$, $P=0.004$. The p-value for all independents variable which were perceived ease of use, social influence and perceived risk is significant since the p-value is less than 0.05. Therefore, all hypothesis is accepted.

4.4 Multiple Linear Regression Analysis

Table 4.4: Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.784[a]	0.615	0.612	0.332

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	1.068	0.173		6.155	0.001
Perceived ease of use	0.592	0.042	0.572	14.052	0.001
Social Influence	0.212	0.036	0.236	5.824	0.001
Perceived risk	-0.079	0.020	-0.127	-3.904	0.001

Dependent Variable: Behaviour intention to use e-hailing application
To investigate that last objective of the factors that influence behaviour intention to use e-hailing application among UMK campus Kota undergraduate, multiple linear regression analysis had been done in this study. Table 4.4 above illustrated the summary of multiple linear regression analysis. The value of R square is 0.615. This indicate that only 61.5% of the total variation in the 392 respondents in behaviour intention to use e-hailing application could be explained by the independent variables which is perceived ease of use, social influence and perceived risk while the rest 38.5% of the variation was explained by other factors.

Table 4.5 show that p-value for all independents variable which was perceived ease of use, social influence and perceived risk is significant since p-value is less than 0.05 which is 0.001. Therefore, there were all had the significant to the behaviour intention to use e-hailing application.

Therefore, the equation model of this study is:

Behaviour intention = 1.068 + 0.572 X1 (Perceived ease of use) + 0.236 X2 (social influence) - 0.127 X_3 (perceived risk)

From above equation, its show that all independent variable is significant factor influencing behaviour intention to use e-hailing application.

5 Conclusion and Future Research

The main objective of this research paper is to identify the relationship between the chosen independent variable, which is perceived ease of use, social influence and perceived risk with the dependent variable, which is the consumers intention in using e-hailing application. The objective emerges the question how well does the consumer knows about e-hailing application and why they are choosing to use this application. A quantitative generated to clarify the doubt of the questions the evidence provided by the informant output clearly showed that the three independent variable supported and have a positive relationship with the dependent variable. Thus, perceived ease of use, social influence and perceived risk are affecting the intention of the undergraduate student in usage of e-hailing application and it is at excellent range.

Next, the implication for service provider of the online e-haling application also need to keep observe the providing service to establish that the consumer is receiving a service as mentioned during the promotion of the e-hailing application. Apart from the some new features in the application, for example provide more than a language so it will not be language barrier for
the users because Malaysia is a multiracial country. Thus, the advance features will keep attracting not only student also other public to use e-hailing application in daily routine. As a result, the service provider will have the trust of the consumer in continuously using the applications in future.

There are various challenges and constraints to completing this investigation. The constraint is that the number of respondents has been limited due to a shortage of time. This study's data gathering period is short around three months. The second constraint is that, at the moment, only Google Form is available for data collection. Finally, there are few resources to research the issue of e-hailing application. There are also some suggestions for future researchers and e-hailing businesses. The recommendations for e-hailing companies are to establish a rate of e-hailing costs, especially during peak hours, and future study should focus on the link between consumer pleasure and loyalty and trust.

6 Acknowledgement

We would like to thank Universiti Malaysia Kelantan for providing us with the opportunity to learn and gain more experience in conducting this research project. Hence, we had a good and clear understanding of the factors affecting the intention of the consumer to use e-haling applications. Besides that, we would like to express our appreciation to the ones who have helped us to answer the questionnaires. All the respondents had spent their precious time and given their valuable feedback by filling out the questionnaire. Thus, we successfully completed the part of the questionnaire with the help and support from the respondents. We also like to thank our parents for their support and encouragement. Last but not least, we have to thank the group members who coordinated and worked together throughout the entire research project. Once again, we sincerely thank those who have been directly and indirectly helping us to complete this research study.

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Factors Influencing Customer Satisfaction on Public Transport Sector among Bus Consumers in Malaysia

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Abstract:
Public transportation is a form of travel offered locally that enables more people to travel together along designated routes. Typical examples of types of public transportation include buses, trains, and trams. Public transportation is often run on a schedule, operated along a predetermined path, and charged per trip. The purpose of this study was to identify the level of customer satisfaction in the public transport sector among bus consumers in Malaysia. The objectives of this study are to develop the relationship between SERVQUAL model (Reliability, Tangibility, Responsiveness, Assurance, and Empathy) and customer satisfaction, also identify the most influencing factors in the SERVQUAL model towards customer satisfaction on public transport sector among bus consumers in Malaysia. There were 384 consumers who have been involved as respondents in this research. Data obtained from the questionnaire were analysis by using SPSS. This study provided numerical data about the level of satisfaction of public transport users. The findings revealed that all variables in the study have a positive correlation with SERVQUAL model and customer satisfaction. This study will be encouraged to the public to help the transportation industry to gain more recommendations to improve their services in planning for the future. The paper shows that by going through the service quality literature review such as the SERVQUAL model, this study gives a wide understanding and knowledge. Finally, the analysis of key findings, discussion of this study, implications and limitations of the study and suggestions for future research are also presented in the end of the study.

Keywords: *Tangibility, Reliability, Responsiveness, Assurance, Empathy, and Service Quality Model (SERVQUAL)*

1 Introduction

All forms of transportation, including trains, cars, rail, buses, fast transit, airplane, trolleys, taxis, ferries, auto-rickshaws, monorails, and others, offer public transportation. In Malaysia, there are just a few public transportation options, including buses, taxis, monorails, light rail transit (LRT), express rail links (ERL), commuter trains, ferries, and aeroplanes. For instance, to meet the needs of the locals in the Klang Valley (Kuala Lumpur and Selangor), there are numerous forms of public transportation accessible, including LRT, ERL, commuter rail, bus, Bus Rapid Transit (BRT), Mass Rapid Transit (MRT), and taxi.

The construction of a high-quality public transportation system is difficult due to the continuous growth of its urban population. Due to location, the purpose of the area (major cities or districts), and the population density in that area, not all public transportation options are available everywhere in Malaysia. In the meantime, population growth can aid in the expansion of public transportation while also increasing the use of such service (Jou & Chen, 2014). Besides that, the Government Transformation Programme has introduced the Public Transport Roadmap, which identifies the primary indicators by which users can express their level of satisfaction as being dependability and travel time, comfort and convenience, accessibility, interconnections, availability, and capacity (Noor et al., 2014). Depending on where they live geographically, citizens in each nation have access to a variety of public transportation options, including air, land, and sea.

The main objective of the study was to assess factors influencing customer's satisfaction on public transport sector among bus consumer in Malaysia; particularly in the Kuala Lumpur, Kelantan and Terengganu. The main research objective was divided by sub-objectives as follows;

1) To identify the level of customer satisfaction on public transport sector among bus consumer in Malaysia.
2) To identify relationship between SERVQUAL model (Reliability, Tangibility, Responsiveness, Assurance and Empathy) and customer satisfaction on public transport sector among bus consumer in Malaysia.
3) To identify the most influencing factors in the SERVQUAL model (Reliability, Tangibility, Responsiveness, Assurance and Empathy) towards customer satisfaction on public transport sector among bus consumer in Malaysia.

2 Literature Review

The whole literature review is study on the aspects that influence customer satisfaction on public transport sector among bus consumer in Malaysia. Readers will learn more about the dependent variable, customer satisfaction, as well as the independent variables, reliability, tangibility, responsiveness, assurance, and empathy in this chapter. According to the findings, all the independent factors have a favourable impact on customer satisfaction ability to please clients. As a result, this chapter will define and explain the dependent and independent variables. In addition, a conceptual framework will be built, and the variables' produced factors will be examined.

2.1 Relationship between the reliability and public transport towards customer's satisfaction among the bus consumer in Malaysia.

Reliability can be measured of travel time (Li et al., 2010), frequency of the services provided (Phoebe, 2017), the punctuality of the services (Murambi and Bwisa, 2014) and also on giving the information about delayed services (Friman, 2004). All of these factors have an impact on customer satisfaction. Oyeobu et al. (2014) discovered that the reliability dimension has a significant impact on customer satisfaction when using Nigerian public transportation. According to Barabino et al. (2012), the most important factors in determining the service quality of urban bus transportation are on-board safety, bus reliability, cleanliness, and frequency. According to Friman and Edvardsson (2003), the attributes involved in public transportation service quality are reliability, simplicity, design, and employee behaviour. Furthermore, a few researchers stated that dimensions such as dependability, frequency, comfort, information, driver behaviour, and cleanliness are critical factors for passenger satisfaction in public transportation (Beirao and Cabral, 2007; Hensher et al., 2003).

HI: There are a significant and positive relationship between the reliability and public transport towards customer's satisfaction among the bus consumer in Malaysia.

2.2 Relationship between the tangibility and public transport towards customer's satisfaction among the bus consumer in Malaysia.

Tangibility refers to the physical facilities, equipment, and even the physical presence of an employee in a facility. Physical goods and supports are the two kinds of tangibility. Physical support is defined as an employee's assistance in the production of services, whereas physical products are goods used in the process and production of services (Nor, 2013). According to Jun (2012) and Mudenda and Guga (2017), tangibility is the most dominant and important attribute in assessing customer satisfaction with public transportation. Since the tangibility dimension is a visible aspect of the services that customers can see and feel, its presence may affect the overall service quality of a provider.

H2: There are a significant and positive relationship between the tangibility and public transport towards customer's satisfaction among the bus consumer in Malaysia.

2.3 Relationship between the responsiveness and public transport towards customer's satisfaction among the bus consumer in Malaysia.

Responsiveness is defined as providing prompt service and being willing to assist customers (Budiono, 2009). According to Hoffman and Bateson (2006), responsiveness refers to service providers' commitment to consistently providing services in a timely manner. This responsiveness dimension is primarily concerned with responding to complaints, inquiries, problems, and questions from customers. Despite the fact that previous research has yielded mixed results regarding the relationship between responsiveness and satisfaction, this quality should be maintained and prioritised in the eyes of passengers. Customer satisfaction is primarily determined by staff willingness to assist and provide prompt responses to passenger demands (Radam et al., 2014).

H3: There are a significant and positive relationship between the responsiveness and public transport towards customer's satisfaction among the bus consumer in Malaysia.

2.4 Relationship between the assurance and public transport towards customer's satisfaction among the bus consumer in Malaysia.

Assurance is defined by employees' knowledge, politeness, and how they feel about trust and confidence (Nutsugbodo, 2013). There are four assurance dimensions determinants: safety, efficiency, credibility, and courtesy (Azani et al., 2017). According to Korale et al. (2015), assurance also includes the firm's competence, operational security, and customer courtesy. Aside from that, workers' knowledge and communication skills are classified as ssurance dimensions, which influence consumer satisfaction in a service (Wijaya, 2009). Friman et al. (2019) also included the safety factor as an important dimension in assessing customer satisfaction with a service.

H4: There are a significant and positive relationship between the assurance and public transport towards customer's satisfaction among the bus consumer in Malaysia.

2.5 Relationship between the empathy and public transport towards customer's satisfaction among the bus consumer in Malaysia.

Empathy is defined as providing personalised attention to customers, which includes communicating with and understanding them (Etgar and Fuchs, 2009). Empathy is one of the service quality attributes in public transportation services, according to Vanniarajan and Stephen (2008). According to Sabir et al. (2013)'s study on transportation services for Daewoo Express in Pakistan, empathy is the most important attribute to customer satisfaction when compared to other dimensions. It was also discovered in a study on TransJakarta public transportation (Sudaryanto and Kartikasari, 2007) that empathy was the highest service quality required when compared to other dimensions. However, as Zeithaml and Bitner (2006) state, the customer is always concerned with having their needs met. To satisfy the customer, service providers must understand, value, and share the feelings of the passengers.

H5: There are a significant and positive relationship between the empathy and public transport towards customer's satisfaction among the bus consumer in Malaysia.

2.6 Theoretical Framework

SERVQUAL model is a service quality model that measures factors of service quality towards goods or services that could influences customer satisfaction level. SERVQUAL was introduced by Parasuraman et al. (1988). According to the SERVQUAL model, customer satisfaction is determined by five service quality dimensions of reliability, tangibility responsiveness, assurance, and empathy. The dependent variable (DV) and independent variable (IV) are shown in Figure 1.

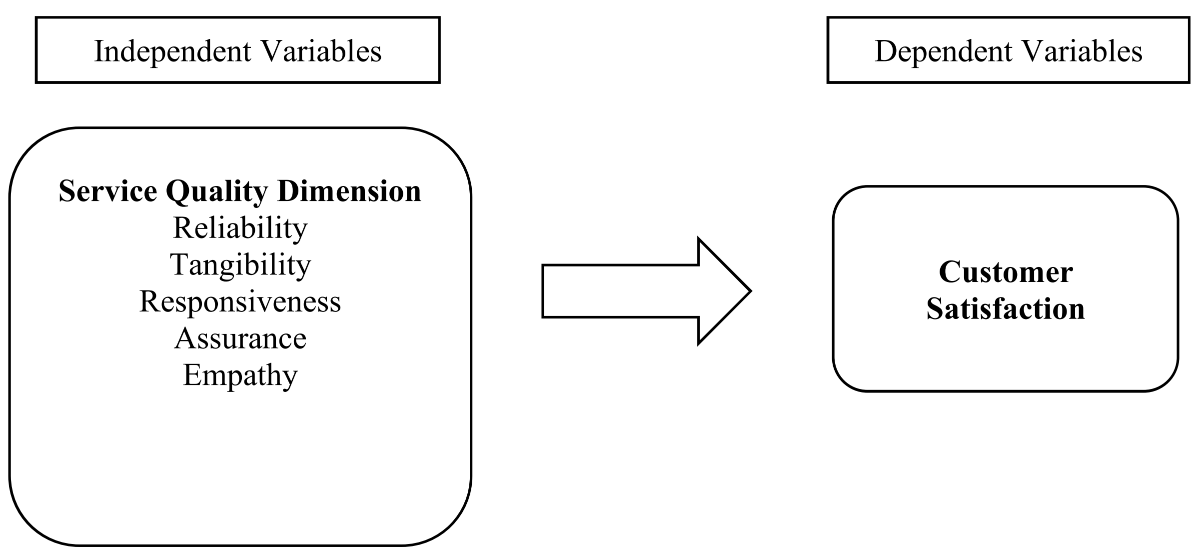

Figure 1: Theoretical framework of the study

3 Research Methods

3.1 Research Design

It is a system created to confront and resolve research challenges. Quantitative approaches, which are used to gather data and analyse it, are referred to as collecting and analyzing raw and numerical data. In this study, the researcher used a questionnaire method to obtain the demographics of the respondents, questions on factors influencing customer satisfaction, and questions related to SERVQUAL in public transport for the respondents' bus customers in Malaysia.

3.2 Data Collection Methods

Data collection is a method for gathering relevant information from a wide range of sources, testing a hypothesis, and evaluating the findings of the research. There are primary and secondary data collection methods are the two different categories of data gathering techniques. Primary and secondary data gathering methods are discussed in detail in this research.

3.3 Study Population

In research, the target population is Kuala Lumpur, Kelantan, and Terengganu among bus consumers. According to data from Ministry of Transport Malaysia (2021), Kuala Lumpur had 218,755 respondents, Kelantan had 45,564 respondents, and Terengganu had 68,962 respondents. All respondents for the three states totalled 136,281. According to (Krejcie and Morgan, 1970), the estimated sample size for bus consumer is 384.

3.4 Sample Size

A sample is a collection of selected individuals or things from an entire population, whereas the approach followed by the researcher to pick the sample will be sampling (Carr, 2003). Sampling is utilised because it would be far more complex and time-consuming if it encompassed the whole population (Saunders 2009).

3.5 Sampling Technique

This particular research study used a sampling strategy known as purposive sampling. This sampling technique refers to a group of non-probability sampling techniques in which units are selected because they have characteristics that need in the sample such as age (19 years old and below to 59 years old), gender (male and female) and state which is Kuala Lumpur, Kelantan and Terengganu.

3.6 Research Instrument Development

The most common method of data collection is through questionnaires (Zikmund, 2003). Respondents will respond physically to the questionnaire that will administer personally to bus consumers in Kuala Lumpur, Kelantan and Terengganu by using a Google form link to connect with respondents via WhatsApp or telegram or distribute electronically on Google form, an online platform while we will collect the data.

3.7 Measurement Of Variable Research Instruments

The instrument for questionnaires is the most often used method of data collection (Carr, 2003). The questionnaire was distributed to respondents for data collection. Respondents responded to a digital questionnaire that will be personally administered, mailing respondents to Kuala Lumpur, Kelantan and Terengganu customers or distributing it electronically via Google form and sending the link to the Google form via WhatsApp and Telegram. The researcher chose the questionnaire as a method of getting information since it is the cheapest and most effective.

3.8 Research Procedure

The questionnaire will be given to respondents as part of the process of collecting data, and respondents will provide their responses to the questionnaire in person. The questionnaire will also be distributed electronically via Google Forms. The initial task of a questionnaire is to persuade the respondent to cooperate in answering the questions.

3.8.1 Reliability Test

Reliability testing is a type of software testing that determines whether a piece of software can perform a failure-free operation in a specific environment for a set period of time. Reliability testing ensures that the software product is bug-free and reliable enough for its intended use. Reliability means "yielding the same," or that something is dependable and will produce the same result every time. The same is true for testing reliability.

3.8.2 Descriptive Statistics

The use of descriptive statistics for data exploration allows for general observations as well as an explanation of a specific data set. Descriptive statistics, as the name implies, give us a quick visual representation of the data we're working with. In most cases, these statistics are meant to provide a pretty accurate picture of a large amount of data, one that is based solely on the raw data itself. In some cases, these graphs are used to summarise several details.

3.8.3 Normality Test

The most important continuous probability distribution is the standard normal distribution, which has a bell-shaped density curve described by its mean and standard deviation, and extreme values in the data set have no significant effect on the mean value.

3.8.4 Pearson Correlation

The Pearson correlation method is the most commonly used method for numerical variables; it assigns a value between 1 and 1, with 0 indicating no correlation, 1 indicating total positive correlation, and 1 indicating total negative correlation. This is translated as follows: A correlation value of 0.7 between two variables indicates that the two have a significant and positive relationship.

3.8.5 Multiple Regression

Multiple regression is a statistical technique for examining the relationship between a single dependent variable and a number of independent variables. The goal of multiple regression analysis is to use known independent variables to predict the value of a single dependent variable.

4 Data Analysis and Findings

4.1 Pilot Test

Pilot research is the early phase in the testing process, as well as a smaller study that supports in the design and adjustment of the major study. The pilot study is critical to the main research's quality and efficiency (In, 2017). The Cronbach's alpha typically fluctuates test between 0 and 1, as according to Joseph A. Gliem and Rosemary R. Gliem (2003). The better the internal consistency of the items on the scale, closer the Cronbach alpha coefficient is to 1.0.

Table 1: Result of Pilot Test

Variables	No. of items	Cronbach's Alpha	Results
Customer Satisfaction	5	0.866	Acceptable
Reliability	5	0.832	Acceptable
Tangibility	7	0.897	Acceptable
Responsiveness	5	0.929	Excellent
Assurance	5	0.903	Excellent
Empathy	4	0.870	Acceptable

4.2 Validity and Reability Test

Table 2: Reliability Test

Variables	Items	Cronbach's Alpha
Customer Satisfaction	5	0.916
Reliability	5	0.832
Tangibility	7	0.935
Responsiveness	5	0.908
Assurance	5	0.909
Empathy	4	0.885

After collecting data from 384 respondents, the reliability test needs to conduct again to ensure all the variables was reliable. The reliability test result must be 0.7 and above to be used for the study. The reliability of instruments was measured using Cronbach's alpha. From the Table 2 it can conclude that all the variables of Cronbach's alpha or actual data was above 0.7 which means the result is excellent and reliable and it can be used for this study. Reliability is the lowest score, which is 0.832. The second lowest is empathy with 0.885. Continuing with that, customer satisfaction with 0.916. Responsiveness with 0.908 and assurance which are 0.909. Lastly, the highest score is 0.935 which is tangibility.

4.3 Demographic Profile of Respondents

There were 384 respondents was obtained from this study. The data attained section A that included questions about demographic profile of the respondents such as gender, age, race, marital status, occupation, state and how often you use public bus transportation. The demographic profile was analysed using descriptive statistics involving frequency and percentage.

Table 3: Respondents Profile

Demography Profile	Characteristics	Frequency	Percent (%)
Gender	Male	150	39.1%
	Female	234	60.9%
Age	19 years old and below	17	4.4%
	20 – 29 years old	303	78.9%
	30 – 39 years old	38	9.9%
	40 – 49 years old	18	4.7%
	50 – 59 years old	8	2.1%
Race	Malay	313	81.5%
	Chinese	36	9.4%
	Indian	30	7.8%
	Others	5	1.3%
Marital Status	Single	317	82.6%
	Married	67	17.4%
Occupation	Government Sector	19	4.9%
	Private Sector	71	18.5%
	Self-Employed	30	7.8%
	Student	248	64.6%
	Not Working	16	4.2%
State	Kuala Lumpur	237	61.7%
	Kelantan	100	26.0%
	Terengganu	47	12.2%
How often you use public bus transportation?	Everyday	18	4.7%
	Weekly	43	11.2%
	Monthly	277	72.1%
	Never	46	12.0%

The highest gender and most of the respondents are female with 234 respondents in this study which is with (60.9 %). Meanwhile, the male group is about 150 respondents which is with (39.1%). Thus, the result shows that female is more using public transport sector among bus consumer compared to male. Next, the lowest age of the respondents is 19 years and below age group with 17 participants in this study (4.4%). Meanwhile, the age group between 20 – 29 years old had 303 participants who are an attempt this questionnaire (78.9%). The next category age 30 -39 years old is 38 participants with (9.9%). The 40 – 49 years old is 18 participants with (24.7%) and finally 50 – 59 years age group is 8 participants with (2.1%). In a conclusion, the 20-29 age group is more using the bus compared to other age groups. For the race, Chinese ethnic with 36 respondents which are with (9.4%), and Indian ethnic with 30 respondents which are with (7.8%). Next, Malay ethnic holds the highest number of respondents with 313 respondents which are with (81.5%). Lastly, are others with 5 respondents with (1.3%). So based on this survey, most Malays are bus consumers.

The respondents based on married status with 67 respondents which are with 17.4%. Then, the single group holds the number of respondents with 82.6% (317 respondents). This survey shows that most bus consumers are single. After that, the number of respondents based on occupation status. For the government sector, it has 19 respondents with (4.9%). Next, for not working, it has 16 respondents with (4.2%) and for the private sector, it has 71 respondents with (18.5%). In contrast, there are 30 respondents who are self-employed (7.8%), and 248 respondents who are students (64.6%) make up the largest group of respondents. Thus, it is clear that students use the bus more frequently than workers in other professions.

Moreover, respondents according to their state. Kelantan has 100 respondents who participate in this survey with (26.0%). Then, for Kuala Lumpur, it has 237 respondents which are with (61.7%). Last but not least, Terengganu has 47 respondents with (12.2%). Thus, it is clear that the state of Kuala Lumpur has the highest respondent who uses the bus more people than other states. Lastly, the question was about how often you use public bus transportation. The percentage of customers who use public bus transportation every day is 4.7% (18 respondents). For weekly is 11.2% (43 respondents). Next is for monthly is 72.1% (277 respondents). Finally, for respondents that never use public bus transportation 12% (46 respondents). Therefore, the result is the highest number of respondents who use public bus transportation is monthly.

4.4 Descriptive Analysis

4.4.1 Independent Variable and Dependent Variables

Table 4: Descriptive Statistics

Description	Mean	Standard Deviation
Customer Satisfaction	3.9630	0.77735
Reliability	3.9010	0.74931
Tangibility	3.9457	0.77268
Responsiveness	3.9229	0.78955
Assurance	4.0151	0.73016
Empathy	3.9863	0.73181

Table 4 shows the mean and standard deviation of dependent variable and independent variables. Mean of dependent variable in this research is 3.9630. For independent variables, the highest mean is assurance which is 4.0151 and followed by empathy which is 3.9863, tangibility 3.9457, responsiveness 3.9229, and the lowest is reliability which is 3.9010.

4.5 Normality Test

A normality test is used to assess if a sample of the data falls within a conventional normal distribution. (Mishra et al., 2019). Skewness and Kurtosis statistics were employed to determine the data's normalcy. Consequently, if the Skewness and Kurtosis values are between -1.96 and +1.96, then the distribution is considered normal.

Table 5: Normality Test for All Variables

Category	**Mean**	**Std. Deviation**	**Skewness**		**Kurtosis**	
			Statistic	Std. Error	Statistic	Std. Error
Customer Satisfaction	0.5691	0.22656	0.800	0.125	-0.431	0.248
Reliability	0.5433	0.20476	0.852	0.125	-0.040	0.248
Tangibility	0.5649	0.22811	0.836	0.125	-0.418	0.248
Responsiveness	0.5618	0.23207	0.848	0.125	-0.442	0.248
Assurance	0.5778	0.22082	0.781	0.125	-0.417	0.248
Empathy	0.5681	0.21621	0.829	0.125	-0.234	0.248

4.6 Pearson Correlation Analysis

Pearson's Correlation analysis is the test statistic that assesses the statistical association or relationship between two continuous variables. This analysis's goal is to assess whether there is a correlation between the independent variable (reliability, tangibility, responsiveness, assurance, and empathy) and the dependent variable (customer satisfaction). The strength of the correlation between the variables must be determined by the researcher if a relationship is found.

Table 6: Result of Hypothesis

Hypothesis	**Correlation Value**	**Findings**
H0: There are no significant and negative relationship between the reliability and public transport towards customer's satisfaction among the bus consumer in Malaysia. H1: There are a significant and positive relationship between the reliability and public transport towards customer's satisfaction among the bus consumer in Malaysia.	0.745 (Strong)	H0: Rejected H1: Accepted
H0: There are no significant and negative relationship between the tangibility and public transport towards customer's satisfaction among the bus consumer in Malaysia. H2: There are a significant and positive relationship between the tangibility and public transport towards customer's satisfaction among the bus consumer in Malaysia.	0.751 (Strong)	H0: Rejected H2: Accepted
H0: There are no significant and negative relationship between the responsiveness and public transport towards customer's satisfaction among the bus consumer in Malaysia.	0.748 (Strong)	H0: Rejected H3: Accepted

H3: There are a significant and positive relationship between the responsiveness and public transport towards customer's satisfaction among the bus consumer in Malaysia.		
H0: There are no significant and negative relationship between the assurance and public transport towards customer's satisfaction among the bus consumers in Malaysia. H4: There are a significant and positive relationship between the assurance and public transport towards customer's satisfaction among the bus consumers in Malaysia.	0.733 (Strong)	H0: Rejected H4: Accepted
H0: There are no significant and negative relationship between the empathy and public transport towards customer's satisfaction among the bus consumer in Malaysia. H5: There are a significant and positive relationship between the empathy and public transport towards customer's satisfaction among the bus consumer in Malaysia.	0.759 (Strong)	H0: Rejected H5: Accepted

Table 4.6 shows the result of Pearson Correlation Coefficient. As shown in table the relationship between reliability and public transport where H0 is rejected and H1 has been accepted because the result is 0.745. Moreover, there were also positive relationship between tangibility and public transport where H0 is rejected and H2 has been accepted because the result is 0.751. There was also positive relationship between responsiveness and public transport where H0 is rejected and H3 has been accepted because the result is 0.748. Next is, assurance has significant relationship with public transport where H0 is rejected and H4 is accepted because the result is 0.733. Finally, empathy has significant relationship with public transport where H0 is rejected and H5 is accepted because the result is 0. 759.

4.7 Multiple Regression

Table 7: Table of Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.819[a]	0.671	0.667	0.13077
a. Predictors: (Constant), Reliability, Tangibility, Responsiveness, Assurance, Empathy				
b. Dependent Variable: Customer Satisfaction				

Based on table 4.7, model summary revealed that R is 0.819. This value indicates that there is a high positive association between reliability, tangibility, responsiveness, assurance, empathy, and customer's satisfaction among the bus consumer in Malaysia. The value R-Square was 0.671. This shows that 67.1% of total variation in the customer satisfaction could be explained by the independent variables which are reliability, tangibility, responsiveness, assurance, empathy while the rest 32.9% of this variation is explained by other factors. The Adjusted R-Square is 66.7%.

5 Discussion and Recommendation

5.1 Discussion

Chapter five is to discuss the overall analysis depth. It helps the researchers to get more about the details or explanation of the results of the findings and allowed researcher to determine whether they can meet the objectives of the research or not. This research is about factors influencing customer satisfaction on public transport sector among bus consumer in Malaysia. The first objective of this study to identify the level of customers' satisfaction towards service quality provided by public transport sector in Malaysia.

Next objective of this research is to identify the relationship between SERVQUAL model which are reliability, tangibility, responsiveness, assurance and empathy and customer satisfaction on public transport sector among bus consumer in Malaysia. The findings of Pearson Correlation analysis that the relationship between independent variable that is SERVQUAL model (reliability, tangibility, responsiveness, assurance, empathy) and the dependent variable which is customer satisfaction are all significant and have positive relationship. Therefore, this research can have accepted the H1, H2, H3, H4 and H5 throughout the hypothesis testing in the previous chapter.

Next objective is to determine the most influencing factors in the SERVQUAL model and customer satisfaction on public transport sector among bus consumer in Malaysia. The result from multiple regression analysis showed that all the dimensions have positive effects on customer satisfaction.

In a nutshell, the findings of this study show that there is a relationship SERVQUAL model (reliability, tangibility, responsiveness, assurance, empathy) and customer satisfaction on public transport sector among bus consumer in Malaysia. Through the results of the study, the researcher has answered the objectives and hypothesis of the study.

5.2 Recommendation/Suggestion for Future Research

This research focuses on the factor influencing customer satisfaction on public transport sector among bus consumer in Malaysia. The recommendation in this research was based on the complaints from the consumer in Malaysia. We also suggest other way to improve customer satisfaction on public transport.

In order to improve customer satisfaction on public bus transport, public transport decision maker and provider have to improve service quality in public bus transport. The service attributes could be improved as single attributes or as the factor. The functional factor has a strong influence on customer satisfaction. In addition, service quality is analysed at an attribute level it is revealed that on board security is very important. One way to increase on board security is to limit the opportunity for pickpockets and other criminal activities onboard the buses.

Next, travel time also has high correlation with overall customer satisfaction. Travel time is considered when choosing travel mode. Customers are more satisfy when they perceived shorter travel time. Shorter travel time influences the decision of customer to choose public bus transport as a means of transport. To summarize, the overall result show that service quality attributes influences overall customer satisfaction in using public bus transport. The service quality could be evaluated and improved by analyzing single attributes but also by analyzing factors on several attributes. The overall aim is to make public bus transport an attractive, satisfied, and marketable mode of transport.

6 Conclusion

The purpose of this study is to identify the factors that influencing customer satisfaction on public transport sector among bus consumer. The results of this study can be used by the public transport service to determine the factors that influence customer satisfaction. Due to the fact that it will aid in the development of a service quality between the customer and bus services. Based on the result that the researcher got from the analysis, among all the independent variables, all the variables, which are reliability, tangibility, responsiveness, assurance, and empathy toward customer satisfaction among the bus consumer in Malaysia have a significant relationship. In conclusion public bus transport should become the solution for sustainable transport in the future, which is the reason to increase customer satisfaction. High quality public bus transport not only keep customer to continue using public bus transport to fulfil their travel demand but also attract potential customer.

7 Acknowledgements

Special thanks and appreciation for the efforts of all group members who showed their responsibilities during the research process. Additionally, we would like to thank all those who gave assistance and ideas in helping us complete this research study.Finally, we appreciate Universiti Malaysia Kelantan (UMK) for providing us with the opportunity to study here. During the process of completing this research, we have acquired a vast amount of knowledge and expertise that will be valuable in future endeavours. In addition, UMK also gives us access to the UMK Library Portal, which has been a great assistance in providing us with relevant documents and information to do our research efficiently, despite the fact that we must continue to engage in online learning. Our gratitude and appreciation go out to all those who had been involved in preparing this research directly and indirectly. We hope our research study will benefit others through the knowledge that we have gained through this journey. Thank you.

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A Study on The Impact of Courier Service Quality on Customer Satisfaction in Malaysia

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Abstract:
The objective of this study is to examine the impact of courier service quality on customer satisfaction in Malaysia. Service quality is crucial in a company's operational activities because it has a great impact on customer satisfaction and loyalty. Service quality will be measured in five dimensions: reliability, responsiveness, empathy, assurance, and tangibles. Customers are the key to winning in the competition among business practitioners. Service quality is an important component of the marketing mix that has an impact on consumers. Service quality is an important component in influencing customers when it comes to increasing customer loyalty. The data analyzed were collected from Malaysian citizens (aged 15 to 60 years). This study discusses the findings of the study and examines whether the objectives of this study can be achieved. Conclusions and recommendations will be presented in the final chapter.

***Keywords**: Courier Service, Service Quality, Customer Satisfaction, SERVQUAL Model, Malaysian*

1 Introduction

The purpose of this study is to understand the impact of courier service quality on customer satisfaction in Malaysia. Over the past few years, the boom in online purchasing has led to the emergence of numerous courier services that provide the convenience of online purchasing to people around the world. According to Patel (2022), the job of a courier is to transport packages from one place to another for a company or individual. Simply put, courier services enable people to receive or send any type of parcel or goods from one area to another, whether it is any city, country or a letter from outside. Shipsy (2022) noted that courier service providers are giving new opportunities to e-commerce businesses to expand their consumer base and reach. PosLaju, GD Express, J&T Express, ABX Express, Skynet Express, and City-Link Express, are the courier services in Malaysia. This chapter provides an overview of the study. Background of the study, problem statement, research objectives, significance of the study, research questions, scope of study and definition of terms are the seven main sections.

1.1 Research Question

The following research question are made in order to accomplish the study objectives:

- What is the level of customer satisfaction on courier service quality in Malaysia?

- What is the relationship between service quality and customer satisfaction on courier service in Malaysia?

- What is the most influential factor in SERVQUAL model towards customer satisfaction on courier service quality in Malaysia?

1.2 Research Objectives

This study will precisely focus about:

- To identify the level of customer satisfaction with courier service quality in Malaysia.
- To determine the relationship between service quality and customer satisfaction in courier service in Malaysia.
- To identify the most influential factor in SERVQUAL model (reliability, responsiveness, empathy, assurance and tangible) towards customer satisfaction on courier service quality in Malaysia.

1.3 Scope of Study

The purpose of this study is to identify the factors that affect the quality of courier services in Malaysia in terms of customer satisfaction in order to help courier services in Malaysia to improve their services and performance in the future. The scope of the study focused on courier service users in Malaysia between the ages of 15-60. The questionnaire will be distributed through social media such as Facebook and WhatsApp, targeting people who use courier services.

1.4 Significant of the Study

The study was designed to examine how courier service quality affects customer satisfaction in Malaysia. This study also proposed to measure the relationship between courier service quality and customer satisfaction in Malaysia. In the study, various importance related to courier service quality was obtained and it contributes to the view of organization, individual and body of knowledge. The results of this study can help organizations to improve their knowledge about the factors in the SERVQUAL model that have the most influence on customer satisfaction of courier service quality in Malaysia. In addition, the management of courier companies can use the results of this study to better understand the impact of service quality on customer satisfaction. This study will also help courier companies to improve their services and gain customer loyalty in order to earn more profit and expand their overseas business. From the perspective of individuals such as customers, they can express their opinions and satisfaction with the quality of courier services. For the body of knowledge, they can discover a new method or approach to address the same problem that was found in previous studies by reviewing empirical studies on a particular topic.

2 Literature Review

2.1 Customer Satisfaction on Courier Service Quality

According to Gianluigi Guido (2015), customer satisfaction is described as a post-purchase psychological state that reflects a judgment about the use of a product or service. Perceived performance refers to the consumer's perception of the product or service's performance. Today, customer satisfaction encompasses a wide range of factors that are influenced not only by the price and quality of the product but also by the degree of coordination of services and logistics (Ghoumrassi et al, 2017). When customers are satisfied with a product, they usually contribute more money to the company through repeat business or word-of-mouth recommendations.

Customer satisfaction is a key element of business strategy and it determines the effectiveness of services. It is given as ideas that can be used in numerous contexts and is often associated with goods and services. Customer satisfaction is a level of achievement for all businesses, including the public sector, as it can affect the operation of a business or the provision of goods or services (Ok et al., 2018). Helping customers even after they have made a purchase can extend the life of the product; therefore, customers will trust the company to provide excellent service and are more likely to buy again in the future.

2.2 Service Quality

Hong et al. (2019) emphasized that service quality is important in e-commerce platforms and logistics companies. The ability to provide improved service quality can help the service industry achieve competitive growth. Service quality has been extensively discussed in the literature and it is often understood as a function of customers' expectations of the benefits provided and their agreement with the actual benefits received. Moreover, the customer's perception of the service is determined by two main factors: technical quality and functional quality, which distinguish service quality from product quality. The perceived quality of tangible objects is mainly determined by the results of service delivery. In other words, individuals judge the quality of physical objects primarily on the basis of technical merit. Therefore, courier services must improve the quality of their services in order to drive the company's growth.

2.2.1 Relationship Between Reliability and Customer Satisfaction

According to Drost (2011), reliability is the degree to which a measurement is repeatable when measured by different people, in different settings, under different conditions, and ostensibly with different instruments to measure the construct or skill. Indeed, Editorial Team (2021) defines reliability as the ability and consistency of an organization to provide a certain service in a way that meets the needs of the customer. This stage encompasses all aspects of customer contact, such as delivery or execution of goods or services, quick and precise problem resolution, and competitive pricing. Customers demand reliability when buying a specific product, and a company's success depends to a large extent on its ability to meet these expectations. In courier services, reliability is measured by the ability to deliver products from one location to another with precision. This can be measured from the condition of the required item to the delivery time. The higher the consumer rating of a company's reliability, the higher the customer satisfaction.

H1: There is a significant relationship between reliability and customer satisfaction.

2.2.1 Relationship Between Responsiveness and Customer Satisfaction

The readiness and ability of a service provider to meet and adapt to consumer requirements is referred to as responsiveness. Receiving, analyzing, and responding quickly to consumer requests, feedback, concerns, and difficulties is what responsiveness entails. Munusamy et al. (2010) 17 define responsiveness as the desire of employees or personnel to assist customers and provide good service and response. According to previous studies by Al-Weshah et al. (2013), responsiveness has the strongest association with customer satisfaction. A company that provides high quality services usually responds to consumer communications as quickly as possible, which can often reflect the importance the company places on customer satisfaction.
H2: There is a significant relationship between responsiveness and customer satisfaction.

2.2.3 Relationship Between Empathy and Customer Satisfaction

El Saghier and Nathan (2013) stated that companies that encourage their employees to show empathy for their customers can increase consumer loyalty and satisfaction. Empathy refers to a company's caring and personalized attention to its customers. Karatepe (2011) says that there is a favourable link between empathy and customer happiness. He saw that empathy may easily gain customer loyalty. The value of empathy can be expressed in terms of service quality, customer loyalty and satisfaction. customer satisfaction is believed to predict long-term customer behaviour; therefore, companies are trying to please their customers to prevent them from losing out to the competition.
H3: There is a significant relationship between empathy and customer satisfaction.

2.2.4 Relationship Between Tangible and Customer Satisfaction

Courier can improve external consumer satisfaction by focusing on the "visible" aspects of their services. Services are tangible, so customers' evaluation of the quality of the services they receive is based on a comparison of the tangible assets associated with those services. The tangible experience is the overall perception that customers have of the service provider, including the environment, people, surroundings, objects, and appearance (Shukri et al., 2020). Therefore, the tangible assets of the courier service immediately affect the impression and mood of the customer at the time of pickup. If the expedited service can be improved in terms of tangible assets, consumers will feel more satisfied.
H4: There is a significant relationship between tangible and customer satisfaction.

2.2.5 Relationship Between Tangible and Customer Satisfaction

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H5: There is a significant relationship between tangible and customer satisfaction.

2.3 Research Framework

There are five of courier service quality that influence the customer satisfaction in Malaysia, which are reliability, responsiveness, empathy, assurance, and tangibles. The dependent variable (DV) and independent variable (IV) are shown in Figure 2.1.

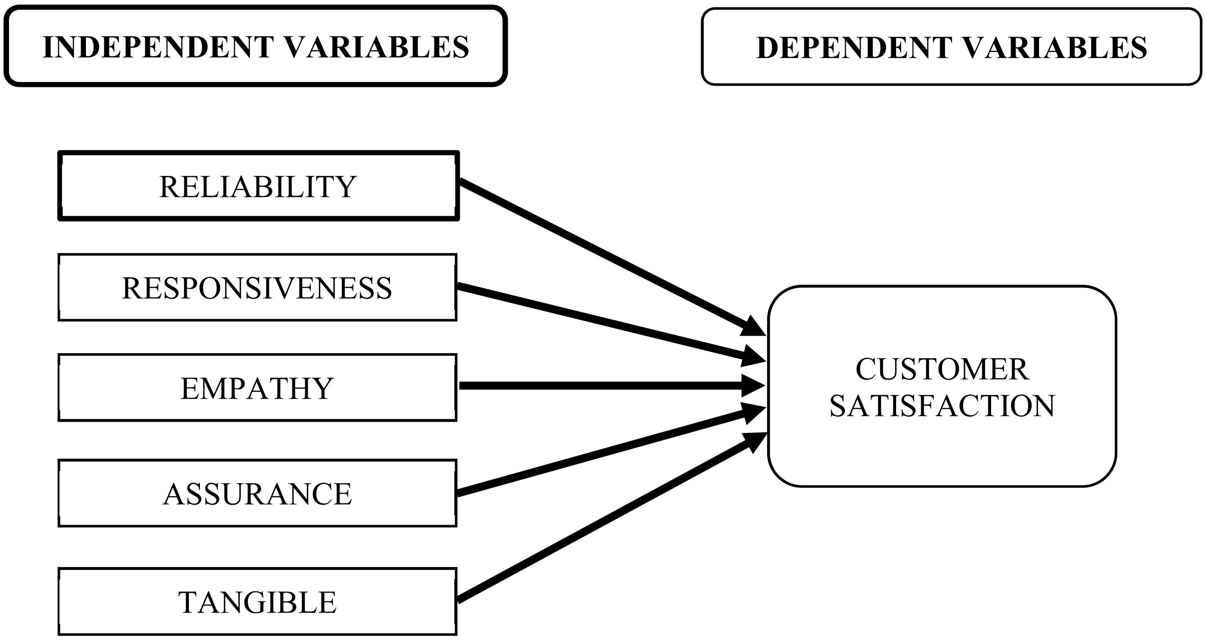

Figure 2.1: Research Framework

3 Research Methodology

3.1 Research Design

This study will use a quantitative research method with the aim of exploring and understanding the correlation between the dependent variable (customer satisfaction of courier service quality) and the independent variables (reliability, responsiveness, empathy, assurance, and tangibles). In this study, the researcher will focus primarily on individuals between the ages of 15 and 60 who have experience using courier services as the unit of analysis. Additionally, the researcher will use questionnaires to study SERVQUAL theory and all questionnaires will be completed by the respondents through Google Forms.

3.2 Data Collection Methods

In this study, primary data collection method will be chosen. The primary data will be collected from the respondents of different age groups in Malaysia. The researcher will collect a total of 384 questionnaires based on Krejcie and Morgan's Sample Size Determination Table.

3.3 Sampling Technique

This study will use a purposive sampling technique. This technique, also referred to as selective or subjective sampling, relies on the judgment of the researcher in choosing who to invite to participate. Researchers may thus implicitly select a "representative" sample to meet their needs, or specifically reach individuals with certain characteristics. In this study, researchers will use purposive sampling techniques. The researchers will send Google Forms through social media such as Facebook, Instagram and WhatsApp. The target population is Malaysian consumers between the ages of 15 and 60 and who have experience using courier services.

3.4 Research Instrument Development

The instrument that will be used to collect data for this study is a questionnaire. The sample will be collected from the users of courier services in Malaysia. In addition, the questionnaire is easy to handle when it takes a long time for the respondents to answer. Therefore, respondents' data can be easily collected, analyzed and standardized from the questionnaire and is straightforward information. The type of questionnaire is a closed-ended questionnaire. It focuses mainly on the 3 objectives of the study. The constructed questionnaire consists of three parts, such as Part A, Part B and Part C.

Section A presents more demographic details of the respondents. The research questions in section A of the questionnaire were divided into six questions, namely gender, age, type of consumer, the courier that mostly use, type of shipping that use most often and frequency of using courier services. Sections B and C were adopted from previous studies by Yaacob, N. A. & Yaacob, T.Z. B. (2022). Section B is about the relationship between customer satisfaction and courier service quality, which are the independent variables of this study, namely reliability, responsiveness, empathy, assurance and tangibility. Meanwhile, section C of the questionnaire is about the level of satisfaction of using courier service management. All questions in section B and C were closed-ended and answered on a Likert scale from strongly disagree to strongly agree on a continuum of 1 to 5. The points on the Likert scale were 1- strongly disagree, 2- disagree, 3-neutral, 4-agree, and 5-strongly agree.

3.5 Procedure of Data Analysis

3.5.1 Descriptive Analysis

Descriptive analysis is a situational analysis that can be condensed into meaningful data and provides demographics and responders as bar charts, bar graphs, or pie charts to illustrate variables. It quantifies the mean, variance, and standard deviation of the given data, detects central tendencies, and describes underlying traits. In this section, respondents had been asked to provide information about their gender, age, type of consumer, the courier that mostly use, type of shipping that use most often and frequency of using courier services. Thus, descriptive statistics help to achieve the study objectives by providing some assessment of the responses.

3.5.2 Reliability Analysis

In this study, the alpha reliability of the dependent and independent variables will be used to determine their variable sizes and internal consistency. According to Huck (2011), reliability testing is crucial because it involves the consistency of the various parts of the measurement instrument. The following table shows Cronbach's Alpha coefficient value.

Table 3.1 Cronbach's Alpha Coefficient Value

Alpha Coefficient Range	Strength
0.01 – 0.50	Unacceptable
0.51 – 0.60	Poor
0.61 – 0.70	Questionable
0.71 – 0.80	Acceptable
0.81 – 0.90	Good
0.91 – 1.00	Excellent

3.5.3 Normality Test

Normality tests are used to determine whether sample data are from a normally distributed population. There are two well-known tests for normality, the Kolmogorov-Smirnov test and the Shapiro-Wilk test, which are the most widely used methods for testing the normality of data. If the p-value is less than or equal to 0.05 (≤ 0.05), it means the null hypothesis is rejected and the distribution is not normal. In contrast, a p-value greater than 0.05 (> 0.05) means that the null hypothesis is accepted and the distribution is normal.

3.5.4 Pearson Correlation

Pearson Correlation analysis was used to assess the linear correlation between two variables. Pearson Correlation analysis ranges between -1 and +1, and it reveals whether the association between two variables is positive or negative. If the data indicates a result of "+1", a perfect positive association exists between both variables; if the data indicates a result of "-1", a perfect negative association exists; and if the data indicates a result of "0", no relationship exists between them. In this study, the researchers used Pearson's Correlation coefficient to measure the relationship between customer satisfaction of courier service and the courier service quality in Malaysia.

Table 3.2: Pearson's Strength of Coefficient Relationship

Pearson Correlation	Strength of Correlation
±0 to ± 0.20	Very Weak
±0.21 to ± 0.40	Weak
±0.41 to ± 0.60	Moderate
±0.61 to ± 0.80	Strong
±0.81 to ± 1.00	Very Strong

3.5.5 Multiple Linear Regression

Multiple linear regression is a regression model that estimates the relationship between a quantitative dependent variable and two or more independent variables using a straight line. Multiple linear regression allow researcher to use several variables at once to explain the variation in a continuous dependent variable. Multiple linear regression allows the researcher to use several variables at once to explain the variation in the continuous dependent variable and to isolate the unique effect of one variable on the continuous dependent variable, taking into consideration that other variables are also affecting it. In addition, multiple linear regression allows a mathematical equation to be written that tells the researcher the overall effect of several variables and the unique effect of each variable on the continuous dependent variable.

4 Result and Discussion

4.1 Demographic Profile of Respondents

This chapter describes the results of the data conducted throughout the analysis of the impact of courier service quality on customer satisfaction in Malaysia. A total of 384 questionnaires were administered to citizens aged 15 to 60 years old who have experience in using courier services as in Table 4.1. Majority of respondents were Female which is represent 227 (59.10%) compared to male which is represent 157 (40.90%). This indicates that female is more likely to use courier services than male. Most of the respondents were aged between 21 to 30 years old which is represent 269 (70.10%) and the least number of respondents were 51 and 60 years old with 4 (1.00%) respectively. Therefore, their occupation majority were students with 228 (59.40%). This was followed by self-employed with 83 respondents (21.60%). There were also 25 respondents working in the government sector and 43 respondents working in the public sector, representing 6.50% and 11.20% of this survey. The least number of respondents belonged to other occupations, with 5 (1.30%).

Majority of respondents choose to used parcel delivery for type of shipment that representing 317 (82.60%) respondents. This is followed by letter delivery with 42 respondents (10.90%). The least type of shipment was oversized shipments with only 25 (6.50%) respondents. Lastly, the highest frequency of using courier services was 1-5 times per month while the lowest was more than 15 times per month, which was 221 respondents (57.6%) and 22 respondents (5.7%).

Table 4.1: Demographic Profile of Respondents

Variables	Category	Total (N)	Percentage (%)
Gender	Male	157	40.9
	Female	227	59.1
Age	15 – 20 years old	57	14.8
	21 – 30 years old	269	70.1
	31 – 40 years old	44	11.5
	41 – 50 years old	10	2.6
	51 – 60 years old	4	1.0
Occupation	Student	228	59.4
	Government Sector	25	6.5
	Public Sector	43	11.2
	Self Employed	83	21.6
	Others	5	1.3
Type of Shipment	Letter	42	10.9
	Parcel	317	82.6
	Oversized Shipment	25	6.5
Frequency	1 – 5 times	221	57.6
	6 – 10 times	96	25.0
	11 – 15 times	45	11.7

More than 15 times	22	5.7

4.2 Descriptive Analysis

Table 4.2: Descriptive Analysis

	N	Mean	Std. Deviation
Reliability	384	4.2406	0.72148
Responsiveness	384	4.0563	0.88265
Empathy	384	4.0177	0.93624
Assurance	384	4.1531	0.83619
Tangible	384	4.1969	0.78177
Customer Satisfaction	384	4.1957	0.79407

Table 4.2 shows descriptive statistics that explain the number of respondents, the mean and standard deviation of the dependent and independent variables. The dependent variable is customer satisfaction, while the independent variables are reliability, responsiveness, empathy, assurance and tangible. As shown in the table, all the dependent and independent variables scored above 4.0, which indicates that the respondents agreed that these variables will be the factors that influence the satisfaction of customers using courier services in Malaysia. In this study, reliability and empathy had the highest mean score of 4.2406 and the lowest mean score of 4.0177. The highest mean scores indicate that respondents agree that reliability is the most significant variable in this study, while empathy had the least effect on customer satisfaction. Then, the highest mean scores were tangible and customer satisfaction with 4.1969 and 4.1957, respectively. Meanwhile, assurance had a mean score of 4.1531 and responsiveness had a mean score of 4.0563.

4.3 Reliability Test

Table 4.3: Reliability Test

	Cronbach's Alpha	N of items
Reliability	0.889	5
Responsiveness	0.925	5
Empathy	0.938	5
Assurance	0.948	5
Tangible	0.924	5
Customer Satisfaction	0.948	7
All Variables	0.970	6

Table 4.3 shows the results of the reliability analysis based on a survey of 384 respondents in Malaysia. The overall result for these variables is 0.970, which is an excellent sign of the strength of association. This indicates that the overall variables are acceptable for this study. In other words, the questionnaire is reliable and can be used in this study. The Cronbach's alpha value for the dependent variable, which is customer satisfaction, showed 0.948, which is an excellent sign of the strength of association. For the independent variables, responsiveness, empathy, assurance, and tangibles have Cronbach's alpha values of 0.925, 0.938, 0.948, and 0.934, respectively. The Cronbach's alpha values for these variables are all above 0.9, which indicates that these variables are excellent signs of strength of association. While the Cronbach's alpha for reliability was 0.889, which is a good sign of association strength.

4.4 Normality Test

Skewness and Kurtosis test is applied in this study to ensure the data collected to be normal distributed (Saunders, Lewis and Thornhil, 2012). Normality test is conduct to verify the normality of collected data in order to carry out the assumption of parametric test (Norman, 2010). As shown in Table 4.4, responsiveness has the biggest skewness value at -0.604 while reliability
has the smallest skewness value at -0.904. Besides, the greatest kurtosis value is 0.959 for reliability while the smallest kurtosis value is -0.440 for responsiveness. The skewness test and kurtosis test of each variable is fall within the range of ±3 and ±10 respectively. Thus, the assumption of normality is met.

Table 4.4: Analysis of Skewness and Kurtosis

	Skewness	Kurtosis
Reliability	-0.904	0.959
Responsiveness	-0.604	-0.440
Empathy	-0.705	-0.182
Assurance	-0.711	-0.191
Tangible	-0.771	0.120
Customer Satisfaction	-0.870	0.383

4.5 Hypothesis Testing

Table 4.5: Pearson Correlation of each Variables

		Reliability	Responsiveness	Empathy	Assurance	Tangible	Customer Satisfaction
Reliability	Pearson Correlation	1	.812**	.777**	.802**	.801**	.838**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	384	384	384	384	384	384
Responsiveness	Pearson Correlation	.812**	1	.891**	.840**	.807**	.808**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	384	384	384	384	384	384
Empathy	Pearson Correlation	.777**	.891**	1	.899**	.837**	.840**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	384	384	384	384	384	384
Assurance	Pearson Correlation	.802**	.840**	.899**	1	.891**	.899**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	384	384	384	384	384	384
Tangible	Pearson Correlation	.801**	.807**	.837**	.891**	1	.908**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	384	384	384	384	384	384
Customer Satisfaction	Pearson Correlation	.838**	.808**	.840**	.899**	.908**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	384	384	384	384	384	384

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

4.5.1 Relationship between Reliability and Customer Satisfaction

Based on the Pearson correlation analysis in Table 4.5, the result shows that the correlation between reliability and customer satisfaction of using courier services in Malaysia is r = 0.838. This result shows that the p-value is 0.000 which is less than 0.05, therefore, there is a significant relationship between reliability and customer satisfaction of using courier services in Malaysia.
H_1 = There is a significant relationship between reliability and customer satisfaction.

4.5.2 Relationship between Responsiveness and Customer Satisfaction

Based on the Pearson correlation analysis in Table 4.5, the result shows that the correlation between responsiveness and customer satisfaction of using courier services in Malaysia is r = 0.808. This result shows that the p-value is 0.000 which is less than 0.05, therefore, there is a significant relationship between responsiveness and customer satisfaction of using courier services in Malaysia.
H_2 = There is a significant relationship between responsiveness and customer satisfaction.

4.5.3 Relationship between Empathy and Customer Satisfaction

Based on the Pearson correlation analysis in Table 4.5 the result shows that the correlation between empathy and customer satisfaction of using courier services in Malaysia is r = 0.840. This result shows that the p-value is 0.000 which is less than 0.05, therefore, there is a significant relationship between empathy and customer satisfaction of using courier services in Malaysia.
H_3 = There is a significant relationship between empathy and customer satisfaction.

4.5.4 Relationship between Assurance and Customer Satisfaction

Based on the Pearson correlation analysis in Table 4.5, the result shows that the correlation between assurance and customer satisfaction of using courier services in Malaysia is r = 0.899. This result shows that the p-value is 0.000 which is less than 0.05, therefore, there is a significant relationship between assurance and customer satisfaction of using courier services in Malaysia.
H_4 = There is a significant relationship between assurance and customer satisfaction.

4.5.5 Relationship between Tangible and Customer Satisfaction

Based on the Pearson correlation analysis in Table 4.5, the result shows that the correlation between tangible and customer satisfaction of using courier services in Malaysia is r = 0.908. This result shows that the p-value is 0.000 which is less than 0.05, therefore, there is a significant relationship between tangible and customer satisfaction of using courier services in Malaysia.
H_5 = There is a significant relationship between tangible and customer satisfaction.

4.6 Multiple Linear Regression

4.6.1 Model Summary

Table 4.6: Model Summary

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.938[a]	.880	.878	.27683	.880	554.676	5	378	.000

a. Predictors: (Constant), Mean Tangible, Mean Reliability, Mean Responsiveness, Mean Empathy, Mean Assurance

b. Dependent Variable: Mean Dependent Variable

According to table 4.6, the R-Square value is 0.880, which mean 88.0% of the variation in customer satisfaction can be explained by reliability, responsiveness, empathy, assurance and tangible. The adjusted R-Square is 87.80%. The Durbin-Watson statistic is used to test for the presence of serial correlation among the residuals. Durbin-Watson statistic is approximately 2 indicates no serial correlation. The Durbin-Watson statistics of 1.956 in this study is not too far from 2.

4.6.2 ANOVA

Table 4.7: ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	212.532	5	42.506	554.676	.000[b]
	Residual	28.967	378	.077		
	Total	241.500	383			

a. Dependent Variable: Mean Dependent Variable

b. Predictors: (Constant), Mean Tangible, Mean Reliability, Mean Responsiveness, Mean Empathy, Mean Assurance

The p-value from the ANOVA table is less than 0.001, which means that at least one of the five variables: reliability, responsiveness, empathy, assurance and tangible can be used to model customer satisfaction.

4.6.3 Coefficient

Table 4.8: Coefficient

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.	95.0% Confidence Interval for B Lower Bound	95.0% Confidence Interval for B Upper Bound
1	(Constant)	.001	.088		.010	.992	-.172	.174
	Mean Reliability	.254	.038	.231	6.773	.000	.180	.328
	Mean Responsiveness	-.030	.039	-.033	-.766	.444	-.107	.047
	Mean Empathy	.034	.042	.040	.812	.417	-.049	.117
	Mean Assurance	.310	.048	.326	6.467	.000	.216	.404
	Mean Tangible	.432	.042	.426	10.200	.000	.349	.516

a. Dependent Variable: Mean Dependent Variable

As shown in Table 4.8, the p-value for responsiveness was 0.444 and empathy was 0.417, which was greater than 0.05. Therefore, responsiveness and empathy were not a significant predictor of customer satisfaction. The p-values for reliability, assurance and tangibles were less than 0.001 (<0.05). Therefore, reliability, assurance, and tangibles were significant predictors.

For every unit increase in reliability, customer satisfaction is expected to increase by 0.254, provided the other variables remain unchanged. For every unit increase in assurance, customer satisfaction is expected to increase by 0.310, provided the other variables remain unchanged. For every unit increase in tangible, customer satisfaction is expected to increase by 0.432, provided the other variables remain unchanged.

5 Discussion and Conclusion

5.1 Implication of Study

The issue involved in this study is to determine the relationship between the courier service quality and customer satisfaction in Malaysia. The target population of the researcher is Malaysian residents who are between the age of 15 and 60 years old and have experience in using courier services in Malaysia. The respondents that the researcher managed to conduct were 384 individuals who were selected based on purposive sampling technique.

5.2 Limitation

There are several limitations in the study. First, the honesty of the respondents. We appreciate those who took the time to answer our questions. However, some respondents did not really answer the questionnaire. They answered randomly without reading and understanding the questions. This is because they did not have time to focus on answering the questions and wanted to finish as quickly as possible. Besides that, there are other factors that may affect the customer satisfaction in using the courier service. The researchers only highlighted five dimensions of service quality, which include reliability, responsiveness, empathy, assurance, and tangibles. However, there are other factors that may affect customer satisfaction towards courier services in Malaysia, such as price, safety and security.

5.3 Recommendation

The study provides preliminary empirical evidence of customer satisfaction with service quality, including reliability, responsiveness, empathy, assurance, and tangibles. This can be used in the current findings to develop strategies to deepen and improve service quality. The current findings can be used to review and determine which policies or strategies achieve customer satisfaction. Future researchers can try to conduct research on another type of service in a different geographic area and measure other variables to gain new knowledge or findings. In addition, for future research, the impact of courier service quality may be influenced by customer satisfaction. Therefore, future researchers who intend to conduct research in this area should be aware of the above factors and may use them as a reference. It is recommended that researchers use different independent variables, responsiveness and empathy in the SERVQUAL dimension for future studies. Besides, the researchers should also simplify the questionnaire and extend the time of data collection in order to collect authentic answers.

5.4 Conclusion

It is anticipated that our research has clarified things for everyone who shops online as well as for those who haven't. Perhaps the greatest approach to persuade them to make an online purchase is through this study. With this information, the online customer may make an informed decision on the courier service and product quality. The main objective of this research is to investigate the relationship between the impact of courier service quality on customer satisfaction in Malaysia from the study. Meanwhile, to show that there are independent variables tested which Reliability, Responsiveness, Empathy, Assurance and Tangible. In addition, all data collection was collected through an online questionnaire and the data was analyzed by using SPSS software based on descriptive analysis, reliability analysis, Pearson's Correlation Coefficient analysis. Result getting from multiple regression analysis also show that there is a 3 independent variables (IV) reliability, assurance and tangible are positive which is accepted and 2 independent Variables (IV) responsiveness and empathy are negative which are not accepted and the relationship between all independent variables and dependent variables. As a logistics student must know about the new updates of transportation industry also e commerce sector. In addition, logistics students at UMK must compare themselves to students from UNIKL, UITM, and other institutions. Therefore, UMK management could add more coursework about recent developments in the logistics and commerce fields.

6 Acknowledgments

We would like to thank you of all the group members which is Chia Hui Hui (A19A0099), Faisarah Binti Abdul Fattah (A19A0129), Muhammad Asraf Bin Mohd Yusri (A19A1167) and Intanku Dayana Binti Ab Rahman (A20B1371) for their support as a teamwork, we can finish doing this report very well. Although our group facing many challenges and problems with a lot of correction and the network problem but we still working hard as a team to finish all the task for the report together. Also, we would like to thank you all our family and friends for helping us with sharing their information, idea and guiding us to finish this Final Year Project although we are not from the same group.

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Factors Influencing Customer Satisfaction Toward E-Hailing Services in Kelantan

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Abstract:

The purpose of this study is to get a clear picture of the factors that play a large role in customer satisfaction with e-hailing services in Kelantan. Comfort, safety, attitude, and accessibility will be used as independent variables in this study, while the dependent variable is customer satisfaction in e-hailing services. We selected 384 respondents in Kelantan who use e-hailing services to conduct a questionnaire survey. This study uses Statistical Package for Social Science (SPSS) version 26, to analyze data and obtain descriptive analysis, reliability analysis and Pearson's correlation analysis to test the objectives and hypotheses of the study. The results show that comfort, safety, attitude, and accessibility have a significant effect on customer satisfaction.

Keywords*: Customer satisfaction, Comfort, Safety, Attitude, Accessibility,*

1 Introduction

The e-hailing online transportation service is regarded by customers as the best in the transportation industry and encourages interaction between service providers and consumers (Md Nor et al., 2021)[1]. In this context, the transportation industry has be seen a significant shift in the demand for e-hailing services as these services offer users an easy way to schedule transportation online (Cheng et al., 2016)[2]. Customers are interested in e-hailing because it offers reasonably priced point-to-point rides and a convenient way to request a car with a smartphone tap. In Malaysia, e-hailing services such as GrabCar, MyCar and maxim are the most popular in the community. This is due to the reality that service is easy to use whenever needed, that the price method payment, and information about the drivers are provided, and that it may pick up and drop off customers at any location they want. The integration of the global mobile positioning system (GPS) and electronic with the continuous need

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[1] Md Nor, M. N., Md Sabri, S., & Mat Isa, N. F. (2021). E-hailing service satisfaction: a case study of students in a higher education institution in Perlis, Malaysia. *Jurnal Intelek*, *16*(2), 138-150.

[2] Cheng, X., Fu, S., & Yin, G. (2016). Does subsidy work? An investigation of post-adoption switching on car-hailing apps. *Journal of Electronic Commerce Research, Forthcoming*.

for flexible travel has caused the grab e-hailing services to become one of the most prominent on-demand private driver platforms (Ubaidillah et al., 2019)[3].

Few recent studies have dwelled into the e-hailing services sector highlighting mainly the key challenges and effects that have affected its widespread adoption (Furuhata et al., 2013)[4]. The demand for e-hailing has increase over the past several years, particularly among young adults, therefore it has become increasingly important for the e-hailing service provider to figure out how to enhance their services. Safety issues remain one of the main problems in e-hailing services. There have been several complaints about safety problems with e-hailing including driver abuse and aggression, sexual harassment and assault, and mishaps as a result of transport accidents. There have also been cases of sexual assault and robbery involving e-hailing company drivers (TheStar, 2021)[5]. Another problem with e-hailing services is comfort issues. In this context, the most important factor that influencing customer satisfaction towards e-hailing services is comfort, as this factor is primarily regulated by globally recognised quality standards in the transport industry (Le-Klähn et al., 2014)[6]. Besides that, attitude also the problem influence customer satisfaction towards e hailing. Attitude as a summary of appraisal of an object and stated that beliefs is very important in person attitude because of its stability in mind, people have different beliefs in different objects and usually their beliefs lead them to the objects and change their attitude which can form positive or negative reaction (Malhotra, 2005)[7]. Next, another problem in e-hailing is accessibility. In terms of transportation mode, accessibility plays a very critical influence towards customers intention because passengers always tend to choose on services which are accessible to reach their desired destination. The lack of drivers, particularly during peak hours, is to blame for the accessibility issue in e-hailing. Due to worsening traffic in cities, many drivers refuse to accept passengers during peak hours, exacerbating the driver shortage and driving up prices by up to 400% (Kaur, 2022)[8].

Hence, this study is to determine the relationship between the factors influenced and customer satisfaction toward e-hailing service in Kelantan. The objective of this study is as following;

- to determine the relationship between the comfort and the customers satisfaction that influence e-hailing service in Kelantan.
- to determine the relationship between the safety and the customers satisfaction that influence e-hailing service in Kelantan.
- to determine the relationship between the attitude and the customers satisfaction that influence e-hailing service in Kelantan.
- to determine the relationship between the accessibility and the customers satisfaction that influence e-hailing service in Kelantan.

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[3] Ubaidillah, N., Nar, L., Hamdan, R., Liwan, A., & Ismail, F. (2019). Investigating the psychological determinants of the intention to use e-hailing services. *International Journal of Academic Research in Business and Social Sciences*, *9*(11), 496-512.

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[6] Le-Klähn, D.-T., Hall, C. M., & Gerike, R. (2014). Analysis of visitor satisfaction with public transport in Munich. *Journal of Public Transportation*, *17*(3), 5.

[7] Malhotra, N. K. (2005). Attitude and affect: new frontiers of research in the 21st century. *Journal of business research*, *58*(4), 477-482.

[8] Kaur, D. (2022). *Driver shortages: An increasingly dire issue for e-hailing companies in Malaysia*. Retrieved 23 June from https://techwireasia.com/2022/06/driver-shortages-an-increasingly-dire-issue-for-e-hailing-companies-in-malaysia/

- to identify the association between factors (comfort, safety, attitude, and accessibility) influencing customers satisfaction towards e-hailing service in Kelantan.

2 Literature Review

2.1 The Value Percept Theory

The Value Percept Theory is one of the customer satisfaction theories. The Value Percept Theory emerged in 1967 by Locke as an alternative to the Expectation Disconfirmation paradigm (Yuksel & Yuksel, 2008)[9]. According to Westbrook and Reilly (1983)[10] value Percept Theory, is a product's expectations might not match its value and wants. In this context, the value of services e-hailing may or may not correspond to what is expected. According to this theory, satisfaction is an emotional reaction caused by a cognitive evaluative process in which one compares their impressions of an offer to their values, needs, wants, or desires (Westbrook & Reilly, 1983)[10].

2.2 Customer Satisfaction

Customer satisfaction referred to how make choices about a good or service, including how they are satisfied or dissatisfied with it (Kotler & Keller, 2006)[11]. Customer satisfaction may be the main focus of organisational management and promotion. It can encouraged people to attain their goals by purchasing the goods or services provided, which they may view as the most fundamental factors in success and a source of opportunity in the marketplace (Bismo et al., 2018)[12]. Study of customer satisfaction with transportation systems should all be capable of estimating how satisfied customers are focused on the advantages of using those services (Balachandran & Hamzah, 2017)[13].

2.3 Comfort

Particularly during using e-hailing service, the structural features of the vehicle and environment include a powerful effected on customers' comfort (Eboli et al., 2016)[14]. According to Eboli et al. (2016)[14] created that customer systems' usefulness, a vehicle's place for valuables and seating, and ride comfort throughout trips are also significant factors that affect how comfortable passengers feel. Protected the availability of transportation services, which can include interior, seats, travel, and air

[9] Yuksel, A., & Yuksel, F. (2008). Consumer satisfaction theories: a critical review. *Tourist satisfaction and complaining behavior: Measurement and management issues in the tourism and hospitality industry*, 65-88.

[10] Westbrook, R. A., & Reilly, M. D. (1983). Value-percept disparity: an alternative to the disconfirmation of expectations theory of consumer satisfaction. *ACR North American Advances*.

[11] Kotler, P., & Keller, K. L. (2006). Marketing Management 12e, International Edition. *Pearson, PrenticeHall. Productivity. The International Journal of Organizational Analysis*, *8*(1), 16-47.

[12] Bismo, A., Sarjono, H., & Ferian, A. (2018). The effect of service quality and customer satisfaction on customer loyalty: A study of grabcar services in Jakarta. *Pertanika Journal of Social Sciences & Humanities*, *26*, 33-47.

[13] Balachandran, I., & Hamzah, I. B. (2017). The influence of customer satisfaction on ride-sharing services in Malaysia. *International Journal of Accounting & Business Management*, *5*(2), 184-196.

[14] Eboli, L., Mazzulla, G., & Pungillo, G. (2016). Measuring bus comfort levels by using acceleration instantaneous values. *Transportation research procedia*, *18*, 27-34.

conditioning (Litman, 2008)[15]. In this context, the importance of the driver's disposition and car cleanliness is for making passengers feel at ease (Eaton et al., 2010)[16].

2.4 Safety

Safety is currently one of the main issues of concern in the e-hailing sector. E-hailing service providers was well aware of how crucial client safety is. Customer 's needs in the provider of e-

hailing services is impacted by safety (Arumugam et al., 2020)[17]. Every e-hailing driver in Malaysia is now required to submit to a mandatory criminal background check under new regulations from the Ministry of Transportation. This has improved the perception of safety because it is a key element in user happiness. When there are clear restrictions and protections in place, consumers are more inclined to utilise the e-hailing service.

2.5 Attitude

The character's behaviour that might affected customer satisfaction was measured by attitude. One of the major elements in the growth of e-hailing is the mindset. Behaviour is driven by a process of satisfaction and can be categorized into two types which is social and economic behaviour. People had different beliefs about various objects, and typically their beliefs lead them to the objects and change their attitude, which can form a positive or negative reaction. In this context, a person's attitude can be summarised as an evaluation of an object, and it is claimed that because beliefs are stable in the mind, they play a big role in a person's attitude (Malhotra, 2005)[7].

2.6 Accessibility

Apart from a small percentage of travel where movement was an objective in itself, accessibility referred to the ease of obtaining products, services, destinations, and activities collectively known as opportunities (Litman, 2022)[18]. The amount of transportation access for a person was swiftly determined by their requirements, abilities, and opportunities. Through a single smartphone application, e-hailing firms offer a wide range of transportation services and associated payment mechanisms. The requested e-hailing car's current position is communicated by the e-hailing service. Customers who use mobile devices to monitor the procedure can prevent any possible complications and skip waiting for a traditional taxi.

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[15] Litman, T. (2008). Valuing transit service quality improvements. *Journal of Public Transportation*, *11*(2), 3.

[16] Eaton, D. K., Kann, L., Kinchen, S., Shanklin, S., Ross, J., Hawkins, J., Harris, W. A., Lowry, R., McManus, T., & Chyen, D. (2010). Youth risk behavior surveillance-United States, 2009. *Morbidity and mortality weekly report. Surveillance summaries (Washington, DC: 2002)*, *59*(5), 1-142.

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[18] Litman, T. (2022). Evaluating Accessibility for Transport Planning. In V. T. P. Institute (Ed.).

2.7 Hypotheses Statement

There are four hypotheses are shown below:

H1: There is a significant relationship between comfort and customer satisfaction that influence e-hailing service in Kelantan.
H2: There is significant relationship between safety and customer satisfaction that influence e-hailing service in Kelantan.
H3: There is significant relationship between attitude and customer satisfaction that influence e-hailing service in Kelantan.
H4: There is significant relationship between accessibility and customer satisfaction that influence e-hailing service in Kelantan.

2.8 Research Framework

The conceptual framework is shown in Figure 1.

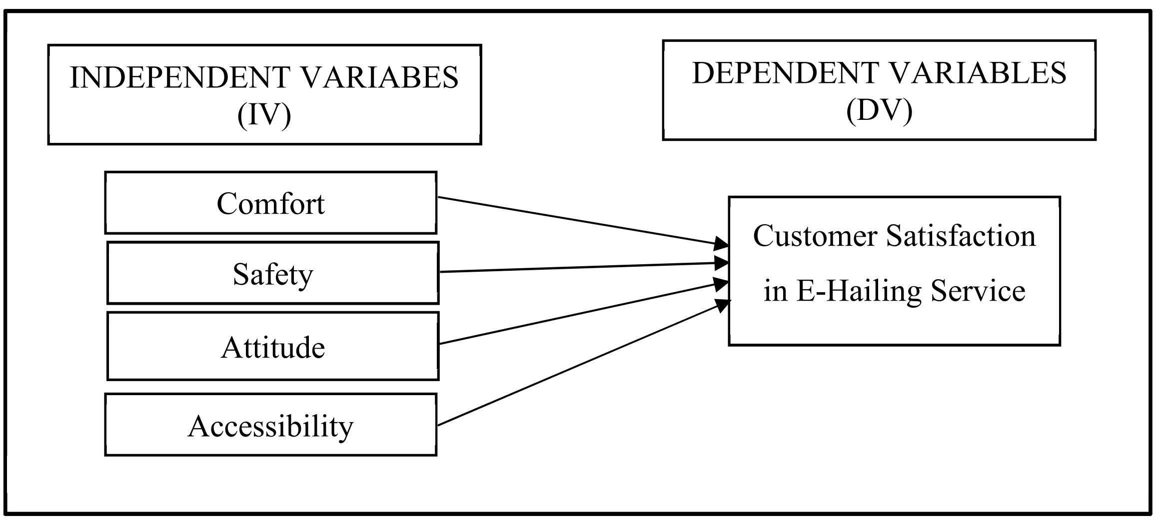

Figure 1: Conceptual Framework
Source: Lee (2022)[19]

3 Methodology

3.1 Research Design

The research design of this study is used the quantitative method that evaluated result and distributed to questionnaire to the respondent. The type of the research was descriptive. The use of descriptive

[19] Lee, M. R. (2022). *Factors affecting the millennial'satisfaction with e-hailing services in Malaysia* UTAR].

approaches, one may evaluate and apply sample results to the entire population. The cross-sectional study was a type of research design that to collect data from individuals in point on time.

3.2 Data Collection

Data was collected through the Google form and spread in social media such as WhatsApp and Instagram. Data collection was an important part of research study which had a specific goal to get data regarding the topic discussed in this research. Data collection is the process of gathering the data or information to enable the researcher to answer the stated research questions, test the hypothesis and evaluate the outcome for study.

3.3 Population and Sample Size

The target population of this study is a random group that uses e-hailing services, either active users or inactive users in Kota Bharu, Kelantan. This study chose residents around Kota Bharu, Kelantan because residents in Kota Bharu, Kelantan are more likely to use e-hailing services and it is close to urban. The size of the sample has been drawn from the population. Sampling is the process of selection of a subset of individuals from the population to estimate the characteristics of the whole population. The number of entities in a subset of a population is selected for analysis (Subahi et al., 2022)[20]. the sample size will be choose based on the sample size calculation which using the (Krejcie & Morgan, 1970)[21].They have simplified the process of determining the sample size for a finite population. In avoiding the invalid of information by respondents, this study will gather 384 questionnaires that answered by respondents.

4 Finding and Discussion

4.1 Demographic Profile of Respondents

Table 4.1: Demographic profile of respondents

Demographic Profile	Group	Frequency	Percentage (%)
Gender	Male	137	35.7
	Female	247	64.7
Age	18-20 years old	43	11.2
	21-23 years old	224	58.3
	24-26 years old	87	22.7
	27 years old and above	30	7.8
Occupation	Government Sector	12	3.1
	Private Sector	37	9.6
	Self-Employment	28	7.3
	Student	300	78.1
	Unemployed	7	1.8
Academic Qualification	SPM	30	7.8
	DIPLOMA	55	14.3
	DEGREE	291	75.8

[20] Subahi, A. F., Khalaf, O. I., Alotaibi, Y., Natarajan, R., Mahadev, N., & Ramesh, T. (2022). Modified Self-Adaptive Bayesian Algorithm for Smart Heart Disease Prediction in IoT System. *Sustainability*, *14*(21), 14208.

[21] Krejcie, R., & Morgan, S. (1970). Sample size determination. *Business Research Methods*, *4*(5), 34-36.

	MASTER	7	1.8
	PHD	1	0.3
E-hailing Experience	Yes	383	99.7
	No	1	0.3
How Often Use E-hailing Services	Once a week	68	17.7
	More than once a week	93	24.2
	Once a month	87	22.7
	A few time	136	35.4

The table 4.1 shows the majority of 384 respondents were female (64.7%), while the percentage of male respondents was 35.7%. There were 224 of respondents among 21 to 23 years old with (58.3%) while 30 respondents in 27 years old and above with 7.8% only. Besides that, the majority of the respondents were from the student's group with 78.1%. Majority of respondents are holding Degree with 75.8% and only 0.3% hold Master. There were 99.7% are experienced in E-hailing while only 0.3 are don't have experience in e-hailing. Most of respondent use e-hailing services a few times with 35.4%.

4.2 Reliability Analysis

This section discussed the reliability of this research's questionnaire that represents the dependent variable, customer satisfaction in e-hailing services and independent variables, which are comfort, safety, attitude, and accessibility. In this section, Cronbach's Alpha of every question for each variable and section was analysed and presented.

Table 4.2: Reliability Summary

Variable	Cronbach's Alpha	Number Item	Relationship
Comfort	.873	5	Good
Safety	.89	5	Good
Attitude	.925	5	Excellent
Accessibility	.896	5	Good
Customer Satisfaction	.920	5	Excellent

4.3 Pearson Correlation Analysis

In accordance with the study objectives, Pearson Correlation coefficient has been used to investigate the relationship between factors influenced (comfort, safety, attitude, and accessibility) and customer satisfaction in e-hailing service.

Table 4.3: Pearson Correlation Analysis

		Comfort	Safety	Attitude	Accessibility	Customer Satisfaction in E-hailing Service
Comfort	Pearson Correlation	1	.762**	.719**	.717**	.697**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	384	384	384	384	384
Safety	Pearson Correlation	.762**	1	.807**	.851**	.834**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	384	384	384	384	384
Attitude	Pearson Correlation	.719**	.807**	1	.850**	.809**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	384	384	384	384	384
Accessibility	Pearson Correlation	.717**	.851**	.850**	1	.862**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	384	384	384	384	384
Customer Satisfaction in E-hailing Service	Pearson Correlation	.697**	.834**	.809**	.862**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	384	384	384	384	384

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

Based on the table 4.3, it showed a significant relationship between independent variable and dependent variables. The value between comfort and customer satisfaction in e-hailing service is 0.697, safety is 0.834, while attitude is 0.809, and accessibility is 0.862. As a result, Accessibility had the strongest positive relationship with customer satisfaction in e-hailing service which is (r=0.862), followed by safety (r=0.834), attitude (r=0.809), and comfort (r=0.697).

4.4 Multiple Linear Regression

Multiple linear regression was used in this study to predict the outcome of customer satisfaction on e-hailing service based on the independent variables which are comfort, safety, attitude, and accessibility.

Table 4.4: Model Summary

Model	R	R Square	Adjusted Square	Std. Error of the Estimate
1	.890a	.792	.790	.44660

Predictors: (Constant), MEAN_4, MEAN_1, MEAN_3, MEAN_2

The Table 4.4 shows that the strength of the model's correlation with the customer satisfaction toward e-hailing services. The multiple correlation coefficient (R) indicates 0.890 where a large value is a strong relationship between variables. The coefficient of determination, R square, demonstrate that 79.2% of using e-hailing service can be explained through the element of customer satisfaction which comfort, safety, attitude, and accessibility.

Table 4.5: Coefficients

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.335	.127		2.631	.009
	Comfort	.008	.034	.009	.228	.820
	Safety	.303	.051	.305	5.946	.000
	Attitude	.162	.047	.165	3.482	.001
	Accessibility	.472	.054	.459	8.675	.000

a. Dependent Variable: MEAN_5
b. Weighted Least Squares Regression - Weighted by Gender

From the Table 4.5 above, the result shows that the p value for comfort (0.009) is less than α (0.05). It explained that comfort is influence the customer satisfaction in e-hailing services. Besides that, the p value for safety, attitude and accessibility is 0.305, 0.165 and 0.459 is much higher than alpha value which 0.05. It indicates that these variables are no significant factor influence customer satisfaction toward e-hailing services.

5 Discussion and Recommendation

In this study, four main research questions have been discovered based on the objectives of the study which is to examine the relationships between all the independent variables which are comfort, safety, attitude, and accessibility on customer satisfaction towards e-hailing services This study focuses on the factors influencing customer satisfaction toward e-hailing services. The factors included in this research are the comfort, safety, attitude and accessibility as the independent variables and customer satisfaction as a dependent variable. The results of this study have provided several theoretical contributions to future research. In addition, it has led to the satisfaction of emotional reactions brought about by the cognitive evaluation process in which a person compares their perception of an offer with value, need, want, or desire. It is also clear enough to confirm that theoretically and empirically this study adds to the body of knowledge in the context of e-hailing. The hypothesis framework of this study is supported by The Value Percept Theory.

As shown in the findings, safety has the highest p-value, which remains under 0.05 and its thought to have a high impact on how satisfied customers are with e-hailing services. The government and e-hailing service providers should collaborate to develop relevant laws, regulations, and policies to ensure that e-hailing app is safe for users to use and that passengers are safe when going in the drivers' self-prepared vehicles. In order to protect the passengers' safety, all parties must ensure that the e-hailing drivers abide by the rules.

6 Limitations and recommendation of the study

There are a few limitations that are found during this study. First and foremost, the limitation of the study is in terms of cooperation from the respondent. This study was limited which the limitation of respondents only in Kota Bharu. The respondents are only limited to the users of e-hailing in Kota Bharu, Kelantan. Next, the limitation of this study is only focused on 4 independent variables which were comfort, safety, attitude, and accessibility. It shown that this study is limited in terms of the ability to examine other aspects of this study. In this context, researchers could not manage the samples expression. Lastly, is a limitation for inadequate of data from respondents. This is because the answer from the respondent is not the answers the entire question given and most probably the respondent just answers without read the questions given.

From this study, it can provide a better understanding of customer satisfaction with e-hailing services in measuring the independent variables of comfort, safety, attitude, and accessibility. The researcher suggested to select more samples that can represent the entire population in Malaysia that can provide insight into customer satisfaction with e-hailing services.

The other suggestion for the future researcher is to extend the research model. Some of the factors under service quality such as tangible, reliability, responsiveness, assurance, and empathy can be added in the future study for a better and further understanding of the factors influencing customer satisfaction on e-hailing services. Finally, in this research all researchers especially students must check the results of this study and care about it. This is because, the find research. this study can contribute many advantages to them to improve the factors that affect customer satisfaction with e-hailing services from various aspects, especially all the factors used in this research. .This study was carried out to give an in-depth analysis of the factors influencing customer satisfaction toward e-hailing services in Kelantan. The overall study has been identified and the findings of the data collected are discussed. In this study, all the independent variables which are comfort, safety, attitude, and accessibility, had a significant influence on customer satisfaction toward e-hailing services in Kelantan. The purpose of this study is to determine the relationship between comfort, safety, attitude, accessibility, and customer satisfaction in e-hailing service in Kelantan. Based on the results, it can be stated that customer satisfaction toward e-hailing services in Kelantan has been influenced by safety, attitude, and accessibility. Last but not least, the study influences how acknowledged input is presented in the future by understanding the factors that influencing customer satisfaction toward e-hailing services in Kelantan.

7 Acknowledgement

Thank you to our respondents who help us to answer the questionnaire to complete our research. They had provided us a lot of their opinion and suggestion to improve our research. Our completion of this project also could not have been accomplished without the support of our parents, family, and friends. They are the most supportive that we ever had. For our friends, thanks for sharing opinions, and passion and taking care about eating. For our parents, thanks for caring us from we who does not know anything until we to be a person who is determined to pursue knowledge.

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Factors Affecting The Level of Customer Satisfaction Towards Courier Services Among Students at University Malaysia Kelantan

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Abstract:
The purpose of this study is to assess the level of customer service satisfaction towards the courier service among students at the University of Malaysia Kelantan. This research also evaluates the level of customer satisfaction toward courier services, as well as determines the factors that influence the level of customer satisfaction towards the courier service among students at UMK. In this research, customer satisfaction was determined through their own experience, customer service satisfaction, and service quality provided by the courier company. An online survey was distributed through Google Forms to the respondents and analysed by using SPSS software. The finding shows there was a significant relationship between the level of customer satisfaction and the factor affecting customer satisfaction which are price, time of delivery, safety and responsiveness toward courier services. All hypotheses were tested, and none of the hypotheses will be rejected since all independent variables demonstrate a significant relationship with the variables influencing university students' levels of customer satisfaction in Kelantan, Malaysia. Therefore, this study provided recommendations for improving courier service management through customer experience in terms of service efficiency.

***Keywords**: Customer Satisfaction, Courier Service, Responsiveness, Price, Time of Delivery*

1 Introduction

The covid-19 outbreak has increased the popularity of courier services. Courier companies deliver documents, parcels, packages, and others. The courier industry is still navigating digital challenges due to the industry's intense competition. GD Express (GDEX), Flash Express, DHL Express, J&T Express, Ninja Van and Pos Laju are examples of companies that run in the logistics industry for courier service in Malaysia. Pos Laju is the oldest and largest domestic courier service provider in Malaysia with the broadest network coverage and is well-recognized for both domestic and international parcel delivery. The popularity of delivery services, on the other hand, is not a new phenomenon. They were a media sensation even before Covid-19. However, the Covid-19 outbreak has increased demand for internet delivery services.

According to Malaysia Communication and Multimedia Commission (2019), in Malaysia, one of the industries that are quite competitive is the courier industry, especially in developing the e-commerce parcel market with 116 courier licenses at the end of 2019. In general, service providers emphasized that they have improved their logistics networks, which allow for volume forecasting, among other things, to ensure a sufficient workforce during peak periods such as online feast sales or mega-shopping sales (Malaysia Communications and Multimedia Commission, 2019). During the previous MCO holiday season, there was a surge in demand, forcing most courier providers to fail to supply on time. Strict MCO restrictions are also considered an issue for delivery providers, who are

unable to hire enough people to meet the growing demand. Because their facility-based activities have reached capacity, some courier service providers are required to refuse orders.
To meet consumer expectations, courier services are now focusing on service quality and client happiness. A courier business may be able to win over clients by improving their overall quality. As a result, the quality of the courier service is an important factor that might affect both customer behaviour and the commercial performance of the courier firm. Because of the rise of online shopping, courier services not only have to keep up with rising demand, but they also have to meet a rising in client expectations. To measure customer satisfaction, the researcher used responsiveness, price, time of delivery, and safety as the factor that affects the level of customer satisfaction. Maintaining customer satisfaction is a challenging task. To ascertain what customers desire, extensive study is needed. Customers are either happy or annoyed by many positive and negative traits or aspects of products and human behaviour. Positive emotions increase consumer satisfaction. In addition to identifying and working to reinforce any aspects that contribute to pleasant feelings, the courier service provider must also keep an eye out for any negative aspects and make every effort to deal with them. By doing this, customer satisfaction can be raised.

The first issue that courier service providers deal with is on-time delivery, which is when goods are delivered to consumers at the scheduled time and date. Because of the price reductions throughout the promotional periods in online shopping, the time of delivery service has been impacted, resulting in goods not arriving at the designated location within the anticipated time. The second issue was the price or expense of the courier services' delivery process. Most courier services compete in terms of delivery fees, which would be a system in which the fee must be reasonable considering the value of the goods, their weight, and the required distance. Lack of security or safety was a further issue. Through any courier service provider, each customer has trust concerns when it comes to the company's goods or services. This is because people have different personalities and ways of thinking, with some people being comfortable giving personal information in online transactions while others are afraid of conducting business transactions online (Wang, 2015).

The research objectives had been formed are first to determine the important factors that significantly affect customer satisfaction with courier services and second to determine the level of customer satisfaction towards courier service companies among students at UMK. Meanwhile, for the research question first what are the factors that affect customer satisfaction with courier services? And second, how does the factor of price, time of delivery, safety, and responsiveness influence customer satisfaction toward courier service among students in UMK?.

2 Literature Review

2.1 Customer Satisfaction

Customer satisfaction is the user's evaluation of the products and services provided by the company to customers. Customers can make evaluations through the quality of products and services provided. Products and services that satisfy customers can benefit the company. Customers will repeat the products and services provided and introduce the products and services provided to others (Hong, Zheng, Wu, and Pu, 2019). Companies can find out the level of customer dominance through surveys and evaluations of products and services provided to customers.

2.2 Price

According to Kotler and Armstrong (2016), the amount of instrument charged to receive a product or service is known as the price. When looked at more closely, pricing can be interpreted to indicate the whole amount of money a consumer pays for the benefit of the goods or services they receive. Previous research suggests that price can be defined as the monetary value that a merchant receives in exchange for a good or service, Nagle and Müller (2017). Customers who are considering making a purchase will determine both a maximum and a minimum acceptable price for the good or service in question (Kotler & Keller, 2016). If the price is lower than the threshold, people will question the product's quality, but if it is higher than the upper limit, they will not purchase it. As a result, setting prices requires considering both the real and perceived value of the commodity (Twin, 2022).

2.3 Time of Delivery

Today's businesses tend to use both conventional and internet methods to market their goods. Due to this, delivery time is now a crucial consideration. Hua et al. (2010) examined delivery time, pricing, and the effects of delivery time on consumer adoption in their studies and found that delivery time significantly affected the value and profits of the company. According to Berman and Thelen (2004), a retailer may increase their customer base and market share by implementing a channel integration strategy. On-time delivery illustrates the organization's capability to meet customer expectations in terms of the duration it takes to complete a specific order or work order. Customers expect on-time delivery from their suppliers, both early and late deliveries can be damaging to the supply chain.

2.4 Safety

Safety is a belief and does not exist in nature. Our purposeful avoidance of risk does not make us any safer than exposure in the long run, and life without risk has no purpose (Helen Keller, 1957). Many writers would say that being safe is the meaning of safety. Safety is one of them that is also recognized from a system perspective. We can rely on the system's methodology and safety's relative nature. It is incorrect to classify safety as an object attribute. However, we can use the idea of safety to be an object if it is a relative property. Typically, safety standards are established using safety thresholds. Safety standards across various industries or nations can still be compared, even though the idea of safety is not rated (Elagin, Y.P, 1996).

2.5 Responsiveness

The term "responsiveness" is commonly used to describe how staff members assist customers and swiftly handle any issues or worries they may have. At its core, responsiveness is about knowing, appreciating, and helping one another to meet important personal objectives and requirements (Reis & Clark, 2013). Another indicator of responsiveness is employees' desire to provide a better service. Customer safety, issue-solving, individual staff attention, and comprehending the wants and desires of the customer are all components of responsiveness (Rashid, Hamid, Said, & Musa, 2020).

2.6 Conceptual Framework

Following the completion of the literature review, the researcher may conclude those perceptions of usefulness to the crucial elements significantly affect students at University Malaysia Kelantan's satisfaction with courier services.

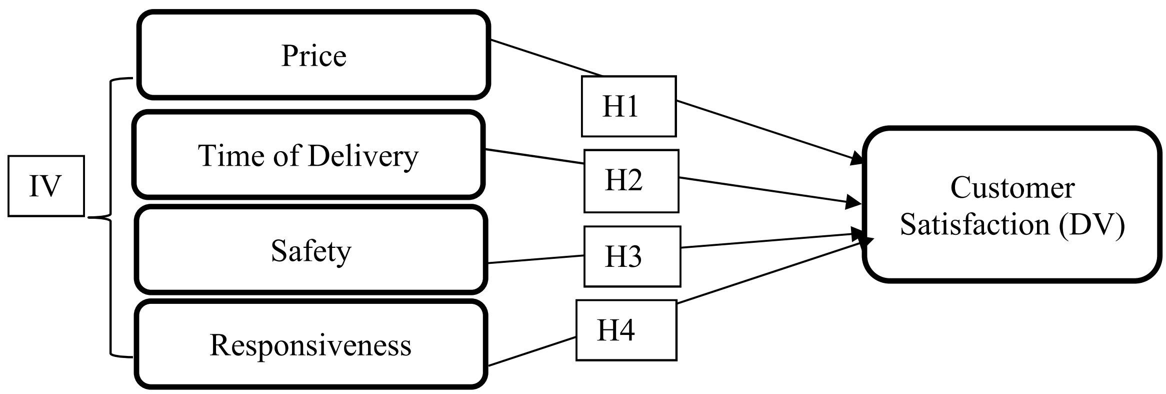

Figure 2.1: Conceptual Framework

2.7 Hypotheses

Results led to the development of four hypotheses based on the four relationships listed in the preceding section:

H1: Price and customer satisfaction are related.
H2: The time of delivery and customer satisfaction are related.
H3: Safety and customer satisfaction are related.
H4: Responsiveness and customer satisfaction are related.

3 Methodology

3.1 Research Design

Research design, as defined by Henn, Weinstein, and Ford (2006), relates to the creation of research strategies, which may include the whole research process, from an issue formulation to the creation of research questions to the analysis, interpretation, and report writing of the data. The quantitative research methods were used by the researchers in this study to gather all the necessary information. The research used is based on quantity terms and is related to numerical data and accuracy. The researchers collected all the data from respondents using a questionnaire. The questionnaire method will be classified into several sections and will be simple to analyze.

3.2 Sampling Frame

Probability sampling and non-probability sampling are the two categories of sampling techniques (McCombes, 2019). Probability sampling is the process of choosing a sample from a population when the choice is made using the randomization principle. Multistage sampling is defined as a sampling method that divides the population into groups for conducting research. During this sampling method, significant clusters of the selected people are split into sub-groups at various stages to make it simpler for primary data collection. For this study, the researchers employ a multistage random sampling method. The concept of the multistage random sampling technique is similar to multistage cluster sampling. But in this case, the researchers choose the samples randomly at each stage. Here, the researcher does not create clusters but narrows down the sample by applying random sampling. A multistage random sampling approach was used in this study, using students from the University of Malaysia Kelantan as the target population.

3.3 Population

In this study, researchers have narrowed the scope of the study to the factor that had affecting customer satisfaction in courier services from the student perspective. In this study, the researcher will distribute the questionnaire to the students at the University of Malaysia Kelantan (UMK). Based on the information available on the internet, researchers have found that the number of students in this university has a total of 13,000 students throughout the three campuses. The researcher will only distribute the questionnaire to undergraduate students. However, it is impossible to involve all undergraduate students at University Malaysia Kelantan due to the time constraint and the number of population is huge. Therefore, the target population for the survey was targeted for only 400 undergraduate students.

3.4 Sample

The sample of the group will only focus on the undergraduate student which includes all the eight faculty which is the Earth Science Faculty, the Agro-Based Industry Faculty, the Bioengineering and Technology Faculty, the Entrepreneurship & Business Faculty, the Hospitality, Tourism, and Wellness Faculty, the Heritage & Creative Technology Faculty, the Architecture and Ekistics Faculty, and the Veterinary Medicine Faculty from three campuses: Kota, Bachok, and Jeli.

3.5 Sample Size

The sample size is the number of respondents picked from the population so that the researcher may gather information and perform the examination based on the survey size's responses (Mei, 2019). According to Ahmad, Hassan, and Rosli (2019), the rules determine a minimum sample size of 30 and a maximum sample size of 500, which is appropriate for most research. This study had a sample size of 400 people.

3.6 Research Instrument

The data will be collected using online Google Forms from students at University Malaysia Kelantan (UMK) who are responsible for relevant factors with independent variables to examine the relationship between those factors: price, time of delivery, safety, and responsiveness with customer satisfaction toward courier services. Before the researcher collects back the surveys, we will allow the respondents adequate time to complete the questionnaire.

3.6.1 Questionnaire

In this study, an online questionnaire is being utilized to investigate the relationship between the factors that influence consumer satisfaction with courier services. The research studies and the questionnaire questions must be related to the research objectives of the study. The questionnaire will be self-administered and distributed to respondents from the University Malaysia Kelantan who are undergraduate students.

3.6.2 Questionnaire Design

The major data-gathering tool in this study was a typical online survey questionnaire through Google Forms. The first-hand data immediately obtained by the researcher is referred to as a questionnaire (Sekaran & Bougie, 2013). This questionnaire is used for Google Forms to get the information for examining the relationship between factors that affect the level of customer satisfaction and courier services among students at the University Malaysia Kelantan. This questionnaire content of their section which A is a Demographic, B was a study of the relationship between the factors that affect customer satisfaction towards courier services and section C were a study about the level of satisfaction of using courier services.

3.7 Data Collection Method

Quantitative research methods, Multiple Regression, and Pearson Correlation will be used in this research by distributing questionnaires to students at the University of Malaysia Kelantan (UMK). Data collected from the primary source of the questionnaire will be analyzed using quantitative methods. The use of SPSS can provide a result that can identify the dominant factors that influence the level of customer satisfaction. In addition, the use of SPSS also can provide a significant value for the factor where it can determine the factors that have the relationship between the level of customer satisfaction and courier service among the students at the University Malaysia Kelantan.

3.8 Data Collection Method for Analysis

For analysis, the IBM SPSS Statistics Software will be employed in this study. Data analysis is the process of translating raw data obtained from target respondents via a questionnaire, who are University Malaysia Kelantan students. The researchers will be able to analyze the link between the dependent variable (customer satisfaction) and the independent variables using this data analysis (Price, Time of Delivery, safety, and Responsiveness).

3.8.1 Descriptive Analysis

Descriptive statistics analysis data are used to describe the key elements of a study's data. This section offers a summary of the sample and metrics. They are the foundation of practically all quantitative data analysis, along with simple graphical analysis (M.K., 2021). The researchers can compute the data's mean, variance, and standard deviation, as well as the central tendency, and describe the study's fundamental and essential aspects.

3.8.2 Scale Measurement

3.8.2.1 Reliability Test

The term "reliability" refers to measurement consistency. A test score's dependability demonstrates how reliable it is. Information is dependable if it produces consistent findings when put through numerous procedures and sample groups (Nicolas, 2021). Cronbach's Alpha was developed to answer the need for an objective means of evaluating a research instrument's dependability and internal consistency, as shown in Table 3.2. (Cronbach L, 1951).

Table 3.2: Cronbach’s Alpha Coefficient Value

Cronbach’s Alpha	**Internal Consistency**
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

Sources: (Cronbach’s Alpha: Simple Definition, Use, and Interpretation, 2021)

3.8.2.2 Pearson Correlation Analysis

The most popular approach for numerical variables is the Pearson correlation technique, which produces a number between 0 and 1, with 0 indicating no connection, 1 indicating a full positive correlation, and - 1 indicating a full negative correlation (Nettleton, 2014). On the other hand, Table 3.3 displays the standards for the coefficient connection's strength.

Table 3.3: Pearson's Strength of Coefficient Relationship

Correlation Coefficient	Strength of Correlation
±0 to ±0.2	Slight or None
±0.21 to ±0.4	Weak
±0.41 to ±0.7	Moderate
±0.71 to ±0.9	Strong
±0.91 to ±1.0	Very Strong

Sources: (Krishnan Isai Amutan, 2020)

4 Result and Discussion

4.1 Data Analysis

4.1.1 Descriptive Analysis

Finding the means of each variable results from the descriptive analysis of the independent and dependent variables. Respondents were asked to rate how strongly they agreed or disagreed with the statement using one of five likes: 1-Strongly disagree, 2-Disagree, 3-Neutral, 4-Agree, and 5-Strongly Agree.

4.1.1.1 Descriptive Analysis of Dependent Variable and Independent Variable

Table 4.9: Dependent Variable (DV) and Independent Variable (IV)

	N	Mean	Std. Deviation	Minimum	Maximum
The level of customer satisfaction (DV)	400	4.1147	.42775	2.38	5.00
Price (IV)	400	3.9969	.58663	2.00	5.00
Time of Delivery (IV)	400	4.0437	.58299	1.00	5.00
Safety (IV)	400	4.2206	.54948	2.00	5.00
Responsiveness (IV)	400	4.1037	.53145	2.25	5.00
Valid N (listwise)	400				

Source: Developed from research

The descriptive analysis looked at both the dependent and independent variables. The mean and standard deviation are shown in Table 4.9. The greatest mean value, which indicates that respondents agreed more on this variable, was 4.2206 for safety, and the lowest mean value, which indicates that respondents agreed less on that variable in this research, was 3.9969 for price. The fact that there were 400 respondents in the data set and the standard deviation was less than one suggests that the outcomes were more reliable.

4.1.1.2 Descriptive Statistics for The Level of Customer Satisfaction

Table 4.10: Descriptive Statistics for The Level of Customer Satisfaction

	N	Mean	Std. Deviation	Minimum	Maximum
Courier service gives good service to their customer to make sure customers feel safe in using courier service.	400	4.09	.635	1	5
Consideration/understanding in customer service of consumers' advice and opinions.	400	3.91	.740	1	5
The price set is reasonable with the weight of the item/parcel.	400	4.15	.625	1	5
Courier service always updated a tracking number to their customer to make sure the customer knows about delivery time and also informs a customer when they reached the customer's house.	400	4.21	.626	1	5
On-time delivery services as per consumers' request.	400	3.94	.797	1	5
Promptness of customer service to consumers' complaints and resolution to the complaint.	400	4.10	.672	1	5
Courier service always accurately delivers the package to the address of shipment.	400	4.23	.628	1	5
Courier service provides the ease of tracking and tracing items by internet and telephone.	400	4.28	.604	2	5
Valid N (likewise)	400				

Sources: Developed from research

The number of respondents, mean, and standard deviations of the dependent variable, which is customer satisfaction, are displayed in Table 4.10. For these dependent variables, there are eight questions. The question “Courier service provides the ease of tracking and tracing items by internet and telephone”, with a mean score of 4.28, has the highest mean. This showed that the majority of responders approved of this question. The question “Consideration/understanding in customer service of consumers' advice and opinions” which had a mean score of 3.91, had the lowest mean. The eight questions in this variable had a standard deviation that was less than 1, indicating that the value was more dependable. The question “On-time delivery services as per consumers' request” has the largest standard deviation, which is 0.797. The question “Courier service provides the ease of tracking and tracing items by internet and telephone” has the lowest standard deviation for this variable, which is 0.604. As a result, it shows that respondents concur that the variable is crucial for enhancing customer satisfaction.

4.1.1.3 Descriptive Statistics for Price

Table 4.11: Descriptive Statistics for Price

	N	Mean	Std. Deviation	Minimum	Maximum
The price is reasonable based on the weight of the parcel.	400	4.03	.642	2	5
The price of each parcel is fair for the service.	400	4.04	.701	2	5

The price promotion offered by the courier service provider is valuable.	400	3.91	.833	2	5
The price promotion in shipping out a parcel helps to attract customers in using a courier service.	400	4.01	.734	2	5
Valid N (likewise)	400				

Sources: Developed from research

The price was shown as an independent variable in Table 4.11 together with its mean and standard deviation. From these independent variables, there are four questions. The question "The price of each parcel is fair for the service" has the highest mean, which is 4.04. This showed that the majority of responders approved of this question. The question "The price promotion offered by the courier service provider is valuable." had the lowest mean score which is 3.91. The four questions in this variable had a standard deviation that was less than 1, indicating that the value was more dependable. The question "The price promotion offered by the courier service provider is valuable." has the largest standard deviation, which is 0.833. The question "The price is reasonable based on the weight of the parcel" has the lowest standard deviation for this variable, which is 0.642. As a result, it shows that respondents agreed that the variable is essential for improving customer satisfaction.

4.1.1.4 Descriptive Statistics for Time of Delivery

Table 4.12: Descriptive Statistics for Time of Delivery

	N	Mean	Std. Deviation	Minimum	Maximum
The courier arrived within the specified delivery time.	400	3.84	.871	1	5
Availability of delivery timely information regarding the status of an order.	400	4.16	.684	1	5
Take 2 days or more to deliver the parcel.	400	4.25	.704	1	5
On-time delivery services as requested by customers.	400	3.93	.879	1	5
Valid N (listwise)	400				

Sources: Developed from research

Table 4.12 displayed the number of respondents, mean, and standard deviations for the independent variable, delivery time. For these independent variables, there are four items in total. The question "Take 2 days or more to deliver the parcel" had the highest mean (4.25). This showed that the majority of responders approved of this question. The question "The courier arrived within the specified delivery time" had the lowest mean score, which was 3.84. The four questions in this variable had a standard deviation that was less than 1, indicating that the value was more dependable. The question "On-time delivery services as requested by customers" has the largest standard deviation, which is 0.879. The question "Availability of delivery timely information regarding the status of an order" has the lowest standard deviation for this variable, which is 0.684. As a result, it shows that respondents agreed that the variable is essential for improving customer satisfaction.

4.1.1.5 Descriptive Statistics for Safety

Table 4.13: Descriptive Statistics for Safety

	N	Mean	Std. Deviation	Minimum	Maximum
The goods arrived in good condition and well-packed.	400	4.19	.673	2	5
The packaging and products were undamaged.	400	4.19	.718	1	5
Information about the customer while using the service such as a home address, phone number, etc. is safe and confidential.	400	4.25	.686	2	5
I believe that courier service providers will safely manage my personal information following their privacy policies.	400	4.25	.674	2	5
Valid N (listwise)	400				

Sources: Developed from research

The number of respondents, mean, and standard deviations for the independent variable, safety are shown in Table 4.13. For these independent variables, there are four items. The highest mean for this independent variable is on the questions "Information about the customer while using the service such as a home address, phone number, etc. is safe and confidential" and "I believe that courier service providers will safely manage my personal information following their privacy policies" which is 4.25 respectively. This showed that the majority of respondents approved of both questions. The lowest mean values, 4.19 and 4.19, respectively, were for the statements "I believe that courier service providers will safely manage my personal information following their privacy policies" and "The packaging and products were undamaged". The four questions in this variable had a standard deviation that was less than 1, indicating that the value was more dependable. The question "The packaging and products were undamaged" has the largest standard deviation, which is 0.718. The question "The goods arrived in good condition and well-packed" has the lowest standard deviation for this variable, which is 0.673. As a result, it shows that respondents concur that the variable is important for improving customer satisfaction.

4.1.1.6 Descriptive Statistics for Responsiveness

Table 4.14: Descriptive Statistics for Responsiveness

	N	Mean	Std. Deviation	Minimum	Maximum
Courier services provide prompt service to customers.	400	4.05	.733	1	5
Courier service postmen are ready to help customers if customers have problems.	400	4.02	.734	1	5
Courier service answers any questions from customers.	400	4.08	.723	2	5

The postman of courier services always delivers the right and actual parcel to the customer.	400	4.27	.691	1	5
Valid N (listwise)	400				

Sources: Developed from research

Table 4.14 displayed the responsiveness number of respondents, mean, and standard deviation. For these independent variables, there are four items. The question "The postman of courier services always delivers the right and actual parcel to the customer" with a mean score of 4.27, has the highest average. This showed that the majority of responders approved of this question. The question "Courier service postmen are ready to help customers if customers have problems" had the lowest mean score, 4.02. The four questions in this variable had a standard deviation that was less than 1, indicating that the value was more dependable. The question "Courier service postmen are ready to help customers if customers have problems" has the largest standard deviation, which is 0.734. The question "The postman of courier services always delivers the right and actual parcel to the customer" has the lowest standard deviation for this variable, with a value of 0.691. As a result, it shows that respondents agree that the variable is important for improving customer satisfaction.

4.1.2 Validity and Reliability Test

Cronbach's Alpha was employed in this study to see if the data was reliable, or if it fit the standard internal consistency measurement. Internal consistency reliability is a test that determines if the replies of respondents are consistent throughout all parts (Sekaran & Bougie, 2016).

Table 4.15: Cronbach's Alpha Reliability Test Result

	Cronbach's Alpha	N of Items	Strength
The Level of Customer Satisfaction	.794	8	Acceptable
Price	.816	4	Good
Time of Delivery	.722	4	Acceptable
Safety	.811	4	Good
Responsiveness	.721	4	Acceptable

Sources: Developed from research

Table 4.1 illustrates the results of the reliability test for dependent and independent variables in this study, as measured by Cronbach's Alpha Coefficient values, based on a survey of 400 respondents who are undergraduate students at the University of Malaysia Kelantan. The strength of the association value of Cronbach's Alpha coefficient of higher than 0.70, according to Table 4.1, is acceptable for the reliability test.

Based on the table above, eight questions were used to describe the dependent variable which is the level of customer satisfaction toward courier service, and Cronbach's Alpha result for this section's questions was 0.794, which was acceptable. For this investigation, the acceptable minimum value is 0.6. As a result, the value is regarded as suitable for usage. Hence, the coefficient achieved in the level of customer satisfaction toward the courier service variable for these questions was acceptable.

To measure the factor that affects customer satisfaction toward courier services which is price, there were four questions were used and the Cronbach's Alpha result for this section question was

0.816 which resulted as good. For this investigation, the acceptable minimum value is 0.6. As a result, the value is regarded as suitable for usage. The coefficient for the questions in the time of delivery variable was good. The findings indicate that the item in the research has a good internal consistency in measuring ideas. Hence, the questionnaires being used in this study are concerned with customer satisfaction.

Besides that, four questions were used to measure the time of delivery variable that affects the level of customer satisfaction toward courier services, and the Cronbach's Alpha result for this section question was 0.722, which was considered acceptable. For this investigation, the acceptable minimum value is 0.6. As a result, the value is regarded as suitable for usage. As a result, the coefficient for the questions in the time of delivery variable was acceptable. The findings indicate that the item in the research has a good internal consistency in measuring ideas. Hence, the questionnaires being used in this study are concerned with customer satisfaction.

Next, four questions were also used to test the safety variable that influences the level of customer satisfaction toward courier services, and Cronbach’s Alpha result for this section’s question was 0.811, which is also good. For this investigation, the acceptable minimum value is 0.6. As a result, the coefficient for the questions in the time of delivery variable was good. The findings indicate that the item in the research has a good internal consistency in measuring ideas. Hence, the questionnaires being used in this study are concerned with customer satisfaction.

Finally, the four questions were used to test the responsiveness variable that impacted the level of customer satisfaction toward courier services, and Cronbach's Alpha result for this section's question was 0.721, which is also acceptable. For this investigation, the acceptable minimum value is 0.6. As a result, the responsiveness variable's coefficient for this query was similarly acceptable. The findings indicate that the item in the research has a good internal consistency in measuring ideas. Hence, the questionnaires being used in this study are concerned with customer satisfaction.

4.1.3 Normality Test

Table 4.21: Test of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	**df**	**Sig.**	**Statistic**	**df**	**Sig.**
Customer Satisfaction	.223	400	.000	.920	400	.000
Price	.180	400	.000	.941	400	.000
Time of Delivery	.185	400	.000	.916	400	.000
Safety	.206	400	.000	.906	400	.000
Responsiveness	.215	400	.000	.901	400	.000

Lilliefors Significance Correction
Sources: Developed from research

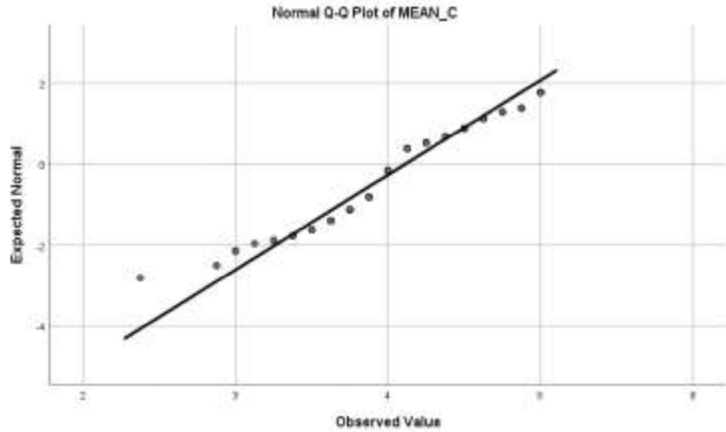

Figure 4.7: The level of Customer Satisfaction

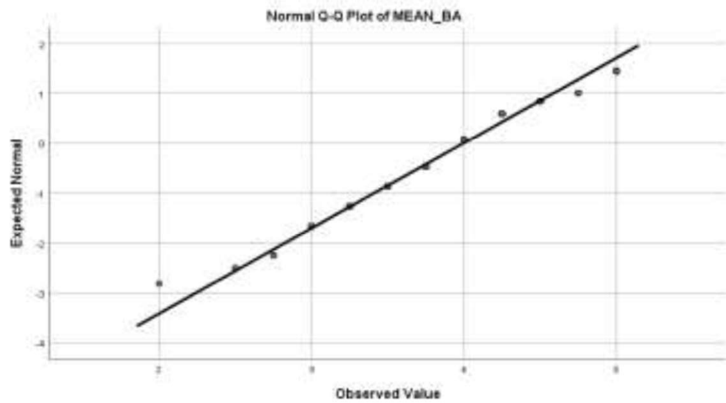

Figure 4.8: Price

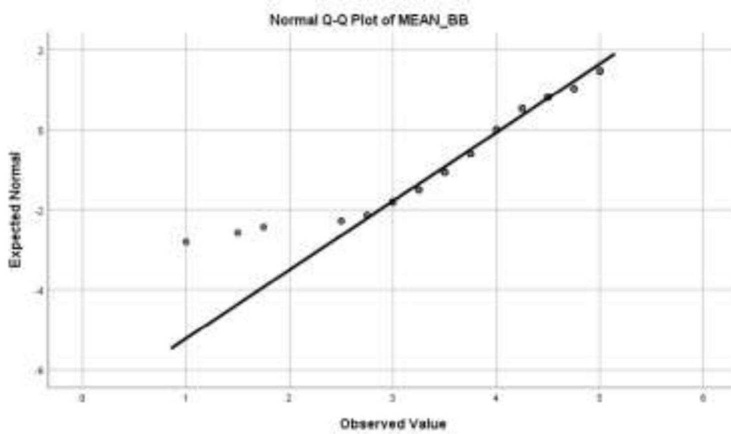

Figure 4.9: Time of Delivery

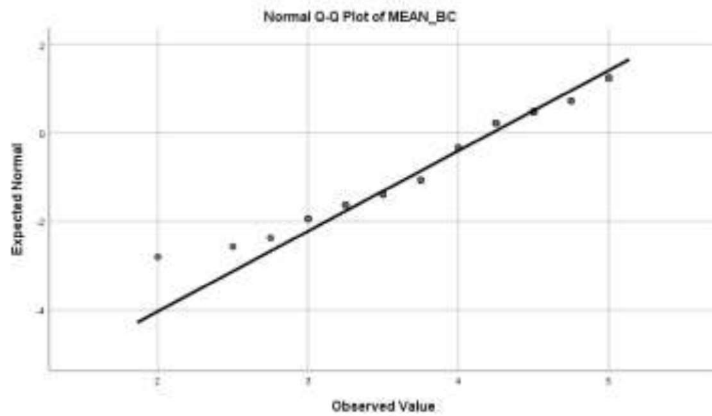

Figure 4.10: Safety

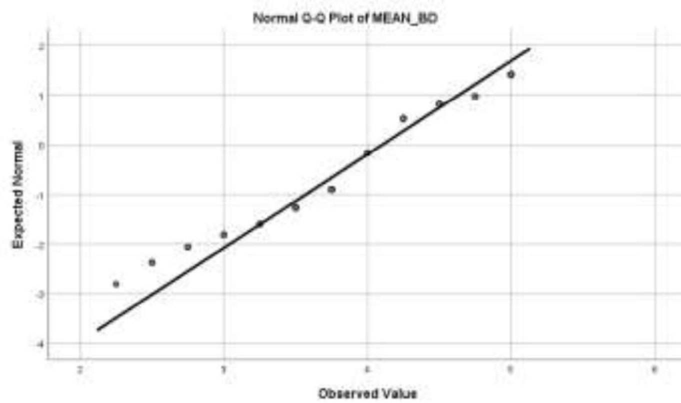

Figure 4.11: Responsiveness

As can be seen from the table above, every variable has a p-value less than 0.05, indicating that they are all non-typical. As a result, all examination variables were normal, which was required. Shapiro-Wilk normality test is not used in this study; instead, the Kolmogorov-Smirnov normality test is used. While the Kolmogorov-Smirnov normality test is used for n 50, the Shapiro-Wilk normality test is better appropriate for small example sizes (50 tests), however, it can also be handled on larger example sizes.

Therefore, the Kolmogorov-Smirnov normalcy test is a better choice for this study's path. This is so since Kolmogorov-Smirnov was suitable for an informational index of more than 50 and had no issues to worry about in the tails. Furthermore, Shapiro-Wilk performed poorly under the assumption that some characteristics in the informational index were extremely comparable, and it worked best for informational collections under 50 (Ghasemi & Zahediasl, 2012).

4.1.4 Hypothesis Testing

4.1.4.1 Pearson's Correlation Analysis

Pearson's Correlation Analysis will be used to see if the independent variables of price, time of delivery, safety and responsiveness are related to the dependent variable which is Customer Satisfaction. In this study, the researcher investigated the association between the level of customer satisfaction and the factor that affects customer satisfaction using the Pearson Correlation Analysis (two-tailed test).

Table 4.22: Rule of Thumb of Correlation and Coefficient

Correlation Coefficient	Strength of Correlation
±0 to ±0.2	Slight or No Correlation
±0.21 to ±0.4	Weak Correlation
±0.41 to ±0.7	Moderate Correlation
±0.71 to ±0.9	Strong Correlation
±0.91 to ±1.0	Very Strong Correlation

Sources: Guilford and Fruchter (1973)

Table 4.23: Pearson Correlation Analysis

		Customer Satisfaction	Price	Time of Delivery	Safety	Responsiveness
Customer Satisfaction	**Pearson Correlation**	1	.462**	.526**	.575**	.607**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	400	400	400	400	400
Price	**Pearson Correlation**	.462**	1	.642**	.529**	.629**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	400	400	400	400	400
Time of Delivery	**Pearson Correlation**	.526**	.642**	1	.582**	.642**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	400	400	400	400	400
Safety	**Pearson Correlation**	.575**	.529**	.582**	1	.666**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	400	400	400	400	400
Responsiveness	**Pearson Correlation**	.607**	.629**	.642**	.666**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	400	400	400	400	400

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

According to the data in the table above, there is a substantial correlation between cost and the level of customer satisfaction with UMK undergraduate students' use of courier services. 0.462 was the Pearson correlation, with a significance level of 0.00. This shows that there is a statistically significant association ($r = 0.462$, $N = 400$, $p < .001$) between price and customer satisfaction. The correlation is moderately positive. As a result, the study accepts the H1, which requires that researchers show that there is a substantial correlation between price and the level of customer satisfaction with courier services among students at the University of Malaysia Kelantan.

There is a considerable correlation between the time of delivery and the level of UMK students' satisfaction with courier services. 0.526 was the Pearson correlation, with a significance level of 0.00. This shows a statistically significant association ($r = 0.526$, $N = 400$, $p < .001$) between the time of delivery and the level of customer satisfaction. The correlation is moderately positive. As a result, the study accepts H2, which states that there is a substantial correlation between the time of delivery and the level of customer satisfaction with courier services among students at the University of Malaysia Kelantan.

Among UMK undergraduate students, there is a substantial correlation between safety and the degree of customer satisfaction with courier services. 0.575 was the Pearson correlation, with a significance level of 0.00. This shows that there is a statistically significant correlation ($r = 0.575$, $N = 400$, $p < .001$) between safety and the level of customer satisfaction. The correlation is moderately positive. In light of this, the study accepts H3, which requires that researchers confirm that there is a substantial correlation between safety and the level of customer satisfaction with courier services among undergraduate students at the University of Malaysia Kelantan.

According to the data in the table above, there is a substantial correlation between responsiveness and the level of customer satisfaction among UMK undergraduate students about courier service. 0.607 was the Pearson correlation, with a significance level of 0.00. This shows that there is a significant correlation ($r = 0.607$, $N = 400$, $p < .001$) between responsiveness and customer satisfaction. The correlation is moderately positive. As a result, the study accepts H4 that there is a substantial correlation between responsiveness and the level of customer satisfaction among students at the University of Malaysia Kelantan towards courier services.

4.2 Discussion

The objective of this study is to determine whether there is a relationship between the factor that affects customer satisfaction and the level of customer satisfaction toward courier services among students at UMK. Price, time of delivery, safety and responsiveness are among the factors that affect customer satisfaction toward courier services studied by academics. The study's major goal is to figure out factors that influence the level of customer satisfaction toward courier services among undergraduate students at UMK. This study usually used primary data, and a set of questionnaires were used to obtain responses from respondents who are UMK undergraduate students. Researchers have discovered that this university employs a total of 13,000 students throughout the three campuses, based on information available on the internet. Because of the enormous population, the researchers require a high sample size to obtain more trustworthy, meaningful, and clear data (Thayer-Hart, Dykema, Elver, Schaeffer & Stevenson, 2010). Therefore, the sample size needed for this research was just 30 to 500 respondents. Because of the large number of students in this university, 400 respondents will be picked from the population. Among the 400 respondents, the researchers divided into eight faculty which each faculty had a total number of 50 respondents. This study exists to examine the factor that influences the level of customer satisfaction toward courier services among students at the University Malaysia Kelantan. Price, time of delivery, safety and responsiveness are the factors that the researchers used to examine the level of customer satisfaction toward courier services.

After the data were analyzed, the overall results showed that respondents had a moderate level of customer satisfaction with courier services. The moderate level of customer satisfaction can be proved when they partially agreed that the courier service provides a service as promised to the customer, the postman courier service always delivers the right and actual parcel to the customer, and the courier service postman is easily to communicate. In addition, the courier service provided the availability to check the delivery time to deliver parcels and customers to check. Besides, the courier service also ensures the goods or parcel arrived in full, the packaging was undamaged, and the condition of items/parcel delivered. As a result, the courier service may continue to offer its customers excellent services, to ensure their satisfaction.

All variables studied in this research have positive relationships with customer satisfaction towards courier service. It shows that all four elements which are Price, Time of Delivery, Safety and Responsiveness are significant toward the level of customer satisfaction with courier services among students at UMK. This study is parallel with the previous study that mentioned responsiveness and price have a significant relationship towards courier service (Gulc, 2017), (Daniel & Berinyuy, 2010) and (Jamal & Azmi, 2018). While for the time of delivery, Abdullah and Resul (2020) mentioned customer satisfaction will be achieved by delivering the parcel accurately and on time and Jessica S. Y, Derek, Felicia, Loong, & Tat (2012) mentioned that customer satisfaction is strongly related to safety. Therefore, it shows that the result in this study is the same as the previous study that mentioned that the time of delivery and safety has a significant relationship toward the level of customer satisfaction with courier service.

The final results demonstrate a positive correlation between the four data analysis variables and the level of customer satisfaction. With a p-value of 0.000 and a Pearson correlation r-value of 0.607, responsiveness was the highest significance level. Such findings are consistent with the research (Jamal & Azmi, 2018), which noted that responsiveness may directly improve express delivery services and has a certain beneficial impact on customer satisfaction. Additionally, the price variable's Pearson Correlation Coefficient (r) index is 0.462, and its significance value (p) is 0.000, both of which are consistent with responsiveness. The Pearson Correlation Coefficient (r) index for the time of delivery is 0.526, and the significance level (p) is 0.000. Based on Abdullah and Resul, 2020, pointed out that paying attention to the time of delivery can raise customer satisfaction levels and service quality. Finally, the significant value (p) was the same index, 0.000, as the Pearson Correlation Coefficient (r) index for safety, which was 0.575. Therefore, this supports the findings of (Jessica S. Y., Derek, Felicia, Loong, & Tat, 2012) that there is a link between customer satisfaction and the safety of courier services

5 Conclusion

In a research project, there are bound to be limitations or challenges that will be faced for each project carried out by the researcher. This study also has some limitations that can be seen as a whole while conducting the study. First of all, the questions that are stated may lead to less clear responses from the respondents. This is due to the lack of data sources that only rely on survey data to analyze the data. In addition, there is also a challenge that respondents do not have sincerity or focus fully when they answer the questionnaire. This is because they only answered the questionnaire directly without reading the questions carefully. So, this has resulted in unclear data results and affected the accuracy of data collection.

Henceforth, future researchers can use different analytical methods to see the differences in the measurement of awareness levels and to be able to obtain more accurate and authentic information. In addition, the researchers can use the qualitative method for the data collection process. Usually, the qualitative method will give the researchers a more accurate understanding and answers. In addition, future researchers can also add more relevant question items to get more satisfactory answers from the respondents. Furthermore, it is advised that future studies incorporate an assessment of client expectations. To enable the researcher to assess customer satisfaction more accurately with courier services among UMK students, the gap between expectation and perception has to be further studied.

According to Pearson Correlation Analysis, all variables such as price, time of delivery, safety, and responsiveness are significantly positively related to the factors that affect customer satisfaction. According to Pearson Correlation Analysis, responsiveness has the highest correlation with factors that influence customer satisfaction, at 0.607. All hypotheses were tested, and none of the hypotheses will be rejected since all independent variables demonstrate a significant relationship with the variables influencing university students' levels of customer satisfaction in Kelantan, Malaysia. As a result, it is possible to conclude that the study's goal was accomplished. Not only that, but this study gives facts, knowledge, and proof to explain how four factors influence the University of Malaysia Kelantan students' satisfaction with courier services.

6 Acknowledgement

We would like to express our thankfulness to University Malaysia Kelantan (UMK) for allowing us to conduct this writing report for this research.

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The Factor That Influence The Intention To Use E-Hailing Services Among UMK Students In Kelantan

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Abstract:
hailing is a service that allows customers to schedule public transportation services at any time and from any location by utilizing an electronic application. E-hailing is a service that allows consumers to book services using an electronic smartphone. This is commensurate with modern technology, which offers a wide range of services entirely through smartphone applications. Because not all students are eligible for these privileges, some must live in leased homes and rely on transportation services or their own automobiles to get to campus. As a result, research is needed to identify the characteristics that impact whether UMK students utilize e-hailing or another mode of transportation. The study aims to gain a better knowledge of UMK students' intentions to utilize e-hailing in Kelantan. The findings of the study are of interest to the researcher because they may present an opportunity for e-hailing service providers to improve their services. It will concentrate on students at the University Malaysia Kelantan. The data was collected by sending a questionnaire to 300 students at the University Malaysia Kelantan, and the data was analyzed using a few statistical approaches. The study's findings show that price, safety, convenience, accessibility, and payment methods influence UMK students' intentions to use e-hailing services in Kelantan. According to the conclusions of this survey, students have knowledge and expertise with e-hailing services.

***Keywords**: E-hailing, Intention, Safety, Price, Convenience*

1 Introduction

This research aims to study the factors that influence the intention to use e-hailing services among UMK students in Kelantan. In Kelantan especially in the main city such as Kota Bharu, the traffic flow is congested with private vehicles entering and exiting this area, especially on weekdays. The traffic situation worsened at peak hours in the morning when residents came to work and, in the evening, when they returned to their homes (Ooi & Nazar, 2021). This is due to the fact that, locals favour using their own vehicles over public transportation. However, when this kind of situation occurs, we cannot blame the residents because when we look back at the public transport services provided in certain areas, we can see that the lack of public transportation services in those areas and lack of familiarity with public transport. As we know, taxis have previously been the people's choice when they want to go to a certain place, but the trend of using taxis is seen to be decreasing when various issues related to taxis arise, such as the service charge being too expensive, the use of taxis being less convective and some other problems. The pricing strategy of cab operators had been positively influencing customers to book a cab instead of traditional mode of transportation like autos and local buses etc (M.P.Prathiba, 2019). Thus, the problem faced has been considered serious by some parties until the realization of e-hailing service. The introduction of e-hailing seen to be economical and dependable. In 2012, the launch of e-hailing applications in Malaysia was viewed as a solution for alleviating transportation problems in big cities (Salim et al., 2020). The existence of this e-hailing service is closely related to the increasing use of smartphones among the population nowadays. People rely on their smartphones for a variety of reasons. Hence, using smartphone applications to hail taxis are both practical and logical. Since the use of smartphones has become one of the daily and important needs nowadays, so the introduction to e-hailing applications such as Grab Taxi, Uber, Maxim and JomRides can be directly accessed through smartphones. They can make reservations using their respective mobile devices as long as they have an internet connection. The use of e-hailing is seen to be a trend and the main choice among students of higher education institutes because e-hailing services are thought to be available in areas that lack or do not have public transport besides having other advantages.

2 Literature Review

2.1 Intention to Use E-hailing

The desire of consumers to underutilize e-hailing services is influenced by several factors, including price, safety, convenience, and accessibility. According to Button & Hensher (2001), price is a significant aspect in the transportation industry because it determines how affordable fares are. Alternatively, according to Khuong & Dai (2016), price influences customer loyalty. According to Chowdhury & Ceder (2013), trip attributes such as personal safety, journey time, connection reliability, transfer time, and transfer information are key indicators for traveller perception of transfer routes, with personal safety at stations being the most influential factor in a traveler's decision to utilise public transportation. These are the most important factors determining the quality judgements of travellers. Zhang et al. (2016) assert that convenience has a positive relative effect on consumer intention. Despite the fact that accessibility, as defined by Litman (2008), refers to how easily opportunities for obtaining goods, services, destinations, and activities can be obtained, mobility is the primary objective of the vast majority of transportation activities, with the exception of a small portion of travel in which mobility is the goal in and of itself.

2.2 Safety

The companies that provide e-hailing services and the drivers who utilise them must prioritise passenger safety. Customers always prioritise cheap, but that does not imply they disregard their safety (Yunoh & Ibrahim, 2020). Security inspection is a crucial element in attracting users to e-hailing services (Md Nor et al. 2021). Since the demand for e-hailing among teens and adults has increased dramatically over the past few years, the e-hailing service provider takes seriously the importance of understanding customer wants and the adjustments that can be made to enhance the quality of their services over time. Nonetheless, there is evidence and information indicating that clients who have used e-hailing services have met a number of challenges. Complaints regarding e-hailing safety issues such as driver abuse and violence, sexual harassment and assault, fare overloading, and transport-related catastrophes have been documented frequently (Md Nor et al.

2021). In addition to the fact that, as reported by The Star in March 2021, there were also sexual assault and robbery instances using e-hailing company drivers. Even though it is an e-hailing service, passengers will be prejudiced when it comes to carpooling, especially with strangers. Their perceived safety concerns regarding the drivers, passenger privacy, car condition, and insurance coverage while utilising the service may influence their decision to ride (Teo et al. 2018).

2.3 Price

Price is also a major factor in consumer perception of e-hailing, as consumer satisfaction and acceptable prices are closely related. E-hailing services are usually used since their rates are lower than those of regular taxis. Moreover, consumers occasionally receive promotional codes from e-hailing services that can be used to save money. In addition, e-hailing services will be more cost-effective if more passengers share the ride. This indirectly encourages people to use e-hailing over conventional taxis. Therefore, prices that are moderate and relatively affordable will increase consumer satisfaction with the e-hailing industry. Additionally, the passenger's ability to pay with a credit card via the e-hailing application in a secure and convenient manner is undeniably a security and convenience benefit (Juma, 2016). Customers may choose to pay with either a credit card or a debit card when placing an order (Sean, 2017). Despite the fact that this method is more convenient, Malaysians continue to prefer cash payments for e-hailing services. E-hailing services offer a choice of payment options to meet the demands of their users by combining existing cash and card payment systems. This method cannot be compared to the conventional manner of hailing a taxi, in which the driver only accepts cash.

2.4 Convenient

According to the definition of convenience, it must be suitable for the needs or purpose, suitable for the facility or ease of use, and advantageous, simple, or comfortable to use. According to Ubaidillah et al. (2019), convenience may also be defined as the perceived amount of time and effort required to complete a certain task. A product or service is considered handy if it reduces the cognitive, physical, and emotional burdens of its consumer (Chang et al., 2012). According to Ubaidillah et al. (2019), a product or service is considered convenient if it saves users time. Convenience positively influences the intention of customers (Zhang et al., 2016). Various mobile-based travel apps, for instance, have greatly facilitated Chinese consumers' travel and are gradually becoming their preferred aids for travel planning and activities (Wu et al., 2022). According to Todd et al. (2018), e-hailing services offer more convenience and accessibility, as users may request a ride to their location rather than needing to hail a car on the street. E-hailing services also provided a superior fare structure, cost, and convenience than traditional modes of public transportation (Adriano & Su, 2017).

2.5 Accessibility

In Malaysia, ride-hailing services are already widely accessible. According to Grab data, there are approximately 10,000 GrabCar drivers in the Klang Valley. In 2019, there are 10,000 drivers in Kuala

Lumpur and approximately 5,000 drivers in Johor Bahru. Additionally, GrabCar will become available in Mersing and Segamat by the end of September 2020, followed by the debut of GrabFood and GrabMart in the fourth quarter of this year. Grab could encompass northern cities such as Cameron Highlands, Pantai Remis, and Baling. GrabCar operates seven days a week, twenty-four hours a day, pending vehicle availability at the time of booking. Therefore, the majority of e-hailing services are accessible 24/7 and in both urban and rural areas.

2.6 Payment Method

The payment method was a way for the consumer to pay for the cost of the used service. There are seven payment options available in the present day. According to Polasik & Fiszeder (2010), these methods include bank transfer, in-person payment, cash delivery, pay-by-link, virtual payment provider, online payment provider, and credit card payment. All payment methods were accepted in order to facilitate customer transactions. The customer's selection of payment method will be influenced by factors such as cost, assurance of acceptance, and convenience. Customers will utilise the most familiar and user-friendly payment method for all transactions. The speedier payment process was of utmost importance to customers since it would reduce the amount of time required to pay for purchases or services (Polasik et al., 2013). The study wished to identify the most user-friendly and convenient payment option to implement in an e-hailing system. The mobile payment was a payment made using a handheld device such as a personal digital assistant (PDA) or mobile phone. There are numerous friendly and convenient payment methods in the technological age. Consequently, it adds to the appeal of this investigation to discover the solution.

2.7 Conceptual Framework

The Factors that Influence the Intention to Use E-hailing among UMK Students in Kelantan.

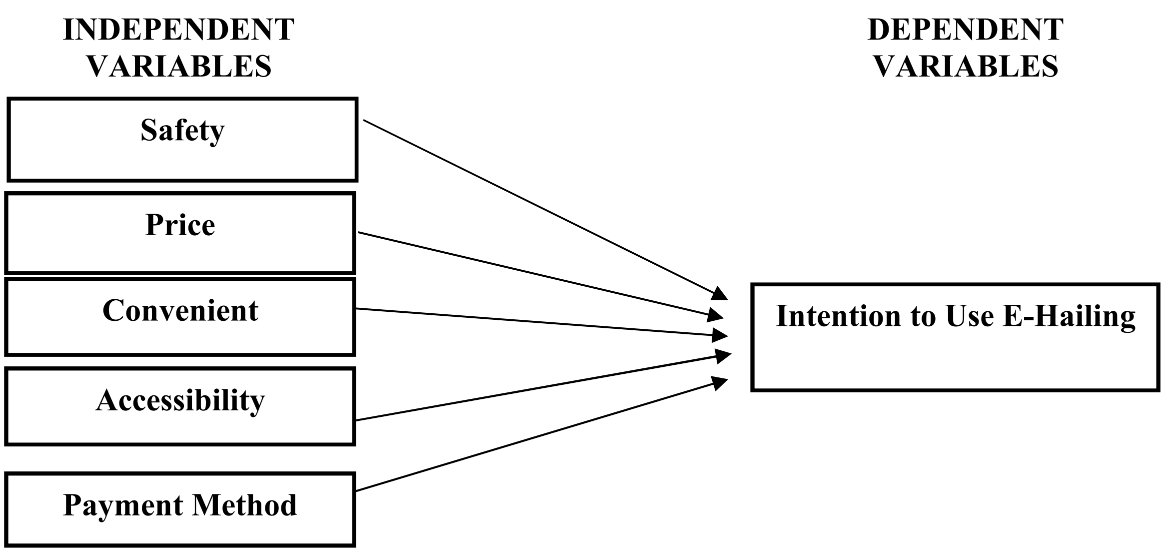

Figure 2.7.1: The conceptual Framework of The Factors that Influence the Intention to Use E-Hailing among UMK Students in Kelantan

3 Methodology

3.1 Research Design

This study used quantitative approach to collect numerical data from the respondents. Quantitative data is explained as phenomena by collecting numerical data that are analysed using mathematically based methods (in particular statistics) (Creswell, 1994). This research study used descriptive research method to obtain information that are necessary in this study.

3.2 Sample Size

Sample can be defined as a small number of people that has been drawn from one population to do research or to find a general answer from one question. Sample size can be determine based on the size of population in one place that will be doing research and include the sample. The population for this study is students from University Malaysia Kelantan which is the main researcher target of sample were consists of the following group of respondent/participants such as all student that has been using e-hailing, the student that never use e-hailing but want to try using it and the student that knew about e-hailing but never use it. The most suitable sample size to use in this research is 300.

3.3 Instrument

The questionnaire is divided into seven sections namely Section A, Section B, Section C, Section D, Section E, Section F and Section G. Section A addressing the demographics of respondents which include gender, age, race, level of education and others. Section B, Section C, Section D, Section E and Section F is about independent variables of safety, price, convenient, accessibility and payment method. In Section G which is dependent variable, intention to use e-hailing was presented. All of the replies supplied by the respondents in the second, third, fourth, fifth and six section will be on a 5-point Likert Scale.

3.4 Plan for Data Collection

The primary method of data collecting used in this study is a standard online survey questionnaire. An online questionnaire used to collect information from students in University Malaysia Kelantan. Secondary data is information that has already been obtained and made publicly accessible to primary sources to be used by researchers for research purposes. It is a type of data that has previously been obtained in the past.

3.5 Plan for Data Analysis

The researchers used the statistical application Statistical Programmers for Social Science (SPSS) version 26 to analyse the main data easier and faster. The type of data analysis used in this study is pilot test, descriptive analysis, reliability test, normality test and Pearson correlation coefficient analysis.

4 Result and Data Analysis

4.1 Demographic Profile

The demographic profile of the respondents of 300 students among UMK students in University Malaysia Kelantan for this study depicted in the tables and figures below. The data collected from section A is about the demographic profile of the respondents which consists of gender, age, race, level of education, have you ever used an e-hailing application and how many times have you been using the e-hailing application. This can be seen by frequencies and percentage for every demographic analysis.

Table 4.1: Descriptive of Demographic Analysis

No	Category	Details	Frequency (300)	Percentage (%)
1	Gender	Male Female	129 171	43.0 57.0
2	Age	19-20 years old 21-22 years old 23-24 years old 25 years old and above	20 74 165 42	6.7 24.7 54.7 14.0
3	Race	Malay Chinese Indian Other	172 55 61 12	57.3 18.3 20.3 4.0
4	Level of education	STPM/STAM Diploma Degree Master PHD	84 50 158 6 2	28.0 16.7 52.7 2.0 0.7
5	Have you ever used an e-hailing application?	Yes No	288 12	96.0 4.0
6	How many times have you been using an e-hailing application?	Everyday Once per week Once per month Once per year	30 92 128 50	10.0 30.7 42.7 16.7

4.2 Descriptive Analysis

Table 4.2: Descriptive Statistics

Variable	Mean	Std. Deviation	N
Safety	4.3380	.67186	300
Price	4.2520	.72929	300
Convenient	4.0220	.81404	300
Accessibility	4.2760	.63968	300
Payment Method	4.2247	.66649	300

Intention to use e-hailing service among UMK students in Kelantan	4.3713	.60087	300

Table 4.2.1 shows the mean and standard deviation of independent variable and dependent variable. Mean for independent variables which is safety is 4.3380 and the standard deviation is 0.67186, followed by the mean for price is 4.2520 and the standard deviation is 0.72929, the mean for convenient is 4.0220 and the standard deviation is 0.81404, the mean for accessibility is 4.2760 and the standard deviation is 0.63968. Coming to the last independent variable which is the mean for payment method is 4.2247 and standard deviation is0.66649. Mean for dependent variable which is intention to use e-hailing among UMK students in Kelantan is 4.3713 and the standard deviation is 0.60087.

4.3 Reliability Analysis

Table 4.3: Reliability Test

Variable	Number of Item	Cronbach's Alpha	Internal Consistency
Safety	5	.935	Excellent
Price	5	.949	Excellent
Convenient	5	.920	Excellent
Accessibility	5	.918	Excellent
Payment Method	5	.885	Good
Intention to use e-hailing among UMK students in Kelantan	5	.940	Excellent

Table 4.3.1 shows that Cronbach's Alpha coefficient of safety is 0.935, which resulted as an excellent strength of internal consistency. Followed by Cronbach's Alpha coefficient of price is 0.949, which resulted as an excellent strength of internal consistency. Cronbach's Alpha of convenient is 0.920, which indicates an excellent strength of internal consistency. Cronbach's Alpha of payment method is 0.885, which indicates as a good strength of internal consistency. Cronbach's Alpha of intention to use e-hailing among UMK students in Kelantan is 0.940, which resulted an excellent strength of internal consistency. Therefore, the variables are the focus of the questionnaires employed in this study.

4.4 Normality Analysis

Table 4.4: Normality Test

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Safety	.208	300	.000	.850	300	.000
Price	.197	300	.000	.865	300	.000

Convenient	.139	300	.000	.915	300	.000
Accessibility	.178	300	.000	.888	300	.000
Payment Method	.178	300	.000	.897	.300	.000
Intention to use e-hailing service among UMK students in Kelantan	.206	300	.000	.843	300	.000
Lilliefors Significance Correction						

The Kolmogorov-Smirnov Test and the Shapiro-Wilk Test results are shown in the table above as two well-known tests of normality. The Shapiro-Wilk Test is more appropriate for small sample sizes (<50 samples) but can also handle sample sizes as large as 2000. For this reason, the Shapiro-Wilk test will be used as our numerical means of assessing normality. From the table 4.4.1, we can see that all the variables were not normally distribution data. This is because the significant value Shapiro-Wilk is 0.000, which is less than 0.05.

4.5 Hypothesis Testing

Table 4.5.1: Pearson Correlation Coefficient Analysis

		Intention to use e-hailing service among UMK students in Kelantan
Safety	**Pearson Correlation**	.846**
	Sig. (2-tailed)	.000
	N	300
Price	**Pearson Correlation**	.728**
	Sig. (2-tailed)	.000
	N	300
Convenient	**Pearson Correlation**	.658**
	Sig. (2-tailed)	.000
	N	300
Accessibility	**Pearson Correlation**	.835**
	Sig. (2-tailed)	.000
	N	300
Payment Method	**Pearson Correlation**	.776**
	Sig. (2-tailed)	.000
	N	300

In order to accomplish the study goals, the correlation analysis was used to ascertain whether there is a relationship between the selection criteria and assessed utility and perceived simplicity of use. If there is a relationship between the independent variables, it must also determine if the relationship is positive or negative. The degree of the relationship between the independent factors and the dependent variable must also be determined.

Table 4.5.2: Summary of Hypothesis Testing

Hypothesis	Correlation Result	Remarks
H1: There is a significant relationship between safety and the intention to use e-hailing among UMK students in Kelantan	r = 0.846 p = .000	Supported
H2: There is a significant relationship between price and the intention to use e-hailing among UMK students in Kelantan	r = 0.728 p = .000	Supported
H3: There is a significant relationship between convenient and the intention to use e-hailing among UMK students in Kelantan	r = 0.658 p = .000	Supported
H4: There is a significant relationship between accessibility and the intention to use e-hailing among UMK students in Kelantan	r = 0.835 p = .000	Supported
H5: There is a significant relationship between payment methods and the intention to use e-hailing among UMK students in Kelantan	r = 0.776 p = .000	Supported

Based on the table 4.5.2, Correlation Coefficient for H1 (0.846), H2 (0.728), H3 (0.658), H4 (0.835) and H5 (0.776) indicate that there is a strong positive correlation. All hypothesis is accepted. The correlation coefficient size is between 050 to 1.00, so there is a statistically significant correlation between independent variables and dependent variable.

5 Recommendation and Conclusion

Based on this study, researchers made the following recommendations for future research. First, the sample size could be increased to emphasise the variables that drive UMK students to use e-hailing in Kelantan. UMK, Politeknik, USM, and UiTM students in Kelantan can be included in the sample. The researchers could find out what influenced Kelantan students to use e-hailing. Next, future researchers should be using direct, face-to-face methods to explain questionnaire topics. This data gathering will enhance expectations and give respondents confidence. All of these suggestions may be needed to improve study findings.

Overall, the conclusion of the present data analysis is relevant to the researchers' purpose. The study shows that price, safety, convenience, accessibility, and payment methods influence UMK Kelantan students' e-hailing intentions. This study's main objective, to examine UMK Kelantan students' e-hailing intentions, was met. The study's results may help e-hailing companies to improve. Although the study's focused on a small sample size, we hope it will serve as a platform for future research that can include a bigger population and offer additional data.

6 Acknowledgements

Our team deserves special recognition and thanks for always sticking together and working hard to produce a good task with all afford and responsibility.

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Factors That Influence SME Business Performance In Kelantan During MCO

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Abstract:
Small and medium-sized businesses (SMEs) are increasingly finding new opportunities in both local and foreign markets as they are acknowledged as significant contributors to the economies of many nations. To stay competitive in this market, SMEs must expand. In this study, SMEs' business performance is examined to gauge its effects and potency. The purpose of this research is to demonstrate the development of SMEs' commercial performance, taking into account the challenges they have experienced and their potential for growth in Malaysia. There are numerous aspects that have been identified as affecting the effectiveness of business performance in the current market. This report offers a useful method for calculating how satisfied SMEs are with their company's performance.Besides, it explained government support as an important role in strengthening the relationship between the factor of business performance. The findings of the study will provide great help to improve SMEs' business in formulating business performance in Kelantan. On that basis, the article proposes some solutions to improve the performance of SMEs in Kelantan in the current period.

Keywords: *Covid-19 Pandemic, Economy Policy, Governement Support, , Network Development Small and Medium Enterprise*

1 Introduction

The Covid-19 coronavirus epidemic is a global threat affecting billions of people. Additionally, the pandemic had detrimental effects on the global economy, industries, organizations, and small and medium-sized businesses (SMEs). Small and medium-sized firms (SMEs) play key roles in the economic development of a country by creating jobs and contributing significantly to the gross domestic product. Entrepreneurship development and small and medium-sized enterprises (SMEs) are generally recognized as instruments for achieving economic growth and development as well as job creation.

The objective of this study is to examine the factors that influence SME business performance in Kelantan during MCO. This research will precisely focus about to identify the relationship between government support towards SMEs business performance in Kelantan, to identify the relationship between network development towards SMEs business performance in Kelantan and to identify the relationship between economic policy towards SMEs business performance in Kelantan.

In the year of March 18, 2020, until 31 December of 2021, the government of Malaysia has implemented the Movement Control Order (MCO) in order to maintain the daily activities of the

Malaysia citizen. The implementation of MCO also help in preventing the spreading of COVID-19 virus among peoples during daily activities. However, MCO also bring a lot of impact to the society which including the negative impact on economic activity.During MCO, the economic activities have decrease due to the citizen are restricted to purchasing as there is only one of the family members allowed to go out for purchasing. This causing the number of consumer decrease and thus affecting the income of merchant decrease.

This study was proposed to explore how MCO give impact on SMEs business performance in Kelantan. This study also proposed to measure the relationship between government support, network development and economic policy towards SMEs business performance in Kelantan during MCO period. The results of this study may help SMEs business by improving their understanding of how to build a more appropriate strategy in strengthening their business. In conclusion, SMEs business can use the findings of this study to gain a better understanding of the how MCO implementation give impact on SMEs business performance in Kelantan. This research also assists marketing team in developing marketing strategies that will attract new customers to participate in their business.

2 Literature Review

2.1 Basic Economic Theory

The theory we apply in this study is Basic Economic Theory. For the advancement of all studies, including economic theory, this is a crucial prerequisite. The scientific approach aims to reveal the subject's essence in the most significant way possible. The economic theory conducts its research using a variety of methodologies and procedures, which specify the methodology's subject matter. The categories and laws governing the operation and growth of economic systems are investigated using the methodologies, tools, and principles of economic theory.

Economic modelling, whose structure abstractly depicts the true image of economic activity, is a structured description and quantitative depiction of economic processes and occurrences. Economic models provide for a more in-depth visual exploration of the primary characteristics and developmental patterns of a genuine cognitive object. An economic experiment is the artificial replication of economic events and processes for the purpose of studying them under ideal conditions and for future practical application. In order to avoid mistakes and failures in the economic policy of the state, it is possible to verify the applicability of scientific ideas and suggestions through an economic experiment. Experiments have a crucial role during pivotal points in the evolution of the economy, such as crises, economic reforms, and stability.

2.2 Concept of Business

The creation or acquisition of goods and services with the goal of reselling them for a profit is referred to as business. The term business refers to an association or venturesome substance participated in business, modern, or expert exercises. A business is to coordinate a financial creation of some kind or another of labor and products. Organizations can be for-benefit elements or non-benefit associations satisfying a magnanimous mission or facilitating a social reason (Adam Hayes, 2022). According to Aremu M. A. (2015), with regards to an occupation, "business" alludes to the creation and offer of labor and products for pay. It is routinely led with the essential objective of delivering cash. Business activities including the part of assembling, exchanging, delivering, capacity, banking, and manufacturing. Business likewise can be characterized as a business venture or foundation that trades labor and products.

2.3 Concept of Business Performance

Overall business performance can be defined as the ability of a business to implement a strategy to achieve organizational objectives and is considered as an important tool for businesses to analyze how effective management is at achieving business goals. Business performance is also an indicator for the merchant to estimate and predict their growth, earn, future development and so on.

2.4 Small And Medium Enterprises (SMEs)

According to Al-Herwi, S. (2019), SME stands for Small and medium-sized enterprises (SMEs) or small and medium-sized businesses are business whose personnel numbers fall below certain limits. The SME sector, which has developed as the most alluring and tremendously innovative system, is incredibly significant to the modern economy. SMEs have a range of employees depending on the industry. SME help major businesses produce goods and services more effectively by contributing to the supply of certain activities. Focusing on innovative business and technological processes is another key characteristic of SME. They contribute to a nation's GDP formation, national export growth, and social and political stability as an outcome. Normal categories of SME incorporate legitimate firms, dental specialist workplaces, restaurants, or bars (Liberto, 2022).

According to Jamari Mohtar (2020), the SME play a significant and urgent, vital job in the turn of events and development of the Malaysian economy. They comprise around 98.5% or almost 1,000,000 of all business foundations. They had given 66.2% of all out work in 2018. To qualify as a SME in Malaysia, an organization should either have a business turnover of something like RM50 million or have 200 full-time representatives.

As per the authority site SME Corp Malaysia (2022), which shows on figure 1, the scene of MSMEs has become impressively well beginning around 2016 until 2021. In light of the most recent information in Malaysia Measurable Business Register (MSBR) distributed by the Division of Measurements, Malaysia (DOSM), there were by and large 1,226,494 MSMEs in 2021 which represents 97.4% of in general foundations in Malaysia. There has been an augmentation of around 140,000 firms when contrasted with a sum of 1,086,533 MSMEs in 2016, in this way enrolling a typical development pace of 5.2% per annum during the six-year time.

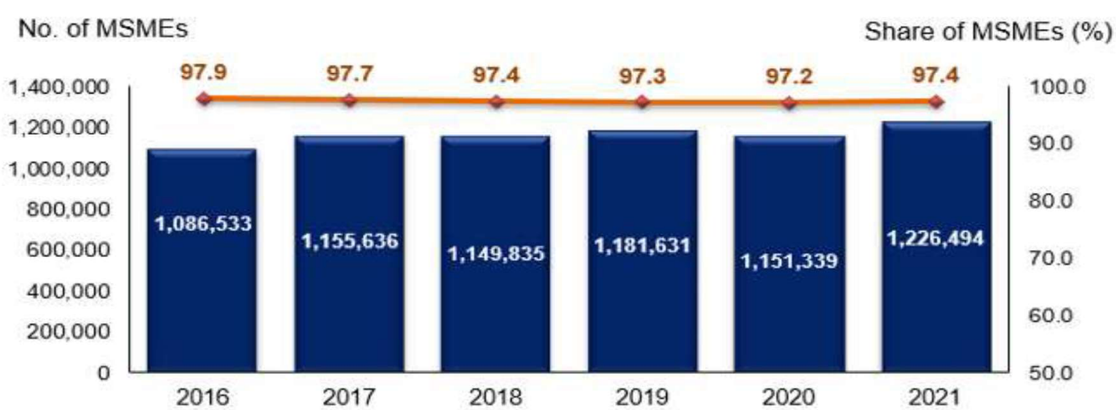


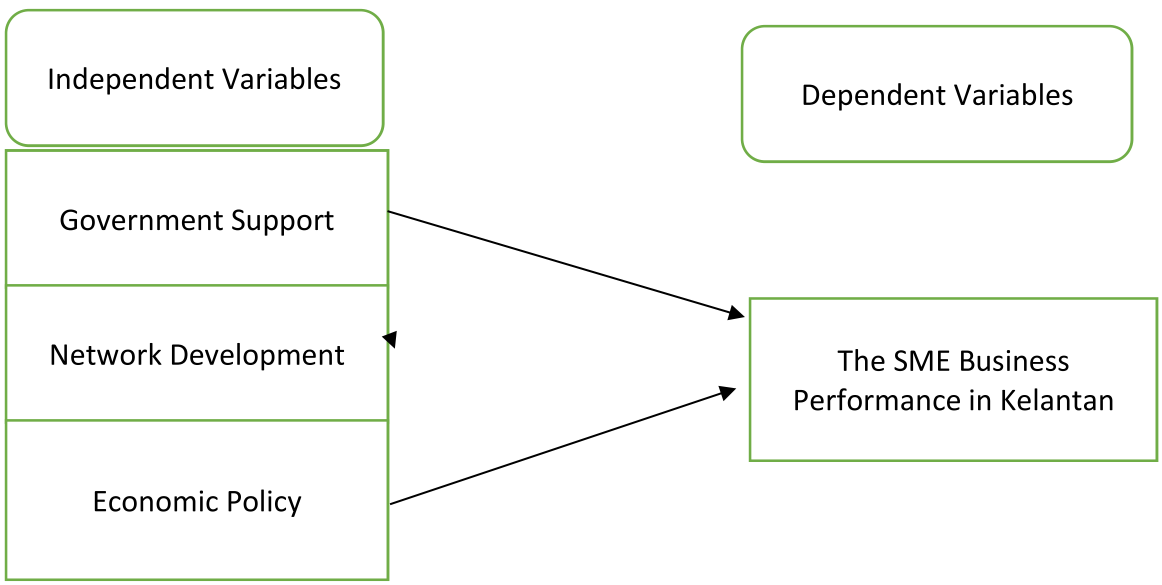
Figure 2.1SMEs in 2021 which accounts for 97.4% of overall establishments in Malaysia

Source: Official Website SME CORP Malaysia

3 Hyphotesis Statement

H1: There is a relationship between the government support towards SME business performance in Kelantan during MCO.
H2: There is a relationship between the network development towards SME business performance in Kelantan during MCO.
H3: There is a relationship between the economic policy towards SME business performance in Kelantan during MCO.

4 Conceptual Framework



The figure illustrated the framework regarding to the factor that affect the SME Business Performance in Kelantan during MCO period by three dimension such as government support, network development, and economic policy.

3 Methodology

3.1 Research Design

In short, a research design is a study plan that specifies the methods that will be used by researchers. This study will using quantitative research methods. The traditional approach to experimentation is quantitative. Quantitative experiments produced a hypothesis to be validated or rejected using a standard format. The hypothesis can be demonstrated using mathematical and statistical methods. Quantitative study design is a technique to conclude results and support or reject a theory.

Quantitative in research design used a structures questionnaire to collect data from these participants. Primary data can be defined as a data that have compiled by a researcher for the purpose of the study and also as information that created to achieving by direct experiences. (Kenton, 2020). During this research, data collected through questionnaire. In the process of gathering the total surveys, the response will be determined and decided the score. From the score, using some strategy, the researchers will figure out what the connection between the independent and dependent variable.

3.3 Data Collection Methods

Data collection is described as a systematic way of acquiring, observing, measuring, and analyzing precise information to support research undertaken by groups of specialists. In this review, the quantitative methods were used to collect the data. The main components were used to accomplish the goals of the approach. Data will be presented using a variety of methods, including questionnaire collections, library searches, and others.

3.4 Primary Data

Primary data sources are often selected and adjusted to satisfy the objectives or requirements of this research project (Formplus, 2022). Primary data is acquired directly from the source of the data and is considered the greatest type of data in research. Primary data method we are using for this research is questionnaire by using Google form. In this study, the primary data are used to collect data about the factors that influence SME business performance in Kelantan during MCO.

3.5 Study Population

Population is a term used in statistics and other branches of mathematics. For the purposes of data collection and analysis, a defined group of individuals, animals, or objects counts as a common characteristic. (Momoh, 2022).The target population for this study is the 357,541 citizens of Kelantan, who represent a 1.99% drop from 2021, according to the World Population Review (2022). One of Malaysia's major cities is Kota Bharu. There are various racial groups, including Bumiputera, Chinese, Indian, and others.

Table 3.5: Data population in Kelantan

Other cities in Malaysia	
City Name	**Population**
Kuala Lumpur	8, 419, 566
Johor Bharu	1,065,341
Ipoh	842,281
Kuching	631,102
Kota Kinabalu	575, 880
Kuantan	525, 872
Seremban	494, 104
Kuala Terengganu	397, 729

Sandakan	385, 389
Alor Star	358, 738
Kota Bharu	357, 541

Source: World Population Review, 2022

Negeri	Jumlah PKS	%
Selangor	179,271	19.8
WP Kuala Lumpur	133,703	14.7
Johor	98,190	10.8
Perak	75,140	8.3
Pulau Pinang	66,921	7.4
Sarawak	61,036	6.7
Sabah	55,702	6.2
Kedah	48,894	5.4
Kelantan	46,618	5.1
Pahang	37,573	4.1

(...Sambungan)

Negeri	Jumlah PKS	%
Negeri Sembilan	32,721	3.6
Melaka	31,361	3.5
Terengganu	29,324	3.2
Perlis	6,808	0.8
WP Labuan	2,567	0.3
WP Putrajaya	1,236	0.1
Jumlah PKS	907,065	100.0

Sumber: Banci Ekonomi 2016, Profil Perusahaan Kecil dan Sederhana (tahun rujukan 2015), Jabatan Perangkaan Malaysia

Figure 3.4.1: The total of SMEs in Malaysia
Source: Banci Ekonomi 2016, SMEs Profile (2015), Jabatan Perangkaan Malaysia

The population of this study consisted of the factors that influence SME business performance in Kelantan during MCO. According to the most recent 2015 SMEs profile on the figure 000 809, 126 businesses or 89.2%, were in the service industry. The second-largest contribution, with 5.3%, was the manufacturing sector 47, 698. Meanwhile, the construction sector accounted for 4.3% of SMEs which is 39, 158, agriculture accounted for 1.1% with the total is 10, 218, and for the lowest is mining and quarrying accounted for 0.1 which is 865. Hence, 400 questionnaires were distributed by researchers to employee and owner of SME in Kelantan.

Sektor	Bil. Pertubuhan PKS				% Bahagian PKS	Bil. Firma Besar	Keseluruhan Pertubuhan
	Mikro	Kecil	Sederhana	Jumlah PKS			
Perkhidmatan	649,186	148,078	11,862	809,126	89.2	9,185	818,311
Pembuatan	22,083	23,096	2,519	47,698	5.3	1,403	49,101
Pembinaan	17,321	17,008	4,829	39,158	4.3	1,400	40,558
Pertanian	4,863	4,143	1,212	10,218	1.1	1,410	11,628
Perlombongan & Pengkuarian	217	458	190	865	0.1	161	1,026
Jumlah	693,670	192,783	20,612	907,065	100.0	13,559	920,624

Figure 3.4.2: Number venture of SMEs based on sector and size
Source: Banci Ekonomi 2016, SMEs Profile (2015), Jabatan Perangkaan Malaysia

SME are frequently referred to the foundation of the economy since they are so significant for development. The employee and owner that involved with SME business in Kelantan were the total population on this report. According to the figure above, the total of SMEs in Kelantan is 46618 and the total amount of SMEs that available in Malaysia is 907, 065.

3.6 Sample Size

Sufficiently many elements from the population are selected for the sample. In research, a "sample size" is the number of people surveyed or tested. Participants were selected by researchers based on age, gender, and location. Figure of people that were randomly selected to participate in the study; this number is meant to be representative of the entire population. It is the study's intended population that will serve as the basis for the sample size. (Omniconvert, 2022).

Table 3.5:Krejcie&Morgan table

N	*S*	*N*	*S*	*N*	*S*
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	3500	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

According to Krejcie and Morgan (1970), 384 samples would be needed to reliably represent the estimated population of over a million in Kelantan. The sample size is large enough to provide reliable results for this investigation. The owner of SMEs business in Kelantan are also included in the study's respondent sample.

3.7 Sampling Method/ Sampling Technique

A probability technique is a sampling procedure in which the sample is selected based on well-defined mathematical guidelines whereby every member of the universe has equal chances of being selected (Noordzig et al. 2010). The types of probabilistic sampling techniques are simple random sampling, stratified sampling, cluster sampling, and multi-stage sampling. The sampling approach that will be using in this study is stratified sampling. In this review, the researchers decided to use Kelantan as the sampling unit for the study. To examine the objective, stratified sampling was used to divide the entire retail entrepreneurs in the population in Kelantan into subgroups of Small and Medium

Enterprises (SMEs). This study uses stratified sampling because the collection of information is more accurate in the elements about the variables that want to be tested.

3.8 Research Instrument

The major data for this study will be gathered using questionnaires. 384 respondents will receive the questionnaire. Scale-style questions were used to structure the questionnaire researcher. The researchers will also make use of secondary data, which is information gathered by earlier academics from their journals and publications that are related to the subject under study. The respondent will receive the questionnaire online.

3.8.1 Pilot Study

An important part of any research approach is the pilot study. According to Israr Ahmad, Shuhymee Ahmad (2018) mentioned that this research study intends to examine the validity of a study conducted using a questionnaire on the study conducted on respondents. The researcher can also benefit from the pilot study in terms of receiving valuable input and gaining recognition for successful completion of the research process.

3.8.2 Questionnaire Design

There are three sections in the questionnaire provided which are parts A, B, and C. Part A is the demographic part to collect details, part B is the independent variable of factors that influence SME business performance in Kelantan during MCO.and part C is the dependent variable which is SME business performance in Kelantan, Malaysia. The respondents were required to answer questions relating to each variable in order to collect the data in parts A and part B using the five-point Likert scale. The five-point Likert scale ranged from 1 to 5 which 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree.

3.8 Measurement of The Variables

There are a total of four different levels of measurements for variables, which including nominal, ordinal, interval and ratio (Statistic solution 2022). Different type of measurement will indicate different type of statistic in the study. However, in this study, we will be using the nominal scale and ordinal scale only. Nominal scale is only used to categorize the data at this level of measurement. (Question Pro, 2022) Words, characters, and alphanumeric symbols can all be using at this level of measurement. In this case, if there are three kinds of races, the symbol M can be use to represent the Malay respondent, while the symbol C can be use to represent Chinese respondent and symbol I can be use to represent Indian respondent.

The second level of measurement, known as the ordinal scale, conveys the ranking and ordering of the data without determining the degree of variance among them (Question pro 2022) . An ordinal scale was using in this study to understand whether the variables are greater or lesser than one another using sorting. In the meantime, the central tendency of the ordinal scale is Median. For example, in this study, the linear scale will be indicated into Strongly agree =5, Agree =4, Neutral = 3, Disagree = 4, Strongly Disagree =5. The number will be indicated the level of agreement of the statement given to the respondent.

3.9 Procedure For Data Analysis

The data analysis methods concerning the objectives of the study have been classified into a table below and the explanation of the other methods of data collection has been discussed as well. We will be using three form of data analysis to analyze the data which including descriptive statistic, reliability test, and Pearson correlation coefficient.

3.9.1 Descriptive Statistic

Descriptive statistics is known as descriptive coefficients that summarize data set of a sample of population. (Hayes, 2022) Descriptive statistics are including the measurement of central tendency and measures of variability. In our study, we will do the measurement of central tendency by measuring the mean, median and mode of our data. Meanwhile, we will also calculate the variability such as the deviation, kurtosis and skewness.

3.9.2 Reliability Test

In this research, the variable size of the independent variable and dependent variable internal consistency was determined by their alpha reliability. However, the acceptable Coefficient alpha should be equal to or more than 0.7 based on Nunnally (1967).

Cronbach's Alpha Score	Level of Reliability
0.0 – 0.20	Less Reliable
>0.20 – 0.40	Rather Reliable
>0.40 – 0.60	Quite Reliable
>0.60 – 0.80	Reliable
>0.80 – 1.00	Very Reliable

Figure 3.9.2 Reliability Test

3.9.3 Pearson Correlation Coefficient

In this research, the Pearson Correlation Coefficient was applied to verify the factors that influence SME business performance in Kelantan during MCO. We will also define which of the factors that is most significant in affecting the SME business in Kelantan Malaysia.

Correlation Coefficient Value (r)	Direction and Strength of Correlation
-1	Perfectly negative
-0.8	Strongly negative
-0.5	Moderately negative
-0.2	Weakly negative
0	No association
0.2	Weakly positive
0.5	Moderately positive
0.8	Strongly positive
1	Perfectly positive

Figure 3.9.3 Pearson Correlation Coefficient

4 Results and Finding

4.1 Reliability Test

The Cronbach's Alpha for dependent variable of a SMEs business performance is 0.829 which is "very good" of the result. Besides that, the independent variable which is the affect of government, the affect of network development and the affect of economic policy also gained "very good result. The highest result of Cronbach's Alpha is the effect of government support at value 0.831. In this research, the reliability test was conducted with the number of 384 respondents from Small and Medium Enterprises (SMEs) perception in Kelantan. The Cronbach's Alpha value is 0.831, and 0.818 respectively. Hence, Cronbach's Alpha can take a value between 0 and 1 whereas the value gets closer to I, which means a more reliable scale for a variable. Therefore, the result has showed a sufficient reliability.

Table 4.1: Reliability Test

Reliability	Cronbach's Alpha	N of Items
SMEs business performance (DV)	0.829	5
The affect of government support towards SMEs (IV1)	0.831	5
The affect of network development towards SMEs (IV2)	0.830	5
The affect of economic policy towards SMEs (IV3)	0.818	5

4.2 Descriptive Analysis

4.2.1 Respondents' Demographic Frequency Analysis

Table 4.2 : Respondents' Demographic Frequency Analysis

1. Jantina/ Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Lelaki/Boy	1	.3	.3	.3
	Lelaki/Male	212	55.2	55.2	55.5
	Perempuan/Female	171	44.5	44.5	100.0
	Total	384	100.0	100.0	

2. Umur/Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20 - 29 tahun/years old	110	28.6	28.6	28.6
	30 - 39 tahun/years old	96	25.0	25.0	53.6
	40 - 49 tahun/years old	115	29.9	29.9	83.6
	50 - 59 tahun/years old	55	14.3	14.3	97.9
	60 - 69 tahun/years old	8	2.1	2.1	100.0
	Total	384	100.0	100.0	

3. Race/Bangsa

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Baba dan Nyonya	1	.3	.3	.3
	Cina/Chinese	103	26.8	26.8	27.1
	India/Indian	56	14.6	14.6	41.7
	Melayu/Malay	224	58.3	58.3	100.0
	Total	384	100.0	100.0	

4. Status/Marital Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Berkahwin/Married	243	63.3	63.3	63.3
	Bujang/Single	141	36.7	36.7	100.0
	Total	384	100.0	100.0	

5. Pendapatan Bulanan/Monthly Income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bawah/Below RM 1,000	49	12.8	12.8	12.8
	RM 1,000 - RM 2,999	82	21.4	21.4	34.1
	RM 3,000 - RM 3,999	85	22.1	22.1	56.3
	RM 4,000 ke atas/and above	168	43.8	43.8	100.0
	Total	384	100.0	100.0	

6. Tahun Perniagaan/Year of Business

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 - 5 tahun/Years	147	38.3	38.3	38.3
	11 - 15 tahun/ Years	76	19.8	19.8	58.1
	16 tahun ke atas/Years and above	47	12.2	12.2	70.3
	6 - 10 tahun/Years	114	29.7	29.7	100.0
	Total	384	100.0	100.0	

7. Jenis Perniagaan/Type of Business

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agrikultur/Agriculture	33	8.6	8.6	8.6
	Pembinaan/Construction	67	17.4	17.4	26.0
	Pembuatan/Manufacturing	105	27.3	27.3	53.4
	Perkhidmatan/Service	179	46.6	46.6	100.0
	Total	384	100.0	100.0	

According to Table 4.2, there are more male respondents than female respondents which are 213 male respondents and 171 female respondents out of total 384 respondents. Hence, male respondents are 55.5% and female respondents are 44.5% of the total respondents.

Next, for age, they are more respondent from 40-49 years old which is 115 respondents (29.9%) out of 384 respondents compared to others age group. The least are among 60-69 years old (8%). This can be concluded that most of SMEs business owners in Kelantan are among middle age group.

In terms of race, there are more Malay respondents than Chinese, Indian and Baba Nyonya respondents which are 224 Malay respondents, 103 Chinese respondents, 56 Indian respondents and 1 Baba Nyonya respondents out of total 384 respondents. Hence, Malay respondents are 58.3%, Chinese respondents are 26.8%, Indian respondents are 14.6% and Baba Nyonya respondents are 0.3% of the total respondents.

For marital status, there are more married respondents than single respondents which are 243 respondents are married and 141 respondents are single out of total 384 respondents. Hence, married respondents are 63.3%, and single respondents are 36.7% of the total respondents.

Meanwhile for monthly income, there are more respondents from monthly income above RM 4000 which are 168 respondents out of 384 respondents. The least respondents are from monthly income below RM 1000 which is 49 respondents out of 384 respondents. There are 82 and 85 respondents from RM 1000 – RM 2999 and RM 3000 – RM 3999 respectively. Hence, the most respondents are 43.8% and the least respondents are 12.8% of the total respondents.

For Year of Business's Respondents, there are more respondents from years of business 1-5 years which are 147 respondents out of 384 respondents. The least respondents are from above 16 years which is 47 respondents out of 384 respondents. There are 76 and 114 respondents from 11 – 15 years and 6 – 10 years respectively. Hence, the most respondents are 38.3% and the least respondents are 12.2% of the total respondents.

Lastly for types of business, there are more respondents from type of business in services sector which are 179 respondents out of 384 respondents. The least respondents are from agriculture sector which is 33 respondents out of 384 respondents. There are 67 and 105 respondents from construction sector and manufacturing sector respectively. Hence, the most respondents are 46.6% and the least respondents are 8.6% of the total respondents.

4.3 Pearson Correlation

4.3.1 Relationship between government support towards SME business performance

H1: There is a significant relationship between government support towards SME business performance in Kelantan during MCO.

Table 4.3.1 Correlation between government support towards SME business performance

		Business Performance
Government Support	Pearson Correlation	.751**
	Sig. (2-tailed)	.000
	N	384

Based on table 4.3.1, it showed up the value is 0.00 which is significant at level p< 0.05 between the network development towards business performance. Thus, the researcher accepts the alternative hypothesis (H1), which there is a relationship between network development toward business performance. Besides, there was a strong relationship between network development toward business performance which r= 0.751, while the correlation 0.6< r<0.8 is considered strong. Therefore, there is a significant relationship between network development toward SME business performance in Kelantan during MCO.

4.3.2 Relationship between network development towards SME business performance

H2: There is a significant relationship between network development towards SME business performance in Kelantan during MCO.

Table 4.3.2 Correlation between network development towards SME business performance

		Business Performance
Network Development	Pearson Correlation	.747**
	Sig. (2-tailed)	.000
	N	384

According to table 4.3.2, it showed up the value is 0.00 which is significant at level p< 0.05 between the network development towards business performance. Thus, the researcher accepts the alternative hypothesis (H1), which there is a relationship between network development toward business performance. Besides, there was a strong relationship between network development toward business performance which r= 0.747, while the correlation 0.6< r<0.8 is considered strong. Therefore, there is a significant relationship between network development toward SME business performance in Kelantan during MCO.

4.3.3 Relationship between economic policy towards SME business performance

H3: There is a significant relationship between economic policy towards SME business performance in Kelantan during MCO.

Table 4.3.3 Correlation between economic policy towards SME business performance

		Business Performance
Economic Policy	Pearson Correlation	.772**
	Sig. (2-tailed)	.000
	N	384

According to table 4.3.3, it showed up the value is 0.00 which is significant at level $p< 0.05$ between the network development towards business performance. Thus, the researcher accepts the alternative hypothesis (H1), which there is a relationship between network development toward business performance. Besides, there was a strong relationship between network development toward business performance which $r= 0.772$, while the correlation $0.6< r<0.8$ is considered strong. Therefore, there is a significant relationship between network development toward SME business performance in Kelantan during MCO.

4.3.4 The contribution of critical success factors (CSFs) towards business performance

Multiple regression analysis is a powerful technique used for predicting the unknown value from the known value of two or more variables (Elzamly,2014). The strength of the relationship between the independent variable and the dependent variable is determined by the coefficient of determination which is the squared correlation coefficient (r2) as it measures the proportion of the variation in a dependent variable that can be explained by the independent variables. In multiple regressions, the researchers have used stepwise as our regression method.

Table 4.3.4 ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	140.570	3	46.857	278.525	.000b
	Residual	63.928	380	.168		
	Total	204.498	3830			

Dependent Variable: SME Business Performance
Predictors: (Constant), Government Support, Network Development, Economic Policy.

According to model 1 in table 4.5.4, the F-value is 278.525, which is significant ($p<0.05$). This model 1 indicates that the overall regression model with that three independent variables (Government Support, Network Development, Economic Policy) can somewhat explain the variation of the dependent variable (SME Business Performance).

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig
		B	Std. Error	Beta		
1	(Constant)	.350	.134		2.607	.010
	IV1	.229	.049	.239	4.637	.000
	IV2	.288	.052	.273	5.525	.000
	IV3	.392	.046	.394	8.579	.000

Dependent Variable: SME Business Performance

According to table 4.3.5, the model takes the form of an equation that contains a coefficient (b) for each predictor. The value b tells us about the relationship between each predictor and business performance. If the value is positive, there is a positive relationship between the predictor and outcome (Field, 2008). Table 4.18 analyzed that government support, network development, and economic policy have a significant and positive relationship with business performance and the b value of each predictor is positive. So as government support, network development, and economic policy so do the SME's business performance. The b value also tells us to what degree each predictor affects that outcome if the effects of all other predictors are held constant.

Each of these beta values has an associated standard error indicating to what extent these values would vary across different samples, and these standard errors are used to determine whether the b value differs significantly from zero. Therefore, if the t-test associated with a b value is a contribution to the model if $p<0.05$, then that predictor is making a significant contribution to the model. The smaller value of p and the larger the value of t, the greater the contribution of the predictor (Field, 2008). For model 1, government support, $t(384)=4.637$, $P<0.05$, network development, $t(384)=5.525$, $P<0.05$, and economic policy $t(384)=8.579$, $P<0.05$ are significant predictors of business performance. From the magnitude of the t-statistics, the researchers can see that the past network development and economic policy had more impact than government support.

5 Discussion and Limitation

Based on the study, it was found that there is a positive relationship between government support, network development, and economic policy towards SME business performance. Most of the employee and SME business owner believe that the government support can help reduce their burden in cost such as fund support and debt repayment extended. The government support from government can also give the SME business owner confident to continue their business during the pandemic instead of winding up their business. Besides, network development is also helping in the SME business performance in Kelantan, Malaysia. During the pandemic and lockdown, the rules to purchase at the supermarket and more become strict which there is one family member allowed to purchase outside. This will cause a lot of inconvenience as the purchaser is hard to carry too much by their own. However, many SME business owner catch this trend and building their network, such as making their online website. This will benefit the purchaser to use least time to purchase outside, this can prevent the spreading of Covid-19 virus during the pandemic while also help in saving manpower, as some of the SME business will offer home delivery for their buyer. Economy policy will also help in SME business owner. For example, the reduction of Overnight Policy Rate (OPR) will reduce the rent rate indirectly. Therefore, the financial burden of SME business owner will be reduced, and the fund can be use on other way such as wage and salary for their employee and operation expenses for their stall or shop.

There are several limitations during the study. First of all, the SME business owners or workers are busy all the time. We appreciate those SME business owners and workers who willing to spend their time to answer our questions. However, we also found another alternative which is using google form to distribute the questionnaire through online and this help us to gather the data we need in a faster period. Besides, the respondent we chosen in our study is relatively specific as we required individual which are SME business owner and employee to answer our questions while the respondent would also need to be running their business in Kelantan. This become a barrier for us to retrieve data as the respondent we required is rare and uncommon.

6 Recommendation

The recommendation for future research is to use qualitative method as well in the study. This is because some of the SME business owner has experienced different type of crisis and pandemic that would lead to financial lose. For example, H1N1 pandemic, COVID-19 pandemic, 1997 Asian financial crisis, and so on. They can share their experience on how they survive the pandemic, and this would give a big understanding to the researchers about the factors that could or could not help in SME business. Meanwhile, the experience of how the SME business owner survive those crises will also be an example to prevent the worst situation in the future. Furthermore, future researchers can also use other social media platform such as Facebook, Instagram and so on. In this study, we found that there are many social media users regardless to the age. Some of the social media have group in certain area such as “Kota Bharu Residents” group. This will help the researcher to retrieve their data in a faster period and prevent to bother those irrelevant respondents.

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Explaining Singaporean Acceptance of Congestion Charging: Malaysia and Singapore Border

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Abstract:
This study focuses on the factors affecting the Singaporean public acceptance of congestion charging between the Malaysia and Singapore border. In this study, age, education, and income are all elements that might impact their acceptance intention towards the charge. Besides that, the quantitative approach will be used by the researcher to conduct this study. An online survey questionnaire is created to gather information from respondents. This questionnaire is created by Google Forms and will distribute to the public. Moreover, the sampling calculation for this investigation will be based on the suggested rule of thumb by Roscoe (1975). According to Roscoe (1975), the minimal sample size will be more than 30 and less than 500 participants. As a result, there will be 180 respondents participated to complete the questionnaire. In addition, the researcher is using a non-probability sampling technique to conduct this study. Furthermore, the collected data will be analysed by Statistical Package (SPSS) software version 25.0 and obtain research results.

Keywords: *Congestion Charging, Perceived Uncertainty, RBV Model, Singaporeans, Public Acceptance*

1 Introduction

In recent years, with the growth of urbanisation, the disparity between the demand and supply for urban transport is becoming progressively more pronounced, projecting mainly in urban areas.[1] Congestion charging has the potential to mediate several transport issues, especially those that are connected to effective health, mobility, and the environment. The congestion charge is applied to systems with time-differentiated tariffs designed to balance daily traffic patterns.[22]

Congestion pricing has been noticed as the most suitable type of explanation to confirm the extreme utilisation of existing streets.[23] Additionally, from an economic perspective, the goal of congestion pricing is to encourage reasonable travel decisions among consumers and reduce urban traffic congestion.[1] Although it is possible to collect traffic congestion fees, more research has to be done on the public's perception of such taxes. This study is to explain Singaporean acceptance of

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congestion charging. The researchers will recently concentrate their efforts on finding solutions to the congestion on the Malaysia and Singapore border and metropolitan highways.
A few years ago, the government had intentional to implement a congestion charge system in place of the highway toll system on roads. Nowadays, there are several forms of congestion pricing for road users in cities including Singapore, London, Stockholm, and Milan. The advantage is that Malaysia has a huge and diversified pool to acquire from which to take knowledge and adopt the greatest practices that are suitable to the precise needs and tailored to our population's individual needs.[24]

The demand and supply gap for urban transportation has recently become more pronounced, especially in metropolitan areas and major cities, as a result of the expansion of urbanisation. Congestion charging has several challenges in practice while being beneficial in theory. Urban road congestion is a structural issue, so sensible measures must always be developed to have the most impact. Although it is feasible to gather traffic congestion fines, research on the public's perception of such taxes is still needed.[1]

Yet, using simple econometric models in numerous research has determined variables affecting public acceptance of congestion charges. These investigations offer helpful insights, but they do not reveal the underlying psychological mechanisms. This study examined Singaporean acceptance of the congestion charges that must be paid for transiting to Malaysia based on demographic factors which are age, income, and education. Thus, this study aims to examine the Singaporean acceptance of congestion charging between the Malaysia and Singapore border.

2 Literature Review

The study looked at explaining Singaporean's acceptance of congestion charging between the Malaysia and Singapore border. The purpose of this chapter is to illustrate the problems of this study by reviewing theories or models that fully explain the concept of public perceived acceptance affecting willingness to accept congestion charging. Moreover, we also present the extent to which the factors affect willingness to accept congestion charging by using a conceptual framework. Therefore, this chapter is divided into four important parts to accomplish this task which is the first. The second paragraph examines various models or theories that emphasise public acceptance of congestion charging. After this analysis, there is a complete framework to understand how these factors affect willingness to accept congestion charging between the Malaysia and Singapore border. Importantly, this argument led to the development of an overall study issue, leading to the problem under study in the present study.

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2.1 Underpinning Theory

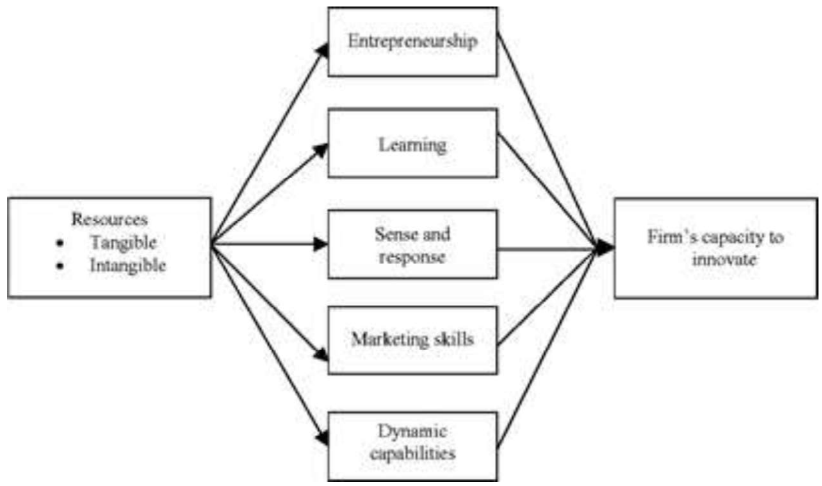

Figure 1: Resource-Based View

Source: Zhao & Morgan, 2017

In the resource-based view, (RBV) a company's facility to sustain a good edge depends on its access to valuable, rare, distinctive, and irreplaceable resources.[25] When it comes to administrative analysis, RBV stresses an inside-out strategy that views the organisation as a collection of resources.[4] Theory for creating instruments to look into the position of businesses connected to the resources they consume. According to Barney, J. (1991), in a resource-based view, associations have resources, some of which help them gain a reasonable edge and some of which affect better long-term performance.[4]

2.2 Acceptance of Congestion Charging

The congestion fee has been implemented in a few cities throughout the world as a result of urbanization. In 1975, Singapore initially implemented a congestion tax in the downtown area, utilising a manually paid "Regional Pass" method. The first and most successful city to implement congestion charges was Singapore. After 1998, Singapore implemented an electronic toll payment system. The congestion charges not only significantly decreased traffic congestion and accidents but also boosted traffic revenue, setting the framework for future highway system improvements. In 1996, Seoul began charging for traffic congestion. In 2003, according to Leape (2006), London instituted a congestion charge for vehicles crossing the bridge.[26] As a result, district-wide traffic decreased by 27%, while bus travel times rose by 25%. According to Kockelman et al., the adoption of congestion charges is directly connected to the number of rates for congestion charges, including the hours after charges are fully implemented, the region where pricing happens, and other aspects of

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the charging mechanism (2005).[27] According to Bonsall and Cho (1999), complex pricing schemes, such as moment pricing based on congestion delays, were less popular with the public than fixed-rate fees.[28] According to Hensher and Li (2013), the more complicated a congestion charge system is, the more difficult it is for the public to comprehend, resulting in public discontent.[29]

Most transportation experts believe that road pricing is the most effective method for addressing the negative consequences of mobility because cars are taxed in a way that makes them aware of the marginal social costs linked with their driving behaviour (King et al., 2007; Knight, 1924; Pigou, 2017; Walters, 1961). In addition, this pricing mechanism has been defended as a means of generating revenue[30] that might be used to encourage community mobility, support the structure of new associations, and maintain standing road systems.[31] The features of individuals also affect their perceptions of costs and advantages. Automobile owners are anticipated to be more resistant to urban tolls than public transit users (Jaensirisak et al., 2005; Kottenhoff & Brundell Freij, 2009), whilst those who are more worried about the situation are more likely to favour congestion pricing.[32] The public's understanding of the challenges involved with car use and the welfares of a charge plan are other factors to consider.[33] Acceptance is anticipated to increase as public awareness of the negative effects of vehicle use and the efficacy of congestion pricing in resolving traffic-related issues rises.[34] People are more likely to provision a toll system when it is obtainable as a package that contains clear information about the final use of revenues[14], allowing the system's benefits to be readily apparent.[35] Even though support increases as individuals expect benefits, group benefits appear to be more important for acceptance than individual benefits.[36] Therefore, collective results such as public transportation (Kottenhoff & Brundell Freij, 2009; Rentziou et al., 2011) and conservational enhancements (Loukopoulos et al., 2005) appear to be the preferred toll revenue allocation because they are also associated with equity and environmental neutrality.[1515]

2.3 Independent Variables

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2.3.1 Age

Age is also a basic demographic characteristic that is crossed by social characteristics, such as marital status and education. The population of Singapore reached 5.5 million in 2021. Singapore had the biggest population, with 3.9 million people (72.3%) in the working-age range of 15 to 64 years. With 15.3% of the population (0.83 million) or those under 15 years old, Singapore had the second-largest population. With 12.4% of the overall population or 0.68 million people, 65 and older was the third-largest age group in 2021. By using appropriate questions to identify the age demographic of the people who took a survey, using age brackets for convenience and consistency, it can potentially gain a lot of valuable detail during our analysis, to reveal any correlation between age and subsequent opinions and behavioural traits.

The earliest studies on congestion charges were conducted in downtown London in the early 1970s, but they received little attention due to the substantial excess capacity of the public transportation system at the time. Yet, due to London's rapid population increase, growing traffic congestion concerns, and environmental deterioration, the discussion and debate on the congestion charge continued and lasted over time. As a result, London City received permission in the 1990s to impose a congestion fee and keep the proceeds.

After an intensive 18-month process of public deliberation, political factors were less important when Ken Livingston was chosen as London's first mayor in 2000 due to a concentration of power. On February 17, 2003, he inaugurated a congestion charge plan in central London (Bhatt et al. 2008). According to Litman (2006), a survey of a business group that contributed 22% of the town's GDP revealed that the majority (over 90%) of the members felt either no effect or a positive effect on their business, with only 9% reporting a negative impact on their business, even though the congestion charge in London was initially criticised by interest groups or various stakeholders for having a negative economic impact.

Additionally, Bhatt et al. (2008) discovered that acceptance of the London congestion fee grew from around 40% before the scheme's implementation to above 50% eight months later. Another important component in the introduction of the London congestion charge is the public's perception of the congestion problem. According to Bhatt et al. (2008), in 1999, 41% of poll respondents thought a congestion fee was the best method to pay for improvements to London's public transportation system, and 90% of city inhabitants considered there was too much congestion in the city. In conclusion, significant levels of political dedication as well as public acceptance led to the effective implementation of the congestion charge in London.

2.3.2 Education

In the past twenty years, there have been political debates about and abandonments of the Stockholm congestion charge scheme. The "Dennis Agreement," a complete and accurate investment in a toll system, was first proposed by a local Green Party and the Social Democrats in cooperation with elected alliances in 1991. Political changes prevented the implementation of the agreement until the local Green Party again won enough seats in the 2002 election, which ultimately compelled the Social Democrats to accept an experiment in congestion charging. A full-scale, seven-month trial of the improved public transportation was run from January to July 2006, and an extensive analysis followed to ascertain the truth behind the plebiscite and the relationships between variables affecting travel behaviour and decision-making (Bhatt et al. 2008). According to reports, persons who lived in the charging zone, were highly educated, of working age, or thought the toll system would save them time tended to be more supportive of the congestion fee system. Contrarily, residents who paid higher rates for the congestion pricing system, were male, immigrants, or lived outside the pricing zone were less likely to support it (Hrsman & Quigley 2010).

It seems to be interesting to note that opinions about the congestion fee in Stockholm varied before and during the experiment (Eliasson et al. 2009; Schuitema et al. 2010). More notably, 55% of the city of Stockholm citizens said that enacting a congestion charge system was a "very or somewhat terrible move" in the autumn of 2005. Nevertheless, 53% of locals said the trial was a "very good idea" in April 2006. The benefits of the congestion charge scheme (e.g., less congestion, more parking space) were greater than what the citizens anticipated, and participants were typically more concerned with the performance of the congestion charge than its cost, which contributed to the increase in acceptance[15]. Stockholm eventually opted to implement the congestion charge plan by referendum in 2007 due to the ongoing worsening of traffic congestion and encouragement from the trial's success as well as the well-publicised success of the London congestion charge scheme (Hrsman & Quigley 2010).

2.3.3 Income

According to Phang & Toh (2004), Singapore is another successful example that due to its considerably small and limited surface, in the early 1970s, the government had no idea but to introduce an area licensing scheme. This policy led to a 20% increase in bus passengers and a 10% reduction in bus travel time. Tariffs vary during peak hours to increase road users' efficiency and fairness without incurring additional costs. This was accomplished by implementing variable toll costs based on vehicle classification (vehicle type and the number of axles), and the time of day or night.

Congestion charges could appear unfair from the viewpoint of the "citizen." This would be the case if different socioeconomic groups have different levels of support or acceptance of the core rationale or explanation for congestion pricing.[37] According to Eliasson (2016) that, the case of congestion charging is considered an "elite" endeavour, which is more in line with what wealthier or more cultured populations view as "fair," or "socially desirable." It is simple to conceive that high-income groups would perceive estimating as a more equitable distribution method than, say, administrative choices - perhaps as a result of education, self-interest, or societal norms. Hence, it is feasible that high-income clusters might provide environmental advantages.[16]

[37] Eliasson, J. (2016). Is congestion pricing fair? Consumer and citizen perspectives on equity effects. Transport Policy, 52, 1-15.

2.4 Conceptual Framework

The researchers discovered that the framework below will be the build framework. The focus of this research will be on the Singaporean acceptance of congestion charging between the Malaysia and Singapore border. As independent variables for the study, the researchers chose Age, Education and Income.

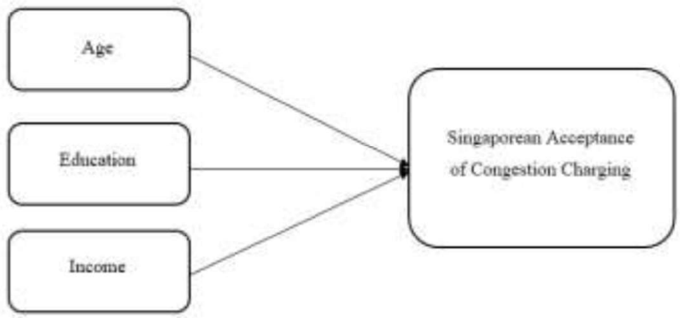

Figure 1: Conceptual Framework

3 Methodology

3.1 Research Design and Data Collection Methods

The quantitative methodology was employed by the researchers in this study to collect data. A structured questionnaire was created to collect data on Singaporean acceptance of the congestion charging toward age, education, and income. The data was then analysed to determine the relationship. Data collecting methods, according to Sekaran (2003), are an important aspect of the research process.[38] Data and information may be gathered from two sources: primary and secondary. The major data-gathering method used in this study is a standard online survey questionnaire. In Malaysia, an online questionnaire is used to collect information from Singaporean visitors. Following that, SPSS is used as a tool to find and interpret information derived from the questionnaire. Besides that, the researcher used and gathered a large number of secondary materials. For instance, information from a website, an online journal, or an article, as well as newspapers and magazines.

3.2 Study Population and Sample Size

The term "population" refers to the whole team or collection of elements to whom the research's outcomes must be addressed. As a result, Singaporeans who have travelled across borders to Malaysia are the study's target group. The respondents for this study thus range in age from 18 to 60 and above. The sample size is a subset of the population. As a result, the sampling calculation for this investigation will be based on the suggested rule of thumb by Roscoe (1975). The minimal sampling

[38] Sekaran, U. (2003). Research methods for business. New York, USA: Hermitage Publishing Services.

size was according to Roscoe (1975) that, the minimal sample size will be more than 30 and less than 500 participants in social science study research, especially under the developing non-probability sampling methods. As a result, there will be 180 respondents participated to complete the questionnaire. As a result, the questionnaires were dispersed at random among individuals who could demonstrate their willingness to participate in the survey.

3.3 Sampling Techniques

The sort of sampling technique employed in this study is non-probability sampling. The population's components do not have any probabilities associated with them being selected as target respondents in non-probability sampling schemes. This means that it is impossible to confidently extrapolate the results of the sample's study to the entire population. Some of the non-probability sampling plans are more dependable than others and could offer some important leads to potentially useful information about the population. Designs for non-probability sampling fall under the broad categories of convenience sampling and purposeful sampling. According to Uma Sekaran and Roger Bougie (2017), this study will use convenience sampling. As its name implies, convenience sampling refers to the collection of information from members of the population who are conveniently available to provide it.

3.4 Research Instrument Development

Questionnaires have been used in this study as an instrument. This approach is the most compatible for gaining data and information from respondents. In this study, sources of data will be gathered in questionnaires to investigate and explain Singaporean's acceptance of congestion charging between the Malaysia and Singapore border. The questionnaire also consisted of three parts. Part A also covers nominals for demographic profiles for example gender, age, race, marital status, education level, and monthly income. While ordinal scales are also used for the information of respondents toward the acceptance of congestion charging. While part B also covers the dependent variable of the Singaporean's acceptance of congestion charging.

Table 1: Overview of Research Instrument

Section	Variables	Author
A	Demographic	(Liu & Zheng, 2013) (Eliasson, 2016)
B	Singaporeans' acceptance of congestion charging	(Wang et al., 2019)

Source: Develop for the research

3.5 Measurement of the Variables

In this study, an ordinal scale is used, along with a Likert scale in the survey. This is due to the abstract concept of factors that cannot be accurately measured. The scale consists of a fixed decision question design that addresses unique mentality, trust, assessment, and feeling in factor estimation. These sections contain a variety of questions, including multiple choice with only one answer, multiple choice with only multiple answers, ranking, and matrix choices with five Likert scales. A Likert scale is a type that asks the respondent to agree on a set claim about stimulus items. It will be divided into five answer categories, starting with 1-Strongly Disagree, 2- Disagree, 3- Neutral, 4-Agree, 5-Strongly Agree on a five-point scale. From section 'A' to section 'B,' respondents will be asked to tick only one of the five alternative scores to indicate their level of agreement with each statement. Besides, nominal data refers to a kind of category, such as gender (male/female) that cannot be sorted. Section A questions compute each respondent's demographic profile using a nominal scale. To analyse the target respondents, gender, age, race, marital status, level of education, and income are all quantified on a nominal scale relying on the questionnaires.

3.6 Procedure for Data Analysis

The Social Sciences Statistical Package (SPSS) software version 25.0 was used to analyse all of the data collected and analyse for an accurate result. SPSS is a software package used by researchers for the analysis of statistical data.[39] As a result, there are four types of analysis were used in this study, including Descriptive Analysis, Reliability Analysis, and Multiple Linear Regression. Descriptive analysis is a methodology for precisely specifying the kind and selection of sensory qualities.[40] Meanwhile, reliability is the measure of which test results are reliable about one or more causes of inconsistency—the choice of particular questions, the choice of rates, and the day and time of testing.[41] According to Liang & Zeger (1993), regression analysis is a helpful statistical process that can be leveraged across an association to regulate the degree to which specific independent variables are influencing dependent variables.

4 Findings and Discussion

4.1 Demographic Profile of Respondents

Table 2: Demographic Profile of Respondents

No.	Category	Details	Frequency (190)	Percentage (%)
1	Gender	Male	88	46.3

[39] Contributor, T. T. (2018). *Definition SPSS (Statistical Package for the Social Sciences)*. Whatls.com.

[40] Kemp, S. E., Hort, J., & Hollowood, T. (2018). Descriptive analysis in sensory evaluation.

[41] Livingston, S. A., Carlson, J., Bridgeman, B., Golub-Smith, M., & Stone, E. (2018). Test reliability-basic concepts. *Research Memorandum No. RM-18-01). Princeton, NJ: Educational Testing Service*.

2		Female	102	53.7
3	Race	Malay	37	19.5
4		Chinese	99	52.1
5		Indian	35	18.4
6		Eurasian/Mixed	9	4.7
7		Others	10	5.3
8	Marital status	Single	89	46.8
9		Married	77	40.5
10		Divorced	15	7.9
11		Widowed	9	4.7
12	Age	18-19 years old	25	13.2
13		20-29 years old	67	35.3
14		30-39 years old	60	31.6
15		40-49 years old	23	12.1
16		50-59 years old	12	6.3
17		>60 years old	3	1.6
18	Education	Primary School	2	1.1
19		Lower Secondary School	4	2.1
20		Secondary School	16	8.4
21		Post Sec (non-tertiary)	8	4.2
22		Diploma	44	23.2

23		Professional Qualifications	26	13.7
24		University	90	47.4
25	Monthly income level	Below S$ 1850	35	18.4
26		S$1850-S$2850	24	12.6
27		S$2851-S$3850	30	15.8
28		S$3851-S$4850	46	24.2
29		S$4851-S$5850	35	18.4
30		S$5851-S$6850	15	7.9
31		Above S$6850	5	2.6

Table 2 shows the demographic profile of the research respondents. Among the 190 respondents, 46.3% of respondents were male, and 53.7% of respondents were female. The data showed most of the respondents were Chinese (52.1%). Besides that, most of the respondents were single (46.8%). The data showed most of the respondents were from the 20-29 years old group (35.3%). Then, most of the respondents studied until University (47.4%). Moreover, S$3851-S$4850 were most of the respondents at 46 and 24.2%.

4.2 Descriptive Analysis

The researchers use the mean for each segment of the dependent variable while doing the descriptive analysis. It is to find out Singaporean acceptance of congestion charging between the Malaysia and Singapore Border. Consequently, the researcher compared the means of each question on the online questionnaire that was given to responders. There were 5 levels of means scores, based on the table 3 below.

Table 3: Intervals and Levels Used to Interpret Mean Scores

Interval	Level
1.00-1.80	Very Low (Totally Disagree)
1.81-2.60	Low (Disagree)

2.61-3.40	Moderate (Partially Agree)
3.41-4.20	High (Agree)
4.21-5.00	Very High (Totally Agree)

4.2.1 Descriptive Statistics of Dependent Variable

Table 4: Mean and Standard Deviation

Descriptive Statistics					
	N	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
Mean_DV	190	1.93	4.80	3.9579	.47474
Valid N (listwise)	190				

According to Table 4, Singaporeans' acceptance of congestion charging has a mean agreement and standard deviation of 3.9579 and 0.47474, respectively. It shows that there was a high level of mean scores, and this represents the respondents agreeing with the question in the section on acceptance of congestion charging.

4.3 Validity and Reliability Test

Based on the rule of thumb by Roscoe (1975), the study was created to collect data from 180 valid samples. 190 questionnaire sets in total were received and collected by the researchers at the conclusion. As a result, the sample size for this study was 190, and Table 6 shows the response rate was 105%.

Table 4: Sample Size and Response Rate

Sample Size (S)	Number of Respondent (N)
Target Sample	**180**
Actual Sample	**190**
Response Rate	**(190/180)×100% =105 %**

4.3.1 Actual Reliability Test

There were 15 questions used for dependent variables to assess Singaporeans' public opinion on congestion pricing along the Malaysia-Singapore border. Then, they were all employing the Likert scale question format.

The dependent variable reliability analysis results for this study shows in Table 5 below. The dependent variable is then recorded at 0.76 on Cronbach's Alpha scale. Based on Table 5, which is the value of Cronbach's Alpha Coefficient, indicates that Cronbach's Alpha Coefficient of acceptance of congestion charging has an acceptable association. As a result, the dependability coefficients for this investigation were accurate.

Table 5: Reliability Coefficient for each Section of the Questionnaire

Questionnaire	Number of Items	Cronbach's Alpha	Internal Consistency
Dependent Variable Acceptance of congestion charging	15	0.76	Acceptable
No of the respondent (N) = 190			

4.4 Normality Test

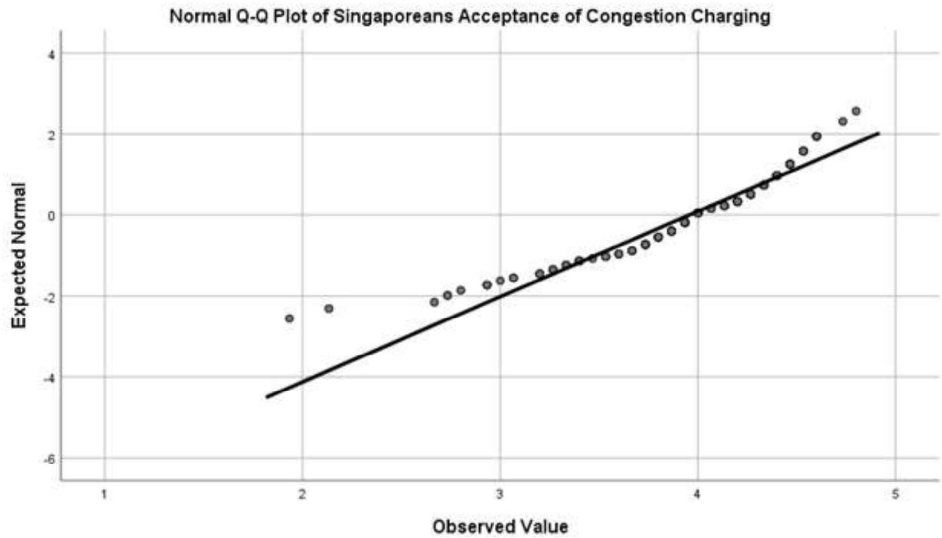

Figure 2: Normality Test of Singaporean's Acceptance of Congestion Charging

To determine normality graphically, the researchers use the output of a normal Q-Q Plot. The data points will be near the diagonal line if the data are normally distributed. The data are not normally distributed if the data points deviate from the line in a clear non-linear way. In this probability plot that is shown in Figure 2, the data roughly form a straight line along the line, as we can see from the typical Q-Q diagram above. The data seem to suit the normal distribution well. Data from this study are therefore normally distributed.

4.5 Multiple Linear Regression

Table 6: Model Summary

Model Summary				
Model	*R*	*R Square*	*Adjusted R Square*	*Std. Error of the Estimate*
1	*.411[a]*	*.169*	*.155*	*.43628*
a. Predictors: (Constant), Monthly income level, Educational level, Age group				

The percentage of the dependent variable variation that is explained by the independent variables is represented by R Squared. Simply said, it assesses how well the model's attributes can account for the model target. Based on Table 6, R, the multiple correlation coefficient shows a moderate relationship between variables, which was 0.411. Besides that, the R square scores 0.169 and it represents that it shows little to no variance explained.

Table 7: ANOVA

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.193	3	2.398	12.596	.000[b]
	Residual	35.404	186	.190		
	Total	42.596	189			
a. Dependent Variable: DV name						
b. Predictors: (Constant), Monthly income level, Educational level, Age group						

According to Table 7, the output of the ANOVA analysis and whether there is a statistically significant difference between our group means. We can see that the significance value is 0.000, which is below the 0.05 alpha level. As a result, we can infer that the mean number of demographic profiles differs in a statistically significant way (age, education, income).

Table 8: Coefficients

Coefficients								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	4.171	.146		28.578	.000	3.883	4.459
	Age group	-.140	.033	-.336	-4.251	.000	-.205	-.075
	Educational level	-.058	.023	-.181	-2.515	.013	-.104	-.013

	Monthly income level	.144	.024	.505	6.011	.000	.097	.191
a. Dependent Variable: DV name								

From Table 8 above, the result shows that the P value of the age group and monthly income level is both 0.000, while the P value of the educational level is 0.013 where both of their values are less than α (0.05). It indicates that age group, educational level, and monthly income level are influencing Singaporean's acceptance of congestion charging.

5 Discussion

Cronbach's Alpha Coefficient for the dependent variable (Singaporeans' acceptance of congestion pricing) is 0.913, indicating an exceptional strength of correlation. The dependent variable has met the minimum value required for an acceptable reliability study. Singaporeans' approval of congestion pricing increased along the major routes leading to the Malaysia-Singapore border.

A correlation analysis reveals a moderately favourable association between age, education level, income level, and acceptability of congestion pricing among Singaporeans. According to the hypothesis test, there is a very strong positive correlation between age and the factors. This effect could be attributed to a greater degree of flexibility in work hours among this group or a higher level of confidence in the capacity of specialists to resolve practical issues such as traffic congestion.

6 Limitations of the Study

The limitations of the study are defined as a border that surrounds the particular research that has been conducted. Some limitations were adopted in this research. First, the major limitation encountered in pursuing this study is limited to Singaporeans who stay in Malaysia only. The second limitation is there is inadequate cooperation from the respondents because not all of the respondents are cooperative and show commitment in this study. Next, the limitation encountered in pursuing this study is the data collected were limited.

7 Conclusion and Recommendations

In this research, there are three independent variables which are age, education, and income, and one dependent variable which is acceptance of congestion charging. The researchers collected the data for this research by using a google form questionnaire. The questionnaires were distributed to 190 respondents of Singaporeans in Malaysia. The objectives of this research were to identify based on the age, education, and income of Singaporeans will affect the acceptance of congestion charging.

From the result findings, for the age category, 67 respondents are between 20-29 years old with the highest percentage, 35.3%. While for the education level, the majority of respondents have an education until the University level with a frequency of 90 and a percentage of 47.4%. For the income level, the analysis has shown that the highest respondents' income of S$3851-S$4850 is 24.2% or 46 respondents. The limitations of the study can give researchers the opportunity to offer additional recommendations to enhance the research for future studies.

For further study, since this study had only focused on Singaporeans in Malaysia, further studies should enlarge the sample size to other generations of Malaysians. This is because of the different opinions of Malaysians about congestion charging. At the same time, Malaysia can learn from the experience of other countries that have implemented congestion charging.

Therefore, this research would be better if we conduct it over a longer time to get the most quality data collection among Singaporeans people towards the congestion charging. If this research were conducted for a longer time, we believe that this research can be done wisely and have a valid result.

Next, we need to increase the number of respondents so that the probability of having valid information will be increased. Through this, we need to properly select a respondent who can properly answer our questionnaire.

8 Acknowledgement

This project should be completed in collaboration with the members of the group, who include Law Yan Yee, Ng Siuw Yin, Siti Nur Asiah Binti Mohd Razali, and Siti Nur Aqilah Binti Zulkarnain. Because of our efforts and collaboration as a team, we can complete this task quickly and successfully. Thank you to all the group members for their hard work and collaboration in completing this final-year project and for sharing ideas and information that enabled us to accomplish it.

Lastly, we want to thank our parents for their support and willingness to spend time with us. Thank you for your great support and guidance, both mental and financial, in ensuring the success of our work. During the Covid-19 crisis case epidemic, we encountered several issues that hampered our academic progress. Because of their assistance and support, we can complete and support this final year project successfully.

In conclusion, we want to express our gratitude to everyone who has helped us prepare for this final year project, whether directly or indirectly. We will be able to finish the final year project and deliver it on time thanks to their assistance. Every effort made by each party is much appreciated. We also hope that working on this project will benefit everyone involved.

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The Study Of Airline Service Quality That Influences Passenger Satisfaction On Airasia Airline Service In Sultan Ismail Petra Airport Kelantan

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Abstract:

Malaysia is currently a country that is experiencing economic development. This economic development also received contributions from the aviation service industry. The rapid growth of the airline industry can also be seen after MCO in the large number of airlines that have existed since the unsealing last year. This study aims to determine the dimentions of airline service quality (AIRQUAL) on passenger satisfaction towards AirAsia service at Sultan Ismail Petra Airport. In this study, primary data is selected which is the quantitative method of data collection that will be used as the survey method. Therefore, respondents in this study is below 21 years old, not including international passengers, cannot be selected for this survey, and passengers that have experienced using AirAsia service in Sultan Ismail Petra Airport during the preceding six months. The purposive sampling techniques was used with a total sample of 220 respondents. There are several methods to analyse the data which is SPSS, descriptive analysis, reliability analysis and Pearson Correlation analysis to examine the relationship between Airline Tangibles, Terminal Tangibles, Personnel Service, Empathy, and Airline Image on passenger satisfaction towards towards AirAsia service at Sultan Ismail Petra Airport. From the findings, the result found that there are five dimensions which is airline tangibles, terminal tangibles, personnel service, empathy, and airline image were positively influenced passenger satisfaction towards AirAsia service at Sultan Ismail Petra Airport. As a result, AirAsia company, present and future, must continually perform airline tangibles, terminal tangibles, personnel service, and airline image to fulfill passengers. Consequently, AirAsia's services will have a beneficial effect and will play a vital role in increasing passenger satisfaction. Therefore, it is advised that the service quality be improved so that passengers may pick AirAsia without hesitation.

***Keywords**: AIRQUAL Model, Airline Tangibles (AT), Terminal Tangibles (TT), Personnel Service(PS), Empathy (E), Airline Image (AI), Passenger Satisfaction*

1 Introduction

The era of the MEA (ASEAN Economic Community) is currently pushing various implications to compete in the industrial world; the scope is not only the trade industry but also services and tourism. Malaysia is currently a country that is experiencing economic development. This economic development also received contributions from the aviation service industry. Malaysia's airline industry has developed very slowly in the last two years, mainly because of the onslaught of the epidemic. Still, since the opening of the Malaysian movement control order 2020 to 2021, the demand for aviation has increased significantly, mainly because no one could go out during the epidemic and everyone wanted to travel after the opening. The rapid growth of the airline industry can also be seen in the large number of airlines that have existed since the unsealing last year.

Today, the number of existing airlines encourages competition in the airline service industry to survive in a competitive market by offering products with their respective strengths. The number of airlines that exist today has encouraged competition in the airline service industry, such as Batik Air Malaysia, Firefly, and Malaysian Airlines, to survive in a competitive market by offering services with their respective strengths. One of these efforts is to continuously improve the quality of service in line with passenger expectations and requirements.

AirAsia is a low-cost airline that is popular among airline passengers. Air Asia's revenue passenger kilometres and available seat kilometres increased over time, demonstrating a successful low-cost airline strategy. (Eng & Vichitsarawong, 2019). Therefore, the requirement for the airline to prioritize service quality in order to be the preferred choice of users. The overall excellence of the service as judged by previous reflected experience, in the form of summary assessments, is connected to service quality. (Scheffler, 2018). By maintaining quality service in the airline, the airline company will develop an image that users will trust.

In this study, Airline Service Quality that influence Passenger Satisfaction focused on AirAsia Airline in Sultan Ismail Petra Airport as the focus research area to determine the relationship between each Airline Service Quality (AIRQUAL) dimension and passenger satisfaction of AirAsia at Sultan Ismail Petra Airport. AIRQUAL is a modification of the SERVQUAL method. The AIRQUAL model have five different dimensions, which are airline tangibles, terminal tangibles, personnel service, empathy, and airline image. This study is unique as no previous studies have been conducted in Kelantan, making it a one-of-a-kind study on Sultan Ismail Petra Airport. This study's results will be valuable to the airline industry, society, the government, and future researchers. This study's findings and findings have practical consequences for AirAsia Airlines, most notably in terms of improving passenger satisfaction.

1.1 Problem Statement

In addition, Air Asia, however, months after resuming flights, claims to have received hundreds of customer complaints on social media about its poor customer service and long wait times for refunds, among other things. Not only that but also complaints from passengers claiming that sometimes website loading is a problem and that customers can only buy tickets on AirAsia's website with difficulties, mainly due to the inability to book and pay for flights on AirAsia's website, especially during promotional times. Besides that, AirAsia's customer service is often complained about, mainly because calls to the AirAsia hotline are not answered, or else the line is busy. The customer service person does not provide helpful solutions but asks the customer to wait.

In this study, considering the shortcomings of SERVQUAL model in previous studies. According to Alotaibi et al. (2015), it has been said that AIRQUAL was intended to address the generality issue that SERVQUAL is blamed for by taking particular features of the airline sector into consideration. So, this study applied the AIRQUAL model developed by Ekiz el al. (2006). The AIRQUAL method was also used to measure the service quality and passenger satisfaction levels at Sultan Ismail Petra Airport. Hence, all of these problems need to solve as soon as possible to prevent the passenger's satisfaction not achieved. Therefore, this study will be conducted to determine the relationship between airline tangibles, terminal tangibles, personnel service, empathy, and airline image on passenger satisfaction towards AirAsia airline service in Sultan Ismail Petra Airport.

1.3 Research Objectives

4

The research objectives are:
1. To determine the relationship between Airline Tangibles and Passengers Satisfactions on AirAsia Airline Services In Sultan Ismail Petra Airport, Kelantan.
2. To determine the relationship between Terminal Tangible and Passengers' Satisfaction on AirAsia Airline Services In Sultan Ismail Petra Airport, Kelantan.
3. To determine the relationship between Personnel Service and Passengers Satisfactions on AirAsia Airline Services In Sultan Ismail Petra Airport, Kelantan.
4: To determine the relationship between Empathy and Passengers Satisfactions on AirAsia Airline Services In Sultan Ismail Petra Airport, Kelantan.
5: To determine the relationship between Airline Image and Passengers Satisfactions on AirAsia Airline Services In Sultan Ismail Petra Airport, Kelantan.

2 Literature Review

2.1 Passenger Satisfaction

According to Gronroos (1984), a passenger's satisfaction with an airline can be gauged by their interactions with the company's staff, the airline's facilities and technology, the aircraft itself, the flight's catering, and fellow passengers. Passengers have a better foundation for evaluating the airline industry's quality because of the increased transparency of service standards. Lorenzoni and Lewis (2004) argue that an airline's success depends on its ability to show that it cares about its passenger and is enthusiastic about serving them.

According to the findings of prior research, Saha and Thingi (2009) came to the conclusion that there is a considerable connection between the quality of airline service and the satisfaction experienced by passengers. According to Lau et al. (2011) research, the level of passenger satisfaction increases in direct proportion to the passenger's perception of the level of service quality. If a consumer is unsatisfied with the service provided by an airline, they are more inclined to move to a different airline and are less likely to suggest the airline to their family members or friends (Abdullah et al., 2007).

2.2 Airline Service Quality and Passenger Satisfaction

Airline service quality influences customer happiness and purchases, according to studies. In addition, airline service quality affects passenger satisfaction (Meysam & Ghasemali, 2016). Thus, airline operations depend on customer happiness. Airline service quality has been prioritized to boost passenger satisfaction

(Dennett et al., 2000). Service excellence improves passenger satisfaction. Most early studies as well as current work attention on a link between satisfaction and effectiveness advocated for different points of view on the relationship meanwhile some people believe that quality leads to satisfaction. According to the findings of the study by Negi (2009) and (Cronin & Taylor, 1992) support the argument that quality results from satisfaction.

2.3 Airline Tangibles

According to Farooq et al., (2018), the term "tangible airlines" refers to the facilities and equipment contained within an aircraft. These include seats, toilets, entertainment facilities, and air conditioning, all of which directly affect the level of service an airline provides. Tsafarakis (2018) suggests that the tangible assets of an airline can be defined as the interior environment of an aircraft. This includes the cleanliness and sanitation of the cabin as well as the lavatories, the level of comfort provided by the seats, the level of quality provided by the Internet service, and the availability of entertainment options. Nadiri et al. (2008) discovered that airline tangibles were the most critical determinants of pleasure, but they needed to prove its superiority over other components.

2.4 Terminal Tangibles

According to the findings of Ariffin and Yahaya (2013), the quality of airline service given by an airline is most closely correlated to the tangible assets of the terminal. They assert that the tangible assets that can be observed in the airport terminal have a direct influence on the overall image of the airline and contribute to the brand's reputation. As a result, the physical assets of the terminal have an indirect but direct influence on the quality of the airline services by the terminal.

2.5 Personnel Service

Personnel service is an important thing that must be considered for airlines. Personnel service excellent or bad impression can directly affect passenger satisfaction, because personnel service describes the physical condition, attitude, behavior, experience and capabilities of the airline employees concerned in providing services to consumers. According to the Park et al. (2005) that employee service has an effect on passenger satisfaction. If the passengers have a positive experience with the personnel service of the airline, they are more satisfied to have a positive experience overall with the airline. According to the findings of a study that was conducted by Ng et al. (2011), service that flight attendants provide to passengers while they are in flight will have an effect on those passengers satisfaction.

2.6 Empathy

In earlier research that empathy is a key factor in determining passenger satisfaction. (Moslehpour et al., 2017) Empathy is a process of recognising and empathising with another person's emotional state and mental state, whether from the past or the present, without receiving a completely objectively explicit description of those things from the other person. Previous studied has indicated that, no matter what sector a company serves, having empathy for customers is an essential component of providing high-quality service (Farooq et al., 2018).

2.7 Airline Image

Airline image is about public's impression of an airline , the esteem in which someone or something is held as a result of their demonstrated qualities and accomplishments.It would appear that customer satisfaction with an airline's brand is related to customer satisfaction with the airline's service. Grönroos (1984) found that customers' first impressions of the airline, including the company's image, influenced their expectations before a flight. The airline image includes passengers' perceptions of the airline's promotions, pricing, and overall quality (Farooq et al., 2018). However, Forgas et al. (2010) discovered that passengers' impressions of an airline strongly influence their satisfaction.

2.8 Research Framework

Generally, the research framework shows the relationship of the independent variable of study consisting of Airline Tangible, Terminal Tangible, Personnel Service, Empathy, and Airline Image with the dependent variable which is Passenger Satisfaction. To translating the above relationship into the hypotheses of this study, the conceptual framework model is developed as illustrated in Figure 2.1 below.

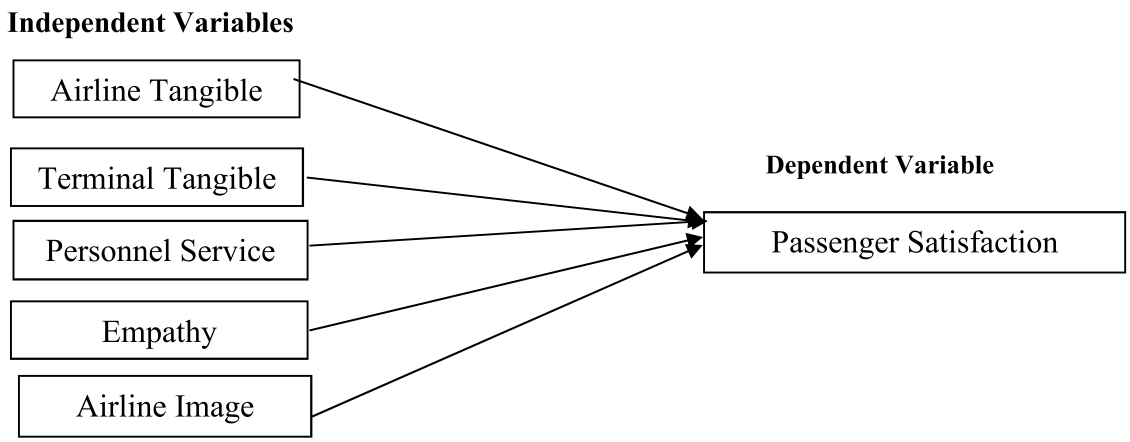

Figure 2.1: Research Framework

Source: Ekiz, H.E., Hussain, K. & Bavik, A., (2006)

2.9 Hypothesis Statement

Researchers proposed hypotheses based on the information gathered. The purpose of this hypothesis was to build coherence an investigation. The hypotheses suggested are :

H1: There is a significant relationship between airline tangible and passenger satisfaction on AirAsia Airline Service in Sultan Ismail Petra Airport, Kelantan.

H2: There is a significant relationship between terminal tangible and passenger satisfaction on AirAsia Airline Service in Sultan Ismail Petra Airport, Kelantan.

H3: There is a significant relationship between personnel service and passenger satisfaction on AirAsia Airlines Service in Sultan Ismail Petra Airport, Kelantan.

H4: There is a significant relationship between empathy and passenger satisfaction on AirAsia Airlines in Sultan Ismail Petra Airport, Kelantan.

H5: There is a significant relationship between airline image and passenger satisfaction on AirAsia Airline Service in Sultan Ismail Petra Airport, Kelantan.

3 Research Methodology

3.1 Meterials and Methods

This study used quantitative method. The survey was based on the replies of 220 passengers between the ages of 21 and 50 or above who had flown with AirAsia through Sultan Ismail Petra Airport. Purposive Sampling technique was used to collect the data from the respondents. In this study, researcher use primary and secondary data to collect the data. They were requested to fill the questionnaire which was developed on Google Forms. There are 220 set of online questionnaires will randomly be distributed to the passenger who uses the AirAsia airline service selected at Sultan Ismail Petra Airport, Kelantan, to identify the relationship between airline service quality and passenger satisfaction on AirAsia Malaysia. In conclusion, we had a total of 220 responses from respondents. Every one of them had the filled google form questionnaire, and after we check the data, there was no missing value. Generally, the online questionnaires are divided into three sections as table below. The final questionnaire consisted of 25 items for all five independet variables belonged to the dimension of service quality that was airline tangibles, terminal tangibles, personnel services, empathy, airline image, while five question items of passenger satisfaction were studied. Therefore, the reply had to scale the question using the following scale: "1=strongly disagrees, 2=disagree, 3=neutral, 4= agree, 5=strongly agree." .

Table 3.1: The Composition of the Questionnaire Study's Items

Section	Variables	No. of Item
A	Demographic Profile	**8**
B	Independent Variable ● Airline Tangibles' ● Terminal Tangibles ● Personnel Service ● Empathy ● Airline Image	 **5** **5** **5** **5** **5**
C	Dependent Variable ● Passenger Satisfaction	 **5**

Besides that, this study used Statistical Package for Social Sciences(SPSS). SPSS is a type of software that can help show the relationship between the dependent and independent variables in terms of descriptive analysis and correlation. After collecting the data from the respondent at Sultan Ismail Petra Airport, analyzing data became easier using SPSS. Descriptive analysis is an overview of analysis in the situation that can be important information and presenting the respondent's demographic in the variable type of statistical diagram such as a pie chart, which represents the variables data. The researchers can use the data already collected to interpret mean, variance and standard deviation.

4 Data Analysis / Findings

4.1 Demographic Profile

Table 4.1 Descriptive Analysis (n=220)

Attributes	Distribution	Frequency	Percentage(%)
Gender	Male	134	60.9
	Female	86	39.1
Race	Malay	145	65.9
	Chinese	55	25.0
	Indian	20	9.1
Age Group	21-25 years old	32	14.5
	26-33 years old	43	19.5
	34-41 years old	43	19.5
	42-49 years old	28	12.7
	>50 years old	74	33.6
Education Level	Single	101	45.9
	Married	119	54.1
	Diploma	35	15.9
	Bachelor of degree	71	32.3
	Master degree	65	29.5
	PHD	43	19.5
	Other	6	2.7
Monthly Income Level	Below RM1000	17	7.7
	RM1001-RM1999	14	14.1
	RM2000-RM2999	70	31.8
	RM3000-RM3999	72	32.7
	Above RM4000	47	21.4
Frequency using AirAsia	Below than one year	45	20.5
	1-5 years	45	20.5
	6-10 years	42	19.1
	11-15 years	45	20.5
	More than 15 years	43	19.5
Purpose/ Reason using AirAsia	Business	44	20.0
	Education	58	26.4
	Travel	57	25.9
	Personnel Reason	61	27.7

Further, the descriptive analysis test was conducted to analyse attributes of respondents' gender, race, age group, education level, monthly income level, frequent using AirAsia, and purpose using AirAsia. Among 134 respondents 60.9% were males whereas among 86 respondents 39.1% were females. Among all responders, those of Malay and Chinese ancestry made up the largest and second-largest shares, with 145 (65.9%) and 55 (25%) people, respectively. Last but not least, out of the 220 responses, 20 (9.1%) were from India respondents. Majority of our respondents 33.6% were aged 50 between above 50 years old respectively. Followed by those 19.5% who were aged between 26 and 41 years old. In others 12.7% of those who were aged between 42 and 49 years. The marital status for single respondents are represents only 101 respondents or can count as 45.9%. For the married status of respondents are has 119 respondents and represents 54.1% only. As per their qualification, the majority were Diploma 15.9% followed by Bachelor of degree 32.3%, followed by Master degree 29.5%, followed by PHD 19.5%, and Others 2.7%.

In addition, the highest monthly income level of respondents is at RM 3000 to RM 3999 (72 / 32.7%). While the lowest at RM 1001 to RM 1999 (14 / 6.4%). From the data collected also, it can be shown that the highest frequencies respondents using Airasia airline services are below than 1 year, 1 to 5 years and 11 to 15 years which is at (45 / 20.5%). Other than that, most respondents choose personal reason as their main purpose to fly using Airasia airline service in last 6 months which at (61 / 27.7%) and the lowest purpose of them to use the airline is because of business (44 / 20.0%).

4.2 Summary Result Mean and Standard Deviation

Table 4.2 : Descriptive Statistics of Independent Variables and Dependent Variable

	N	Mean	Std. Deviation
IV1 (Airline Tangibles)	220	4.1000	.82151
IV2 (Terminal Tangibles)	220	4.2355	.77260
IV3 (Personnel Service)	220	4.2618	.78023
IV4 (Empathy)	220	4.2473	.73847
IV5 (Airline Image)	220	4.2109	.77887
DV (Passenger Satisfaction)	220	4.2655	.70774

The table 4.2 above shown the mean and standard Deviation for the independent variables and dependent variable. There are 220 respondents took part to answer the questionnaire. From the table, the mean of the airline tangibles is 4.1000 and the standard deviation is .82151. Terminal Tangibles mean represents 4.2355 and the standard deviation is .77260. Next, mean of the personnel service is 4.2618 and the standard deviation is .78023. Meanwhile, mean of the empathy which is 4.2473 and has standard deviation that is .73847. For the airline image, the mean is 4.2109 and the standard deviation is .77887. For the dependent variable which is passenger satisfaction, the mean is 4.2655 and the standard deviation is .70774.

4.3 Validity and Reliability Test

Table 4.3: Reliability Test output by using Cronbach's Alpha of each variables

No	Variable	Cronbach's Alpha	Number of items	Result
1	Airline Tangibles	0.874	5	Very Good
2	Terminal Tangibles	0.892	5	Very Good
3	Personnel Service	0.901	5	Excellent
4	Empathy	0.895	5	Very Good
5	Airline Image	0.893	5	Very Good

6	Passenger Satisfaction (dv)	0.882	5	Very Good

Table 4.3 showed the results of reliability test through the value of Cronbach's Alpha Coefficient for dependent and independent variables in this study based on survey of 220 respondents in Sultan Ismail Petra Airport. The researcher used five questions to measure the passenger satisfaction towards AirAsia Airline service in Sultan Ismail Petra Airport.

The result of Cronbach's Alpha for the dependents variable is 0.882, which is Very Good. For the airline tangibles, there are five question had been asked and the Cronbach's Alpha result for this independent variables is 0.874 and the strength is Very Good. Next, the result of Cronbach's Alpha for the terminal tangibles is 0.892 and the strength is Very Good. Besides that, personnel service also used five questions in this study. The Cronbach's Alpha result for this independent variable is 0.901 and it count as Excellent.

Besides that, empathy had five of questions for this independent variable. The result for this independent variable is 0.895 and the strength is Very Good. In addition, airline image had five of questions for this independent variable. The result for this independent variable is 0.893 and the strength is Very Good. In the nutshell, Cronbach's alpha values of all construct with reflective models were greater than 0.70 which was a critical level recommended and all variable can be used in the study. Cohen, (1988).

5 Discussion

This study was conducted to determine the relationship between airline service quality and passenger satisfaction towards AirAsia airline service in Sultan Ismail Petra Airport. The element of airline service quality use in this study are airline tangibles, terminal tangibles, personnel service, empathy, and airline image. Ithis research, there are 220 respondents in total take part in answer the questionnaire. The questionnaire consists of several questions related to demographic, passenger experience towards AirAsia airline service inSultan Ismail Petra Airport . In additional, the questionnaire also included of questions related to dependent variable which is passenger satisfaction (in Section C) and independent variables which is airline tangibles, terminal tangibles, personnel service, empathy, and airline image (SectionB).

5.1 Pearson Correlation Analysis

Table 5.1: Correlation between Airline Tangibles (IV1), Terminal Tangibles (IV2), Personnel Service (IV3), Empathy (IV4), Airline Image (IV5) and Passenger Satisfaction of AirAsia Service (DV)

Variable	Correlation	Sig.Value	Result
Airline Tangibles	0.790	.000	**Accepted**
Terminal Tangibles	0.900	.000	**Accepted**
Personnel Service	0.896	.000	**Accepted**
Empathy	0.882	.000	**Accepted**
Airline Image	0.900	.000	**Accepted**

The result of table 5.1 shows the relationship between airline tangibles and passenger satisfaction on Airasia airline service in Sultan Ismail Petra Airport Kelantan. The correlation is .790 in which consists about 79%, indicating that there is a strong relationship between both of them. The p-value gained was 0.000, which is lower than the significance level of 0.01, this shows that there is a relationship between airline tangibles and passenger satisfaction. Therefore, the hypothesis H1 is accepted. Hence, there is a strong significant relationship between airline tangibles and passenger satisfaction on AirAsia Airline Service in Sultan Ismail Petra Airport, Kelantan.

The result of table 5.1 shows the relationship between terminal tangibles and passenger satisfaction on Airasia airline service in Sultan Ismail Petra Airport Kelantan. The correlation is .900 in which consists about 90%, indicating that there is a strong relationship between both of them. The p-value gained was 0.000, which is lower than the significance level of 0.01, this shows that there is a relationship between terminal tangibles and passenger satisfaction. Therefore, the hypothesis H2 is accepted. Hence, there is a strong significant relationship between terminal tangibles and passenger satisfaction on AirAsia Airline Service in Sultan Ismail Petra Airport, Kelantan.

The result of table 5.1 shows the relationship between personnel service and passenger satisfaction on Airasia airline service in Sultan Ismail Petra Airport Kelantan. The correlation is .896 in which consists about 89.6%, indicating that there is a strong relationship between both of them. The p-value gained was 0.000, which is lower than the significance level of 0.01, this shows that there is a relationship between personnel service and passenger satisfaction. Therefore, the hypothesis H3 is accepted. Hence, there is a strong significant relationship between personnel service and passenger satisfaction on AirAsia Airline Service in Sultan Ismail Petra Airport, Kelantan.

The result of table 5.1 shows the relationship between personnel service and passenger satisfaction on Airasia airline service in Sultan Ismail Petra Airport Kelantan. The correlation is .882 in which consists about 88.2%, indicating that there is a strong relationship between both of them. The p-value gained was 0.000, which is lower than the significance level of 0.01, this shows that there is a relationship between empathy and passenger satisfaction. Therefore, the hypothesis H4 is accepted. Hence, there is a strong significant relationship between empathy and passenger satisfaction on AirAsia Airline Service in Sultan Ismail Petra Airport, Kelantan.

The result of table 5.1 shows the relationship between personnel service and passenger satisfaction on Airasia airline service in Sultan Ismail Petra Airport Kelantan. The correlation is .900 in which consists about 90%, indicating that there is a strong relationship between both of them. The p-value gained was 0.000, which is lower than the significance level of 0.01, this shows that there is a relationship between airline image and passenger satisfaction. Therefore, the hypothesis H5 is accepted. Hence, there is a strong significant relationship between airline image and passenger satisfaction on AirAsia Airline Service in Sultan Ismail Petra Airport, Kelantan.

5.2 Implication of the Study

This study is intended for AirAsia's policy makers and practitioners to provide some recommendations on its findings. After reading the general findings of the survey, it is clear that certain key influences should be highlighted in AirAsia's overall performance. This can be seen in the results of the study. AirAsia's sales performance may benefit from its implementation, thereby improving AirAsia's overall corporate performance.

5.3 Limitation of the Study

One of the study's limitations is the small sample size used to represent the whole population of AirAsia passengers at Sultan Ismail Petra Airport. Due to time and budget restrictions, the researchers distributed 220 questionnaires, resulting in a small sample size for the study. Nonetheless, the researchers obtained 220 questionnaires; hence, the result is restricted to reflect the high and tremendous accuracy of pleasing findings required for this study due to the small sample size.

5.4 Conclusion

It is clear from the result of this research as all the independent variables positively influence passenger satisfaction on AirAsia Service at Sultan Ismail Petra Airport. In this research, Pearson Correlation Analysis shown that five independents variables had significant positive correlation to the passenger satisfaction. The five independent variables that had positive significant is Airline Tangibles, Terminal Tangibles, Personnel Service, Empathy, and Airline Image. Furthermore, from the response of AirAsia users in Sultan Ismail Petra Airport, it is clear that they think that Airline Tangibles, Terminal Tangibles, Personnel Service, Empathy, and Airline Image hold the most decisive influence on their choice in using AirAsia Airlines to travel to desire destination. The data collected in this research can be used for future to help other airline industry in understanding what and how can influences passenger satisfaction. Hence, the result of this research can serve as a reference to other researchers that want to research service quality with the AIRQUAL Model as the main approach to define the passenger satisfaction level.

5.5 Recommendations / Suggestions For Future Research

Thus, future studies should be able to also make an effort in the broader focus on reachable or observation variables in the services quality dimension to reach an overall outcome that can serve as a guideline to most academics and for firms in a similar field of marketing and management that pursue research on passenger satisfaction and service quality dedicated in the service sector. Besides that, future study should be able to also make the effort in wider focus on reachable or observation variables in services quality dimension in order to reach a broad outcome that can serve as the guideline to most of the academics nor for firms in the similar field of marketing and management that pursue research on customer satisfaction and service quality dedicated in service sector. Besides that, for the future researcher, maybe they can put more variable in this study. When having more variable in a study, the result for the study will be more accurate. Besides that, the researcher can take respondents from other states airport ,not only focus on one state. Thus, the result can be collected from many states and can get more respondents to take part in this research that can increase the percentage of accuracy. Next, researcher can use different type of method to conduct the study. As can see, this research using quantitative method, so for the future research can be conducted by qualitative methods. When having an interview from the respondents, researcher can easy to get the data and the answer from the respondents is different compared to other respondents. In conclusion, the researcher expected that the aim of the results of this study was to provide the airline service industry with insight into improving their quality airline service on AirAsia.

6 Acknowledgements

We want to thank our group because of the effort and cooperation while doing this final year project.

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The Factors That Influence Umk Students' Behavioural Intention To Use Public Transportation

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Abstract:
Public transport in Malaysia has grown significantly. User behavior especially students from University Malaysia Kelantan (UMK) have shown positive behavior on the use of public transportation available either in the city or outside the city. The objective of this report is to find out the factors that influence UMK students' behavioral intention to use public transportation. There are various types of public transportation such as rental cars, trains, airplanes and so on. Public transportation will be more attractive and can attract people who can show good behavior by providing door-to-door mobility and the development of public transportation is an important factor in today's social activities. In addition, the reliability of public transport is an important factor in terms of evaluating transit or public transport and they are also motor vehicles that have a license accepted by the government or the Ministry of Transport to run the vehicle as public transportation. The main is to measure the factors that influence UMK students' behavioral intention to use public transportation are in terms of price, comfortable, time punctuality and level of security. However, the findings of this study are expected to help and understand students' behavior towards public transportation.

***Keywords**: Public transportation, student behavioral, factors faced*

1 Introduction

Public transportation is a system that carry a group of passengers from their pick-up point to their destinations by sharing a same vehicle. Unlike private vehicle, public transportation has their own schedule, which operates on established routes. Hence, its passengers also will be charge on a certain travelling fee. For example, a system of buses, trains are paid for or run by government. Public transportation plays an important role especially for those who cannot drive their own which including to some group of people that without access to personal vehicle. This study is to determine the factors that influence UMK students' behavior to use public transportation. To complete the study, we decided to collect the data from UMK students who are studying in Kota Bharu, Kelantan. In this study, we use a theory named "Theory of Planned Behavior" to assist us. In our study on the topic "The factors that influence UMK students' behavior to use public transportation", there are some terms which include price, comfort, time punctuality, and security level. The motive we study on these terms is to find out the factors that influenced UMK students to use public transportation. The study is aiming to provide information about the issue of public transportation which is a current trend and will be more famous and used in the future. Also, it helps us to examine the factors that influence the behavior of UMK students to use public transportation. For the study done in Vietnam in 2009, the public transit users were focusing on quality of bus services, problem awareness, and moral obligation. To find out the factors that influenced UMK students to use public transportation, we asked some UMK students as our respondents to help us to fill the questionnaire that we provided.

1.1 Problem Statement

The problem is that people are not frequently using public transportation, and the solution to increase its usage involves addressing four factors: price, comfort, punctuality, and safety level. These factors are critical for people to consider when deciding whether or not to use public transportation.

Firstly, price is a significant factor that can affect the number of people using public transportation. If public transportation fees are too expensive, it can discourage people from using it regularly. Therefore, one potential solution is to adjust the fees of public transportation, so that it becomes more affordable and accessible to a larger portion of the population.

Secondly, comfort is another factor that can influence people's decision to use public transportation. If public transportation is uncomfortable or unpleasant to ride, people may prefer to use other modes of transportation such as private cars. To address this, upgrading the accessories in public transportation, such as seats and air conditioning, can make the experience more comfortable for passengers.

Thirdly, punctuality is critical for public transportation, and if it is not reliable, people may be discouraged from using it. Thus, fixing the punctuality of public transportation by implementing more efficient scheduling and management can increase its usage.

Lastly, safety is a critical factor that can determine whether or not people feel comfortable using public transportation. If the safety level of public transportation is low, people may opt for other modes of transportation, such as walking or driving. Therefore, increasing the security level of public transportation by installing security cameras and hiring more security personnel can make passengers feel safer and more confident in using public transportation.

In conclusion, addressing the factors of price, comfort, punctuality, and safety level are essential for increasing the usage of public transportation. Adjusting fees, upgrading accessories, fixing punctuality issues, and increasing security levels can make public transportation more attractive and convenient for people, leading to a reduction in traffic congestion, air pollution, and a more sustainable future.

1.2 Research Questions

1. What are the related relationship between price of public transportation and UMK students' behavioral intention to use public transportation?
2. What is the related relationship between comfort in using public transportation and UMK students' behavioral intentions to use public transportation?
3. What is the related relationship between time punctuality and UMK students' behavioral intention to use public transportation?
4. What is the related relationship between level of security and UMK students' behavioral intention to use public transportation?

1.3 Research Objectives

1. To identify the relationship between price and UMK students' behavioral intention to use public transportation.
2. To examine the relationship between comfortable and UMK students' behavioral intention to use public transportation.
3. To determine the relationship between time punctuality and UMK students' behavioral intention to use public transportation.
4. To investigate the relationship between level of security and UMK students' behavioral intention to use public transportation.

2 Literature Review

2.1 Price of Public Transportation

Price is something that could be classified as several units generated in accordance with the total outputs of systematic calculations or more simply take, price represents to the cost of the linked products and services. According to Calabuig et al., (2014)[42], the price offered could be presumed as one of marketing strategies in which an individual keeps his trust in a certain amount that is also linked depending on the quality of a product. Whereas for every service, particularly those involving transportation, it is more technically known as a service charge in which that person utilizing public transportation will indeed be charged in accordance with the length of the destination area (Teo et al., 2018). According to Ubaidillah, Yi, et al. (2019)[43] the desire to utilize public transportation is driven by the perceived value of the price of the service.

2.2 Comfort in Using Public Transportation

("EN 13816 (Passanger transport service providers)," 2002) to quantify the degree of market satisfaction it may be mentioned that this standard system provides services based on a one of the factors that bring a travel comfort. Our old prime minister, Ismail Sabri Yaakob, declared that the government had permitted to allow all public transportation sectors to function at 100% of load capacity among the passenger seats if companies followed with the SOP for the purpose of our health after Malaysia reached the endemic phase (CodeBlue, 2020)[44]. Moreover, comfort while selecting a seat is vital, particularly for women (Mubarok & Suparman, 2019)[45].

2.3 Time Punctuality

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(Xue et al., 2022)[46] have analyzed a measurement result to achieve the level of effectiveness for systematic public transportation business operations, particularly in the issue of predictability and estimating destination time among two locations. Gkiotsalitis & Cats, (2021) assume that only concentrate about one-stop control, but start concentrating entirely on the explicit, that includes each time control process which is visible in a system of public transportation. Additionally, using energy resources effectively has been given top priority so that peoples' distribution movements do not really require manual work to be physically carefully monitored.

2.4 Level of Security

According to a finding in Transportation Research Board, (2003)[47], there are three levels of security that can be improved to overcome all weaknesses and vulnerabilities in public transportation which is security from crime, security from any potential road accidents, the creating a safety assumption to resolve the problem of an increase in road accidents.

2.5 Behavior Intention

An intention is desire to carry provide an action right away or to attain a goal, perhaps simply to carry out an activity in accordance with a planned. Behavior describes the outcome of an action in a future context. According to (Fayolle & Gailly, 2013)[48] this behavioral intention results in a position in which an individual has develops a motivation to behave in accordance with his own attitude. Back to previous study that are many factors such as price, comfort, time punctuality and level of security that influencing student behavioral intention to use public transportation.

2.6 Hypotheses Statement

- H1: There is a relationship between price of public transportation and UMK students' behavioral intention to use public transportation.
- H2: There is a relationship between comfort in using public transportation and UMK students' behavioral intention to use public transportation.
- H3: There is a relationship between time punctuality and UMK students' behavioral intention to use public transportation.
- H4: There is a relationship between level of security and UMK students' behavioral intention to use public transportation.

2.7 Conceptual Framework

Conceptual frameworks can be classified as analytical tools with several variations and contexts. The research model used for this study is to measure the behavior of UMK students towards the use of public transport. In addition, price, comfort, punctuality, and level of safety determine the behavior of UMK students towards public transport which is used in this study to test the hypothesis.

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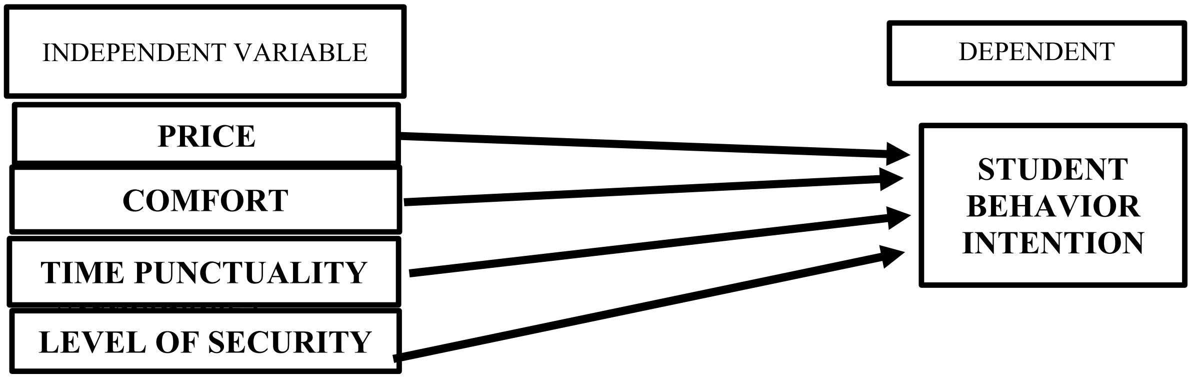

Figure 1: Conceptual Framework.

3

3.1

The researcher has chosen the quantitative method because with that method we can examine various variables and include relevant numbers and certain statistics in this project to analyze the findings. The researcher took data from UMK students with a minimum of 368 respondents. The technique used is to find a sample of the target population to identify the determining factors of UMK students' behavior towards the use of public transport.

3.2 Data Collection Methods

According to (Egnyte, 2021), data collection can be classified as the accurate and systematic collection of information from various sources to obtain insights and answers such as testing hypotheses or evaluating results. The main purpose of this data collection is to gather the best quality information that can be analysed and used to support decisions and provide accurate evidence. Apart from that, data collection methods can be divided into two categories such as primary data and secondary data. These data can give different meanings such as primary data is used to collect specific research problems that are used for procedures that are appropriate to the research problem while secondary data is material collected by other researchers that is available for re-use of the information by the general research community. In the research that has been done by this researcher, the researcher has used a quantitative collection method by using a questionnaire given to UMK students and a survey as secondary data to collect it. Data collected through a questionnaire given to 380 respondents from UMK students.

3.3 Study Population

Study population is a group which considered in research or statistical. Study populations are not limited to human only but also include a set of aspects that have in common. In our study, we focus on the factors that influence UMK students behavioral to use public transportation. In that case, our study population in this study will be all the students that studying in UMK.

3.4 Sample Size

Table for Determining Sample Size of a Known Population

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	1000000	384

Note: N is Population Size; S is Sample Size — Source: Krejcie & Morgan, 1970

Figure 2: The table of Determining Sample Size of a Known Population

3.5 Research Instrument Development

The questionnaire instrument was created and revised by several qualified writers. The questionnaire is divided into two parts. Section A contains information about the respondent gender, race, age, and study years. Section B will discuss the factors that influence students' behavioral intention to use public transportation. This section is broken into two parts, part 1 is related to price, comfort, time punctuality and level of security. While part 2 is related to the student's behavioral intention to use public transportation

3.6 Measurement of The Variables

We will be using one of the most used scales which is Likert scale to measure feedback of respondents from our questionnaire. To measure feedback from respondent because respondent is required indicating how much they agree with a statement that has been provided in the questionnaire. The scale for the Likert survey question typically has a moderate or neutral option. Likert scales, we can determine whether respondents "strongly disagree", "disagree", "partially agree", "strongly agree", or maybe just "agree". Likert scale is the best choice because it will keep the respondent focused with its straightforward wording, uncomplicated wording will keep the respondent focused.

3.7 Procedure for Data Analysis

The focus of this data analysis technique is to explain how well the quantitative research carried out along with our team members used statistics by gathering data, organizing it, transferring it, and assessing it in a software called the Statistical Package for Social Science (SPSS).

3.8 Descriptive Analysis

In general terms, the purpose of this descriptive analysis is to further clarify certain information regarding the respondents towards the public that read our research work. To be more accurate, by distributing Google Forms to UMK students via the WhatsApp application, we can collect information from respondents using this descriptive analysis. However, only some of fundamental details on demographics such as gender, age, ethnicity, side income level, and academic level were included in this descriptive analysis, namely as Section A in the Google Form.

3.9 Reliability Test

Reliability test seeks for features of variables and consistency to measure distance over time and across different items in instruments like questionnaires that are stable while empowering in the formation of a linkage analysis. We have more opportunity to explore this research as well, regardless of whether the findings reveal the information is reliable or not. This is to demonstrate that there is something that the ultimate outcome is a sign of stability and reliable results, even though this shows the study's ultimate outcome as well as whether the reliability findings are reliable. Additionally, The Cronbach's Alpha will be employed in this study to assess whether the final whiteness is reliable or not to define the reality test. If the Cronbach's Alpha input is less than 0.5, reliability is not reliability. The Cronbach's Alpha value is the number that indicates the label data in the results is "1," explaining that the measured internal consistency is reliable.

3.10 Pearson Correlation Analysis

Pearson Correlation Analysis there is a perfect linear relationship where the Correlation Coefficient is -1 which is known as Perfect Negative Correlation, +1 is known as Perfect Positive Correlation and 0 means there is no relationship between price, comfort, time punctuality also and the level of security with factors that influence the behavioral intentions of UMK students to use public intentions.

4 Data Analysis and Findings

4.1 Demographic Profile of Respondents

Table 4.1: Demographic Profile of Respondents

Respondent File	Classification	Number (Frequency)	Percentage (%)
Gender	Male	146	38.4
	Female	234	61.6
Age	Below 20 Years Old	37	9.7
	21 – 22 Years Old	70	18.4
	23 – 24 Years Old	215	56.6
	25 Years old and above	58	15.3
Races	Malay	201	52.9
	Chinese	56	14.7
	Indian	47	12.4
	Others	76	20
Study Years	Year 1	52	13.7
	Year 2	48	12.6
	Year 3	66	17.4
	Year 4	214	56.3
Family Income Level	RM 0 – RM 1000	59	15.5
	RM 1001 – RM 2000	82	21.6

	RM 2001 – RM 3000	110	28.9
	RM 3001 – RM 4000	62	16.3
	RM 4001 and above	67	17.6
How many times do you use public transportation in a week	Once a week	171	45
	2 times	31	8.2
	3 times	39	10.3
	4 times	42	11.1
	5 times	47	12.4
	6 times or more	50	13.2

4.2 Descriptive Analysis

Table 4.2: Summary of the means and standard deviation for all variables with sample size class with 380 respondents

Description Statistics		
Description	**Mean**	**Standard Deviation**
Price of public transportation	2.8499	1.54781
Comfort in using public transportation	2.9864	1.53377
Time punctuality	3.0052	1.60180
Level of security	3.0751	1.64013
UMK students' behavioral intention to use public transportation	2.8913	1.69807

Table given has shown the number of respondents, mean and standard deviation for dependent variables and independent variables such as price, comfort, time punctuality and level of security. According to the table above, the highest mean value among all the independent variables is "level of security" which records the data at 3.0751 has bring a meaning that level of agreement among our target respondents is 'Moderate' if due to the table given. Next followed by time punctuality and comfort in which record the data at 3.0052 and 2.9864 respectively. Prices record the lowest mean values at 2.8499. This can conclude that all these independents' variables showed the mean analysis value is "Moderate' also.

In addition, standard deviation indicates how close the data is to the mean. The highest standard deviation is level of security at 1.64013 then followed by time punctuality which records the number at 1.60180. Next is the price that states the standard deviation at 1.54781. Last, the lowest standard deviation is comfort, which records the standard deviation at 1.5377.

Furthermore, for dependent variables given the mean values data at 2.8913 meanwhile for standard deviation state the data given at 1.69807. Back to the mean analysis table above, our target respondents also showed the data also "Moderate"

4.3 Reliability Test

Table 4.3: Reliability Test for All Variables

Number of Items	Study Variable	Cronbach's Alpha	Remarks
5	Price of Public Transportation	0.913	Excellent
5	Comfort in Using Public Transportation	0.914	Excellent
4	Time Punctuality	0.906	Excellent
5	Level of Security	0.943	Excellent
5	Student Behavioral Intention	0.946	Excellent

Generally, the basic terms of Cronbach Alpha if the data more than 0.7 is reliable. The table given that all the variables such as dependent variables and independent variables also involved in our reliability test. Firstly, Cronbach Alpha for price of public transportation record the data is 0.913 and this means the reliability test is reliable and remarks the results is excellent. Comfort in using public transportation state the data is at 0.914 and this can remark the end results as excellent. Moreover, time punctuality records the data is at 0.906 and this is the means excellent result because more than 0.07 meanwhile level of security also records the data at 0.9143. So, this brought the meaning that the reliability test has a reliable and have excellent result.

At the end, it can be concluded that UMK Students' behavioural intentions to use public transportation are influenced by this factor, namely as the level of security. If compared to other independent factors, most of our target respondents evaluated security as the most important factor when using any type of public transportation.

4.4 Hypothesis Testing

Table 4: Pearson Correlation

		DV	Price	Comfort	Time Punctuality	Security
UMK Students' behavioral intention	Pearson Correlation	1	.704**	.715**	.740**	.747**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	380	380	380	380	380
Price of public transportation	Pearson Correlation	.704**	1	.713**	.683**	.716**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	380	380	380	380	380
Comfort in using public transportation	Pearson Correlation	.715**	.713**	1	.789**	.800**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	380	380	380	380	380
Time Punctuality	Pearson Correlation	.740**	.683**	.789**	1	.748**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	380	380	380	380	380
Security	Pearson Correlation	.747**	.716**	.800**	.748**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	380	380	380	380	380

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

Pearson Correlation here shows that price, time punctuality and level of security was shown as a positive value at 0.704, 0.715, 0.740 and 0.747 respectively. There is a positive correlation between price, comfort, on-time arrival, and level of security and UMK students' behavioral intention to use public transportation. The significant value shows that there is a positive correlation between price, comfort, on-time arrival, and level of security and UMK students' behavioral intention to use public transportation. The significant p-value stated above indicates that values less than 0.01 signal that the hypothesis is accepted.

4.4.1 Hypothesis 1: -

There is a positive relationship between price of public transportation and UMK students' behavioral intention to use public transportation is significantly positive relationship.

Since the value is 0.000, which is less than 0.01, the relationship between price and UMK students' behavioral intention to use public transportation is significantly positive relationship. This indicates that the first hypothesis is accepted.

4.4.2 Hypothesis 2:

There is a positive relationship between comfort in using public transportation and UMK students' behavioral intention to use public transportation is significantly positive relationship.

Since the value is 0.000, which is less than 0.01, the relationship between comfort and UMK students' behavioral intention to use public transportation is significantly positive. This indicates that the second hypothesis is accepted.

4.4.3 Hypothesis 3:

There is a positive relationship between time punctuality and UMK students' behavioral intention to use public transportation is significantly positive relationship.

The relationship between time punctuality and UMK student's behavioral intention to use public transportation is a significantly positive relationship because the value is 0.000 which is less than 0.01 and third hypothesis was accepted.

4.4.4 Hypothesis 4:

There is a positive relationship between level of security and UMK students' behavioral intention to use public transportation is significantly positive relationship

The relationship between the level of security and UMK student's behavioral intention to use public transportation is a significantly positive relationship because the value is 0.000 which is less than 0.01. and last hypothesis was accepted.

5 Discussion and Conclusion

This research study found that using personal transportation is still considered as a risk although it has its own benefits such as save time. The analyses assisted that all the data collected are significant to support the four hypotheses in this study. However, the researchers have no right on changing students' mind to use public transportation while travelling. The results of this study provide a guideline for public transportation toward UMK students' behavioral intention to use public transportation. All the data that have been collected are from respondents that at the certain place and locations.

5.1.1 Hypothesis 1: There is a positive relationship between price of public transportation and UMK students' behavioral intention to use public transportation.

Based on the table, the correlation efficient value between price of public transportation and UMK students' behavioral intention to use public transportation is 0.704. It is a positive value, and it represents positive relationship.

5.1.2 Hypothesis 2: There is a positive relationship between comfort in using public transportation and UMK students' behavioral intention to use public transportation.

Based on the table, the correlation efficient value between comfort in using public transportation and UMK students' behavioral intention to use public transportation is 0.715. It is a positive value, and it represents positive relationship.

5.1.3 Hypothesis 3: There is a positive relationship between time punctuality and UMK students' behavioral intention to use public transportation.

Based on the table, the correlation efficient value between price and UMK students' behavioral intention to use public transportation is 0.740. It is a positive value, and it represents positive relationship.

5.1.4 Hypothesis 4: There is a positive relationship between level of security and UMK students' behavioral intention to use public transportation.

Based on the table, the correlation efficient value between price and UMK students' behavioral intention to use public transportation is 0.747. It is a positive value, and it represents positive relationship.

5 Recommendations/ Suggestion for Future Research

The first recommendation that should be implemented in future research is that the government can provide a standard price package for students. If the government offered this package for students, this is an advantage especially for students with the aims to reduce the financial burden especially for students that live in the B40 categories. This recommendation can help people, especially students who have classes that are uncertain, whether physical or online. Sometimes confident students do not have any physical classes. So as a student trying to save money, to keep going back to home is another way to waste money. Since there might not be a physical class, this can sometimes be an issue to make it difficult for students. Therefore, returning home frequently as a student to save money is a further costly mistake. Some students may believe that the financial budget allocated is doubled because they are required to spend more than their budgeted amount due to their distance from the households. Just because of the unusual distance from the house, it could also affect students' initiatives to save money. Many students will be burdened by this. Therefore, it will be essential for the government to act in the future to provide students who use this public transportation with special price packages.

The next recommendation is to use more digital systems in future research to make sure that the whole ecosystem has been used. In the logistical sector, this is also recognized as sustainable development environmentally friendly production paper. The intention of this digital usage, that should be adopted in the future, is to function as a replacement for paper tickets while also ensuring ecological responsibility, including the woods being used to produce paper. If paper tickets are still used in the future, it is indeed likely that minimal timbers will be used to make tickets, which might indicate that the atmosphere's natural look would erode.

The last recommendation is to elevate the standard for bus amenities. This means that it is possible to provide more checkpoints that facilitate students' waiting. As an illustration, the waiting area in the Pengkalan Chepa residence prevents people from blocking traffic while students await the transport. However, public transportation systems can be improved by including amenities like the availability of toilets like those found on flights, which will make passengers more comfortable and save time by preventing them from having to stop anywhere on the side of the road. This will save money and time for public transportation because passengers would not have to stop at the nearby restroom to use it and they can use it inside the bus, especially since they are moving to locations that are very far away.

6 Overall Conclusion of the Study

In conclusion, future researchers may improve the demographic sample and position to collect more accurate data and achieve greater coverage. The more specific of regional scope and broader sampling of the population the more precise of the study results. By reviewing of these variables, the next researchers could create more improved related studies that could explore more findings and results in this public transportation. Lastly, there are certain limitations in this study to prevent it from taking a step further.

Thus, the result of the study based on the variables had shown the positive relationship between independent variables and dependent variable. The independent variables (price, comfort, time punctuality and level of security) have positive relationship on the UMK students' behavioral to use public transportation. The changes can be happened if the data collection from the entrepreneur not sufficient to run the data.

The aim of the study was to determine the relationship between the factors that influence UMK students' behavioral intention to use public transportation in Kota Bharu. Based on that, there are limitations happen when did the research. Data collection was hard obtained because questionnaire was distributed by Google form and the response on the questionnaire was hard to get. That limitation makes the research take time to be done. The other limitation is the target respondents that related to the topic because it only opened for UMK students in Kota Bharu, Kelantan.

There are also some recommendations for the next researchers to study on this topic. The first recommendation or suggestion is government can provide a standard price package for students. The second recommendation is using more digital systems in future research to make sure that the whole ecosystem has been used. The third and last recommendation is elevating the standard for bus amenities.

7 Acknowledgement

Thanks and congrats to all members in our group for the high cooperation and dedicated efforts. We attended all the meeting and share the constructive opinions, ideas, and more information in the making of this research. We've spent a lot of time reading and researching various research concepts and services. With this we were able to become more organized and mature in dealing with issues that arose during the completion of our proposal. As a result, we have created our research proposal assignment, which includes a few key pieces of material that are required to complete this research proposal. Lastly, we are so grateful for our family members', and friends for their love, prayers, caring and sacrifice to give their moral support either physically or not. We also would like to expand our deepest gratitude to all those who have directly and indirectly guided us in writing this research.

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The Factors Contributing to E-hailing Application Selection by Malaysia in Peninsular Malaysia

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Abstract:
In this generation, smartphone applications have transitioned from simple and straightforward to multi-platform and advanced capabilities that are prevalent nowadays. E-hailing services are currently the dominant ride-hailing platform in transportation sector, and the majority of drivers and passengers in Malaysia prefer to use the E- hailing programme and the mobile application.. Therefore, the purpose of this study is to investigate consumption behavior in E-hailing application selection by Malaysian in peninsular Malaysia. A quantitative method is used in completing this research. A simple random sampling is used to collect data and the structured questionnaire was designed to collect data from 422 respondents from people in Peninsular Malaysia. For data analysis, the Statistical Package for Social Sciences (SPSS) version 26 was used. As a result, the independent variable such as functional value, social value, emotional value, epistemic value and conditional value has significant relationship between consumption behavior in E-hailing application selection by Malaysian. Limitations of this study and recommendations are included in this study to give a better idea for future researchers related to studies involving E-hailing mobile application in Malaysia. .

Keywords: *E-Hailing, Mobile Application, Consumption Behavior, Perceived Value.*

1 Introduction

After a few years, smartphone applications have transitioned from simple and straightforward to multi-platform and advanced capabilities that are prevalent nowadays. Global phenomena haves generated an opportunity to capitalize on it, namely the creation of E-hailing programmes (Onyango JJ, 2016). This study examines the demographics and characteristics of E-hailing application that impact Malaysian E-hailing drivers. Grab, Maxim, and MyCar is more appealing to passengers. Aside from having a fixed fare, customers don't need to conduct a cash transaction, the drivers can pick you up from anywhere and drop you off at any time of day or night (Abdul Rahmat Omar, 2018). However, the study in this particular topic is very limited in study. Existing apps are claimed to be proprietary, stand- alone solutions that are decoupled when they are required to provide end-to-end integration to connect drivers, passengers, and vehicles (Onyango JJ,2016).

E-hailing services are currently one of the digital market's most rapidly expanding industries. E-hailing is the process of reserving a car and driver via a smartphone application on the platform of an e-hailing service provider (Arumugam et al. 2020). Due to its 24-hour accessibility, door-to-door service, safety features, and vehicle option, such as private cars, it has become one of the most popular modes of public transportation. The Ministry of Transport Malaysia regulates e-hailing services in Malaysia (MoT) (The Sun, 2018). To apply for e- hailing licencing, all service providers must register with the Land Transport Commission (SPAD), the Companies Commission of Malaysia (SSM), or the Cooperative Commission of Malaysia (SKM). According to Transport Minister (2019), approximately 200,000 e-hailing drivers are registered in Malaysia (The Sun, 2019).

In this research, this study will investigate the factors contributing to E-hailing application selection by Malaysian in peninsular Malaysia. This study examines the consumption behaviour to E-hailing application based on several reasons such as Functional Value, Social Value, Emotional Value, Epistemic Value, and Conditional Value.

1.1 Research Objectives

The objective of this study was stated as below:

- To examine the relationship between the functional value and the consumption behaviour to E-hailing application selection by Malaysia in Peninsular Malaysia.
- To examine the relationship between the social value and the consumption behaviour to E-hailing application selection by Malaysia in Peninsular Malaysia.
- To examine the relationship between the emotional value and the consumption behaviour to E-hailing application selection by Malaysia in Peninsular Malaysia.
- To examine the relationship between the epistemic value and the consumption behaviour to E-hailing application selection by Malaysia in Peninsular Malaysia.
- To examine the relationship between the condition value and the consumption behaviour to E-hailing application selection by Malaysia in Peninsular Malaysia.

2 Literature Review

2.1 Consumption Behavior

Consumption behavior refers to actions and the decision process of people who purchase goods and services for personal consumption according by Blackweell (2006). Investigating consumption behavior which drives E-hailing application selection to acquire and utilize particular products is crucial to comprehend consumption behavior. As a result, it’s critical to comprehend how marketing tactics will affect and elicit response from consumers. Therefore, it is necessary to study consumer needs, factors that influence consumers to make purchasing decisions, as well as examine price, quality, offers, and commercials.

2.2 Functional Value

This section of the paper reviews the literature which examines the functional value factor contributing to E-hailing application selection by Malaysia in Peninsular Malaysia. The perceived mobile application is obtained from an opportunity`s potential for purposeful, utilitarian, or bodily performance. An opportunity acquires a purposeful fee through the ownership of salient purposeful, utilitarian, or bodily attributes. Functional value is considered the main reason for consumer choice. This assumption formed the basis for the theory of economic utility developed by Marshall (1890) and Stigler (1950), often referred to as rational economists. The useful cost of a replacement may be derived from its traits or attributes (Ferber, 1973), inclusive of reliability, durability, and price. For example, a selection to shop for a selected automobile is probably primarily based totally on the gasoline economic system and protection history. The consumer wave consumption behavior depends on how the product is functional. If a product has many functions, it will attract consumers to have consumption behavior and keep using the product. The relationship between functional value and consumer behavior is close. The great functional value will affect consumer behavior.

2.3 Social Value

The perceived blessings of associating options with one or extra particular social groups. Another alternative profits social price through affiliation with undoubtedly or negatively stereotyped demographic, socioeconomic, and cultural-ethnic groups. Social price has measured the usage of profiles of decided-on images. The idea of social values has been stimulated via way of means of concepts and studies in numerous associated fields. Some of the extra vital research encompass Warner and Lunt`s (1941) examination of social class. It is widely known that merchandise has symbolic or seen customer price past their practical use (Veblen, 1899). Hyman (1942) pioneered reference organization studies, suggesting that character conduct is stimulated via way of means of organization membership.

2.4 Emotional Value

According to Shet, Newman & Gross, (1991), emotional value (EMV) is defined as the perceived utility derived from an alternative's capacity to evoke feeling or affective states. It can be positive, for example, confidence or excitement, or negative, for example, fear or anger. While according to Ding & Chai, (2015), emotions are important in the intimate relationship between smartphone devices and their users. In previous studies, the emotional value reflects enjoyment, playfulness, fun, and pleasure of using mobile Apps. Emotional value is influenced like enjoyment on application evaluation, (Tseng, 2011; Verkasalo, López-Nicolás, Molina- Castillo, & Bouwman, 2010).

2.5 Epistemic Value

An epistemic value is defined as the perceived utility derived from its capacity to arouse curiosity, offer novelty, and/or satisfy a desire for knowledge. A substitute acquires epistemic value through questionnaire items referring to curiosity, novelty, and expertise. Certainly, completely novel experiences have epistemological value. The concept of epistemic values has been influenced by theory and numerous significant research fields. Active product search, trial, and switching behavior have been linked to exploratory, novelty-seeking, and variety- seeking motives (Hirschman, 1980). Epistemic utility often results from incitements that are novel and somewhat ambiguous (Long & Schiffman, 2000). With the variety of E-hailing apps available in the market nowadays, consumers have a choice to decide which e-hailing application they will use. Due to this luxury, customers may choose another new e-hailing apps because they enable to tried others application. Consumer loyalty is hard to maintain for this reason. Therefore, epistemic value is capable of influencing both consumptions behavior and epistemic value in the context of e-hailing apps and epistemic value explains that the e-hailing apps is due to consumers' curiosity and the desire for knowledge.

2.6 Conditional Value

The existing research perceived value stated that an alternative's conditional value is determined by its ability to offer instant functional or social value in the presence of a particular and transitory set of circumstances or situations (Sheth,1991). According to the theory of consumption value, some external circumstances might influence a consumption behavior's functional or social value such as seasonal situations, once in lifetime events, or unplanned and emergency situations which can help or hinder a consumer's perception of performing it. As a result of these contingencies, benefits are obtained that are referred to as conditional values. In fact, consumers frequently make choices depending on circumstances, such as important life events, occasions, festivals, emergencies, and seasons (Hussin,2017).

2.7 Hypotheses Statement

A new framework in Figure 2.1 is formulated based on the factors contributing to e-hailing application selection by Malaysia in peninsular Malaysia.

There are five (5) hypotheses are shown below:

H1: There is a positive relationship between functional value and consumption behaviour to e-hailing application selection by Malaysian in peninsular Malaysia
H2: There is a positive relationship between social value and consumption behaviour to e- hailing application selection by Malaysian in peninsular Malaysia.
H3: There is a positive relationship between emotional value and consumption behaviour to e-hailing application selection by Malaysian in peninsular Malaysia.
H4: There is a positive relationship between epistemic value and consumption behaviour to e-hailing application selection by Malaysian in peninsular Malaysia.
H5: There is a positive relationship between condition value and consumption behaviour to e-hailing application selection by Malaysian in peninsular Malaysia.

2.8 Research Framework

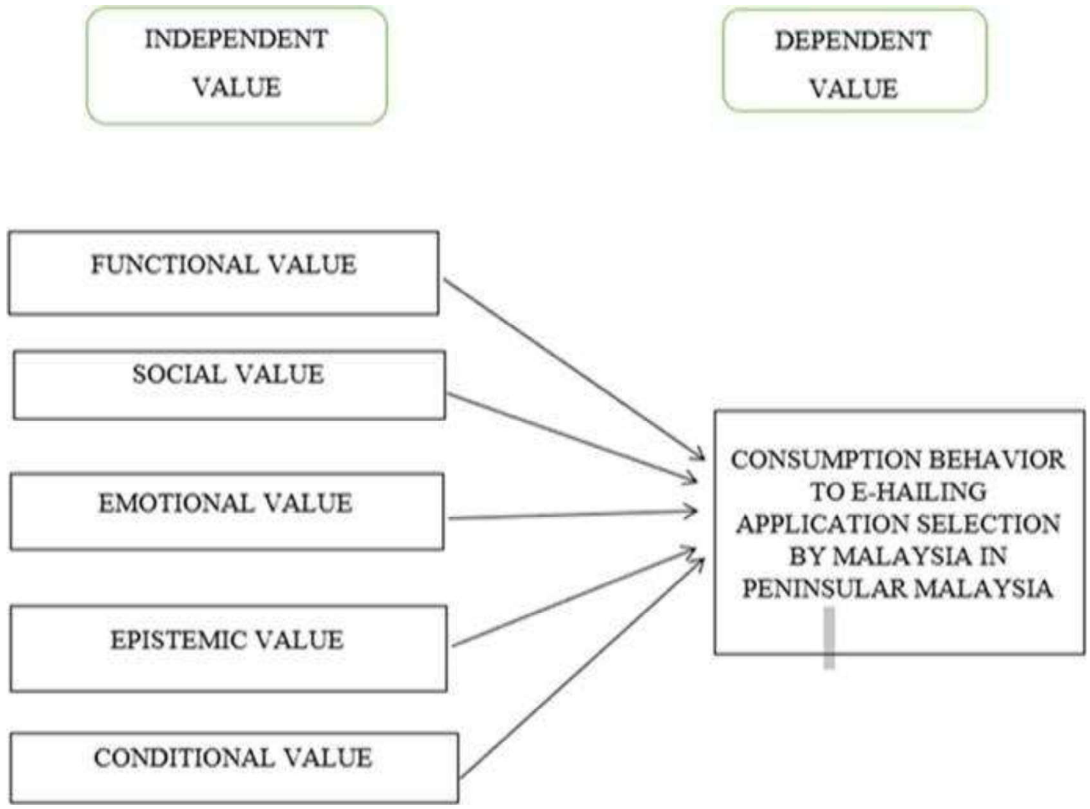

Figure 2.1: Research framework for the factors contributing to e-hailing application selection by Malaysia in Peninsular Malaysia.

3.0 Methodology

This chapter describes the methodology framework used in this research. This chapter showed how the variables of this research were analysed. The research design, type of resources of data were examined along the procedure. The data of the research is obtained from many methods, for example primary data sources like distributed questionnaires that provide information for the research. Besides that, secondary data sources are the information that can be obtained through reference text books, online research articles and journals, newspapers and books. The focus of this chapter was on the study populations, sample frames, sampling technique and research instruments.

The method of technique that used to this research was quantitative research technique whereby a primary data to collect information about the consumption behaviour to E-hailing application selection by Malaysia in Peninsular Malaysia. This research analysed the questions of the research and objective of the study. This is more objective that examine the relationship between independent variables (consumption behaviour to E-hailing application selection by Malaysia in Peninsular Malaysia) and dependent variables (functional value, social value, emotional value, epistemic value, and condition value).

The target population of this study will be 26.7 Million respondents that use E-hailing apps in Peninsular Malaysia based on formula used by Krejcie & Morgan 1970. In this research, the size of the sample, 422 of respondents required to this study when based on the population. We have distributed questionnaire through online. Questionnaires were used as the main instrument to collect primary data in this research. The design of questionnaire was divided into three sections that were section A, section B, and section C. Section A was used multiple choice of answer while section B and section C used a 5 point Likert scale form 1 (strongly disagree) to 5 (strongly agree) to construct this research. Section A will be more for demographic information while section B will be emphasise on satisfaction level perceived by Malaysian towards factor contributing to E-hailing Application Selection in Peninsular Malaysia.

The data collected via the questionnaire are analysed using the Statistical Packages for the Social Sciences (SPSS) software. The statistical analysis for this study is included descriptive analysis, reliability test, pearson correlation analysis and multiple linear regression analysis. The data analysis methods are related to the objectives of study that have been classified and the other data collection methods has also been discussed. The above information shows the methods that carried throughout the study to obtain more information about the mobile e-hailing apps and consumption behaviour of Malaysians. The data analysis related to the hypothesis are will be discussed in next chapter.

4.0 Result and Discussion

4.1 Pre-Testing of the Instrument (Pilot Test)

The researcher need to use a questionnaire that can be used for the research, and a pilot test was conducted to test the validity of the questionnaire. The questionnaire was distributed through Google Form and the researcher used 30 respondents to be used in pilot test to test the data.

Table 4.1: Result of Reliability Test for Independent Variable and Dependent Variable

Variables	Cronbach's Alpha	Number of Item
Functional Value	0.903	5
Social Value	0.888	4
Emotional Value	0.929	5
Epistemic Value	0.851	5
Conditional Value	0.869	5
Consumption Behaviour	0.902	4

Based on the Table 4.1, its shows that the value of each variable of questionnaire is acceptable with Cronbach's Alpha 0.700 above. The highest value of Cronbach's Alpha is emotional value that represent 0.929 and the lowest value of Cronbach's Alpha is epistemic value with 0.851. As a result, all questions in the questionnaire can be use since all variable had above 0.7 Cronbach's alpha and its it acceptable.

4.2 Demographic Profile of Respondents

In this research, the researcher prepared five questions to be answered by the respondents and it is under demographic section. The questions that will be ask such as race, age, income, frequency using E-hailing apps and years of using E-hailing apps. This section discussed the basic analysis of demographic profile of 422 respondents who answered the questionnaire through google form.

Table 4.2: Demographic of 422 Respondents

Respondent Profile	classification	Frequency N = 422	Percentage (%)
Race	Chinese	88	20.9
	Iban	1	.2
	India	57	13.5
	Malay	275	65.2
	Sikh	1	.2

Age	<18 years old 18 - 24 years old 25 - 34 years old 35 – 44 years old 45 years old and above	30 123 108 77 84	7.1 29.1 25.6 18.2 19.9
Income	< RM1500 RM1500 - RM2500 RM2501 - RM 3500 RM3501- RM4500 RM4501 - RM5000 RM5001 and above	146 68 97 48 38 25	34.6 16.1 23.0 11.4 9.0 5.9
Frequency using E-hailing application	1 - 2 times 3 - 4 times 5 - 6 times 7 times and above	133 137 91 61	31.5 32.5 21.6 14.5
Years of using apps	<0.5 year 0.5 - 1.0 years 1.0 - 2.0 years 2.0 - 3.0 years 3.0 - 4.0 years 4.0 years or more	66 55 66 87 75 73	15.6 13.0 15.6 20.6 17.8 17.3

4.3 Descriptive Analysis

For descriptive analysis, the researcher had come out with the analysis to find level of the mean for every section of dependent variable and independent variables. Besides, this also to determine the factors contributing to E-hailing application selection by Malaysian in peninsular Malaysia. Table below shows the range of mean for every variable.

Table 4.3: Result of Descriptive Analysis

Variables	Mean	Std. Deviation	N
Consumption Behaviour	4.0918	0.59442	422
Functional Value	4.1611	0.57667	422
Social Value	4.0669	0.58747	422
Emotional Value	4.0787	0.59088	422

Epistemic Value	4.1104	0.55298	422
Conditional Value	4.1905	0.59442	422

4.4 Reliability test

In this research, this part discussed the reliability of dependent variable, consumption behaviour and independent variable which are functional value, social value, emotional value, epistemic value, and conditional value. This part also discussed the Cronbach's Alpha for each variable.

Table 4.4: Summary of Reliability

Variable	Number of items	Cronbach's Alpha Coefficient	Strength of Association
Dependent Variable (Consumption Behaviour)	4	0.692	Questionable
Independent Variable Functional Value	5	0.731	Acceptable
Independent Variable Social Value	4	0.643	Questionable
Independent Variable Emotional Value	5	0.710	Acceptable
Independent Variable Epistemic Value	5	0.694	Questionable
Independent Variable Conditional Value	5	0.732	Acceptable

4.5 Correlation Analysis

4.5.1 Functional Value

Hypothesis 1
H0: There is no relationship between functional value and consumption behaviour.
H1: There is a relationship between functional value and consumption behaviour.

Table 4.5.1: Correlation between Functional Value and Consumption Behaviour

Correlations

		Functional Value	Consumption Behaviour
Functional value	Pearson Correlation	1	.655**
	Sig. (2-tailed)		.000
	N	422	422
Consumption Behaviour	Pearson Correlation	.655**	1
	Sig. (2-tailed)	.000	
	N	422	422

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

Table 4 shows Pearson's Correlation Coefficient, significant value and the number of respondents which is 422. The p-value was 0.000 which is less than 0.05. thus, this study rejected the null hypothesis for H0 for hypothesis 1. The correlation coefficient of 0.655 suggested a strong positive correlation between functional value and consumption behaviour.

4.5.2 Social Value

Hypothesis 2
H0: There is no relationship between social value and consumption behaviour
H2: There is a relationship between social value and consumption behaviour.

Table 4.5.2: Correlation between Social Value and Consumption Behaviour

Correlations			
		Social Value	Consumption Behaviour
Social Value	Pearson Correlation	1	.671**
	Sig. (2-tailed)		.000
	N	422	422
Consumption Behaviour	Pearson Correlation	.671**	1
	Sig. (2-tailed)	.000	
	N	422	422

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

Table 5 above shows Pearson's Correlation Coefficient, significant value and the number of respondents which is 422. The p-value was 0.000 which is less than 0.05. thus, this study rejected the null hypothesis for H0 for hypothesis 2. The correlation coefficient of 0.671 suggested a strong positive correlation between social value and consumption behaviour.

4.5.3 Emotional Value

Hypothesis 3
H0: There is no relationship between emotional value and consumption behaviour.
H3: There is a relationship between emotional value and consumption behaviour.

Table 4.5.3: Correlation between Emotional Value and Consumption Behaviour

Correlations			
		Emotional Value	Consumption Behaviour
Emotional Value	Pearson Correlation	1	.701**
	Sig. (2-tailed)		.000
	N	422	422
Consumption Behaviour	Pearson Correlation	.701**	1
	Sig. (2-tailed)	.000	
	N	422	422

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

Table 6 above shows Pearson's Correlation Coefficient, significant value and the number of respondents which is 422. The p-value was 0.000 which is less than 0.05. thus, this study rejected the null hypothesis for H0 for hypothesis 3. The correlation coefficient of 0.701 suggested a strong positive correlation between emotion value and consumption behaviour.

4.5.4 Epistemic Value

Hypothesis 4
H0: There is no relationship between epistemic value and consumption behaviour.
H4: There is a relationship between epistemic value and consumption behaviour.

Table 4.5.4: Correlation between Epistemic Value and Consumption Behaviour

Correlations			
		Epistemic Value	Consumption Behaviour
Epistemic Value	Pearson Correlation	1	.686**
	Sig. (2-tailed)		.000
	N	422	422
Consumption Behaviour	Pearson Correlation	.686**	1

	Sig. (2-tailed)	.000	
	N	422	422

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

Table above shows Pearson's Correlation Coefficient, significant value and the number of respondents which is 422. The p-value was 0.000 which is less than 0.05. thus, this study rejected the null hypothesis for H0 for hypothesis 4. The correlation coefficient of 0.686 suggested a strong positive correlation between epistemic value and consumption behaviour.

4.5.5 Conditional Value

Hypothesis 5
H0: There is no relationship between conditional value and consumption behaviour.
H5: There is a relationship between conditional value and consumption behaviour.

Table 4.5.5.: Correlation between Conditional Value and Consumption Behaviour

Correlations			
		Conditional Value	Consumption Behaviour
Conditional Value	Pearson Correlation	1	.649**
	Sig. (2-tailed)		.000
	N	422	422
Consumption Behaviour	Pearson Correlation	.649**	1
	Sig. (2-tailed)	.000	
	N	422	422

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

Table above shows Pearson's Correlation Coefficient, significant value and the number of respondents which is 422. The p-value was 0.000 which is less than 0.05. thus, this study rejected the null hypothesis for H0 for hypothesis 5. The correlation coefficient of 0.649 suggested a strong positive correlation between conditional value and consumption behaviour.

5 Discussion and Conclusion

5.1 Implication of the study

The findings of this research will promote possible added value, attract outsourcing specs ("everyone can become an e-hailing driver"), and impact the contracting party over the other party's willingness to accept outsourcing. It is advisable to invest in the outsourcing relationship since a high trust level of the outsourcing partner leads to a readiness to outsource. If an e-hailing company also outsources its core business, the service provider should be knowledgeable in various areas of the country and provide services that are suited to the demands of the client.

In addition, to discover the relationship between functional value, social value, emotional value, epistemic value, and conditional value that had been commonly discovered when applying TPB in research related to consumption behavior, researchers also implemented the element of trust in this study and this study also had proved that trust has a significant relationship with consumption behavior.

5.2 Limitations of the study

The researcher discovered some limitations while conducting this investigation. Despite the fact that this research was well-structured and accomplished its goal, it does have some inherent limitations. Besides, the researcher ran into a time constraint. The researcher has a limited amount of time to complete this study, particularly time for data collection. As a result, researchers are rushing to complete this investigation. In order to complete the comprehensive report, the researcher has a limited amount of time to gather, compile, and analyze data. Moreover, some of the respondents did not answer the questionnaire carefully and accurately. They just simply tick on the questionnaire given. This will cause the results not to be accurate depending on reality. Some of the respondents go through the questions but they did not have a firm answer to the questions. They just put neutral on the answer and this will also affect the final results because they are in the middle of agreeing and disagreeing about the questions.

5.3 Recommendations/suggestions for future research

Future research might be conducted in other locations where respondents are from different areas and different states. This is because other Malaysians might have different opinions about consumption behavior. In addition, the sample size should be increased in order to obtain more accurate data when the other researchers use the quantitative method for their study.

Besides using the quantitative method like questionnaires, researchers can also use qualitative methods such as interviews to get the best result. This is because the probability of accurate data collected by observation and opinion as respondents in this study and during this interview took place, respondents will ask the questions if any misunderstanding. Researchers can direct contact with the respondents and understand what they need. Accurate and complete data will be identified. When the outcome of future research is found, the factors that influence Malaysian consumption behavior can be explored.

5.4 Conclusion of the study

This research helps to identify the factors that influence Malaysian to choose the e- hailing application. The finding of this study is important for further understanding of the factors influencing consumption behavior among Malaysian and also to examine Malaysian preference for e-hailing applications based on several reasons such as functional value, social value, emotional value, epistemic value, and conditional value.

Throughout the research, it had proved that the independent variable which is emotional value is the most affecting the preferences of consumption behavior for e-hailing applications. Moreover, the researchers examined the relationships between the five independent variables which are functional value, social value, emotional value, epistemic value, and conditional value, and the dependent variable which is consumption behavior. The results showed that all five independent variables have a significant relationship with the dependent variable.

6 Acknowledgement

First of all, we would like to express our sincere thanks to Mr. Dr Adi Aizat Bin Yajid who is our supervisor for ALS4112 and ALS4113 Logistic Entrepreneurial Research Project 1 & 2 that assisting and guiding we in completing the proposal for the research project. With his patience, he spent time us and giving comments and advises along the process of doing proposal. With the effort putting in doing research proposal, we gain a lot academic knowledge and experience in doing the thesis.

Next, we would like to express out gratitude to the Dean of the faculty of Entrepreneurship and Business for offering the entrepreneur course for FKP which is a benefit course for us. This program enables us to polish our skills and knowledge towards preparing to tap into the business in future.

Last but not least, an appreciation for the supports and assists from group members and friends who help us in completing the assignment with effective and without their help we will not able to go smoothly and complete perfectly. Hence, deep appreciation from us for the ideas and information that contributed from them. We enjoy the sharing among each other which is also a part to succeed the task.

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Young Entrepreneur Preference On Selection Courier Service Provider

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Abstract:
Quick, on-time, and responsive customer service continues to become a significant factor contributing towards consumer happiness in e-commerce, as seen by the clear correlation between package transit time and customer satisfaction ratings (ParcelPerform, 2019). According to Franklin (2021), excellent customer satisfaction increases customer retention, customer lifetime value, and boosts business reputation. In this study, the researcher will use a quantitative approach to gather information and data that will influence the variables by analyzing the responses from the respondents. Following that, the statistical analysis of the data focuses on the hypothesis in order to develop and provide evidence for the conclusion. Finding of this research is including reliability analysis, demographic characteristics of respondents, descriptive analysis, Pearson's correlation coefficient analysis and multiple linear regression analysis. The Statistical Package for Social Science (SPSS) was used to analyze the data obtained. The research model used for this study is to examine the reliability, responsiveness, assurance, tangibles and empathy toward choosing courier service providers for young entrepreneurs. Moreover, the reliability, responsiveness, assurance, tangibles and empathy for choosing courier service providers for customer preferences which will be used in this study to test the hypothesis. This report will give beneficial information to business young entrepreneurs. According to an article by Anna and Ekaterina (2017), a significant number of leading courier companies offer specific solutions for individual industries. Operators rely on reducing logistics and inventory costs by using state-of-the-art supply chain optimization technologies, delivering the fastest, most reliable route from supplier to end user. Being in touch with this information will help entrepreneurs to make a wise choice for the courier service provider. This chapter reviews many parts like courier service theory and customer preferences toward reliability, responsiveness, assurance, tangibility and empathy in choosing courier service providers for customer preferences. According to this chapter, we can acquire many types of assessments such as variables and issues in the courier service in terms of reliability, responsiveness, assurance, tangibility and empathy.

Keyword: *Courier service Provider, Correlation Analysis, Linear Regression analysis. Young Entrepreneur Preferences, Relationship*

1 Introduction

Over the course of the forecast period, the Malaysian Courier, Express, and Parcel (CEP) Market is anticipated to expand at a compound annual growth rate (CAGR) of more than 9%. Future CEP operators have a tonne of potential in the Malaysian CEP industry. Contrary to several other nations, the delivery operations are not being significantly impacted by the COVID-19 outbreak. The commercial environment for the CEP market is still positive despite the worldwide pandemic and an unexpected administration change in 2020. Compared to pre-covid patterns, online shopping and drug sales are both much up. Maintaining client happiness depends on quick, effective, and dependable order fulfilment.The CEP sector is expanding rapidly across Malaysia as a result of booming foreign commerce, increased internet use, and rising smartphone adoption. Due to the pandemic's limits on transportation, e-commerce website usage in Malaysia will grow by 19% in 2020. The need for quicker deliveries has risen as a result of expanding industrialisation and hectic lives.

The Malaysian courier, express, and parcel (CEP) market is fragmented and has a mix of international and local businesses, which makes the industry extremely competitive. Deutsche Post DHL, United Parcel Service Inc., City-Link Express, Pos Laju (A Part of Pos Malaysia), and GD Express Sdn Bhd. are a few of the nation's top companies. Logistics firms now face both possibilities and problems as a result of the increase in e-commerce sales with regard to delivery, speed, and other factors. Global businesses with significant financial resources have invested heavily in sophisticated storage and fulfillment facilities, and they are already seeing the benefits. To meet the need, regional and local enterprises are providing superior industry solutions. The value-added services offered by service providers are the main differentiating elements or services that distinguish Express suppliers in this business. Price, dependability, delivery speed, and supply chain capacity are all factors in the rivalry between suppliers. Additionally, they are working to establish and maintain a competitive edge by enhancing their product line with value-added services (MordorIntelligence, 2021).

2 Literature Review

The term "Service Quality" is referred to by the acronym SERVQUAL. It was first published in 1985 by A.Parasuraman, Valarie Zeithaml and Leonard L.Berry. It’s also known as the PZB method. The 10 requirements for quality service in "Conceptual Model of Service Quality—PZB Method " served as the basis for the creation of the SERVQUAL scale. In 1988, PZB did additional study and organized their findings into five factors, which they called the SERVQUAL scale: tangibles, reliability, responsiveness, assurance, and empathy. Every industry receives a comprehensive grading system, which helps management's credibility and effectiveness as well as its objective of service improvement.

Service quality is regarded as an important tool in a company's struggle to distinguish itself from the competitors (Ladhari, 2008, p.172). The importance of service quality to businesses is emphasized here, particularly the fact that it provides a competitive advantage to businesses that strive to improve it and thus bring customer preference. Service quality and customer preference are critical concepts that businesses must understand in order to remain competitive and grow. It is critical for businesses to understand how to measure these constructs from the consumer's perspective in order to better understand and satisfy their needs. Service quality is highly valued because it leads to increased customer preference, profitability, cost savings, customer loyalty and retention. The first stage of purification identified dimensions for evaluating service quality which are tangibles, reliability, responsiveness, assurance and empathy.

2.1 Underpinning Theory

The term "Service Quality" is referred to by the acronym SERVQUAL. It was first published in 1985 by A.Parasuraman, Valarie Zeithaml and Leonard L.Berry. It's also known as the PZB method. The 10 requirements for quality service in "Conceptual Model of Service Quality—PZB Method " served as the basis for the creation of the SERVQUAL scale. In 1988, PZB did additional study and organized their findings into five factors, which they called the SERVQUAL scale: tangibles, reliability, responsiveness, assurance, and empathy. Every industry receives a comprehensive grading system, which helps management's credibility and effectiveness as well as its objective of service improvement.

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2.2 Dependant variable

2.2.1 Consumer preference

Writing on urban logistics, the e-retail market has made the desire for speed one of their major competitive strategies, the result of which has been to make 'same day' parcel delivery a growing competitive strategy that has gone beyond just 'same day' to even hourly delivery (the 1 to 2 hour option). Although they add that even though e-tailers are investing in the same day delivery strategies, end consumers are not willing to pay an extra premium, as many of them do not necessarily require such delivery speed (Savelsbergh and Woensel 2016).

Consumer preferences is defined as a set of assumptions centered on customer choices that result in various outcomes such as happiness, satisfaction, or utility. The entire customer preferences process results in the best option. Customer preferences allow a customer to rank different bundles of goods based on utility levels or overall satisfaction with consuming a good or service. It is critical to understand that customer preferences are not determined by income or price. As a result, a customer's ability to purchase goods does not reflect a customer's preferences or dislikes. (Jessica Saji, 2020).

2.3 Independent variable

2.3.1 Reliability

It is the ability to provide the promised service consistently and accurately. Reliability means that the company follows through on its promises such as delivery, service provision, problem resolution and pricing. Customers prefer to do business with their companies that keep their promises especially those regarding service outcomes and core service attributes. All businesses must be aware of the reliability expectations of their customers. Firms that do not provide the core service that customers believe they are purchasing fail their customers directly.

According to Jun et al., 2004 this means that the reliability possessed by employees is one of the factors that must be considered to obtain customer satisfaction . Organizations that are engaged in services must have good reliability aspects because good quality employees can provide the services expected by consumers. However, the use of latent variable reliability as a mediating variable to measure customer satisfaction is still not widely done. Ahmed et al. (2017) and Abdul Rehman (2012) said that reliability could create satisfaction for customers.

2.3.2 Responsiveness

It is the desire to assist customers and provide prompt service. This dimension highlights attentiveness and promptness in responding to customer requests, questions, complaints and problems. Customers are communicated with responsiveness by the length of time they must wait for assistance, answers to questions or attention to problems. Responsiveness also encompasses the concept of flexibility and the ability to tailor the service to the needs of the customer.

According to Robert and Wowor (2011), say that tangibles and responsiveness can create satisfaction for customers and repeat transactions. Customers who are treated well by employees in the organization will have a sustainable positive impact on the long-term existence of the organization. Good responsiveness can create customer satisfaction for the services provided by the organization. Organizations can develop well if all existing employees can create and maintain a commitment to the work done. So that the quality of service provided to customers can provide satisfaction for consumers (Khan and Fasih, 2014).

2.3.3 Assurance

It means to instill trust and confidence in others. Assurance is defined as employees' courtesy knowledge and the firm's and its employees' to inspire trust and confidence. This dimension is likely to be especially important for services that customers perceive to be high risk and about which they are unsure of their ability to evaluate. Trust and confidence may be represented by the person who connects the customer to the company such as the marketing department. Employees are thus aware of the importance of establishing customer trust and confidence in order to gain a competitive advantage and customer loyalty (CN, Krishna Naik, 2010).

2.3.4 Tangibility

Customers derive their perception of service quality by comparing the tangible associated with the services provided because services are tangible. It refers to the physical appearance of the facilities, equipment, personnel and communication materials. Customers respond to questions about the physical layout and facilities that FFR provides to its customers on the designed questionnaire in the survey.

Supporting equipment and the appearance of employees used to serve consumers can create an impression that is easily remembered by consumers. Physical means, including the friendly appearance of employees, can create psychological syndromes that arise as a prolonged response for customers (Du Plooy and De Jager, 2007; Makanyeza and Chikazhe, 2017). Pleasant conditions are felt by consumers when making transactions against services produced by the company so that the tangible and the prolonged appearance of employees is part of the increasing condition of employees to act on time in accordance with the wishes of consumers (Ngaliman, Mika and Suharto, 2019).

2.3.5 Empathy

It refers to the firm's commitment to providing caring, personalized attention to its customers. Individual attention is required in some countries to demonstrate to the customer that the company is doing everything possible to meet its needs. Empathy is an added benefit that increases customer trust and confidence while also increasing loyalty. Customer's expectations are rising in this competitive world and it is the company's responsibility to do everything possible to meet those expectations. Otherwise, customers who do not receive individual attention will look elsewhere (Gennaro Cuafano, 2022).

2.3.6 Young entrepreneur

A young entrepreneur is a child or young adult who assumes risks to start and operate a business or who finds new ways to do business better. They are the type of person who identifies and pursues opportunities without allowing risks to become barriers (Michelle Lodge, 2022).

2.3.7 Courier service provider

As a service industry, job satisfaction of employees is crucial as it affects the servi ce quality extended to the customers. This is supported by research done by Zheng and Siu (2009) who's claimed that the mood and manner in which the service is performed is directly impacted by employees' job satisfaction and thus affect service quality experiences of customers. (Nasina, Hasmi and Yim, 2020).

3 Methodology

In this study, the researcher will use a quantitative approach to gather information and data that will influence the variables by analyzing the responses from the respondents. Following that, the statistical analysis of the data focuses on the hypothesis in order to develop and provide evidence for the conclusion. The data collection method refers to the process of gathering data for the desired variables in an organizational technique.

3.1 Secondary Data Collection Method

Secondary data is information that has been published in periodicals, books, journals, magazines and online resources. Additional factors to consider include the author's qualification, the credibility of the source, the consistency of the discussion, the depth of the analysis and the extent to which the text contributes to the advancement of the research area (Sileyew, 2019). Data from secondary sources may be more accurate than data from primary sources. The researcher collects data from previous study journals for the secondary data collection method.

The data gathered by an online survey, also known as an online questionnaire, created with Google Form and related to the study's goal. The survey questionnaire method was chosen because of the benefits it provides, such as the respondents' flexibility in terms of time, low cost, fewer geographical restrictions, lack of interviewer bias and response secrecy (Hair, Bush and Ortinau, 2014). The questionnaire will be distributed to respondents via electronic medium such as Instagram, Facebook and Whatsapp.

4 Findings and Discussion

The Reliability Test had been conducted to 39 respondents before it was distributed to 384 respondents through an online survey method. It was tested by the Cronbach' Alpha Coefficient which indicated the range from 0.824 to 0.967 and it showed that the result was good and closed to excellent where Young entrepreneur preference scored the highest Cronbach's Alpha value of 0.967, responsiveness had the second highest Cronbach's Alpha which was 0.924, empathy had the third highest Cronbach's Alpha which was 0.901, assurance had the fourth highest Cronbach's Alpha which was 0.897, tangibles had the fifth highest Cronbach's Alpha which was 0.848 and followed by reliability lowest one which is

0.824. Thus, all the variables had satisfied the minimum requirement of reliability since all the Cronbach's Alpha Coefficients of all variables were greater than 0.6.

In the Descriptive Analysis for the independent variables, the highest mean value was assurance variable which was 18.003, responsiveness variable was the second highest mean value which was 17.904, empathy variable was the third highest mean value which was 17.878, tangibles variable was the fourth highest mean value which was 17.849 and followed by the lowest mean by reliability variable which was 17.711. The mean value for the dependent variable was 18.021. It could conclude that the assurance variable was the most influential in young entrepreneur preferences in choosing courier service providers.

Hypothesis	Significant Value	Conclusion	Correlation Value	Conclusion
1	0.000	Accepted	0.692	Moderate Positive Correlation
2	0.000	Accepted	0.609	Moderate Positive Correlation
3	0.000	Accepted	0.566	Moderate Positive Correlation
4	0.000	Accepted	0.558	Moderate Positive Correlation
5	0.000	Accepted	0.600	Moderate Positive Correlation

6 Implications of the Study

In conclusion, the impact of the research that has been conducted is that customer preference was one of the main reasons for choosing the service by the courier provider given. As for the effect of this study, it can be seen when the way customers choose the courier service based on their preference. As the courier service provider will provide the best services such as using a courier service offers the business owner the most affordable option when it comes to shipping items. The cost to set up a fee for delivery vehicles for the owner was reasonably priced. Not only do have to purchase the vehicles, but also have to pay for auto insurance and hire delivery drivers. Courier services offer some of the most competitive per mile rates on the market today.

The courier service provider also can be chosen based on the delivery speed. This was one of the best benefits for the customer when using those services because buying through online platforms such as whatsapp, instagram, facebook, tiktok, shopee and lazada. To customer speed was something that mattered and faster the delivery was better. When it comes to using courier services company nothing can be match with its speed of delivery than the other method and also its much more cheaper. The item will never change hands during the delivery process. It just not only increases the delivery speed it also will increase the safety level.

Furthermore, the courier service provider attracts customers by offering some attractive promotions and discounts. It also makes the customer's job a lot easier because the service also provides pick up from home and delivery to the destination. This makes their customer save their time and there is no need for the customer to visit the postal service to send the package. Most of the courier companies have their online management tools and with this equipment they can schedule the delivery and pick up time easier.

7 Limitations of the Study

Limitations of the study in research are restrictions and constraints which have been put on the methodology of study and exploration process in general. In this section it discusses the restriction or drawbacks of study with respects to aspects such as respondents, sample size, location of study, sampling technique used and lastly, variables selected in this study. Limitations are constraints that are mainly outside the researcher's control but may have a positive impact on the study's conclusion. Methodology and study design options have their own set of constraints. These limit the scope of a study and can have an impact on the end outcome and conclusions that can be formed (Simon, 2013). This study has its own set of limitations, both in terms of scope and methodology. This research was done in Malaysia.

This research focused on the factors that influence the selection of courier service providers by young entrepreneurs in Malaysia. The data collection was conducted by 384 young entrepreneurs. This nature of the study used is with a questionnaire that was distributed to the young entrepreneurs in Malaysia. The variable chosen determines the quantitative research methodology for online survey questionnaire research, correlational research and experimental research in this study. Quantitative research can help in studying the specific research problem, be clear about independent and dependent variables and high level of reliability.

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Factors that Influencing The Intention of Choosing an Electric Vehicle in Pengkalan Chepa, Kelantan

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Abstract:
A type of transportation that runs on electricity is known as an electric vehicle (EVs). EVs use an electric motor that is powered by electricity from batteries or a fuel cell, as opposed to conventional vehicles that use a gasoline (petrol) or diesel-powered engine. To meet various driving requirements, there are three different types of EVs. They come in three varieties: fuel cell, plug-in hybrid, and allelectric. But, one of the serious barriers to EVs may be the cost of purchasing one. EVs are generally more expensive than conventional internal combustion engine vehicles, despite the fact that their costs are beginning to decline. The main objective of this study is to see the intention of choosing EVs in Pengkalan Chepa, Kelantan with related factors which are environmental concern, psychological benefits, price range, perception of economic benefits, and infrastructure readiness. This study will distribute questionnaires to respondents among the Pengkalan Chepa, Kelantan residents in order to collect data using a quantitative research approach. Quantitative research method was used and 140 respondents were evaluated. Questionnaire were distributed to collect the primary data as a survey with online questionnaire and personally to get the information needed for this study. All the data collected was analyzed by using IBM SPSS Version 26 software based on descriptive statistics, reliability analysis, Pearson correlation analysis, and multiple regression analysis. As for the result, most of the independent variables have a significant relationship with the dependent variable. Through this study, it will understand the factor that factor influencing the intention of choosing an electric vehicle.

***Keywords**: Electric vehicle, environmental concern, price range, infrastructure readiness, EVs*

1 Introduction

Consequently, electric vehicles (EVs) are anticipated to lessen environmental impacts and conserve scarce non-renewable fuel reserves throughout their life cycles (Liu et al. 2019). EVs are being made now as an effective way to deal with the lack of fossil fuels and environmental problems, especially carbon dioxide (CO_2) emissions. Traditional transportation is causing more and more problems for the environment. For example, about a fifth of greenhouse gas emissions come from cars and trucks (EEA, 2019).

The expansion of the transportation sector in Malaysia has led to a significant rise in the country's demand for energy. The need for power from the transportation sector was more effective than any other single sector in 2012, accounting for more than 37% of total demand. This was primarily the result of an increase in the number of automobiles owned by individuals, which rose by almost 9% in the same year (National Energy Balance, 2014). According to Saidur, R.; Sattar, M.; Masjuki, H.; Ahmed (2007), the low energy conversion efficiency of combustion engines, which is expected to be 18.88% in 2019, will significantly impact Malaysia's transportation sector.

Several government agencies operating under various ministries propel Malaysia's automotive industry forward. The Ministry of Transport Malaysia is at the forefront of a government-wide effort to revitalize the country's auto sector. The Malaysia Automotive Robotics and Internet of Things Institute (MARii) is a government organization under the purview of the Ministry of International Trade and Industries. Malaysia (MITI) acts as a coordinating center and think tank for improving Malaysia's automotive industry and mobility more generally (National Automotive Policy, 2020). Malaysia plans to push the widespread adoption of EVs to decrease the country's reliance on fossil fuels and carbon emissions caused by the transportation industry. As the technology behind EVs continues to advance, more and more people see them as a practical, long-term solution to "decarbonize" individual modes of transportation

The air and environmentally friendly technology state are "close to market" (Mayor of London, 2009; Shen, Han, Chock, Chai, and Zhang, 2012). There is a widespread belief that electrification is the most effective and essential method for cutting carbon emissions and lowering the energy required by the transportation sector. Therefore, if the government wants to create an economy that is both sustainable and kind to the environment, one of its top priorities should be to develop effective plans for greening the transportation sector. This should be a top priority for the government.

1.1 Research Objectives

The objectives for this research are: To measure the relationship between environmental concern and intention of choosing an electric vehicle

- To measure the relationship between price range and intention of choosing an electric vehicle.
- To measure the relationship between perception of economic benefit and intention of choosing an electric vehicle

- To measure the relationship between psychological benefit and intention of choosing an electric vehicle.
- To measure the relationship between infrastructure readiness and intention of choosing an electric vehicle.

1.2 Significance of Study

There's a lot of benefit befall on researchers for conducting this research. First, researchers can extend their study regarding EVs in the future. The researcher may be able to adjust the topics of the study to acquire various results based on the knowledge and experience gained while doing this study. For example, adjusting the dependent variable in the next study may assist researchers in gaining new knowledge about EV and being able to share it with the public in order to raise public awareness about EV.

This research can provide a detailed picture of the elements that influence consumers' intentions to acquire EVs in Pengkalan Chepa. The study's findings may raise their recognition of the advantages of using EVs. The knowledge can convince them of the advantages of driving an EV and persuade them to buy one

The government or policymakers will profit from this study because it may be used as a guideline to provide better support to the green product business, particularly the automotive industry. In 2017, the automobile industry contributed RM 40 billion to the national GDP, making it one of Malaysia's most important businesses. Furthermore, one goal of Malaysia's national automotive policy (NAP) is to make the country a regional powerhouse for energy-efficient vehicles.

2 Literature Review

2.1 Independent Variables

2.1.1 Environmental Concern

Vainio,Paloniemi (2014) define ecological concern as a general value orientation toward the natural environment, a level of concern about the future of the environment, and how human progress is hurting the environment. Reached the conclusion that when people buy green products, their awareness of the environment will grow. A number of studies have shown that concern about the environment has a big effect on how people feel about green products and whether or not they plan to buy them (Wang, Zhan, 2017).

2.1.2 Price Range

Product's price range substantially impacts consumer intent (Bower, Dewitt & Lai,2020; Kaur & Arora,2021). Incentives such as tax reductions and subsidies have yet to be enough to close the price gap, and electric cars are now more expensive than conventional gas-powered vehicles.

2.1.3 Perception of Economic Benefits

Perceptions of economic benefit frequently impacts how well a product is received. Some examples of perceived economic benefits include net earnings, revenues, and other financial advantages. It can also be saved when discussing a cost-cutting strategy (Chen, 2021). According to research by (Beresteanu 2011), high fuel prices increase the sales of hybrid vehicles over gasoline-powered cars because full EVs have low operating and maintenance costs.

2.1.4 Psychological Benefits

According to Ellen (1994), a significant factor in enticing consumers to make decisions in the consumer market is providing opportunities for consumer education. The term "consumer knowledge" was used in this investigation to refer to a level of erudition the participants had acquired through formal education.

2.1.5 Infrastructure Readiness

The term infrastructure readiness refers to the ease with which consumers can refuel their EVs at public charging stations also known as "technologically facilitating" (conditions). According to (Khalil, 2020) Infrastructure accessibility is thought to be important for the adoption of EVs to be successful. It was constantly necessary to improve road infrastructure for vehicle operations

2.2 Dependent Variable

2.2.1 Intention of Choosing an Electric Vehicle

Several studies have examined the values, advantages, and risks that affect the growth of the EV industry since the development of EVs in the early 2010s by analyzing the information gathered from various users and experts (Kim, Oh 2018). Electrifying transportation has many benefits, including less dependence on oil and better environmental conditions. The three types of EVs are plug-in hybrids, battery powered, and hybrid vehicles. Many people have praised battery- powered vehicles (BEVs) for having an energy-efficient system compared to vehicles with internal combustion engines (ICEVs).

Promoting EVs to Malaysia's mass market is one way to reduce the country's reliance on fossil fuels and the number of carbon emissions the transportation industry produces, particularly in the personal transportation segment (Yew-Ngin San, 2015). Reducing carbon emissions from motor vehicles is a significant factor in lowering the possibility of environmental problems. For instance, the greenhouse effect, which results in global climate change, will be triggered by carbon emissions from vehicles into the air (Aminzadegan, 2022). Moreover, Malaysia's distinct environment as an emerging economy can differ significantly from that of other developed nations regarding geography, culture, infrastructure, and living standards (Idris Muhammad, 2022).

Before this, the study focused on EVs for the general public. Since (Ajzen, 1991) Theory of Planned Behavior (TBP) has already been used in other research, it will be utilized here. Various studies in the field of transportation research have used TBP to predict things like driving after drinking (Abraham, 2011), travel mode choice and speeding intentions (Watson, 2012). Moreover, since EVs are still a new technology in Malaysia, not many studies have been done on Malaysian drivers to find out how the public feels about them and what they plan to do with this new technology (Adnan, 2016). Furthermore, (Hong et al. 2013) say that EVs are not as common in Malaysia as they are in Japan, the United States, or Europe. At the same time, many people who want to use EVs have only just started to use this technology. Even though it's important to switch or choose EVs for complex reasons like environmental sustainability and a sustainable transportation system, it's also crucial to consider how consumers feel about the change (Long, 2012). The desire of residents in Pengkalan Chepa, Kelantan, to choose an EVs is also examined in this study, along with the relevant theoretical framework.

2.3 Research Hypothesis

This research aimed to investigate the connection between the dependent variable, EV usage intention with the other five independent variables, namely environmental concern, price range, perception of economic benefits, psychological benefit, and infrastructure readiness. A total of five hypotheses were developed as part of this investigation.

H1: There is a significant relationship between environmental concern and the intention of choosing an EV in Pengkalan Chepa.
H2: There is a significant relationship between price range and the intention of choosing an EV in Pengkalan Chepa.
H3: There is a significant relationship between the perception of economic benefits and the intention of choosing an EV among locals in Pengkalan Chepa. H4: There is a significant relationship between psychological benefits and the intention of choosing an EV in Pengkalan Chepa.
H5: There is a significant relationship between infrastructure readiness and the intentions of choosing an EV in Pengkalan Chepa.

2.4 Theoretical Framework

This study focuses on the factors that influence the intention of choosing EVs. The conceptual structure of this study about the factors that impact the intention of selecting EVs is presented in figure 2.1. A conceptual framework is the "justification for why a certain study should be done," as stated by Young (2020). The conceptual framework describes the current knowledge state, typically accomplished through a literature review.

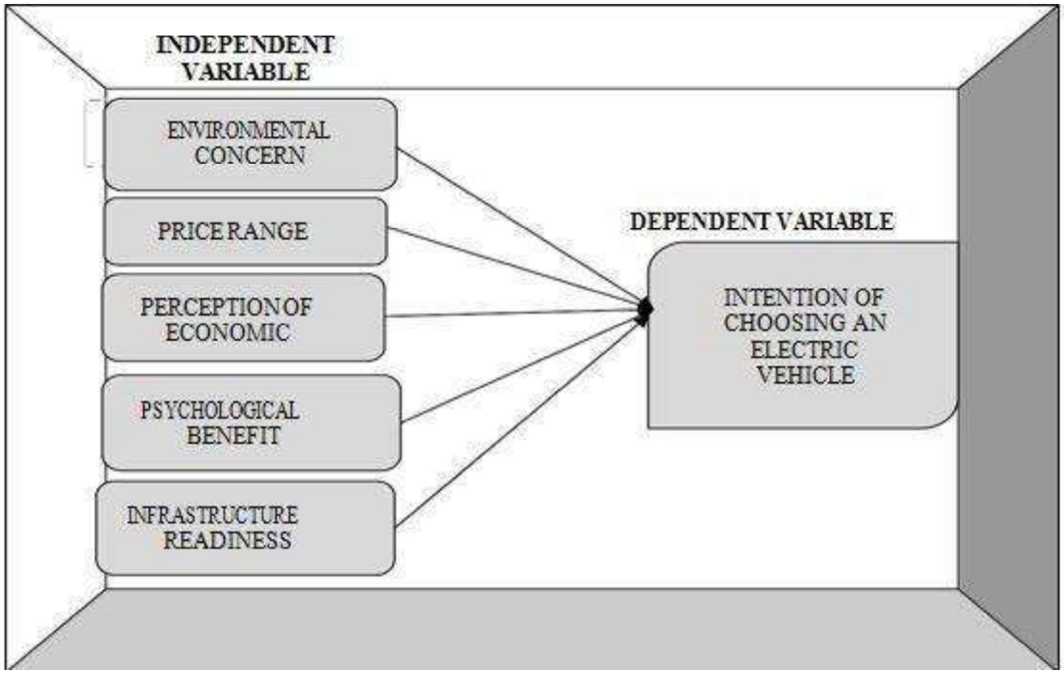

Figure 1: Conceptual Framework

3 Methodology

3.1 Research Design

In this research, researchers chose the quantitative research approach. Quantitative research included the collection of primary data which can ensure the validity of the study. According to Thompson (2022), there are 11 steps of quantitative research design which are theory, hypothesis, research design, operationalizing concepts, selecting a research site, selecting respondents, data collection, data processing, data analysis, findings and lastly publishing results. Therefore, the study should collect information about the intention of choosing an electric vehicle in Pengkalan Chepa, Kelantan.

3.2 Population

The population for this study will be residents of Pengkalan Chepa. Among residents, some students studied at University Malaysia Kelantan and those who already live there. Therefore, the total population of this study is about 14,000, including students and those who live there, according to Latlong.net.

3.3 Sample Size

In this study, the researcher used the table made by Krejcie and Morgan to figure out the right size of the sample (1970). Based on the table by Kriejcie and Morgan, a population of about

14,000 people needs at least 375 responses as a sample size. For this study, 375 people will be chosen randomly.

Table 1 : Krejcie & Morgan 1970

N	S	N	S	N	S
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	3500	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

3.4 Data Collection

The primary data involved the collection of specific information for the study of actual resources such as consumer, user, and non-users or other entities involved in this research. The questionnaire survey became the only primary data instrument for this research. This was because the questionnaire survey allowed this study to look into the relevant variables and fit into the research objectives. Hence, it would increase the reliability, accuracy, and consistency of this study.

3.5 Sampling

Non-Probability sampling was used as the sampling design in this study as the samples were collected in a method that did not offer equal opportunities for all people in the population for being selected. Furthermore, respondents were randomly selected by convenient sampling. The people who are easy to reach and provide the information will become the target respondents in the research. Convenience sampling was a form of sampling without any extra requirement to get the first available primary data source will be used for the study

3.6 Research Instrument

A research Instrument is a tool used to collect, measure, and analyze data related to research (Aloben 2022). In this study, researchers will analyze the data collected using the quantitative method. Because it is more practical for data management and collection. The survey instrument used a questionnaire. According to (Rowley 2014), a questionnaire is the best research tool for handling many respondents in different locations because it facilitates straightforward information requests, allows for consistent data collection from similar questionnaires, and facilitates direct analysis of the results.

Table 2 : Sources of Questions

SECTION	Description	Source	No item
Section A	Demographic	-	-
Section B	Environmental Concern	(Idris Muhammad, 2022)	5
	Price Range	tawir, 2021)	5
	Perception of Economic Benefits	(Lin,Huang, 2015) Chen, 2021)	5
	Psychological Benefits	(Funke, 2019;Beckhet, 2015)	5
	Infrastructure Readiness	(Beckhet,2015; Palinski, 2017)	5
Section C	Intention of choosing EV	(Krishnan v, 2021; Yew-Ngin San, 2015) (sharma, 2021)	8
		Total	**33**

3.7 Data Analysis and Techniques

IBM SPSS (Statistical Package for Social Science) Statistics version 26 would be used for this study. Sekaran and Bougie (2013) defined SPSS as the system which can make statistical data analysis. The researchers can use IBM SPSS Statistics to understand the data, to analyze, forecast and plan. The statistical analysis for the study included the descriptive analysis, reliability analysis, Pearson correlation coefficient, and multiple regression analysis.

4 Data Analysis and Findings

4.1 Demographic Profile

The demographic profile of the respondents included the information of gender, age, marital status, academic qualification, employment status, monthly income, drive experience, consumer conventional or electric vehicle, awareness about electric vehicle and vehicle purchase experience. From the sample collected, the majority of respondents came from female which is 82 respondents (58.6%) and male 58 (41.4%).

In terms of age, the major occurred in the age range from 25 to 34 (55%), followed by 35 to 44 (20.7%). Meanwhile, the respondents that are below 45 to 54 years old and between 55 to 64 years old have the same number of respondents which is (10.7%). While the lowest is 65 years old (2.9%). Hence, vehicle users in the range 25 to 34 years old were the majority in this study.

Furthermore, the highest number of marital status of respondents that answer this survey is married 48.6% which is 68 respondents and single is 47.9% with 67 respondents for both categories. While the lowest of marital status answers this survey is divorced which is 3.6% or 5 respondents.

Next, the highest academic qualification is degree which is 45.7% or 64 respondents, followed by academic qualification of SPM & below which is 26.4% with 37 respondents while the respondent academic qualification of STPM / Diploma is 22.1% or 31 respondents. After that, the academic qualification that gets the lowest is postgraduate for (Master / PhD) which is 5.7% or 8.

Then, the employment status of responses that answers this survey which are paid employment, retired, self-employed and other employment status. For this question, the most employment status of responses is paid employment which is 62.9% or 88 responses. While retired only get 5.7% or 8 respondents, 22.9% of self-employed or 32 responses and 8.6% or 12 responses for others employment.

Next, the monthly income of respondents is shown in the questionnaire. The monthly income of respondents has been divided into six categories. The highest monthly income of respondents is below RM 3,000, which is 50.7%, or 71 respondents, followed by monthly incomes between RM 3,001 and RM 5,000, which is 21.4%, or 30 responses. However, for monthly income, RM 5,001- RM 7,000 and also monthly income RM 7,001- RM 9,000 only get 11.4% and 8.6% and both monthly incomes get the 16 and 12 respondents. After that, the lowest monthly income responses are between RM 9,001 and RM 11,000 and RM 11,001 and above, which is 4.3% and 3.6%, or only 6 and 5 respondents for this income monthly.

Moreover, the driving experiences of the respondents. The drivers with experience of 1 year and below get the lowest percentage from the others, which is 11.4% or only 16 respondents. The highest driving experience of the respondent is between 2 and 5 years, which is 29.3% or 41 respondents, followed by 16 years and above, which is 22.9% or 32 respondents. Furthermore, the rest of the driving experience respondents only get the 22.10% for 6-10 years, and 14.3% which is 20 respondents for 11-15 years.

Besides that, the lowest of respondents choose EV or conventional vehicles which is consumer EV like 1.4% or only 2 respondent consumer EV. Most consumers choose a conventional vehicle, which is represented by 86.4% of respondents. After that, the respondents who are consumers of EVs and conventional vehicles are at 12.1%, or only 17 respondents.

Also, the respondents have awareness about EVs more than respondents have no awareness about EV. The respondents have awareness about EV is 80% or 112 respondents while respondents that has no awareness about EV which is 20% or only 28 respondents.

Lastly, the vehicle purchase experience that has been chosen by the respondents shows that more respondents are likely to purchase fuel vehicles, which are represented by 95.7%, or 134 respondents, compared to the respondents who chose the vehicle purchase experience for an EV, which had the lowest experience other than fuel vehicles and hybrid vehicles. The hybrid vehicle was 2.9% which is 4 respondents while the electric vehicle purchase experience for EVs is 1.4%, or only 2 respondents.

4.2 Descriptive Analysis

The descriptive analysis tested 30 items according to their variable and listed out the summary of the mean and standard deviation of computed items in Table 3.

Table 3: Summary of the Means and Standard Deviation of Computed Items according to Variable

		Mean	St Deviation
Independent Variables	Environmental Concern (IV_1)	4.27	.848
	Price Range(IV_2)	3.75	.941
	Perception of Economic Benefit (IV_3)	4.13	.847
	Psychological Benefits (IV_4)	3.98	.865
	Infrastructure Readiness (IV_5)	4.15	.784
Dependent Variables	Intention of choosing an electric vehicle (DV)	3.96	.940

Table 3 showed that all the independent variables consist of environmental concern, price range, perception of economic benefits, psychological benefits and infrastructure readiness gave the factors influence the intention of choosing an electric vehicle in Pengkalan Chepa, Kelantan. Based on the result, environmental concern obtained the highest mean whereas price range has lowest mean.

4.3 Pilot Test

The pilot test was a test needed to conduct before distributing the questionnaire to the target respondents. Besides, the pilot test can be testing the result of reliability between the independent and dependent variables to ensure the questions of each variable have the ability to support the research. George and Mallery (2003) stated that the acceptance reliability coefficient value must be higher than 0.70. Therefore, if the result of reliability is lower than 0.7, the questionnaire may need to make some changes before distribution to the target respondents for the research. To test the questionnaire's reliability, Cronbach's Alpha Coefficient was tested by using 30 respondents.

Table 4 : Pilot Test

		Cronbach's Alpha	N items	Results
Independent Variables	Environmental Concern (IV_1)	.969	5	Excellent
	Price Range(IV_2)	.957	5	Excellent
	Perception of Economic Benefit (IV_3)	.970	5	Excellent
	Psychological Benefits (IV_4)	.933	5	Excellent
	Infrastructure Readiness (IV_5)	.940	5	Excellent
Dependent Variables	Intention of choosing an electric vehicle (DV)	.984	8	Excellent

4.4 Reliability Analysis

According to Sekaran and Bougie (2013), consistency and suitability will be measured by the reliability analysis without any bias and error. To indicate the items in a variable were positively correlated with another, Cronbach"s Alpha will be used as the reliability coefficient. The high reliability means the items were relevant to the variable that needs to measure.

Table 5 : Actual Reliability Test

		Cronbach's Alpha	N items	Results
	Environmental Concern (IV_1)	.955	5	Excellent
	Price Range(IV_2)	.908	5	Excellent

Independent Variables	Perception of Economic Benefit (IV_3)	.941	5	Excellent
	Psychological Benefits (IV_4)	.933	5	Excellent
	Infrastructure Readiness (IV_5)	.927	5	Excellent
Dependent Variables	Intention of choosing an electric vehicle (DV)	.970	8	Excellent

The results indicate that Cronbach's Alpha(a) for all variables is more than 0.90 which can conclude that strengths of internal consistency for all questions is good. For example, the results for the dependent variable whose intention of choosing an electric vehicle is .970 (excellent). For the independent variable shows that the reliability level for Cronbach's Alpha is excellent which is environmental concern (.955), Price range (.908), Perception of economic benefit (.941), Psychological Benefit (.933) and Infrastructure Readiness (.927).

4.5 Pearson Correlation

Pearson Correlation was used to analyze the research questions on each independent variable. This is because the research question was constructed to assess the strength and direction of the relationship between variables. Next, data analysis process examined the different relationships in the model test whether the variables were significantly related or not. The rule of thumb has been used to see the strength and direction of between variables based on size

Table 6 : Correlation between independent variable

Correlations						
		Environmenta Concern	Price Range	Perception of Economic Benefit	Psychological Benefits	Infrastrcuture Readiness
Environmental Concern	Pearson Correlation	1	.665**	.836**	.761**	.772**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	140	140	140	140	140
Price Range	Pearson Correlation	.665**	1	.733**	.790**	.690**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	140	140	140	140	140
Perception of	Pearson Correlation	.836**	.733**	1	.824**	.819**

Economic Benefit	Sig. (2-tailed)	.000	.000		.000	.000
	N	140	140	140	140	140
Psychological Benefits	Pearson Correlation	.761**	.790**	.824**	1	.820**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	140	140	140	140	140
Infrastrcuture Readiness	Pearson Correlation	.772**	.690**	.819**	.820**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	140	140	140	140	140
**. Correlation is significant at the 0.01 level (2-tailed).						

The results pearson correlation showed that there is a positive significant between the variables.

4.6 Normality Test

Table 7 : Test of Normality for all Variable

Tests of Normality						
	Kolmogorov-Smirnov[a]			**Shapiro-Wilk**		
	Statistic	**df**	**Sig.**	**Statistic**	**df**	**Sig.**
Environmental Concern	.196	140	.000	.796	140	.000
Price Range	.100	140	.002	.939	140	.000
Perception of Economic Benefit	.153	140	.000	.859	140	.000
Psychological Benefits	.149	140	.000	.900	140	.000
Infrastructure Readiness	.152	140	.000	.890	140	.000
a. Lilliefors Significance Correction						

The table 7 shows the result of Kolmogorov-Smirnov2 and Shapiro-Wilk test of normality for statistic, degree of freedom and p-value. Since the data has more than 50 observations, this study will intepret the Kolmogorov-Smirnov2 test results rather than Shapiro-Wilk because this test is only suitable for sample size. If the p-value is less than 0.5, the research must reject the null hypotheses.

4.7 Multiple Regression

Multiple regression analysis was a statistical technique for estimating the variability of the dependent variable by regressing the independent variables against it (Sekaran & Bougie, 2016). Cooper and Schindler (2014) stated that multiple regression analysis was a statistical method used to construct a self-weighing estimation formula that predicts values for a dependent variable from the values of independent variables; monitors confounding variables to better assess the influence of other variables; tests and describes a causal hypothesis.

Table 8: Regression Coefficients and Significance of the Independent Variables

Coefficients[a]								
		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.159	.253		.629	.530		
	Environmental concern	.295	.102	.266	2.888	.005	.273	3.656
	Price Range	.331	.081	.332	4.100	.000	.354	2.826
	Perception Economic Benefit	.314	.121	.283	2.592	.000	.194	5.146
	Psychological Benefit	.158	.115	.145	1.369	.000	.206	4.858
	Infrastrcuture Readiness	.455	.115	.380	3.969	.000	.253	3.949
a. Dependent Variable: Intention of choosing an electric e vehicl								

Three significant predictors are positively related to the criterion in the regression, as shown in Table 8. Infrastructure readiness has the highest regression coefficient at 0.455, followed by price range 0.331, perception economic benefit 0.314, environmental concern 0.295 and psychological benefits 0.158.

4.8 Summary

Table 8: Summary of Hypothesis

Number of hypothesis	Statement of hypothesis	Result	Significant Value
H1	There is significant relation between environmental concern and intention of choosing an electric vehicle	Accepted	0.005
H2	There is significant relation between price range and intention of choosing an electric vehicle	Accepted	0.000
H_3	There is significant relation between perception of economic benefit and intention of choosing an electric vehicle	Accepted	0.000
H_4	There is significant relation between psychological benefit and intention of choosing an electric vehicle	Accepted	0.000
H_5	There is significant relation between infrastructure readiness and intention of choosing an electric vehicle	Accepted	0.000

As the p-value should be less than 0.005, environmental concern, price range, perception of economic benefits, psychological and infrastructure are accepted in this analysis. Table 6, showed the acceptance of all hypotheses in this study. The first hypothesis of this research is that the relationship between environmental concern and intention of choosing an electric vehicle is significantly positive, or in other words, H1 is accepted. This is due to the p-value of H1 being lower than 0.005 which is 0.001. As we can see from Table 7, the p-value of H2 is 0.000. Thus, H2 is accepted since the p- value is lower than 0.005, and it shows there is a significant relationship between price range and intention of choosing an electric vehicle. Next, the p-value of perception of economic benefits is 0.000, which is lower than 0.005. Therefore, H3 is accepted and it shows there is a significant relationship between perception of economic benefits and intention of choosing electric vehicles. Followed by, the p value of psychological benefits is 0.000, which is lower than 0.005. Its mean H4 is accepted and it showed there is a significant relationship between psychological benefits and the intention of choosing an electric vehicle. Lastly, the p-value of infrastructure readiness is 0.000, which is lower than 0.005. its mean H_5 is accepted and it showed there is a significant relationship infrastructure readiness and intention of choosing electric vehicle

5 Discussion and Recommendation

This study focuses on the study of the factors influencing the intention of choosing an electric vehicle (EV) in Pengkalan Chepa, Kelantan. Based on the result and findings, this study has come out with several recommendations for future research in increasing the consumer or residents to choose an EV other than conventional cars. There are a few recommendations for future researchers which will help the new researchers to improve their surveys for their research.

Based on the findings result and discussion, the following recommendation for future research has been identified. Firstly, to fulfill the needs of EV adoption, factories have expanded their supply networks to acquire assets (raw materials and labor) from all over the world at competitive prices. In order to further the widespread adoption of electric vehicles in developing countries, multinational corporations are banding up with government agencies in these countries. More studies may be done in poor countries by looking at the success stories of countries like China and Malaysia, which are leading the way in EV adoption and serving as an example to the rest of the globe.

Secondly, the range is the factor that concerns Malaysians the most when comparing electric cars to other types of vehicles, thus the country's government should concentrate first on installing charging stations rather than offering financial incentives or anything else of the sort. Moreover, the government must first determine the user need before implementing the incentive because the majority of incentives do not meet the requirements for residents of Pengkalan Chepa to purchase EV.

Lastly, automobile manufacturers can also encourage the purchase of EV by offering financial incentives, such as leasing, corporate discounts, and free accessories. On the other hand, in a few of the research, the insignificant effect of factors can be because customers aren't paying enough attention to the environment or they're being irresponsible. As a result, more information should be provided to consumers regarding the protection of the environment, the benefits of using electric vehicles, and the essential characteristics of these vehicles through various forms of advertising for EV such as online, television, theaters, global, outdoor, and product placement.

6 Conclusion

This chapter has focused on the findings that were derived from the total investigation. The research was carried out by researchers in Pengkalan Chepa, Kelantan, using questionnaire surveys to assess people's intentions regarding purchasing an EV. Researchers were able to analyze and categorize the findings of the study in order to determine whether or not the conclusion satisfied the objectives of this analysis because the study gave an overview of the final results based on survey data.

The results of the research have offered a complete overview of the previous research on the elements that influence the decision to purchase an EV. Based on the literature that was supplied, it was discovered that this study fills in the gaps and provides a preview of the studies that are based on EV. It also shows the penetration rates of customer behavior toward the intention of buying an EV. For the purpose of cutting down on carbon dioxide emissions, the EV has emerged as the most promising alternative in the Malaysian transportation sector. Because of this, a set of scenarios that are applicable to the majority of the conditions of the market today were assumed in order to construct the primary modeling methodologies that are used in the research on EVs.

Aside from that, the findings of the survey indicate that consumers tend to have a positive attitude toward EV and a high degree of intention to acquire EVs in the future, which is a positive conclusion. Customers have a positive intent to buy an EV. The study's results are seen as adding to our understanding of customers' motivations for making certain choices. It also implies that automakers' management and marketers need to produce more value for their products if they want to remain competitive and encourage customers to choose EV.

This study's findings suggest that environmental concerns have a beneficial effect on consumers' sentiments and their intent to choose EVs. That is to say, buyers who care about the environment are more likely to be drawn to the idea of purchasing EVs. From a marketing perspective in general, more electric vehicles (EVs) should be displayed and introduced by vehicle dealers and manufacturers. Consequently, this would increase both the brand's allure and the customers' care for the planet. Additionally, it is important to stress the eco-friendly benefits of EV ownership in order to encourage people to make the switch.

7 Acknowledgement

we would like to thank the office and knowledge management of University Malaysia Kelantan, which provides a place that is full of material. We can find out the suitable material for writing the research project. It also provides a comfortable environment for us to discuss our research project together. After that, we would like to extend our gratitude to our friends, who always gave us a lot of support to complete our research project. The friends can share with us their different ideas and knowledge of IT in writing the research project. Last but not least, we feel thankful to our family. Our parents and peers always give us mental support in writing the research project. Their support helped us to release our stresses that gain from the processing of the research project.

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The Distribution Challenges Faced by The Courier Service In Kelantan – Special Study With Road Transportation

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Abstract:
Recently, the issue of most of people does not know about the distribution challenges faced by the courier services in Kelantan. Therefore, this study aims to study the distribution challenges faced by the courier services in Kelantan – the special study with road transportation. A quantitative method is used in completing this research. Simple random sampling is used to collect data and the structured questionnaire was designed to collect data from 384 respondents. The Statistical Package for Sciences (SPSS) version 25 and PLS 4.0 was used for data analysis. The results concluded that the independent variables of the manpower shortage, weather conditions, road conditions, and vehicle conditions distribution challenges faced by the courier services in Kelantan are towards customer satisfaction. Limitations of this study and recommendations are included in this study to give a better idea for future researchers related to studies involving the distribution challenges faced by the courier services in Kelantan.

***Keywords**: Manpower shortage, Weather conditions, Road conditions, Vehicle conditions Customer satisfaction*

1 Introduction

Courier service focuses on the delivery of goods to the destination by providing door-to-door delivery for the people that buy its online or want to deliver the product or goods to the destination. Products will be delivered in real-time by courier services, which means they will be responsible for the product getting to the customer or the person that should receive it. According to Jacek Karcz (2016)[49], the customer (either internal or external) wants the needed product to be delivered in the right place, time, and in the right quantity. Road transportation is one of the modes of transport that have been used in Kelantan for the courier

[49] Jacek Karcz, Beata Ślusarczyk (2016) IMPROVEMENTS IN THE QUALITY OF COURIER DELIVERY International Journal for Quality Research 10(2) 355–372

service because the courier service here uses road transportation which is the use of vehicles to send the product to the customer. The vehicle that couriers service are using in Kelantan is Van, Truck, car, and motorcycle for the process of delivering the product to the customer.

One of the principal factors that prevent the process of freight transportation is the insufficient reliability of road transport means (especially with extension in the operation time) and their failures caused by various reasons (Algimantas Smičius, 2002)[50]. Despite being at the intersection of logistics and postal services, courier services have unique qualities that set them apart, such as guaranteed delivery times that are accurate to the hour, money-back guarantees, receipt of shipments, door-to-door delivery of addresses, and the ability to track shipments using tracking systems. (Aleksandra Gulc, 2017)[51]. For example, if the customer complaint about the delivery date and product damage that can affect the quality of service of the courier service company which is can affect the company's reputation in the future because in courier service already decide the time of delivery when the parcel or goods arrived to the destination by that its importance the courier service to manage the parcel arrived to the destination on time.

1.1 Problem Statement

The challenges faced by the courier services here in Kelantan are held by many factors Delivery delays can happen due to multiple reasons. But the biggest cause of delivery delays is the rigid delivery ecosystem of the delivery businesses. Most delivery businesses depend on manual and traditional operations, which cause inefficiencies and human errors. It can lead to delayed or failed delivery results that can hinder the quality of customer experience and minimize the business's effectiveness.

1.2 Research Question

1. Is there any relationship between manpower shortage and customer satisfaction towards distribution challenges faced by the courier services in Kelantan?
2. Is there any relationship between weather conditions and customer satisfaction towards distribution challenges faced by the courier services in Kelantan?
3. Is there any relationship between road conditions and customer satisfaction towards distribution challenges faced by the courier services in Kelantan?
4. Is there any relationship between vehicle condition and customer satisfaction towards distribution challenges faced by the courier services in Kelantan?

1.3 Research Objectives

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[50] Algimantas Smičius (2003) Statistical probability evaluation of operation time of road transport means, Transport, 18:1, 3-8

[51] Aleksandra Gulc (2017). Courier service quality from the clients' perspective, Engineering Management in Production and Services

1. To determine the relationship between manpower shortage and customer satisfaction towards distribution challenges faced by courier services in Kelantan.
2. To study the relationship between weather conditions and customer satisfaction towards distribution challenges faced by the courier services in Kelantan.
3. To explore the relationship between road conditions and customer satisfaction towards distribution challenges faced by the courier services in Kelantan.
4. To investigate the relationship between vehicle condition and customer satisfaction towards distribution challenges faced by the courier services in Kelantan.

1.4 Scope Of The Study

The research conducted was to determine the distribution challenges faced by the courier services in Kelantan- a special study on road transportation. There are four challenges such as main power shortage, weather conditions, road conditions motorcycle conditions.

1.5 Significance Of The Study

The results of the present study can be useful for many parties such as the Ministry of Transport Malaysia and Jabatan Kerja Raya (JKR) This research can help JKR to examine what are the challenges and how affect the distribution challenges faced by the courier services in Kelantan.

2 Literature Review

2.2 Independent Variables

2.2.1 Manpower Shortage

The supply chain sector may indeed be severely affected by a lack of skilled workers. For instance, the haulage industry expected a driver shortage of between 90,000 and 100,000. According to (Hsain, 2022)[52] Malaysia is currently facing labour shortages in many sectors. Lack of truck drivers can cause delays and disruption in the delivery of goods. The whole UK food supply chain has a labour shortfall of around 12.5%, or nearly 500,000 workers. A high degree of unemployment may coexist with both a labour and skill deficit. When employment is almost no vacant and companies are having trouble filling open positions with qualified candidates, there is a labour shortage. There is a lack of employees with the necessary skills when there aren't enough people with the required education, training, or experience to do a job.

[52] Hsian, Yong, C.-H. S., & Foo, X. Y. (2022, August 17). Labour Shortage? Current Developments and Policies in relation to Foreign Workers in Malaysia. Lexology. https://www.lexology.com/library/detail.aspx?g=740a721d-a09e-450b-b8e7-600c72d8e150

2.2.2 Weather Conditions

The second challenge faced by courier services in Kelantan is weather conditions. The term "weather" refers to the aggregate of several aspects of the atmosphere. According to Jabatan Meteorologi Malaysia, the climate of Malaysia is defined by two distinct monsoon seasons - Southwest Monsoon and Northeast Monsoon. "Monsoon" is simply the name given to the predominant winds that blow during a certain season. The Northeast Monsoon causes flooding in Kelantan and Terengganu every year from November to March. Delivery operations can be hampered by inclement weather such as heavy rain, flooding, or hazy windows. When the weather is unpleasant, it might be difficult for delivery drivers to make sure they are delivering on time.

2.2.3 Road Conditions

Road infrastructure is regarded as one of a nation's most valuable assets, contributing significantly to economic progress and social benefits. Periodic maintenance and rehabilitation efforts keep assets in good shape and improve their performance and safety. When to carry out these tasks is determined by each agency, and is usually dependent on the desired level of serviceability. Kelantan's Public Works Department (PWD) has identified 16 areas that need repairs at an estimated cost of RM14.90 million, but only three locations have received approval for repair work. PWD also identified eight locations on the access route to Kelantan via Gerik for repairs at a cost of £8 million.

2.2.4 Vehicle Conditions

During the maintenance procedure, the vehicle's technical condition is crucial. These metrics seem to be, first of all, and primarily, a method to monitor the state of the automobile and assess the amount of alteration and restoration services that must be performed as well as, secondly, an instrument for anticipating and utilizing the resources, namely, making predictions a stockpile of proper working until the subsequent servicing. As a result, it is critical to know the maximum standards of indications of the practical system and the dynamics of their development depending on the route, since it is feasible to calculate the time until the next servicing subject to the laws of variation in readings. The mechanical status of an automobile continuously worsens as its life span extends due to the deterioration of components: engine output and mechanical speed of movement drop, fuel usage and wear rate increase, usefulness deteriorates, repair and servicing increase slightly, and reliability declines.

2.3 Dependent Variables

2.3.1 Customer Satisfaction

Improving customer satisfaction leads to behavioral outcomes like commitment, intent to stay, the formation of a mutual link between the company producer and the consumer, increased consumer endurance for failures, and positive word-of-mouth advertising about the business. Clients will develop service quality standards based on their expectations of a business, as per the service quality model (Oliver, 1980)[53] As a consequence, client expectations serve as the foundation for exceptional service. In the twenty-first century, PSD providers must constantly and quickly alter their structure, procedures, personnel, commodities, facilities, information systems, performance metrics, and business partners to respond to a rapidly changing business environment.

2.4 Moderate Variable

2.4.1 Late Delivery (Timing)

The act of delivering items from their point of origin to a place that has been selected in advance is known as delivery. There are a lot of challenges faced by courier services in Kelantan. Bad weather may create delays in delivery by either completely blocking roads or significantly moving slow movement.

2.4.2 Damage Product

Delays in loading and unloading can account for up to 50% of a vehicle's total time on the road, which is detrimental to the product's safety. More than 15-20% of production does not reach the consumer, according to an analysis of data on the harvest and on-farm transportation of easily damaged products.

2.4.3 Damage To The Retailer Brand's Reputation

Having complaints about the delivery service can lead to reputation damage to the courier service company. Customer review and customer satisfaction are important to take an action. A company's reputation will deteriorate until it more closely resembles the truth once it has failed to deliver on the time that should arrive.

2.5 Underpinning Theory

2.5.1 Institutional Theory

According to institutional theory, institutional contexts put pressure on firms to seem legitimate and to conform to prevalent societal standards. Using this notion in a corporate

[53] Oliver, R. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. Journal of Marketing, 17(10), 460 – 469.

setting, institutional pressures allegedly push organizations to pursue goals in order to strengthen their legitimacy and appear to be in compliance with their business surroundings' prevalent guidelines, criteria, and conventions (Oliver, 1990; Touboulic and Walker, 2015)[54].

2.5.2 Transactional Cost Theory

In the literature on supply chain management, the transaction cost theory (TCT) has gotten a lot of attention (Williamson, 1985, 1991). In a nutshell, TCT looks at how a company could handle its activities that cross boundaries to lower its total production and transaction costs. The size of a company's operations, how well it learns from its mistakes, its location, and its proprietary effects, such as patents, trade secrets, and procedures, all affect how much it costs to make something.

2.6 Hypothesis Statement

H1: There is a significant relationship between the manpower shortage and customer satisfaction towards distribution challenges faced by the courier services in Kelantan.
H2: There is a positive linear and significant relationship between the weather conditions and customer satisfaction towards distribution challenges faced by the courier services in Kelantan.
H3: There is a significant relationship between road conditions and customer satisfaction towards distribution challenges faced by the courier services in Kelantan.
H4: There is a significant relationship between vehicle conditions and customer satisfaction towards distribution challenges faced by the courier services in Kelantan.

2.7 Conceptual Framework.

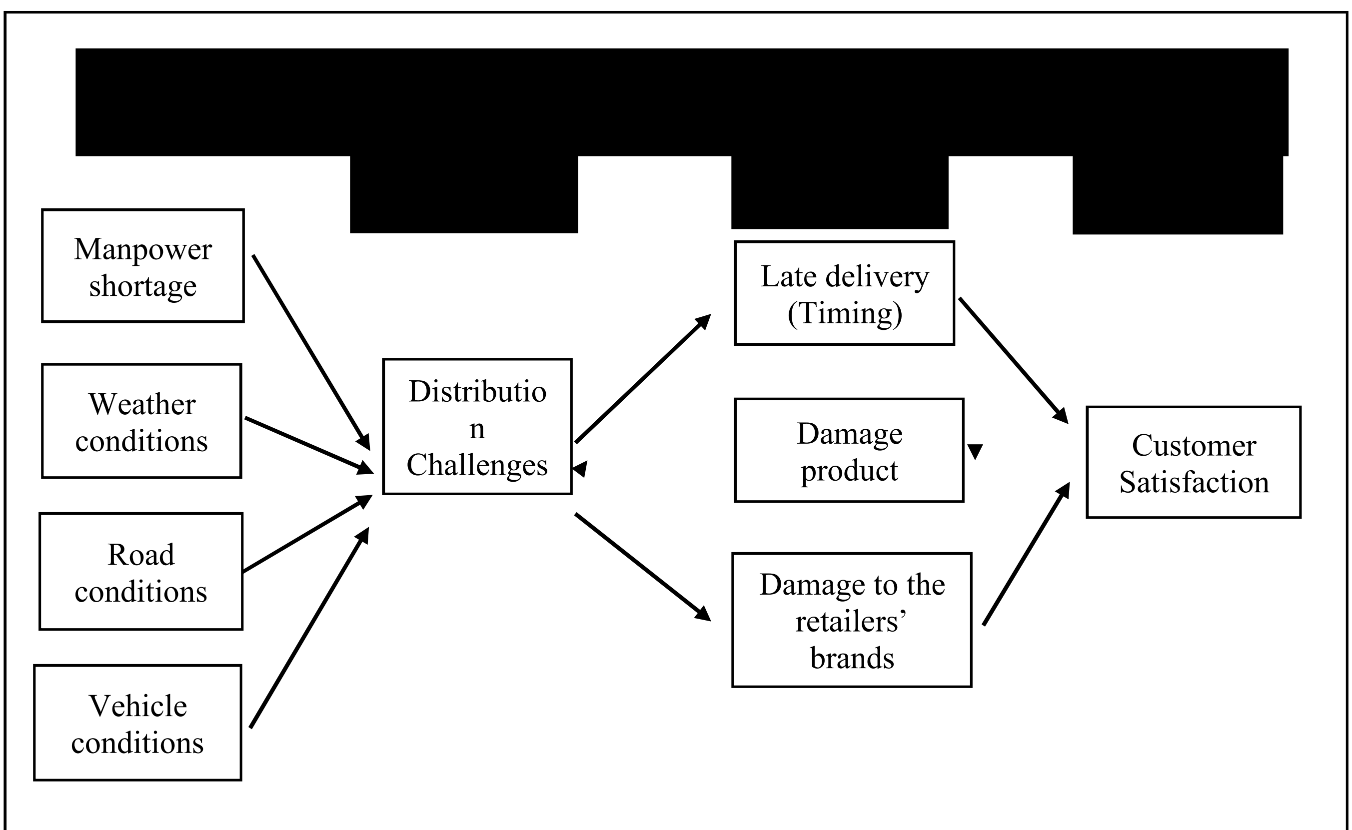

Figure 2.0: The conceptual framework on the distribution challenges faced by the courier services in Kelantan – special study with road transportation.

3 Research Methods

3.1 Research Design

The purpose of this study is to identify customer satisfaction with the courier service in Kelantan. In order to obtain results, a quantitative research method deals with quantifying and analyzing variables. This study used quantitative research to understand the correlation between the independent variable, which is manpower shortage, weather conditions, road conditions, and vehicle conditions.

3.2 Data Collection Methods

The method that is used is the questionnaire related to the objective of this study which was distributed to 384 people in Kelantan. A set of questionnaires were disseminated to targeted respondents in the area of Kelantan. The procedure requires a significant amount of time and work. Once respondents have finished the surveys, the researchers personally collected them back.

3.3 Study Population

According to the Department of Statistics (2014), Kelantan has totaled around 1.71 million people. The target population of the research was chosen Kelantan residents. Moreover, the research investigated the distribution challenges faced by the courier services in Kelantan – a special study with road transportation. Therefore, we target to distribute about 384 questionnaires to the respondents. This will include only customers who usually use courier service in Kelantan.

3.5 Sample Size

The importance of sample size is that a sample that is excessively big will squander valuable resources and may expose more people than necessary to any associated danger. Probability sampling is difficult, time-consuming, and expensive. Based on Krejcie & Morgan (1970)[55] table, the sample size.

Table 1 Krejcie & Morgan (1970)

N	S	N	S	N	S
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	3500	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

3.6 Sampling Techniques

We employ a sample random sampling that made. Probability sampling is the random selection of a sample from a population. Probability sampling is difficult, time-consuming, and expensive. There is no possibility of unfairness because the population has an equal and independent chance of being chosen to be a part of the sample.

3.7 Research Instrument Development

The creation of an instrument may take place in a number of different ways. Data are often gathered using techniques such as interviews, everyday monitoring, and focus groups. The data analysis may also make use of methods such as online questionnaires, digital surveys, and digital interviews.

3.7.1 Questionnaire Survey

A questionnaire is a kind of research instrument that includes a set of questions with the goal of eliciting responses from respondents. It is possible to consider a questionnaire as a type of

[55] Krejcie, R.V., & Morgan, D.W., (1970). Determining Sample Size for Research Activities. Educational and Psychological Measurement.

written interview. The purpose of this questionnaire is to gather data on customer satisfaction with courier services in Kelantan.

3.7.1.1 Questionnaire Design

The questionnaire contains three parts which are section A (demographic profile), section B (independent variable), and section C (dependent variable).

3.8 Measurement Of The Variables

A measurement variable is an unidentified property that measures a specific thing and might have one, several, or none of its possible values. There are four different kinds of scales: nominal, ordinal, interval, and ratio.

3.8.1 Nominal Scale

Nominal variables are a kind of data that may be thought of as either attribute or category information. To define the range of possible values for a variable, a nominal scale simply labels those categories. Nominal data such as the test procedures of the intervention and comparison groups might establish teams in the data you wish to compare.

3.8.1.1 Likert Scale

A Likert scale is based on the presumption that attitudes are able to be assessed. This requires the responder to provide detailed responses to a broad range of topics. The researcher should preferably be able to choose a balanced set of 1-5 options, and also contain a neutral mid-point.

Table 2: The interval scale that will be used for the questionnaire

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

3.9 Data Analysis Methods

3.9.1 Reliability Test

The reliability of standardized tests is the degree to that they remain constant across multiple testing instances, different versions of the tests, or different ratings evaluating the test participant's replies.

3.9.2 Descriptive Research

The purpose of descriptive research is to provide an accurate and detailed description of the population or phenomenon being studied. It does not address how/when/why the qualities developed. Rather, it answers the "what" argument (what features of the demographic or circumstance are being studied?). Typically, the qualities used to characterize a scenario or population are some forms of the category system, also known as classifications.

3.9.3 Pearson Correlation Analysis

The Pearson correlation coefficient is a statistical measure for establishing a causal relationship between two independent variables. Because it is based on the idea of covariance, it is thought to be the best way to measure how two important variables are related. It shows the size of the link or connection and the way the two things are linked.

3.9.4 Multiple Regression Analysis

Multiple Regression Analyzes The Relationship among a specific dependent variable and many independent variables. Multiple regression procedures predict the value of a single dependent variable using known independent variables. The prediction is weighted by each indicator outcome.

3.9.5 Frequency Test

Frequency analysis is a descriptive-analytical tool that depicts the frequency of instances of each answer selected by participants. SPSS Statistics can estimate the mean, median, and mode when applying frequency analysis to aid in the process interpret the data and develop conclusions.

3.9.6 Partial Correlation

Partial correlation measures the degree and direction of a linear connection between two variables while adjusting for the influence of one or more dependent variables partial correlation does not distinguish between independent and dependent variables, the two independent variables are frequently viewed as such.

3.9.7 Normality Test

Explore produces rich univariate statistics and visualizations for numeric scale variables. It may also validate numeric scale variable normalcy using specific inferential analytics and complete diagnostic charts.

3.9.8 Factor Analysis

Data may be simplified via the use of factor analysis. In order to achieve this goal, it searches for hidden influences that can be seen in the measurable ones. Principal axis factor analysis, maximum likelihood, generalized least squares, and unweighted least squares are just a few of the methods that may be used to conduct factor analysis.

3.9.9 Regression

Regression analysis is a collection of statistical techniques for determining connections between one or more independent variables and a dependent variable. It could be used to evaluate the strength of the link between variables and to predict their potential relationship.

3.9.10 Chi-Square Test

Chi-square is a statistical test that looks at the variances among explanatory data from a random sample to see if the predicted and actual outcomes are well-fitting

3.9.11 Smart Pls (Version 4)

The Smart PLS application use the partial least squares (PLS) route suggested model and has a graphical user interface to facilitate variance-based structural equation modeling (SEM). Users may use basic PLS-SEM, weighted PLS-SEM (WPLS), consistent PLS-SEM (PLSc-SEM), or sub-scores regression to make predictions from their data.

4 Data Analysis and Findings

4.1 Preliminary Analysis

A pilot test was organized to evaluate the survey's reliability and validity in order to confirm that it may be used for the research. The research used Google Forms to appropriate surveys for the pilot test (30 respondents) and collected 364 respondents as information.

Table 4.1: Result of Reliability Test for Independent Variable and Dependent Variable

Variables	Cronbach Alpha	Number of items
Manpower shortage	.870	5
Weather conditions	.885	5
Road conditions	.903	5
Vehicle conditions	.933	5
Customer satisfaction	.904	5

According to Table 4.1, all questionnaire subscales are of sufficient quality, with Cronbach's alpha values over 0.700. Cronbach's alpha ranges from 0.870 for a lack of available workers to 0.933 for the state of the vehicles. The entire Cronbach Alpha value, thus, is in the area of strong correlation, which is great and acceptable, and the questionnaire may be utilized in this study.

4.2 Demographic Profile Of Respondents

Under the demographic component of this survey, respondents were given five questions, including their gender, race, age, educational attainment, and monthly income. This section discussed the basic analysis of the demographic profile of 384 respondents who answered the question through the google form that has been distributed.

4.2.1 Gender

Table 3: Gender of respondents

Category		Frequency (N)	Percentage (%)	Valid Percent	Cumulative Percent
Valid	< 19 years old	19	4.9	4.9	4.9
	20 – 29 years old	277	72.1	72.1	77.1
	30 – 39 years old	45	11.7	11.7	88.8
	49 – 49 years old	33	8.6	8.6	97.4
	> 50 years old	10	2.6	2.6	100
	Total	384	100	100	

4.2.2 Race

Table 4: Race of respondents

Category		Frequency (N)	Percentage (%)	Valid Percent	Cumulative Percent
Valid	Malay	191	49.7	49.7	49.7
	Chinese	66	17.2	17.2	66.9
	Indian	89	23.1	23.2	90.1
	Others	38	9.9	9.9	100.0
	Total	384	100	100	

4.2.3 Age

Table 5: Age of respondents

Category		*Frequency (N)*	*Percentage (%)*	*Valid Percent*	*Cumulative Percent*
Valid	*Male*	*162*	*42.2*	*42.2*	*42.2*
	Female	*222*	*57.8*	*57.8*	*100.0*

	Total	*384*	*100*	*100*	

4.2.4 Academic Qualifications

Table 6: Academic Qualifications of respondents

Category		Frequency (N)	Percentage (%)	Valid Percent	Cumulative Percent
Valid	SPM	20	5.2	5.2	5.3
	STPM/Diploma	101	26.5	26.3	31.5
	Degree	213	55.5	55.5	87.0
	Masters	41	10.7	10.7	97.7
	PHD	9	2.3	2.3	100.0
	Total	384	100.0	100.0	

4.2.5 Monthly Income

Category		Frequency (N)	Percentage (%)	Valid Percent	Cumulative Percent
Valid	< RM 1000	164	42.7	42.7	42.7
	RM 1000 – RM3000	161	41.9	41.9	84.6
	RM3000 – RM5000	42	10.9	10.9	95.6
	> RM5000	17	4.4	4.4	100.0
	Total	384	100.0	100.0	

Table 7: Monthly Income of respondents

4.3 Valid and Reliability Test

Table 8: Summary of Reliability

VARIABLES	N OF ITEM	CRONBACH'S ALPHA	RELATIONSHIP
Manpower Shortage (IV 1)	5	.869	Acceptable
Weather Condition (IV 2)	5	.881	Acceptable
Road Condition (IV 3)	5	.886	Acceptable
Vehicle Condition (IV 4)	5	.893	Acceptable
Customer Satisfaction (DV)	5	.861	Acceptable

The table above shows the reliability test for the dependent and independent variables. The value of Cronbach's Alpha for the dependent variable which is customer satisfaction is .772. Meanwhile, for the independent variable, the value of Cronbach's Alpha for manpower shortage is .869, the weather conditions are .881, road conditions are .886, and vehicle conditions are .893. All pf independent variable reliability s shows acceptable.

Table 4.9: Summary of Reliability and Validity Test

Reliability and Validity Table				
	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability(rho_c)	Average variance extracted (AVE)
Customer Satisfaction	0.861	0.861	0.9	0.643
Manpower shortage	0.869	0.872	0.905	0.657
Weather conditions	0.886	0.888	0.917	0.688
Road conditions	0.894	0.898	0.922	0.702
Vehicles conditions	0.882	0.883	0.914	0.679

If the loading is more than 0.5, the average variance extracted (AVE) is more than 0.5, and the composite reliability is more than 0.7, then the measurement model is valid and reliable (Hair et al., 2017). Table 4.8 shows that all of the requirements for establishing convergent validity have been met. This means that convergent validity was not a problem for the study. In data validation, researchers ask respondents for information that helps them figure out how reliable the data is.. Cronbach's alpha and the average variance were used to check how reliable the data were. In this study, 364 people gave answers, which were then split into 4 independent variables which are manpower shortage, weather conditions, road conditions, and vehicle conditions. For dependent variable is customer satisfaction with the courier services in Kelantan.

There was also a test of the reliability of each factor, which ranged from 0.861 to 0.894. Since the coefficients of all the factors are above 0.7, the data was thought to be reliable enough to analyze further. The Average Variation Extracted (AVE) is a measure of the variance collected by a construct relative to the measurement error variance. Each latent variable and observed value in the table above ranged between 0.643 and 0.702. A value of at least 0.50 for the average extracted variance (AVE) is widely accepted. According to several research, an AVE of less than 0.50 implies that there are some inconsistencies in the constructs' variance. In every measurement model, the Average Variance Extracted (AVE) must be computed for each construct and must be at least 0.50. By these average variances extracted (AVE) tests, it has been determined that the measurement items are of acceptable quality.

4.4 Pearson Correlations

Table 9: Result of Pearson Correlations

Correlations

		mean1	mean2	mean3	mean4	mean5
mean1	Pearson Correlation	1	.705**	.615**	.628**	.728**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	384	384	384	384	384
mean2	Pearson Correlation	.705**	1	.690**	.586**	.744**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	384	384	384	384	384
mean3	Pearson Correlation	.615**	.690**	1	.342**	.694**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	384	384	384	384	384
mean4	Pearson Correlation	.628**	.586**	.342**	1	.611**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	384	384	384	384	384
mean5	Pearson Correlation	.728**	.744**	.694**	.611**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	384	384	384	384	384

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

4.5 Assessment of the Measurement Model

The measuring methodology was used to check the research hypothesis in this study. Understanding the connection between the things and their meaning was made possible by the measuring model. This analysis requires that the measurement model requirements be fulfilled before proceeding with the analysis. The study's measuring model is shown in Figure 4.8.1.

Figure 4.1: Measurement model.

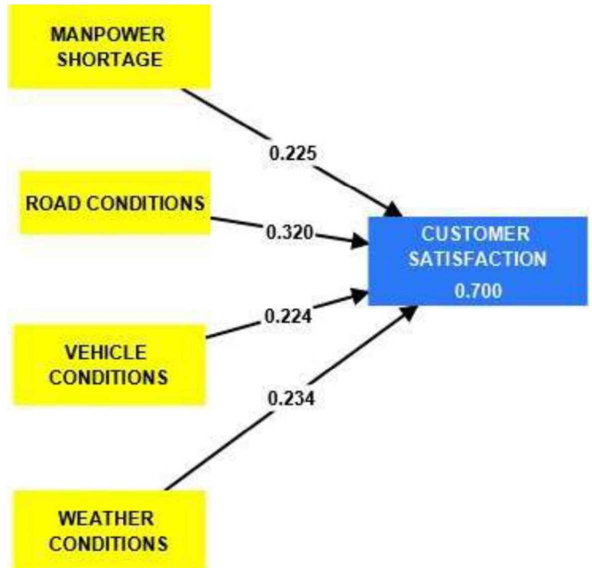

Figure 4.2: Regression

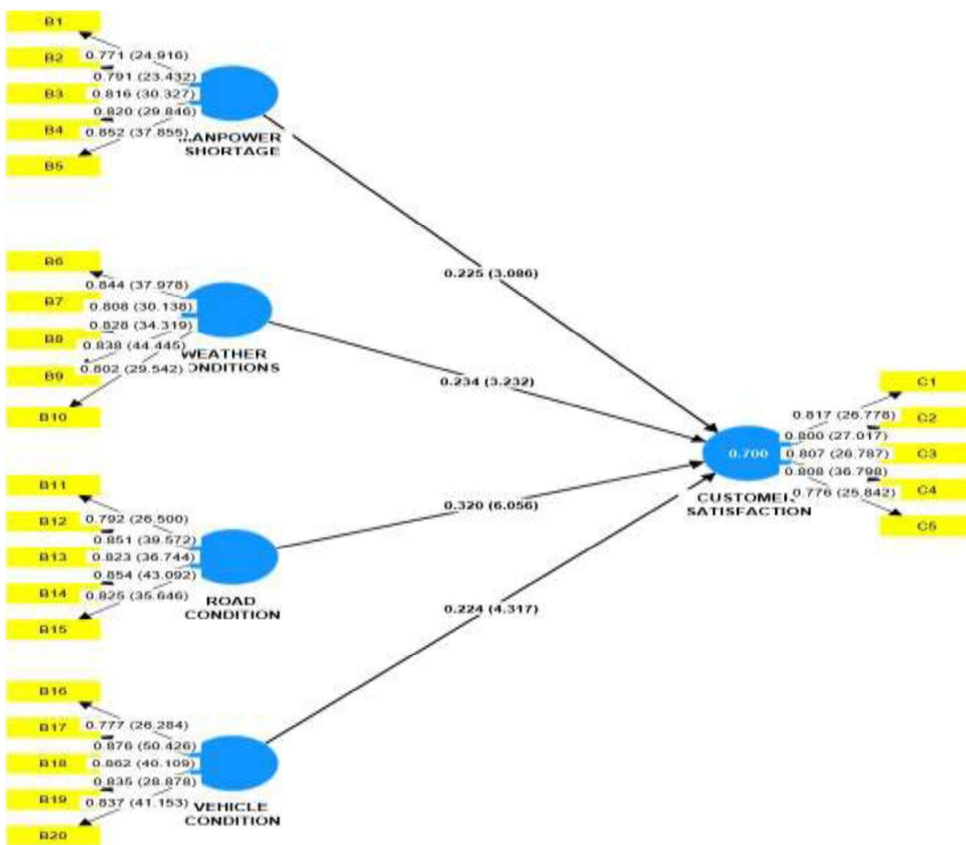

Figure 4.3: Modal of bootstrapping

Table 4.10: Hypothesis testing

Hypothesis relationship	Standard Beta	Standard Error	T value	P value	Decision
H1: MPS-> CS	0.225	0.045	4.93	0	Accept
H2: WC -> CS	0.234	0.048	1.971	0	Accept
H3: RC -> CS	0.32	0.041	7.73	0	Accept
H4: VC -> CS	0.224	0.039	5.799	0	Accept

Note: Man-power Shortage, MPS - Weather Conditions, WC – Road Conditions, RC – Vehicles Conditions, VC – Customer Satisfaction, CS

The research hypotheses may be supported if the beta values are in accordance with the hypothesis's direction, t-values, and p-value. In terms of the confidence interval, which is lower level (LL) and upper level (UL), it should not straddle or overlap at zero between the LL and UL (Hair et al., 2018). In the present analysis, a bootstrapping approach with resampling of 5,000 was used, in which the findings for the direct effect show that four hypothesized relationships were supported, and one hypothesized relationship was not supported. Table 4.13.2 below shows the first hypothesis, Manpower shortage was not satisfied by customer satisfaction (ß = 0.225, t = 4.963, p < 0.00). The second hypothesis, weather conditions were positively related to customer satisfaction (ß = 0.234, t = 4.93, p < 0.000). Next, the third hypothesis, road conditions were positively related to customer satisfaction (ß = 0.32, t = 7.73, p < 0.000). This is followed by the fourth hypothesis, vehicle conditions were positively related to customer satisfaction (ß = 0.224, t = 5.799, p < 0.000). Table 4.8.1 below indicates that the three direct hypotheses developed for the model were significant; thus H1, H2, H3, and H4 were accepted.

Table 4.11: Boostrapping

Boostrapping					
	Orginal sample (o)	Sample mean (M)	Standard devition (STDEV)	T- statistics	P value
Manpower shortage -> Customer Satisfaction	0.225	0.227	0.073	3.086	0.002
Weather conditions -> Customer Satisfaction	0.234	0.321	0.053	6.056	0.001
Road conditions -> Customer Satisfaction	0.32	0.321	0.053	6.056	0
Vehicles conditions -> Customer Satisfaction	0.224	0.232	0.073	3.232	0

5.0 Discussion and Conclusion

5.1 Key Findings

1. There is a significant relationship between manpower shortage and customer satisfaction.
2. There is a significant relationship between weather conditions and customer satisfaction.
3. There is a significant relationship between road conditions and customer satisfaction.
4. There is a significant relationship between vehicle condition and customer satisfaction.

5.2 Discussion

Research Question 1: Is there any relationship between manpower shortage and customer satisfaction towards distribution challenges faced by the courier services in Kelantan?

In this study examined by SPSS and Smart PLS, the first research objective is to determine the relationship between manpower shortage and customer satisfaction towards distribution challenges faced by the courier services in Kelantan. According to the result shown in Table 5.1, there is a significant value at 0.048 less than 0.05 for Mean 1 which replacement for Manpower Shortage. While based on Table 5.2, Smart PLS analysis does not have a significant value at 0.12. This is because nowadays only the economy in Malaysia upgrade to normal after the covid-19 pandemic. During the period, there was a lot of companies closing their operation, and reducing employees' income, especially in the Courier service business. So, after the pandemic, the company did have enough manpower to run its daily business as normal. Therefore, after this manpower shortage will recover with add more employees and reducing the problems faced by the courier service.

Research Question 2: Is there any relationship between weather conditions and customer satisfaction towards distribution challenges faced by the courier services in Kelantan?

The second exploration objective is to study the relationship between weather conditions and customer satisfaction towards distribution challenges faced by the courier services in Kelantan. According to the result shown in Table 5.1, there is a significant value at 0.029 less than 0.05 for Mean 2 which replacement for Weather Conditions. While based on Table 5.2, Smart PLS analysis also has a significant value at 0.049 which means less than 0.05 for independent variable 2 which is Weather Conditions.

Research Question 3: Is there any relationship between road conditions and customer satisfaction towards distribution challenges faced by the courier services in Kelantan?

The third research objective is to explore the relationship between road conditions and customer satisfaction towards distribution challenges faced by courier services in Kelantan. Based on the previous result that showed in Table 5.1, there is a significant value at 0.00 less than 0.05 for Mean 3 which replacement for Road Conditions. While based on Table 5.2, Smart PLS analysis also has a significant value at 0.00 which means less than 0.05 for independent variable 3 which is Road Conditions.

Research Question 4: Is there any relationship between vehicle conditions and customer satisfaction towards distribution challenges faced by the courier services in Kelantan?

The fourth exploration objective is to investigate the relationship between vehicle conditions and customer satisfaction towards distribution challenges faced by the courier services in Kelantan. As per the outcome in Table 5.1, there is a significant value at 0.00 less than 0.05 for Mean 4 which replacement for Vehicle Conditions. While based on Table 5.2, Smart PLS analysis also has a significant value at 0.00 which means less than 0.05 for independent variable 4 which is Vehicle Conditions.

5.3 Implications Of The Study

This study can help the courier service company to improve its service. This is because our study focuses on customer satisfaction with courier service in Kelantan. Based on this study, courier service needs to improve the service that the company provides to make the customer satisfied with the service. We can see that our study on the courier service in Kelantan that makes the delivery late divided into several things. Which is the management of the courier service and the steps that need to be taken to ensure that the delivery process is not late by the time given. The study also provides the problem and what makes delivery late by that the courier service can be improved their performance on the delivery process in Kelantan. Delivery delays can happen due to multiple reasons. By that this study can help the improvement of what happened in the courier service late and what makes the customer not satisfied with the courier service in Kelantan.

5.4 Limitations Of The Study

The limitation of our study is the population. To begin with, our research is only taking in the area of Kelantan and the community here. This is because this study focuses on the area of Kelantan. By that, we only take responses from that who live in Kelantan. Moreover, the information there limitation info and resource about the courier service in Kelantan. We must conclude and find the information about the courier service problem via google and another method that is available. That we conduct research and study this topic to find the information that makes the courier service in Kelantan late delivery. Other than that, about the population and limitation of the questionnaire, because we only take 384 respondents to answer our questionnaire to get the data about the study that we do.

5.5 Recommendations / Suggestions For Future Research

Morning unloading and cargo sorting on courier sites are automated. Unloading is currently done by hand by couriers using straight transit. Implementing even a basic conveyor belt can assist couriers in completing their jobs more quickly. Morning procedures may be made more flexible by allowing the "first loading wave" of courier vehicles to be loaded before agreeing on the List of Receipts of Parcels to the Terminal with the Courier's Lists of Parcels Invoiced to be Delivered on the Given Day. An option in the situation of a courier's unwillingness to initiate proactive contact with the receiver is the potential of rewarding them for efficiently delivering items. Some routes are now compensated on a daily basis. A new payment system should be an effective instrument for ensuring the efficacy of courier services.

5.6 Overall Conclusion Of The Study

In order to achieve a happy medium, this study investigates the difficulties encountered by courier services in Kelantan during distribution. Little evidence of a substantial effect on quality criteria was discovered in a review of the literature on supply chain quality. Those that analyze qualitative indicators seldom consider the supply chain, despite its importance in creating a competitive advantage. All things considered, in this day and age of rising customer quality expectations, courier operators must also enforce changes in the quality of services given by their subcontractors. The investigation showed that after implementing the changes, a key metric, the efficiency with which shipments were delivered, improved. To better serve customers, it is recommended that service quality be raised as a priority.

6.0 Acknowledgement

We would like to express our gratitude to the University Malaysia Kelantan (UMK) for assisting us in conducting this study by giving us the chance to participate in the research project, as well as a positive atmosphere and the necessary resources to do so successfully. Last but not least, we would like to express our thanks to members of our family for providing us with the emotional support and drive we needed to finish this project.

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The Factors Effecting Consumer Satisfaction on Public Transportation Service Quality in Kelantan

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Abstract:
In the past 25 years the usage of public transportation in most of the industrialized countries has diminished due to the fast development in the utilization of own cars. Public transportation plays major role for people to travel from one place to another place even though there are other kinds of modes such as airway, waterway, railway, and roadway. People widely prefer to use public transport for long journeys rather than use own vehicles. However, there are some issues in terms of vehicle reliability, affordability and safety & security affects the public transportation service quality. The objective of this study is to identify the effect of vehicle reliability, affordability, vehicle safety & security and consumer satisfaction on public transportation service quality in Kelantan. There are 384 respondents who have been randomly involved in the questionnaire conducted by the researcher. The element analysis of the survey results revealed that the vehicle reliability, affordability and safety & security strongly influences consumer satisfaction on public transportation service quality. Data analysis was conducted by using SPSS. This study provided 384 data about the vehicle reliability, affordability and safety & security which strongly influences consumer satisfaction on public transportation service quality in Kelantan. The findings show that the relationship between the vehicle reliability, affordability and safety & security of the data are essential to improve the consumer satisfaction on public transportation service quality in Kelantan.

Keywords: *Consumer satisfaction, vehicle reliability, affordability, safety & security*

1 Introduction

Satisfaction has been defined as "the primary factors affecting consumer trust" (Pawlasova, 2015). (Caulfied, et al.,2016) ridiculed the fact that, over the last 25 years, most industrialized countries' use of public transport services has decreased because of the rapid growth of personal automobile ownership. Research by (Linda, 2003) demonstrates that car enthusiasts had a dismissive attitude toward public transportation. In their opinion, the car has more vibrant features than public transit. Aside from its practical functions, the automobile represents social and psychological beliefs.

Moreover, in culture today, the car is a sign of status from which a sense of liberty, autonomy, and enjoyment is deduced. As far as we can tell, the only solution to this issue is to transform people's attitudes toward using public transportation. However, it will be difficult task because the involvement and heritage of people who use public transportation remains extremely low (Susilawati & Nilakusmawati, 2017).

Consumer fulfilment and service adequacy have been the two most important worries for businesses in recent years. This is especially true for transportation services and passengers. Obviously, an increase in the level of service conveyed may inspire more consumers. As a result, individual transportation will be used less, ameliorating many issues such as noise, pollution, road congestion, and energy usage (Eboli & Mazzulla, 2007).

1.1 Research Objectives

1. To identify the effect of reliability and consumer satisfaction on public transportation service quality in Kelantan.
2. To identify the effect of affordability and consumer satisfaction on public transportation service quality in Kelantan.
3. To identify the vehicle safety 7 security and consumer satisfaction on public transportation service quality in Kelantan.

2 Literature Review

2.1 Servqual

The concept and theories of SERVQUAL was to measure in customer satisfaction. Meaning by that theories develop variety of service industry.

(Parasuraman et al., 1998) stated that it a brief multiple-scale with high reliability and validity that able to use better consumer experience service expectation that can improve all services. Apart from that, it can be used to access the quality of certain companies along to each dimension by average on item that represent the dimensions. Meaning by that, it was good valuable when it be used by regular basis in evaluate quality trends while being combined with another techniques of service quality measurement. Other than that, SERVQUAL is limited to the current and previous customers of the company because of meaningful replies to perception statements that need respondents to make some knowledge and experience with firm being.

According to (Taylor, 2021) the SERVQUAL model and dimensions were develop in 1985 by (Parasuraman et al., 1988) and are based on expectation in the perception gap model that can prevent and provision of high-quality services that visible to customers.

In addition, it was originally divided into 10 services which is competences, access, credibility, reliability, responsiveness, tangibles, understanding, communication, security and also courtesy. However, (Parasuraman et al., 1988) had tested that variable and reduced the five factors such as tangibles, reliability, responsiveness, assurances which is will be combined into communication, credibility, security, courtesy and competence plus empathy (combined understanding with accessibility).

2.2 Relationship between Customer Satisfaction and Service Quality

Customer satisfaction was the most important input that need to be more attention in perception. It is because without customer satisfaction, firm or companies unable to improve their service according to consumer satisfaction. Meaning by that, one of the business's strengths is dependable distribution plan and as a result, the main purpose for this study was distribution debate which is online trading is popular in digital age.

Customer is the one who purchase our service and products that was being offered by organization or company while customer satisfaction is a partner in organization that offers payment in exchanged after used the services. In other terms, service quality is a measurement of how well company deliver their services to customer's expectations (Service Quality: Definition, 5 Dimensions and Implementation 2021). In other hand, by manage service quality, it can attract quality employees and lead to the repeat business in transportation.

The relationship between customer satisfaction and service quality was when researchers able to understanding the definition and measurement both of them. Plus, it had certain similarly but satisfaction was a huge concept and model in focussing more into service dimensions (Wilson et al., 2008). Even though it had been stated that there have others factor that can influence customer satisfaction and service quality that was component of customer satisfaction.

2.3 Dependent Variable

2.3.1 Consumer Satisfaction on Public Transportation in Service Quality

Consumer satisfaction on public transport will lead to the service quality that based on improvement in service quality. The increasing demand of public transportation was depended on service quality and customer satisfaction which is according to the reliability, affordability and safety and security. It claims that reliability was focussing into arrival time to destination. Meanwhile, affordability refers to the pricing which is lower price of fare transportation, the high passengers or customers used service that will lead to the high satisfaction.

2.4 Independent Variable and Dependent Variable

2.4.1. Relationship between Reliability and Consumer Satisfaction on Public Transportation in Service Quality

(Organizing and Planning for Operations 2022), the reliability represents to the quality and unpredictability of journey time. A dependent transportation system consistency provides users for predictable range of trip times. In other definition, the reliability system was one of the strategies in management and operation while it can help to fill various operation objectives in reliability scope such as delays, non-recurring and boosting transit in time performances. (Bakti & Sumaedi, 2015), reliability can be explained as the ability to perform promised from transportation service to customers. Customer will used service towards public transportation such as taxi, bus, train as their vehicle that can travel in any destination. Furthermore, it can conclude that when there has improvement in service quality on reliability, it will lead to the increasing customers satisfaction on public transport in service quality.

2.4.2 Relationship between affordability and Consumer Satisfaction on Public Transportation in Service Quality

According to (Litman, 2009), affordability refers to households' capacity to buy fundamental or necessary products and services within their spending limits. Nevertheless, public transportation need develop in suburban areas because some of them cannot spend more on owning cars because they have their other own commitments. The average amount workplace more in cities, if they do not have proper transportation the time for arrives at work is roughly. The prices are more affordability when the public transportation have discount or special card for customer. E-hailing is a form of public transportation, and the cost is less than a traditional taxi. Additionally, clients have access to discount vouchers provided by e-hailing companies, which people may use public transportation and feel satisfied thanks to the promotional fare. Nevertheless, with all the complaints and suggestions from passengers, service quality on public transit can get better every day.

2.4.3 Relationship between Safety and Security and Consumer Satisfaction on Public Tranportation in Service Quality

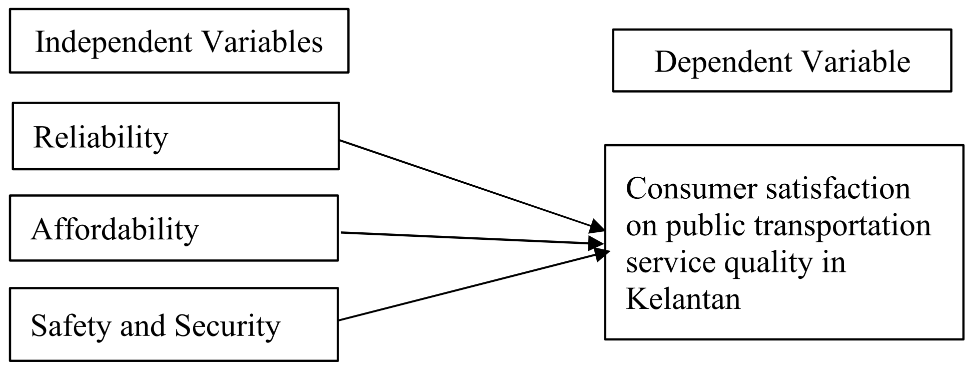
According to (Efthymiou & Antoniou, 2017) safety and security refers to the sense of protection against assaults and road accidents experienced by passengers when they are waiting at airports or utilising public transportation. Additionally, safety and security precautions assess the possibility that passengers would be hurt in a crash, whether it be one involving a vehicle or not safety or become the victim of a crime which is security by (Joewono & Kubota, 2006). For instance (Abenoza et al., 2017), discovered that one of the major factors affecting travellers' pleasure and loyalty is their feeling of safety. Safety and security also include the increased danger of harassment on public transportation, particularly for female passengers. This accident might have occurred due to crowded public transportation. Nevertheless, safety and security must be improved because customers need high-quality services. In general, safety and security may play a significant role in determining how well public transportation services are doing.

2.5 Hypothesis Statement

H1: The relationship between the reliability and consumer satisfaction on public transportation service quality in Kelantan is positive.
H2: The relationship between the affordability and consumer satisfaction on public transportation service quality in Kelantan is positive.

H3: The relationship between the safety and security and consumer satisfaction on public transportation service quality in Kelantan is positive.

2.6 Conceptual Framework



3 Methodology

3.1 Research Design

The study design contains numerous procedures that must be used on the study, when the data was acquired, and under what conditions. This will enable the study plan to generate empirical evidence that can be used to answer the research questions. This study employs quantitative descriptive methods. Descriptive studies describe an observable phenomenon, such as the temporal and organisational aspects of a group. This strategy is employed in the study for greater sample size results and questions that need to be addressed. This method is also used for responding to the determinants of customer preferences on consumer satisfaction with public transportation service quality.

3.2 Data Collection Method

The technique of data collecting is gained through two events: primary data and secondary data. Primary data in the form of questionnaires, surveys, and data collecting from targeted respondents were used in this study. Respondents filled questionnaire forms, and the findings were planned and evaluated using the data obtained. The study's secondary data gathers some other literature research that can be used as a reference such as journal, book, and library record, as well as other databases to be utilised as data in this research.

3.3 Study Population

Group of the potential participants researchers want to generalize the results of the study is population (Salkind, 2008). In the study conducted, the researcher will select 384 users who use public transport around Kota Bharu. The scope of users selected is the public including government agents, laborers, school students, university students and so on.

3.4 Sample Size

A sample is a group of people randomly drawn from the target market in order to participate in the research study. A sample size of 384 people in Kota Bharu were chosen for this study in deciding the sample size requires referring to the to the Krijcie and Morgan sampling table, taking into account the length nature of the purposed questionnaire. According to (Hair et al., 2009) the sample size that reaches 100 is sufficiently large to affect the quality of the data and usually leads to increase precision when estimating unknown parameters. This study was targeted on the people use public transportation in Kota Bahru.

Table 3.1: Sample size table by Krejcie and Morgan

N	*S*	*N*	*S*	*N*	*S*
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	3500	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.

3.5 Sampling Techniques

Sampling is a technique (procedure or device) employed by a researcher to systematically select a relatively smaller number of representative items or individuals (a subset) from a predefined population to serve as subjects (data source) for observation or experimentation as per objectives of his or her study (Jayasri Sanap, 2017). For this report the researcher used a stratified sampling. According to (Jayasri Sanap, 2017) stratified is method of sampling that involves the division of a population into smaller groups known strata. In stratified random sampling, the strata are formed based on members shared attributes or characteristics. Furthermore, the researcher used stratified sampling is due to easy for distribution and collecting the questionnaires.

3.6 Research Instrument Development

Instrument is generic term that researchers use for a measurement device. A research instrument should capture each variable in terms of its conceptual or theoretical definition (Polit & Beck, 2012). Most of the instances, the questions asked were clear, succinct, and basic to make it easier for respondents to respond. In surveys, complex questions are avoided because they could generate confusion and make it difficult for respondents to provide correct answers or, worse yet, they might decide not participate.

The questionnaire was of the closed-ended variety. The term "close questionnaire" refers to a question format where the respondent is given a list of options from which to select an answer. Multiple choice questions, which are frequently used in quantitative research, are an example of close questions. It largely concentrated on the three study goals. Three components, A, B, and C, make up the questionnaire that was created.

Section A of questionnaire included gender, income, race, level of education and other. Responses in this section must check the box next to the answer that applies to them. If none of the options related to them, the respondents believe they should select "other.". Parts B and C each contain one multiple-choice question, and part B is primarily concerned with the responder overview and various quantitative techniques such rating by strongly agree, disagree, moderately, agree, and strongly agree.

3.7 Measurement of the Variables

The ordinal scale was used with the five-point likert scale: 1 represents ‘Strongly Disagree, ‘2 represents ‘Disagree, ‘3 stand for ‘Moderate, ‘4 stands for ‘Agree, ‘and 5 stands for ‘Strongly Agree.’

Table 3.2: A five point likert categorical scale

1	2	3	4	5
Strongly disagree	Disagree	Moderate	Agree	Strongly agree

3.8 Procedure for Data Analysis

The researcher will send all the data to be precisely analysed using Statical Package for the Social Sciences (SPSS) software after the necessary data have been obtained via Google form. The collection of software applications that are bundled together into a single package is known as the Statistical Package for the Social Sciences (SPSS). These data can be utilised in data mining, surveys, market research, and other basic applications.

3.8.1 Descriptive Analysis

The respondents' demographics are presented as percentages in the descriptive analysis. Before running the statistical test, researchers will be able to assess the data using descriptive analysis. After that, the data might also be analysed using statistical methods and interpretation. The descriptive summary statistics were also calculated and described using the mean, standard deviation, and percentage.

3.8.2 Pearson's Correlation

Karl Pearson created the correlation coefficient, which was utilised in this study, in 1896 to assess the strength of a linear or straight-line relationship between two variables. The correlation coefficient of Pearson, denoted as r in the calculation of statistical data, can be used to determine a range value between + 1 and -1. A coefficient of 0 correlation implied that there was no linear link between the variables. A number greater than 0 also denotes a positive linear relationship, whereby as one variable's value declines, the value of the other variable always rises. However, a correlation value and coefficient that are less than 0 (negative) reflect a negative linear relationship, where the value of one variable declines as the other grows. According to (Patrick Schober et al., 2018). "r" represents the value of Pearson Correlation Coefficient and ranges from value -1 to +1 with value lesser than 0 represents a negative correlation whilst no relationship between the two variables.

Table 3.3: Interpretation of Correlation Coefficient

Absolute Magnitude of the Observed Correlation Coefficient	**Interpretation**
0.00 – 0.10	Negligible correlation
0.10 – 0.39	Weak correlation

0.40 – 0.69	Moderate correlation
0.70 – 0.89	Strong correlation
0.90 – 1.00	Very strong correlation

3.8.3 Multiple Linear Regression Analysis

In order to estimate the value of the dependent variables, multiple regression analysis is a statistical approach that examines the relationship between two or more independent variables. The goal of multiple regression is to create a model that relates a dependent variable (y) to numerous independent variables.
Stepwise regression is a method that builds a regression model from scratch using only one predictor variable, then adds and removes predictor variables incrementally. The process of creating a regression equation by starting with one independent variable and gradually adding more independent variables is known as stepwise multiple regression.
Since we start out with no independent variables and gradually add one independent variable to the regression equation, the stepwise multiple regression method is also known as the forward selection method. The backwards elimination method is an alternative approach that starts with a full set of variables and eliminates one independent variable with each iteration.

3.8.4 Reliability Statistics

Reliability is defined as the degree to which measurements are error-free and so produce consistent results. In this study, the method used to reduce the percentage of incorrect answers from respondents, focus need to be given to factor that included validity and reliability (Saunders and Thornhill, 2003). According to (Lisa Wessels, Judy Drennan, 2010) the aspect of reliability can be examined through several points:

1. Whether the evaluate yield have similar results on another incident?
2. Whether the observation as same as it can be achieved by another observer?
3. Whether there is a precision in how the raw data is reliable or not?

Additionally, the reliability of this study depends on the respondent, who may have different experiences from one respondent to the next. When the degree of consistency of the data is high, all of the data acquired can be truly reliable.
(Trochim,William, 2007).

Cronbach's Alpha Reliability Coefficient is used to examine the internal consistency of the data's reliability since the questionnaire being constructed employed the Likert scale approach, which has multiple choice answers. The researcher must check that no information or data are missing during the data collection process in order to verify that the data are consistent and accurate. This prevents any issues from arising during the computing procedure.

Table 3.4: Consistency level of Cronbach's Alpha Scale

Scale	Consistency Level
0.0 – 0.20	Less reliable
>0.20 – 0.40	Rather reliable
>0.40 – 0.60	Quite reliable
>0.60 – 0.80	Reliable
>0.80 – 1.00	Very Reliable

4 Data Analysis and Findings

4.1 Pilot Test

The result based on 30 respondents to test the overall reliability of dependent variable which is consumer satisfaction on public transport in service quality and also independent variable which is reliability, affordability and security and safety. The value of Cronbach's Alpha shows the value of 0.970 which is excellent consistency. In other words, it was an excellent questionnaire to be distributed.

Table 4.1: Reliability Test for Pilot Test for Dependent Variable and Independent Variables

Variables	Cronbach's Alpha	Internal Consistency
Consumer satisfaction on public transport in service quality	0.970	Excellent
Reliability	0.923	Excellent
Affordability	0.971	Excellent
Safety and Security	0.960	Excellent

In measuring the reliability statistic for 30 respondents, it stated that independent and dependent variables of the research was excellent to be distributed and analyse. The value of Cronbach's Alpha for reliability, affordability and safety and security was 0.923, 0.971 and 0.960 which is indicated to excellent results. Furthermore, it shows that this variable can affected to the consumer satisfaction. In measuring the consumer satisfaction on public transport in service quality, it shows 0.970 as the value of Cronbach's Alpha that can be achieve in this research as the dependent variable.

4.2 Demographic

The researcher gathered demographic information from respondents by distributing a questionnaire using a Google form to passengers who utilise public transit in Kelantan. The questionnaire distributed to respondents is divided into six components. Section A was divided into two parts, the first of which includes the respondent's demographic profile, such as gender, age group, level of education, race, and level of income. The second section contains basic details.

4.2.1 Gender

Table 4.2: Frequency of Gender

	Frequency	Percent	Valid percent	Cumulative percent
Male	161	41.9	41.9	41.9
Female	223	58.1	58.1	100
Total	384	100	100	

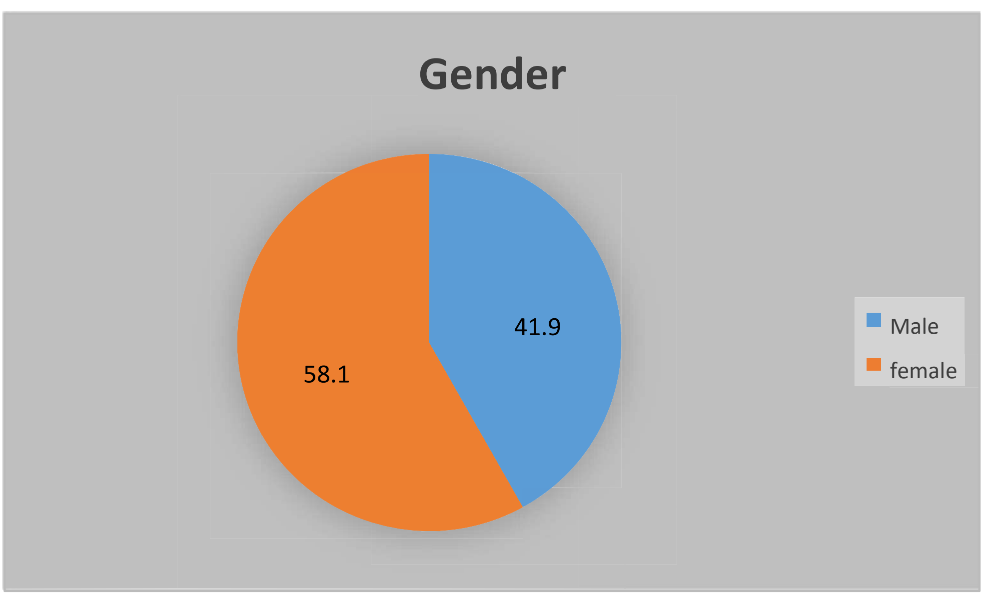


Figure 1: Pie chart of Gender

According to the table and pie chart below, female travelers outnumber male passengers from all around Kelantan. This assertion is substantiated by facts from respondents' replies, which show that 58.1 percent of them are female. While there are 384 passengers in total, the percentage of female passengers based on respondents' comments is 223 female travelers. However, males make up 41.9 percent of travelers that reply to this poll, which has 161 responders out of 384 samples of input from respondents.

4.2.2 Age Group

Table 4.3 : Frequency of Age

	Frequency	Percent	Valid Percent	Cumulative Percent
20 years and below	81	21.0	21.0	21.0
21 – 25 years	216	56.3	56.3	77.4
26 – 35 years	44	11.5	11.5	88.9
36 years and above	43	11.2	11.2	100
Total	384	100	100	

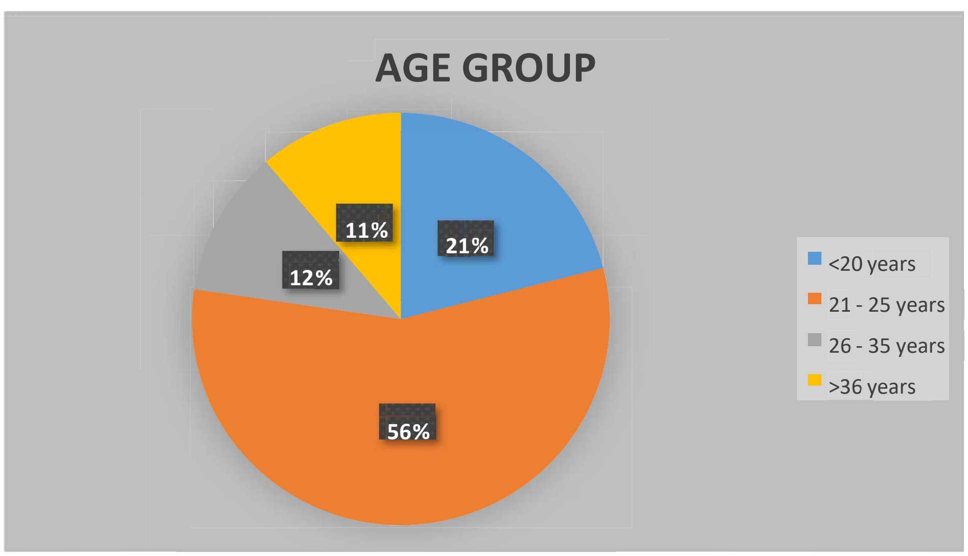


Figure 2: Pie Chart of Age

The age groupings of respondents are divided into four categories. The majority of respondents are between the ages of 21 and 25 years old, with a 56.3 percentage point lead, or 216 responses. The age group under 20 years old has the second largest dominance, with 21 replies, or almost 81 percent. The age group of 26 to 35 years old has the third biggest dominance, with 11.5 percent, which is comparable to 44 responses. Finally, respondents above the age of 36 make up the smallest group, accounting for 43 respondents which is 11.2 percent out of the 384 total respondents.

4.2.3 Level of Education

Table 4.4: Frequency of Level Education

	Frequency	Percent	Valid Percent	Cumulative Percent
SPM	50	13.0	13.0	13.0
Diploma	73	19.0	19.0	32.0
Degree	214	55.7	55.7	87.7
Postgraduates	34	8.9	8.9	96.9
Others	13	3.4	3.4	100
Total	384	100	100	

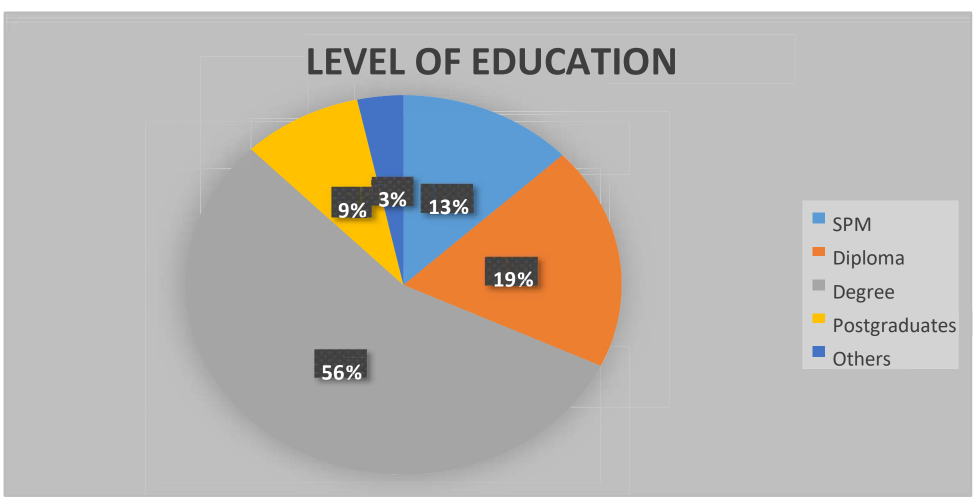


Figure 3: Pie Chart of Level Education

By looking at the respondent distribution table based on the level of education, the majority of the respondents are from the level of Degree which is about 214 respondents with a percentage of 55.7. It is explained by the data below with nearly half of the respondents are from the level of Degree. The second highest frequency for level of education are from the level of Diploma, with 73 respondents (19%). Then it followed by the level of SPM which ranked as third with 50 responses or can accounted for 13%. Respondents from postgraduates had been recorded as the second least level of education with 8.9 percent or 34 respondents. The most least number of respondents are from other level of educations which includes STPM, Electrical Competent, ASASI and also from "Mahaad Tahfiz" and "Pondok" with the total number of 13 respondents which equivalent of 3.4 percent.

4.2.4 Race

Table 4.5: Frequency of Race

	Frequency	Percent	Valid Percent	Cumulative Percent
Malay	300	78.1	78.1	78.1
Chinese	38	9.9	9.9	88
Indian	41	10.7	10.7	98.7
Others	5	1.3	1.3	100
Total	384	100	100	

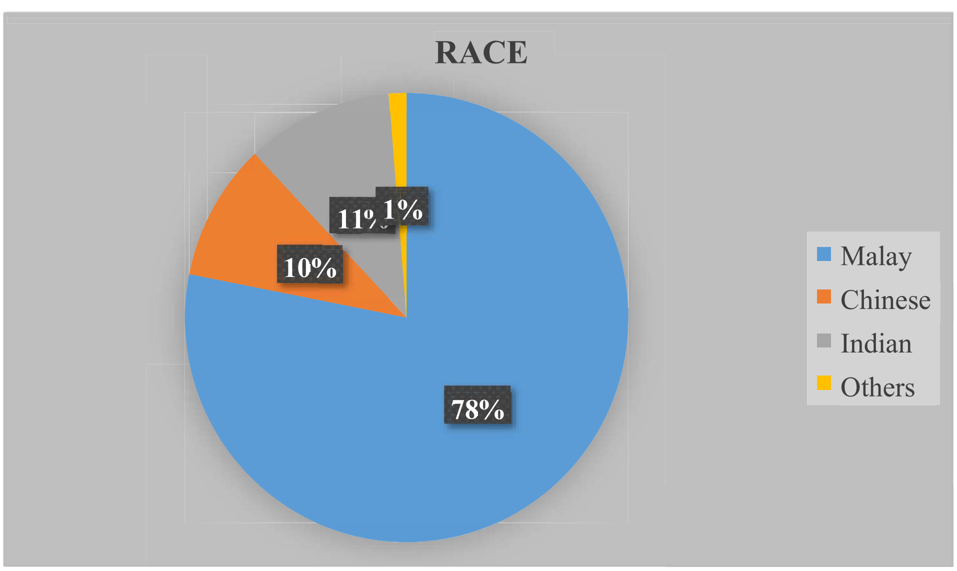


Figure 4: Pie chart of Race

The majority of respondents are Malays, according to the below respondent distribution chart based on race. It is illustrated by the statistics below, which shows that over half of the respondents are Malay, with 300 respondents out of 384 total respondents or 78.1 percent. Indians will be the second most common race, with 41 replies or related with 10.7 percentage. The Chinese respondents came in third with 38 replies, accounting for 9.9 percent of the total. Respondents of different races had been counted as the fewest.

4.2.5 Level of Income

Table 4.6: Frequency of Level Income

	Frequency	Percent	Valid Percent	Cumulative Percent
Below Rm1000	209	54.5	54.5	54.5
Rm1000 - Rm1999	63	16.4	16.4	70.9
Rm2000 - Rm2999	45	11.7	11.7	82.6
Above Rm3000	67	17.4	17.4	100
Total	384	100	100	

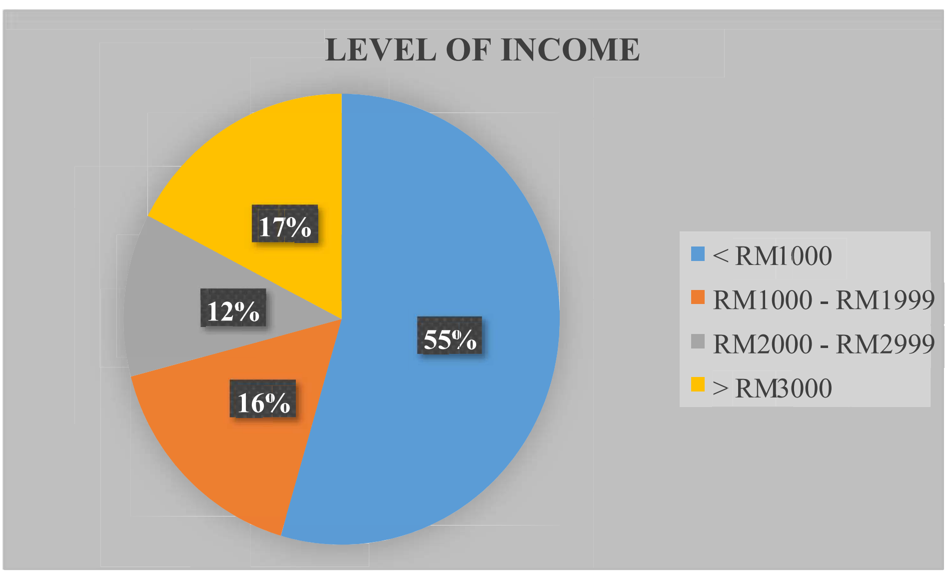


Figure 5: Pie Chart of Level Income

The respondents' income levels are classified into four categories. The majority of respondents have a household income of less than RM1000, with a 54.5 percentage point advantage, or 209 respondents. The second biggest domination derives from income levels over RM3000, with 67 responses or 17.4 %. The third biggest domination comes from income levels ranging from RM1000 to RM1999, with 16.4 %, which is equivalent to 63 respondents. The responders' level of income between RM2000 and RM2999 has only been rated with 45 respondents, which is comparable to 11.7 percent of the 384 respondents sampled.

4.2.6 Experience Using Public Transportation

Table 4.7: Frequency of Experience Using Public Transport

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	276	71.9	71.9	71.9
No	108	28.1	28.1	100
Total	384	100	100	

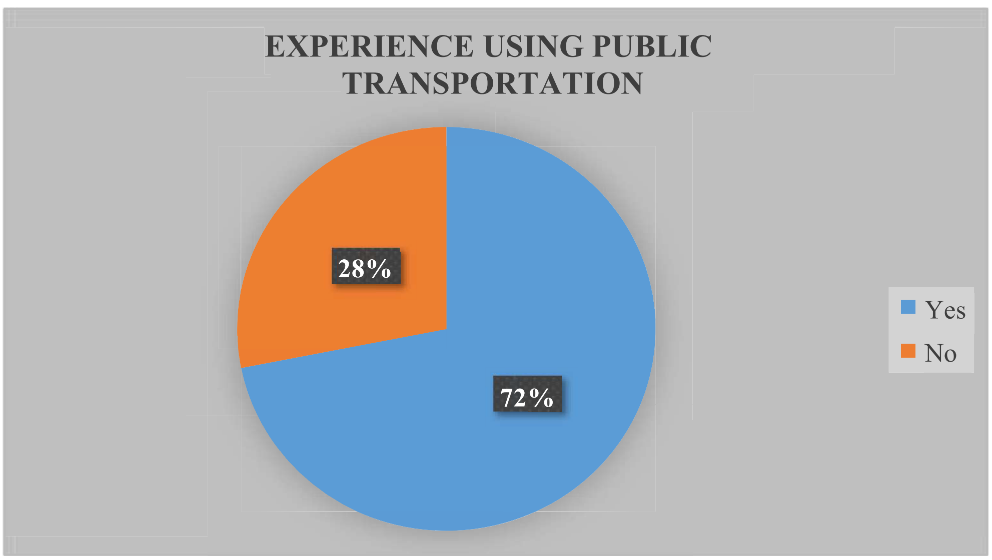


Figure 6: Pie Chart of Experience using Public Transport

The questionnaire received responses from 384 people in total. 276 respondents, or 71.9 percent, chose "Yes" for this statement. Aside from that, 108 respondents, or 28.1 percent, chose "No" to this statement.

4.2.7 Frequency of Using Public Transportation

Table 4.8: Frequency of Using Public Transport

	Frequency	Percent	Valid Percent	Cumulative Percent
Daily	54	14.0	14.0	14.0
Once	25	6.5	6.5	20.5
Rarely	266	69.3	69.3	89.8
Weekends	29	10.2	10.2	100
Total	384	100	100	

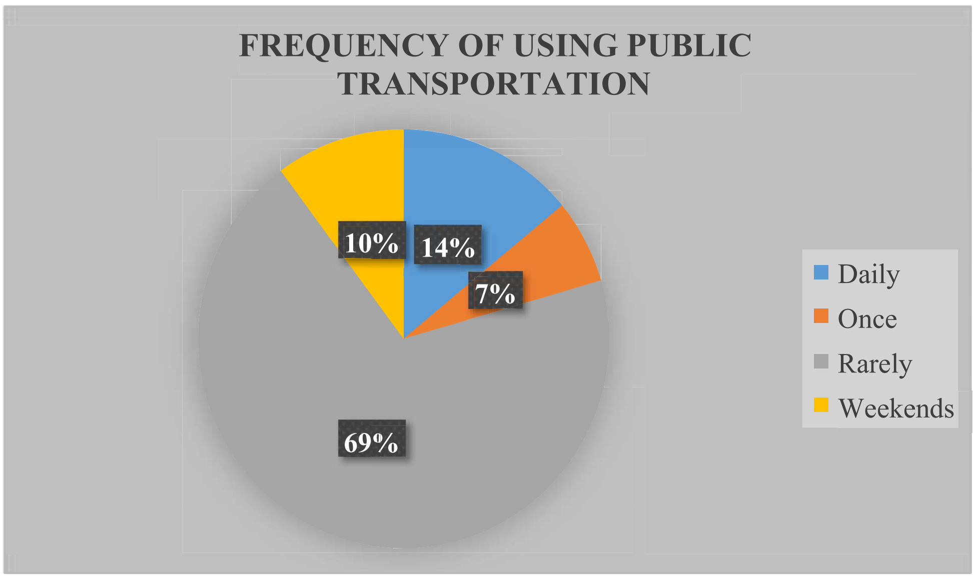


Figure 7: Pie Chart of Frequency Using Public Transport

The table and graphic below show the frequency with which respondents use public transit. The majority of respondents use public transit 'Rarely,' which equates to 266 respondents with a 69.3 percent response rate. 'Daily' has the second largest dominance, with 54 replies, or 14 percent. Weekends have the third largest dominance with 10.2 percent, which is comparable to 39 respondents. Respondents who had used public transit once were only rated with 25 respondents, accounting for 6.5 percent out of the 384 respondents collected for sample.

4.3 Validity and Reliability Test

Cronbach's Alpha is a measure of internal consistency which is how closely it related a set of items as a group.

Table 4.9: Reliability Test of Variable

Variables	Cronbach's Alpha	Sum of Items
Consumer satisfaction on public transportation in service quality	0.935	4
Reliability	0.929	4
Affordability	0.928	4
Safety and Security	0.937	4

The table shows summarize of reliability test Cronbach's Alpha for each variable as actual respondents which is 384. After the pre-testing of 30 respondents, it can be stated that all the variables were > 0.9 and the highest Cronbach's Alpha was 0.937 for independent variable, safety and security. In other words, we can say that service quality in safety and security was satisfied among people in Kelantan. Furthermore, it known that people felt secure and safe when using public transportation.

Reliability in service quality represent that value of Cronbach's Alpha was 0.929 which is indicates as an excellent variable. Thus, this result represented that reliability of this independent variable is accepted. Next, 0.928 was the lowest value of Cronbach's Alpha in affordability. Even though it was the lowest, it still represented as a good and excellent in this study. The reliability for dependent variable which known as consumer satisfaction on public transportation in service quality had 0.935 value on Cronbach's Alpha. The results show that this variable was acceptable in this study.

4.4 Normality Test

Normality test refer to the normally distributed or non-distributed that based on significance value. It refers to the sample size of the study that can be conclude either it normally or non-distributed. For example, if the sample size was more than 50 respondents, Kolmogorov-Smirnov will be used while if sample size was less than 50 respondents, Shapiro-Wilk will be used it. In other definition, if the significant value or p-value was < 0.05, it indicated to normal data and significant.

Table 4.10: Tests of Normality Test for Dependent and Independent Variables

Kolmogorov-Smirnov				Shapiro-Wilk		
Variables	Statistic	df	Sig.	Statistic	df	Sig.
Consumer satisfaction	.140	384	.000	.930	384	.000
Reliability	.147	384	.000	.937	384	.000

Affordability	.131	384	.000	.930	384	.000
Safety and Security	.168	384	.000	.897	384	.000

The table shows, according to Kolmogorov-Smirnov test and Shapiro-Wilk test, if ($p>0.05$), thus it is considered as a normal result, while if the ($p<0.05$), thus it is considered as an abnormal result. For a significant result, the Kolmogorov-Smirnov test, which accounts for all independent variables and the dependent variable, should have a p value of ($p=.000$). While all of the independent variables and the dependent variable are abnormal for the correlation analysis, they are not for the Shapiro-Wilk test. Therefore, Spearman Correlation Analysis should be used to determine the link between two research variables.

4.5 Pearson's Correlation Coefficient Analysis

Correlation looks at the relationship between two variables in a linear fashion. It was used to tested the strength between independent and dependent variables. Table shows the results Pearson of Correlation Coefficient between independent variable (reliability, affordability, safety and security) and dependent variable (consumer satisfaction on public transport in service quality) among Kelantan.

Table 4.11: Pearson Correlation Coefficient

		Consumer satisfaction	**Reliability**	**Affordability**	**Safety & Security**
Consumer satisfaction on public transport in service quality	Pearson Correlation	1	.698**	.751**	.625**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	384	384	384	384
Reliability	Pearson Correlation	.698**	1	.690**	.709**
	Sig. (2 tailed)	.000	.000	.000	.000

	N	384	384	384	384
Affordability	Pearson Correlation	.751**	.690**	1	.658**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	384	384	384	384
Safety & Security	Pearson Correlation	.625**	.709**	.658**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	384	384	384	384

**correlation is significant at the 0.01 level (2-tailed)

5 Conclusion

5.1 Recommendation for Future Research

Future researchers are given some recommendations. To improve the local context, the potential researcher can start by focusing their research on a particular region of Malaysia. People from different states in Malaysia will have different cultures and viewpoints. Apart from that, the researcher can see the level of willingness of users who want to use public transportation around the area being studied. Second, it is proposed that future researchers set aside more time for the data gathering process so that they have adequate time to discover respondents who are more suitable and eligible. The researchers should then explain the purpose of the study to the respondents if they are having some difficulty responding to the questions. This is crucial to avoid respondents from just giving a one-word response to each inquiry. Researchers will require some clarity and a better understanding in order to deliver more thorough and reliable information. The final advice is for future researchers to fully comprehend the data analysis method that will be applied in Chapter 4. Future researchers ought to be familiar with SPSS. After the data has been collected, it should be analysed to determine the outcome. Future scientists should learn how to conduct pilot tests, descriptive analyses, reliability tests, hypothesis tests, and multiple regression analyses, for instance.

5.2 Overall Conclusion of the Study

Based on the findings of the study, conclusions can be made about service quality consumer satisfaction. In addition, the findings demonstrated a strong positive link between every independent variable and the dependent variable, consumer satisfaction. In addition, the findings of the study also show that the discussion is from the findings made by the researcher in the previous chapter which is based on objectives of the study, research questions and hypothesis for this study. More of residents in Kelantan using public transportation if the government improve the quality of its services.

6 Acknowledgements

This research would not have been possible without all group members who always there through thick and thin with information, data, guidance which is related to this proposal. Besides that, not to forget the support that we get from others people around us. Lastly, we give all the effort in this proposal while would like to extend our sincere thanks to them.

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The Impacts of East Coast Rail Link (ECRL) Project in Kota Bharu, Kelantan

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Abstract:

This paper evaluates the economic, social and environmental impacts in the implementation of East Coast Rail Line (ECRL) project in Kota Bharu, Kelantan. The big project required a large financial budget which cost RM75 billion to implement it. The rail network involved four states in Peninsular Malaysia which consist of Kelantan, Terengganu, Pahang and Selangor. Forest land, wildlife and rainforest will be affected through the implementation of the ECRL project. It's important to find out the positive and negative impacts of this project as it will influence Malaysia's future. In-depth interviews were conducted with 10 participants. Evidence was found by manual coding for analysing the data. Findings showed a strong evidence regarding the impacts which occurred in the project. Positive impacts were found with plenty of negative impacts in three aspects which were economic, social and environmental. It proves the effort of Malaysia government in trying their best to maximize the positive impact and minimize the negative impact that come across this project. Time constraints of the paper submission was the main limitation to collect more useable data.

***Keywords**: Economic impact, ECRL, environmental impact, rail, social impact.*

1 Introduction

The implementation of East Coast Rail Link (ECRL) project involved from Malaysia's west coast states of Selangor, Putrajaya and Negeri Sembilan to Malaysia's east coast states of Kelantan, Terengganu and Pahang has been a hot topic to be debating in the parliament of Malaysia where the opposition party from Pakatan Harapan criticises that the ECRL project is overpriced and unaffordable for Malaysia.

The cost of ECRL project was reached RM65.6 billion when Barisan National was the ruling party, then it reduced to RM44 billion while Pakatan Harapan assumed power in 2018. However, the cost was revised again to RM50 billion when the ruling party Perikatan National after the Sheraton Move in February 2020. The latest costing per kilometre (km) was RM75.19 million which covered a total of 665km railway length. The cost per km is much higher compared with other China's Belt and Road Initiative (BRI) railway project. Furthermore, environmental impact will be occurred in this project too. It is potentially harm Malaysia's ecology and geological heritage which occurred in

Titiwangsa's tropical rainforest ecosystem by the proposed route from Mentakab to Jelebu (Raj & PSM, 2019)[56].

Although there are a few economic impact studies had been studied in detail, there is no attention had been paid to social impact and environmental impact. Thus, this study aimed to find out the impacts from multiple aspects which consist of economic, social and environmental aspects in the implementation of ECRL project.

1.1 Problem Statement

Overpriced of East Coast Rail Link (ECRL) project has been discussed from the politicians and public. Politicians from Pakatan Harapan had said Malaysia's budget is unaffordable to implementation the East Coast Rail Link (ECRL) project. Gunasegaram (2017)[57] explained that ECRL project is economically not feasible for Malaysia. The massive cost of RM55 billion project is not affordable for Malaysia in current stage. Several renegotiation processes have been made from different ruling parties after the transition of power but whether Malaysia can afford the cost of the project is still remained unknown (Zainuddin et al., 2022)[58].

Besides the costing of ECRL project, it also brings impacts to Malaysia. The economic, social and environmental impacts were needed to be find out as it will influence the future of Malaysia. If the ECRL project failed spectacularly, the future of Malaysia will come along with much more negative effects. Malaysia will face challenges for paying the debt and Malaysian tax income will need to bare for the cost. While the environmental impact can't be moved back after the deforestation took place.

Thus, this study aims to explore the views and opinions of the potential users in Kota Bahru, Kelantan for the sweet and bitter of the economic, social and environmental impact that comes from the ECRL project. Qualitative methods such as interviews and collection of secondary data will be used to find out the answers.

1.2 Research Questions

1. How East Coast Rail Link (ERCL) project brings economic impact to Kota Bharu, Kelantan?
2. How East Coast Rail Link (ERCL) project brings social impact to Kota Bharu, Kelantan?
3. How East Coast Rail Link (ERCL) project brings environmental impact to Kota Bharu, Kelantan?

1.3 Research Objectives

1. To evaluate the economic impact in the implementation of East Coast Rail Link (ERCL) project in Kota Bharu, Kelantan.

[56] Raj, S. & PSM. (2019, April 18). ECRL: More in-depth study needed to reduce environmental impact. Malaysiakini. https://www.malaysiakini.com/letters/472818

[57] Gunasegaram, P. (2017, August 14). 10 reasons why we don't need RM55b east coast rail link. Malaysiakini. https://www.malaysiakini.com/columns/391163.

[58] Zainuddin, N., Deraman, N., Cheok, L. Q., & Cui, X. H. (2022). Users' Expectation on East Coast Rail Link (ECRL). Quantum Journal of Social Sciences and Humanities, 3(6), 105-115.

2. To evaluate the social impact in the implementation of East Coast Rail Link (ERCL) project in Kota Bharu, Kelantan.
3. To evaluate the environmental impact in the implementation of East Coast Rail Link (ERCL) project in Kota Bharu, Kelantan.

2 Literature Review

2.1 Economic Impact

Economic impact can be measured by the effect of a project or business on the specific area, and may include, but not be limited to the type of employment created, potential created, potential of the economy growth, saturation in a specific market or industry or employment in the particular location which can be from directly or indirectly (Law Insider Inc., n.d.)[59]. As Dfid (2008)[60] said, positive economic impact leads to economic growth. Economic growth creates job opportunities which can reduce unemployment rate. Human development existed during positive economic growth; expansion of substantive freedoms can be achieved through economic growth which can associated with improvement in living standards.

However, economic impact not just bringing positive effect but negative effect too. Siddique et al. (2016)[61] urged public debt comes with negative and statistically significant effect towards GDP in both short and long term. Higher debt levels bring a negative effect on economic growth for debt-ridden countries as they need to use a large portion of their output to pay debts to lenders. When government debt levels beyond a certain threshold level, negative economic impact will be happened, explained Reinhart and Rogoff (2010)[62].

D. Knowles and Ferbrache (2016)[63] examined that better connectivity by light rail can bring positive impact by attracting inward investment, influencing related area's property price generating fresh growth and widening labour market catchment areas. They proved that the land and property value have potential to be risen up. However, it may be a negative impact as the increment of property price will make more difficulties for low-income household to have the ability to own a property in the specific location. Referred to findings about high-speed rail transport from China, the connectivity between two locations helped to improve economic growth by the speed of labour and material transported through the rail transport.

Rodrigue (2020)[64] mentioned, by having an efficient transport system, "just-in-time" concept can be further expanded for the productivity of production and distribution which can achieve a lower inventory level and better responses to shifting market conditions. The positive relationship between the efficiency of transport and targeted market can generate larger scale of production which can

[59] Law Insider Inc. (n.d.). Economic impact Definition. Law Insider. https://www.lawinsider.com/dictionary/economic-impact.

[60] Dfid, G. (2008). Growth: building jobs and prosperity in developing countries. London: Department for International Development. https://www.oecd.org/derec/unitedkingdom/40700982.pdf.

[61] Siddique, A., Selvanathan, E., & Selvanathan, S. (2016). The impact of external debt on growth: Evidence from highly indebted poor countries. Journal of Policy Modeling, 38(5), 874-894.

[62] Reinhart, C. M., & Rogoff, K. S. (2010). Growth in a Time of Debt. American economic review, 100(2), 573-578.

[63] D. Knowles, R., & Ferbrache, F. (2016). Evaluation of wider economic impacts of light rail investment on cities. Journal of Transport Geography, 54, 430-439. https://doi.org/https://doi.org/10.1016/j.jtrangeo.2015.09.002.

[64] Rodrigue, J.-P. (2020). The geography of transport systems. Routledge.

reduce the unit costs. Arndt et al. (2009)[65] added that high construction and maintenance cost in rail transportation is an issue that need to be considered. It used to be highly dependent on government subsidies in some countries. It would be a negative impact if the rail transportation failed to reach the expected capacity of users using the public transport. Generally, economic contribution will be highlighted when environmental issues are needed to sacrifice and thus the environmental argument that needed to focus on will be weakening (Marsden, 2017)[66].

2.2 Social Impact

Social impact cannot be measured, it can be considered as a side effect of a large phenomenon. It is normally mentioned in the process of technological advancement with a long-term effect. The term is related with the community of the intervention which involved in the movement of people that will be making changes after a certain period (Martino, 2019)[67].

Burdge et al. (2003)[68] explained social impact as the changes of methods involved the activities of people live, work, play, relate to one another, organise to meet their needs, and generally cope as members of society. Cultural impact also exists to change the norms, values, and beliefs that guide and rationalise peoples' cognition of themselves and their society.

Social impacts can be defined as any impact that caused people lives in different ways such as employment, income, public health and safety, access to services, and respect for fundamental rights, said CEPS (2010)[69].

Rural area that hard to be reached would be benefited by implementation of light rail project. People can be more accessible after the development of rail transport in the area. It can be much more convenient for locals who doesn't have car for going a far destination by using the rail transport (D. Knowles & Ferbrache, 2016)[70]. Belal et al. (2020)[71] urged investment in high-speed rail cannot be judged by the cost only, it benefits to user by providing comfortable, reliable, and safer mode of transport. Overall, it shorted door-to-door travelling time for traveller which brings good impact for society.

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[65] Arndt, J. C., Morgan, C., Overman, J. H., Clower, T. L., Weinstein, B. L., & Seman, M. (2009). Transportation, social and financial impacts of light and commuter rail [Tech Report]. https://rosap.ntl.bts.gov/view/dot/16798.

[66] Marsden, G. (2017). Fuel Taxes and the Environment—Economy Trade Off. Transport Lessons from the Fuel Tax Protests of 2000, 63-84.

[67] Martino, A. (2019). Classification of social impact definitions.

[68] Burdge, R., Charnley, S., Downs, M., Finsterbusch, K., Freudenburg, B., Fricke, P., Gramling, B., Smith, M., Kragh, B., Stoffle, R., Thompson, J., & Williams, G. (2003). "The Interorganizational Committee on Principles and Guidelines for Social Impact Assessment: Principles and Guidelines for Social Impact Assessment in the USA.". Impact Assessment and Project Appraisal, 21. https://doi.org/10.3152/147154603781766293.

[69] CEPS. (2010). Study on Social Impact Assessment as a Tool for Mainstreaming Social Inclusion and Social Protection Concerns in Public Policy in EU Member States. The Evaluation Partnership (TEP) Centre for European Policy Studies (CEPS).

[70] D. Knowles, R., & Ferbrache, F. (2016). Evaluation of wider economic impacts of light rail investment on cities. Journal of Transport Geography, 54, 430-439. https://doi.org/https://doi.org/10.1016/j.jtrangeo.2015.09.002.

[71] Belal, E. M., Khalil, A. A., & El-Dash, K. M. (2020). Economic investigation for building a high-speed rail in developing countries: The case of Egypt. Ain Shams Engineering Journal, 11(4), 1001-1011. https://doi.org/https://doi.org/10.1016/j.asej.2020.02.003.

Moreover, it can be beneficial to society by adding an alternative for people who might not needed recently but needed in the future (Arndt et al., 2009)[72]. Accessibility became widely accepted by publics as the government recognised transport as a social policy issue. Transportation system enables people to move around for participating in various activities between different places (Simpson, 2003)[73].

2.3 Environmental Impact

According to Abdallah (2017)[74], environmental impacts directly bringing cause on either the natural or built environments, which leading to adverse consequences. The scholar added environmental impact cause changes which lead to adverse consequences on either the natural or built environments. There are three main elements must be measured such as air, water, and land. There are seven types of pollution which regarding to (1) air, (2) water, (3) soil, (4) light, (5) noise, (6) thermal, (7) radioactive. Some of the effects even disturbed the daily lifestyle of human being including human and animals due to unwanted sound or damage the existing built environment with potentially destructive vibrations.

The term of environmental impact is commonly used with the rise of recognition that has changed the nature, scale and implications of environmental change by human actions (Morgan, 2012)[75].

Arndt et al. (2009)[76] also discussed about rail transportation can bring positive impact to the environment. The electrically powered train consumes less energy than road vehicles with extremely low emissions compared to diesel or gasoline vehicles transit. Furthermore, additional of public transport can reduce congestion level, it can further reduce the use of fuel and emissions from road vehicles.

Antonson and Levin (2020)[77] listed that building high-speed railways can affect the surrounding soil, air, and water environment, the landscape ecological system, and human health. According to Pridmore and Miola (2011)[78], public acceptability of green motives and pro-environmental orientation were identified as playing a role in increasing the acceptability of measures.

[72] Arndt, J. C., Morgan, C., Overman, J. H., Clower, T. L., Weinstein, B. L., & Seman, M. (2009). Transportation, social and financial impacts of light and commuter rail [Tech Report]. https://rosap.ntl.bts.gov/view/dot/16798.

[73] Abdallah, T. (2017). Chapter 4 - Environmental Impacts. In T. Abdallah (Ed.), Sustainable Mass Transit (pp. 45-59). Elsevier. https://doi.org/https://doi.org/10.1016/B978-0-12-811299-1.00004-6.

[74] Simpson, B. (2003). Briefing: Making the connections: Final report on transport and social exclusion. Report by the Social Exclusion Unit 2003. Proceedings of the Institution of Civil Engineers-Municipal Engineer.

[75] Morgan, R. K. (2012). Environmental impact assessment: the state of the art. Impact Assessment and Project Appraisal, 30(1), 5-14.

[76] Arndt, J. C., Morgan, C., Overman, J. H., Clower, T. L., Weinstein, B. L., & Seman, M. (2009). Transportation, social and financial impacts of light and commuter rail [Tech Report]. https://rosap.ntl.bts.gov/view/dot/16798.

[77] Antonson, H., & Levin, L. (2020). A crack in the Swedish welfare façade? A review of assessing social impacts in transport infrastructure planning. Progress in Planning, 138, 100428. https://doi.org/https://doi.org/10.1016/j.progress.2018.11.001.

[78] Pridmore, A., & Miola, A. (2011). Public acceptability of sustainable transport measures: A review of the literature.

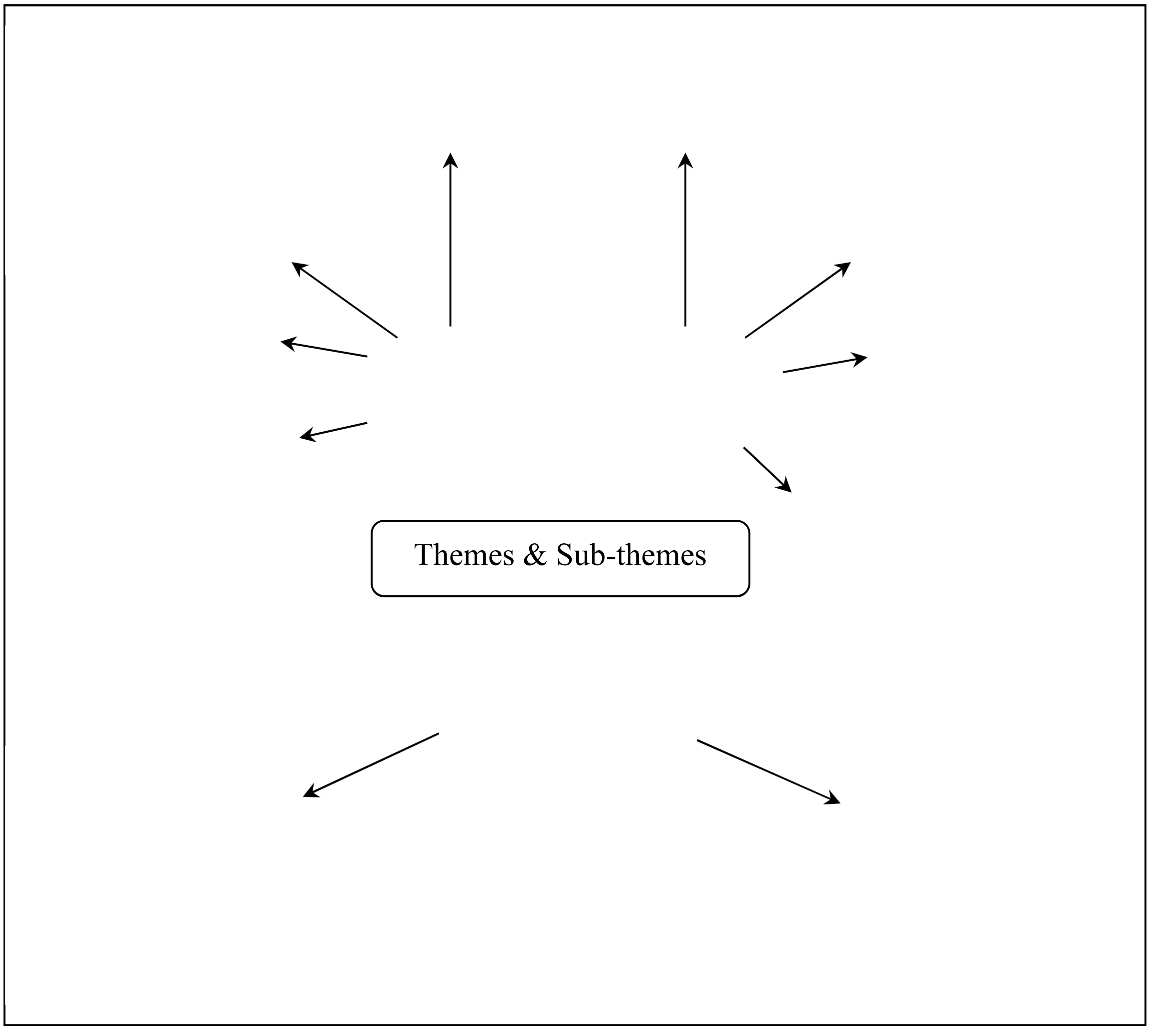

Figure 1: Categorizing the impacts in the implementation of ECRL project

2.4 Hypothesis Statement

H1: East Coast Rail Link (ERCL) project creates positive long-term economic impact for Kota Bharu, Kelantan.
H2: East Coast Rail Link (ERCL) project creates additional social benefits for Kota Bharu, Kelantan.
H3: East Coast Rail Link (ERCL) project creates more environmental issues in Kota Bharu, Kelantan.

3 Research Methods

3.1 Research Design

Researchers were seeking for under-researched problems, new ideas and views for the public's views and opinions of the implementation of ECRL project which comparing with three different impacts including economic impact, social impact, and environmental impact. Thus, qualitative method was chosen as the research design.

Gray et al. (2016)[79] claims that it is a system created to address and resolve research challenges. Qualitative approach was used to gather data and analyse it to have a better understanding of the experiences, beliefs and concept in the study. These data were gathered using standardised interview. A significant amount of data for this research topic could be gathered quickly using a qualitative technique.

It entails logically creating a hypothesis or hypotheses based on existing theory and then constructing a research method to test the idea. Descriptive analysis is carried out by utilising information about the variable's characteristics in each scenario. Researchers aim was to recognize and address society's problems. Case study was used to describe the connection between different impacts towards public acceptance on the implementation on ECRL project. Through case study, researchers can have a detailed study in the topic of implementation of ECRL project. Researchers believe through this method; researchers can gain a holistic understanding of the topic.

Furthermore, the data is presented in words, images or physical objects. We may gain insights into human behaviour, emotion and personality traits from qualitative research studies that quantitative studies cannot. Additionally, it is based on the individual's interpretation of the events, such as when using participant observation, in-depth interviews, and others. For instance, a flexible quantitative study will let us react to user data as it comes up during a session. Qualitative data takes more time to compile, is less generalizable and is more information achieved. This is because only a small sample size and few respondents between 5 and 10 were needed for qualitative data. During the process, behaviours, viewpoints, patterns, requirements, problem areas and other types of information were observed and recorded.

3.2 Data Collection Methods

Data collection refers to the process of gathering relevant information from a variety of sources, testing a hypothesis and evaluating the research findings. Data collection methodologies are classified into two types: primary data collection techniques and secondary data collection methods. This study utilized both primary data and secondary data collection methods.

3.2.1 Primary Data Collection Method

Through the primary data collection method, semi-structured interviews had been conducted by researchers in person by online and face-to-face method. It is the best way to get the useful information that researchers want to know as a couple of key questions were asked to define the related areas that researchers were studying. Gill et al. (2008)[80] explained, given some guidance found useful for interviewee to let them have a better understanding about the questions and information with the specific terms that used throughout the interview. Follow-up questions were asked by researchers to gain a deeper outsight from the respondents.

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[79] Gray, J. R., Grove, S. K., & Sutherland, S. (2016). Burns and Grove's The Practice of Nursing Research - E-Book: Appraisal, Synthesis, and Generation of Evidence. Elsevier Health Sciences. https://books.google.com.my/books?id=oD_UDAAAQBAJ.

[80] Gill, P., Stewart, K., Treasure, E., & Chadwick, B. (2008). Methods of data collection in qualitative research: interviews and focus groups. British Dental Journal, 204(6), 291-295. https://doi.org/10.1038/bdj.2008.192.

3.2.2 Secondary Data Collection Method

Secondary data had been used to analysis and interpret the data that researchers collected in the primary data. The data were existed from previous journal articles, government publications, news, and websites. It can help researchers to analysis the data when the researchers have a limited time and resources to collect the data from the overall population of the study. Secondary data can generate new knowledge to whom interested to know the original analysis (Hinds et al., 1997)[81].

3.3 Sample Size

According to Baker and Edwards (2012)[82], there is no certain number of interviews need to be held, said by the qualitative research experts. Several factors such as epistemological, methodological, and practical issues can be included to determine the sample size. Morse (2000)[83] explained the number of interviews can be measured by the number of useable data obtained. The richer the information given by the participants, the fewer the number of participants is needed.

Vasileiou et al. (2018)[84] stated saturation is the most widely used principle for determining sample size and evaluating its sufficiency. Francis et al. (2010)[85] suggested two principles for the specification of saturation. (i) researchers should specify a purposive diversity sampling such as a minimum of 10 interviews in the first-round of analysis and (ii) a stopping criterion which an amount of interview that needs to be conducted after the first-round analysis with no new themes and presentation of data sequentially. Thus, 10 interviews were conducted in the following study for getting the data that we need through sampling method.

3.4 Sampling Techniques

Through the study, the data was analysed using non-probability sampling techniques, where not every person in the population can be included as it based on non-random criteria. This sampling method involved judgement which the sampling individuals were selected based on easy to access but not chosen randomly (Showkat & Parveen, 2017)[86].

Purposive sampling was used to collect the relevant data. Respondents were chosen based on their background, knowledge and understanding of the related topic. According to Bhardwaj (2019)[87], it ensured the quality of the data collected through respondents have different point of views and relevant to the study which was the economic, social, and environmental impacts in

[81] Hinds, P. S., Vogel, R. J., & Clarke-Steffen, L. (1997). The Possibilities and Pitfalls of Doing a Secondary Analysis of a Qualitative Data Set. Qualitative Health Research, 7(3), 408-424. https://doi.org/10.1177/104973239700700306.

[82] Baker, S., & Edwards, R. (2012). How many qualitative interviews is enough.

[83] Morse, J. M. (2000). Determining Sample Size. Qualitative Health Research, 10(1), 3-5. https://doi.org/10.1177/104973200129118183.

[84] Vasileiou, K., Barnett, J., Thorpe, S., & Young, T. (2018). Characterising and justifying sample size sufficiency in interview-based studies: systematic analysis of qualitative health research over a 15-year period. BMC medical research methodology, 18(1), 148. https://doi.org/10.1186/s12874-018-0594-7.

[85] Francis, J. J., Johnston, M., Robertson, C., Glidewell, L., Entwistle, V., Eccles, M. P., & Grimshaw, J. M. (2010). What is an adequate sample size? Operationalising data saturation for theory-based interview studies. Psychology & Health, 25(10), 1229-1245. https://doi.org/10.1080/08870440903194015.

[86] Showkat, N., & Parveen, H. (2017). Non-Probability and Probability Sampling. In (pp. 1-9).

[87] Bhardwaj, P. (2019). Types of sampling in research. Journal of the Practice of Cardiovascular Sciences, 5, 157. https://doi.org/10.4103/jpcs.jpcs_62_19.

implementing ECRL project. As mentioned from Showkat and Parveen, the respondents were chosen because they were expected to have the correct attitude in the case than other group of people. Maximum variation sampling was used as it can collect different dimension data which has detailed descriptions of the case with uniqueness information (Benoot et al., 2016)[88]. Researchers interviewed a total of 10 respondents to obtain information related to the study conducted.

3.5 Research Instrument Development

The data collection method of semi-structured interview and analysis of existing secondary data were used for research instrument in this study. Al-Busaidi (2008)[89] urged qualitative research by semi-structured interview can explore respondents' personal experiences and attitudes. Flexibility is the advantage of this interview method as it brings researchers to enter a new area to study and gained richer data from the respondents. It is a good tool to gain information with different perspectives, understandings and meanings who have different experience and lifestyle. Through the process of reading and re-reading the transcripts, researchers able to discover more about the instrument and concept in the related topic (Sieloff et al., 2018)[90].

3.6 Measurement of the Variables

Reliability and validity were used in the measurement of the variables in qualitative research. Reliability can be referred to a similar interpretation that had been made by several researchers who did similar observations in the topic (Franklin et al., 2010)[91]. Two methods were used which provided by York (2020)[92] for increasing the reliability of the variables. (1) Examination of the equivalence of responses to various forms of the same question. It was operated by asking similar question with different words to test the responses from the questions whether has a consistent answer. (2) Establishment of clear procedures for recording field notes which used to manage the recording consistency of observation on the theme.

Validity focuses on the scope to which researchers see what they think they see. It referred to the researchers thinking and opinion while looking on the other people actions. Besides that, Guba (1981)[93] mentioned that credibility is fundamentally same as validity which represents to the truthfulness of the findings. Feedback had been made to understand the acceptance of the relevant people with the findings in the study. Moreover, researchers had search for negative information or data in the study so that it can be ensure that researcher are in a neutral position with rational thinking.

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[88] Benoot, C., Hannes, K., & Bilsen, J. (2016). The use of purposeful sampling in a qualitative evidence synthesis: A worked example on sexual adjustment to a cancer trajectory. BMC medical research methodology, 16(1), 21. https://doi.org/10.1186/s12874-016-0114-6.

[89] Al-Busaidi, Z. Q. (2008). Qualitative research and its uses in health care. Sultan Qaboos Univ Med J, 8(1), 11-19.

[90] Sieloff, C. L., Downey, M., & Muller, R. L. (2018). The Use of Qualitative Methods in Instrument Development. Journal of Nursing Measurement, 26(1), 3-4.

[91] Franklin, C. S., Cody, P. A., & Ballan, M. (2010). The Handbook of Social Work Research Methods. In (Second Edition ed.). SAGE Publications, Inc. https://doi.org/10.4135/9781544364902.

[92] York, R. O. (2020). Social Work Research Methods: Learning by Doing. In. SAGE Publications, Inc. https://doi.org/10.4135/9781506387215.

[93] Guba, E. G. (1981). ERIC/ECTJ Annual Review Paper: Criteria for Assessing the Trustworthiness of Naturalistic Inquiries. Educational Communication and Technology, 29(2), 75-91. http://www.jstor.org/stable/30219811.

3.7 Procedure for Data Analysis

Data analysis is the act of acquiring and examining pertinent and valuable information or data that may be gathered from the data collection process in order to come to a decision based on personal values. According to Benner (1985)[94], data can be analysed thematically using an open, axial and selective coding scheme. Open coding is a technique for conceptualising, comparing, and evaluating data. After open coding, data may be categorised by category. An axial code is used to describe this. After the data has been axially coded, it may be categorised info fundamental groups or only partially coded to produce themes that are pertinent to the investigation, leading to the development of themes. After the data was freely coded, axially coded and selectively coded, emerging themes were recognised and ranked in terms of how widespread they were. The process of collecting data from numerous sources and analysing it logically and thoroughly is known as an analytical approach. The locals and residents of Kelantan were interviewed as part of the study's analytical technique. Another strategy is to look for information about ECRL utilising secondary sources such newspaper articles, books, website searches, and journal articles

4 Data Analysis and Findings

4.1 Findings for economic impact in the implementation of ERCL project in Kota Bharu, Kelantan

This section will evaluate the respondents' level of understanding in the economic impact and their opinion for the relevant impact regarding the implementation of ECRL project in Kota Bharu, Kelantan.

All the respondents trusted that the project costing is still affordable for Malaysia. They believed the fixed and variable cost can be covered by the passenger's average daily volume. Most of them estimated the project will reach the break-even point in the range of 5-10 years. Alan (50 years old, human resource officer) shared his view about the costing of ECRL project, benefit-cost ratio and the break-even point of the project.

> "I think the cost is a bit higher but still reasonable compared to the benefits that brought to the country which still affordable for government's budget and traveller's travelling cost. I believe that the construction and maintenance cost can be covered by the passenger's average daily volume and it may take about 5-10 years to turn into a profitable project."

While Kamariah (54 years old, dentist) felt the project will be profitable after 20 years.

> "Looking at the people in Kelantan travelling from the west coast, especially to the capital or Terengganu, the usage of east coast highway is quite high as well as the number of passengers by flight to Kelantan. With the existence of ECRL, it is another alternative to passengers to travel around. So, it is able to cover the maintenance and development cost of ECRL. In the next 20 years, the ECRL project is able to provide profit to the government."

[94] Benner, J. (1985). Homogenized model for fluid-structure interaction of the pressurized water reactor core internals during blowdown. Nuclear Engineering and Design, 90(1), 1-11. https://doi.org/https://doi.org/10.1016/0029-5493(85)90027-5.

Lay Ching (48 years old, admin executive) gave her thoughts regarding how ECRL will bring positive economic impact to Kelantan in trade and tourism activities.

> "The launch of ECRL will bring more visitors and businesses to Kelantan as the duration of travelling has been shorten thanks to ECRL project. This will positively boost up the tourism and business sectors in Kelantan."

Other respondents also mentioned that after the launch of ECRL, they believed that the trade and tourism activities will be increased because the duration of travelling to Kelantan has been shorten and it has a better accessibility for going to Kelantan. More tourists will drop by to Kelantan which will help to strengthen the trade and tourism activities.

Fuaad (25 years old, café manager) shared his opinion which ECRL will develop the industry area in Kelantan and provide more job opportunities for the people in Kelantan.

> "After the launch of ECRL, I believe that the industry in Kelantan will be more developed. It will bring upon job opportunities and most of the business will run successfully. In a long term, people will have a stable income which will boost up Kelantan's GDP. It will also help Kelantan's entrepreneur to sell their products by interstate method."

Katrina (29 years old, music teacher) explained that the numbers of investment activity will be rising up however it has a bad effect for the locals too.

> "I feel that after the implementation of ECRL project, more people will be attracted to make their investment in the nearby area of the ECRL station. But I think that it will also lead to an increasement of land and property value in the specific area which Kelantan locals will face the problem of lacking ability to own a house at the area."

4.2 Findings for social impact in the implementation of ERCL project in Kota Bharu, Kelantan

This section will evaluate the respondents' level of understanding in the social impact and their opinion for the relevant impact regarding the implementation of ECRL project in Kota Bharu, Kelantan.

During the interviews, respondents were asked about the willingness and usage of ECRL to travel once the project launched. All the respondents were happy to use ECRL as their mode of transportation to go for their destination. They answered that they will be using ECRL at least two to three times a year if the price is affordable for them. Fatimah (63 years old, retired teacher) was excited to guarantee that she will be using the rail transport, even will use it every month once the rail transport launched.

> "Yes, it is certain that I will use ECRL travel to other destinations especially the capital, Kuala Lumpur. If the price is reasonable and the travelling cost is cheaper than driving a car, I might be going every month until I felt boring of going there."

Besides that, Alia (24 years old, degree student) feels that ECRL project can help to stimulate urbanisation in the east coast of Peninsular Malaysia.

> "In my opinion, it can stimulate urbanisation in the east coast. As we know, east coast of Peninsular Malaysia has a lot of rural area. With the existence of ECRL project, it can develop more industrial areas and boost tourism activities along the route."

Fuaad (25 years old, café manager) explained the situation that he can imagine after the launch of ECRL. He feels that ECRL can change local's daily activities for younger generation of Kelantan.

> "The person will be happier to have train as they rarely use rail transportation as it is lacking the facilities in Kelantan. When comparing to Kuala Lumpur, rail transportation is a main transport, school students use it for travelling over the school. When Kelantan students are able to use the rail transportation, they can explore more about the places in Kelantan and other states. As students doesn't have licence, they can't drive, it's a restriction for them to travel around."

Katrina (29 years old, music teacher) mentioned that ECRL provided a safer mode of transportation for Kelantanese.

> "Old folks will be beneficial as they will have illness such as vision problems. Even though they have licence, they are not recommended to drive as they can't see properly which will be having problems like accident occurs. With the existence of ECRL, it provides a safer way for old folks to travel for reaching their destination."

Alia (24 years old, degree student) also shared that ECRL project can helps to promote Kelantan's cultural activities.

> "I think the ECRL project can helps to promote the cultural activities of Kelantan. When ECRL launched, it's easier for tourist to come over Kelantan. They will be able to experience closely to the cultural activities such as kites, Wayang Kulit, handicrafts and so on."

4.3 Findings for environmental impact in the implementation of ERCL project in Kota Bharu, Kelantan

This section will evaluate the respondents' level of understanding in the environmental impact and their opinion for the relevant impact regarding the implementation of ECRL project in Kota Bharu, Kelantan.

The first thing that respondents shared about the environmental impact were the pollution issues. They think that the positive environmental impact for the implementation of ECRL project is reducing air pollution as there will be lesser car driving on the road. Aslinda (50 years old, special executive assistant) shared her opinion with a straightforward answer.

> "I think the launch of ECRL will reduce the traffic on the road because some of the drivers will use the rail transport to go for their destination. Less amount of car, less air pollution. That's the simplest thing for me to understand."

While they have different opinions for noise pollution issues. 7 out of 10 respondents pointed out that noise pollution will be an issue during the construction process and daily operation once ECRL launched. However, 3 out of 7 of the respondents felt that the local community can accept the direct impact. Emelia (26 years old, degree student) expressed her thoughts for the noise that produced by ECRL project.

> "Those who live close to the construction site are likely to complain about the noise. Whether we like it or not, we must accept it because it is in our best interest for the development."

Remaining 4 out of 7 of the respondents felt that the noise will affect the residents of the area. Alia (24 years old, degree student) said her opinion for the noise pollution that came from the ECRL project.

> "The presence of noise pollution will slightly affect me if the area where I live is close to the construction area. It will be slightly disturbed."

While Fuaad (25 years old, café manager) had a different point of view. He mentioned that the deduction of vehicles volume on road will reduce noise pollution that produced by the sound of horn from the car driver or motorcycle rider.

> "The sound pollution is often caused by vehicles, when they use the horn while driving on the road, it will become noisy. So, when there is lesser vehicle on the road, it will reduce the sound pollution as well."

Other than that, 6 out of 10 respondents were worried about the wildlife that may affected due to the construction of ECRL project. While Nazhif (24 years old, degree student) shared his opinion if the ECRL project will affect the wildlife.

> "I'm worried that the wildlife will get affected because the ECRL project may build around their habitat. Although I'm an animal lover, but things use to be done for the better future of our state. I hope all the animals found their new homes."

Furthermore, respondents were asked for their opinion for the rise of construction cost of ECRL project to reduce the environmental impact such as reduction of forest land usage and conserve the wildlife. All of the 10 respondents agreed if the rise of construction cost can reduce the environmental impact. Fuaad (25 years old, café manager) shared his opinion if the ECRL project will affect the wildlife.

> "I agree, as a Malaysian, I think it is a necessity for Kelantan to carry on this project as Kelantan need to chase up to the new era. Malaysia has plentiful of wildlife which we can see many preserves action were done from the states like Pahang, Sabah and Sarawak. It is a need to increase the budget so that we could protect the wildlife that will be unable to return back to us if we destroyed it."

5 Key Findings

The research objectives in the study are to evaluate the economic impact, social impact and environmental impact in the implementation of East Coast Rail Link (ERCL) project in Kota Bharu, Kelantan.

The following interview question will help to achieve the research objective which is to evaluate the economic impact in the implementation of East Coast Rail Link (ERCL) project in Kota Bharu, Kelantan.

> "Can you share about your thoughts for the economic impact that can be occurred in this project?"

Respondents shared a few economic impacts that they feel it will be happened after the implementation of ECRL project.

1. The cost to implement ECRL project is affordable for Malaysia.
2. The fixed and variable cost can be covered by the passenger's average daily volume.
3. The project will boost up trade and tourism activities after the launch of ECRL which will bring more visitors and businesses to Kelantan.
4. The industrial area will be developed and provide more job opportunities after the launch of ECRL project.
5. Investment activities, price of land and property will be increased in the nearby area of ECRL station but on the same time it might be lacking ability for Kelantan locals to buy their property in the area.

The following interview question will help to achieve the research objective which is to evaluate the social impact in the implementation of East Coast Rail Link (ERCL) project in Kota Bharu, Kelantan.

> "Is there any social impact that you can find out in this project?"

Respondents gave some views about the social impacts that they feel it will be happened due to the implementation of ECRL project.

1. ECRL project helps to stimulate urbanisation in the east coast of Peninsular Malaysia to let more people able to come across Kelantan with public transport.
2. ECRL project can change local's young generation daily activities once it launched by providing them chance to explore around.
3. ECRL project provides a safer way to travel especially for old folks that have illness.
4. ECRL project helps to promote Kelantan's cultural activities by letting people to have a close experience in the traditional activities of Kelantan.

The following interview question will help to achieve the research objective which is to evaluate the environmental impact in the implementation of East Coast Rail Link (ERCL) project in Kota Bharu, Kelantan.

“Do you think this project will bring up any environmental impact?”

There were some different views and opinions from the respondents regarding the environmental impacts that they feel will happen in the implementation of ECRL project.

1. ECRL project can reduce air pollution by changing the mode of transportation from own vehicles to the public transport which will reduce the vehicles driving on the road and at the same time reduce carbon dioxide emission.
2. Noise pollution occurred during the construction and daily operation of ECRL project.
3. Noise pollution from the horn of vehicles can be reduced as some of the travellers will use ECRL to travel around which will reduce the vehicles on the road.
4. Wildlife will get affected as ECRL rail line may build around animals’ habitat.
5. Malaysia government will be spending additional cost by realignment, tunnelling and mitigation methods for wildlife crossing to minimize the environmental impact such as preserving wildlife habitats and safety of wild animals.

6 Implications of the Study

The study's findings clearly demonstrated that the majority of Kelantanese have accepted the pollution caused by the construction of the East Coast Railway Line (ECRL) and are looking anticipating its service. Although this might lead to some negative impacts, especially pollution, they are willing to accept a new transportation

7 Limitation of the Study

According to Price and Murnan (2004)[95], research limitations are the characteristics inherent in the research methodology or design that changes the meaning and interpretation of the research results. Limitations are not necessarily issues that reduce the usefulness and validity of the research. Limitations of the study are issues and challenges that researchers face during the study that may influence or impact the results and interpretations of those results.

Limitations, due to the flood situation in Kelantan, it is not possible to go to the school library and get references when writing research proposals. However, in order to deal with this issue, researchers accessed topics and paper writing websites instead of going to the library.

Aside from that, one of the limitations to finishing this paper is the time constraints of the paper submission. This paper used a qualitative method to collect data from participants, which took more time to organize and implementation.

[95] Price, J. H., & Murnan, J. (2004). Research Limitations and the Necessity of Reporting Them. American Journal of Health Education, 35(2), 66-67. https://doi.org/10.1080/19325037.2004.10603611.

8 Recommendations for Future Research

This study aims to focus the public acceptance according economic, social, environmental aspects towards implementation of ECRL project in Kelantan. The results of this study might be differed from other similar research as the ECRL project is not limited to Kelantan. As a result, it is worthwhile to expand the research from Kelantan to Peninsular Malaysia in order to improve the accuracy and reliability of the study results.

9 Conclusion

In a nutshell, this study offers a glimpse into the perspectives of Kelantan natives on issues related to the economy, society, and environment. The study's findings clearly demonstrated that the ECRL development project received good response from users and also the locals on the impact to economic and environment. Meanwhile, inhabitants in the area expect the ECRL to be highly assessable, time-saving, and comfy. Positive impacts were found with plenty of negative impacts in three aspects which were economic, social and environmental. It proves the effort of Malaysia government in trying their best to maximize the positive impact and minimize the negative impact that come across this project.

10 Acknowledgement

This task was completed with the assistance of every member of the group. We are extremely grateful to our team members for their cooperation, sympathy, and a special thanks goes to all team members who assisted each other in assembling the parts and provided suggestions throughout the research process. Most importantly, all the group members participated in this group report in addition to providing ideas and opinions on how to solve each question in group discussion. We would always work hard and responsibly to produce a good research paper. Our group members' efforts and cooperation are required to complete this assignment. Finally, we would like to thank our friends and respondents for their help. Thank you to our wonderful colleague who always kept us on track and worked tirelessly to produce a fantastic study with all our resources and commitments. We hope that all the resources will be used to both us and our research group.

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The Factors That Influence UMK Students In Using E-Hailing Services

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Abstract:
Now, a convenient and reliable transportation system is integral to every country's development including Malaysia. E-hailing services are shown popular nowadays among Malaysian people, especially university students. The intermediation business (e-hailing) is a service that allows people to schedule public transportation through electronic applications. E-hailing vehicles and taxis are examples of these services. A private car used to provide public transportation services to clients who book through electronic applications is known as an e-hailing service. The vehicle must be a motor vehicle with a seating capacity of four (4) people and a maximum capacity of eleven (11) people (including the driver). This study aims to examine the factors that influence UMK students in using e-hailing services. This research is quantitative research and a non-probability convenience sampling method. Software Science for Social Science (SPSS) is used to analyze data collected from 357 university students. The target respondent is focusing on the University Malaysia Kelantan City Campus in the Faculty of Entrepreneurship & Business (FKP), there are five courses involved which are SAL, SAK, SAE, SAR, and SAB students. The result indicates that service quality, physical safety, and fare are significant to the intention to use e-hailing services among university students. The outcomes of this research will provide an understanding of the e-hailing company to improve the services to attract potential customers not only students but all people to use e-hailing services.

Keywords: E-hailing, Service quality, Physical safety, Fare, University students

1 Introduction

In the era of globalization, transportation is the main factor influencing a person's daily life. Efficient transportation can give benefit a person's life and even the environment. (Sumalee & Ho, 2018). Road transport is one type of mode of transportation that moves people or goods from one place to another. These services are known as public transport such as trains, buses, taxis, etc. However, the majority of the world has used taxis service as there are approximately 40% of passengers are more frequently used taxis than other public transportation (Zulkifli & Yunus, 2019). According to that, everyone wants a safe, fast, and easy form of transportation because not everyone can afford to buy their own vehicle to go somewhere. To ensure their journey is effective, many of them use public transport to the destination that they want. The development of technology increases with the passage of time. However, the advancement of technology has benefited the service industry, particularly the transportation industry. Therefore, these changes have given progress to society to lead a modern life so the community will be more aware of the desire to adopt this new technology (Arora et al., 2021). Thus, with the advancement of digital technology which is e-hailing was introduced it an alternative most cutting-edge kind that can reserve transportation like cabs or taxis.

The existence of digital technology is very practical and logical to use and in fact, it has also been made widely available to Android and iOS phones (Salim, Amirul Haziq, et al., 2020). Therefore, e-hailing was a service that can replace the conventional taxi system (Teo et al., 2018). In Malaysia, e-hailing services for private vehicles can leverage digital applications to facilitate the use of transportation for paying customers (Jais & Marzuki, 2020) In addition, e-hailing services have only ever been used for share mobility services that have been facilitated by the application service (Jais & Marzuki, 2020).

E-hailing services like Grab car, My car and Maxim are not only used by the general public but also used by college students (Yunoh & Ibrahim, 2020). Although, the e-hailing service is very easy to use when needed as the prices and preferred payment method will be displayed along with information about the driver. According to this, the drivers can pick up and drop off customers in any area they choose (Yunoh & Ibrahim., 2020). The system of e-hailing has provided all the details in advance to passengers before they use the transportation. Moreover, user satisfaction and perception are two metrics that can be used to measure the effectiveness of e-hailing services (Salim et al., 2021). Therefore, there are three objective for this research:

1. To determine whether service quality gives an impact or not to UMK students in using E-hailing services.
2. To determine whether physical safety can give a factor in the e-hailing service.
3. To determine whether fare can influence UMK students in using e-hailing services.

1.1 Problem Statement

In these few years, the e-hailing service industry in Malaysia growth rapidly. It is good news to many groups in this country. But when the development of the industry is increase, there will exist many problems. There are some issues that always happen with e-hailing services. The first problem is service quality. Customers who use e-hailing services are convinced by the service provider's service quality and brand image (Vijayesvaran Arumugam et al., 2020).

Another issue that has been found is physical safety regarding e-hailing services. Complaints on e-hailing were noted in several cases relating to safety concerns such as driver misconduct and misbehaviors, sexual harassment and assault, price overcharging, and mishaps due to accidents during the journey (Boon-Chui Teo., 2018) extremely terrible especially for women students. They do feel not safe riding e-hailing.

Next, fare in the context of services plays a critical role since it is the key element in the marketing mix (Boon-Chui Teo.,2018). The ability of companies to engage in surge pricing and prime-time pricing will allow companies to attract passengers and have a competitive advantage over conventional taxis. Conventional taxis sometimes do not use the taxi meter during the ride and charge excessive fees for a short journey (Chen 2021). All of these problems need to solve as soon as possible to prevent to the user’s satisfaction toward e-hailing services. Therefore, this study will be conducted to examine the relationship between service quality, physical safety, and fare on factors that influence UMK student using e-hailing services.

2 Literature View

2.1 The Factors that Influence UMK Students in Using E-Hailing Services

Theory of Reasoned Action, (Davis et al., 1989) developed the Technology Acceptance Model (TAM) which deals more specifically with the prediction of the acceptability of an information system. The purpose of this model is to predict the acceptability of a tool and to identify the modifications which must be brought to the system in order to make it acceptable to users. This model suggests that the acceptability of a usefulness and perceived ease of use.

2.2 Service Quality

E-hailing or electronic-hailing services are one of the rapid business growths in the digital market nowadays. According (Nur Zaimah Ubaidillah, 2019) customer satisfaction will affect a perceived value for money, service quality, and e-service quality. E-hailing approach offers passengers a high level of comfort and efficiency, especially during rush hours and rainy days (Zhixiang Fang, 2018) also e-hailing applications provide an information platform that makes communication between drivers and passengers more efficient and convenient. Positive service values influence the perceived value, while perceived value has a positive impact on user satisfaction to continue using e-hailing. Satisfying the customer is the key point for an enterprise to increase the company's profit which will lead to success (Nur Athirah Nabila Mohd Idros, 2019).

2.3 Physical Safety

Safety is important to customers to use any e-hailing service. In previous studies, the extent of distraction and aggressiveness of drivers contribute to traffic accidents (Muhammad Sajjad Ansar, 2021). Customers want to feel protected when using e-hailing services. Also, customers are more confident to use e-hailing services with clear regulations and protection (Vijayaesvaran Arumugam, 2020). According to (Ahmad Sahir Jais, 2020) APAD, the regulatory body responsible for e-hailing services to tighten the background check of all e-hailing drivers and order all e-hailing operators to expand the use of panic/SOS buttons in service applications. Customers have always had some doubts about safety when using ride-sharing services (Boon-Chui Teo, 2018). In previous studies, there is a positive perfect significant relationship between safety and the intention to use e-hailing as public transportation for a university student in East Coast, Malaysia (Muhammad Hanafi bin Ibrahim, 2020).

2.4 Fare

In previous studies, the perceived price is referring to the fares of the service charged to the passenger (Boon-Chui Teo, 2018). The ability of companies to engage in surge pricing and primetime pricing will allow companies to attract customers and have a competitive advantage over conventional taxis (Boon-Chui Teo, 2018). In this study, we want to determine whether fare can influence UMK students in using e-hailing services.

3 Hypotheses Statement

H1: There is a positive relationship between service quality with the factor that influences UMK students in using e-hailing services.
H2: There is a positive relationship between physical safety with the factor that influences UMK students in using e-hailing services.
H3: There is a positive relationship between fare with the factor that influences UMK students in using e-hailing services.

4 Research Methodology

4.1 Research Design

The research design is the appropriate framework for choosing research techniques and solving the research problem (Sileyew, 2019). Quantitative research is a method used to collect numerical, continuous, and differential data that can generate various ideas about research problems spontaneously. Therefore, these data were assembled from survey questionnaires. This research is a perspective from the University Malaysia Kelantan City Campus to see the basis of their knowledge and experience in using e-hailing services.

4.2 Data Collection Method

Therefore, the data for the collection method can be characterized into two categories which are primary methods and secondary methods of data collection. However, a self-administered questionnaire was utilized in this study to collect the necessary data. Thus, the researcher also adapted the questionnaire from journals and articles found throughout the study. The questionnaire will be distributed to students from University Malaysia Kelantan City Campus who use e-hailing services. According to that, respondents will answer this questionnaire virtually in Google Forms.

4.3 Population and Sample Size

The population are come from FKP course which are SAL, SAK, SAE, SAR, and SAB. Therefore, the total population of this study is 5,000 students at the University Malaysia Kelantan City Campus. Meanwhile for sample size, The sum number of students enrolled at the UMK City Campus is 5,000 ranging from Year 1 to Year 4 based on the e-Capsule UMK. According Krejcie and Morgan (1970) to determine the sample size for the researchers in order to attain a valid sample size. For a population of 5,000 students are required 357 respondents as a minimum sample size.

4.4 Sampling Method

Researchers are using a non-probability convenience sampling method in collecting the target respondents. The target respondents are based on the population target: students at the Faculty of Entrepreneurship & Business (FKP) in University Malaysia Kelantan City Campus. There are five courses involve.

4.5 Measurement of Scale

This questionnaire will use 5 Likert scale because it is one of the most common response scales will use in survey. The respondents require answering the questions related to variables to get the information by using the five-point Likert scale. By using five-point Likert scale, interval scale is used in the dependent and independent variable's part.

4.6 Data Analyst

The unit of analyst for this research is individual which is UMK student. The questionnaire will be answered individually by the student who use e-hailing services.

Besides that, this study used Statistical Package for Social Sciences (SPSS) type of software that can help to show the relationship between dependent variables and independent variables in terms of descriptive analysis and correlation. After collect the data from the respondent, the process to analysis data become easier by using SPSS.

Descriptive data analysist was adopted to explain the factors that influence UMK students in using e-hailing services. The statistical analysis for this study comprises basic descriptive statistics, such as means and percentages in addition to reliability test and linear regression.

5 Result

5.1 Validity and Reliability Test

Table 1: Cronbach's Alpha Reliability Test

Variable	Dimensions	Cronbach's Alpha	N of items	N	Result
Independent Variable	Service quality	0.962	5	30	Excellent
	Physical safety	0.830	5	30	Good
	Fare	0.830	5	30	Good
Dependent Variable	E-hailing	0.924	5	30	Excellent

Based on table 1, the sample size of the pilot test was conducted using 30 respondents from UMK students. The result shows the score using Cronbach's Alpha for the independent variable which was service quality and the dependent variable which was E-hailing record excellent result. This is because the score of Cronbach's Alpha got more than 0.9. Due to that, the score for service quality was 0.962 while for E-hailing was 0.924.

Besides that, the result for the independent variable which was physical safety and fare obtained a good result because the score was more than 0.80. According to the result, physical safety and fare share the same score which was 0.830. Therefore, this pilot test result wants to conclude that all the questions in questionnaire are reliable.

5.2 Pearson's Correlation Analysis

Table 2: Correlation between E-hailing, Service Quality, Physical Safety, and Fare

		E-HAILING	SERVICE QUALITY	PHYSICAL SAFETY	FARE
E-HAILING	Pearson Correlation	1	.838**	.719**	.779**
	Sig. (2-tailed)		.000	.000	.000
	N	357	357	357	357
SERVICE QUALITY	Pearson Correlation	.838**	1	.761**	.822**
	Sig. (2-tailed)	.000		.000	.000
	N	357	357	357	357
PHYSICAL SAFETY	Pearson Correlation	.719**	.761**	1	.795**
	Sig. (2-tailed)	.000	.000		.000
	N	357	357	357	357
FARE	Pearson Correlation	.779**	.822**	.795**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	357	357	357	357

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

Table 2 shows the correlation between service quality, physical safety, fare, and satisfaction with e-hailing services. The table shows the correlation coefficient between service quality and satisfaction with e-hailing services is 0.838 (83.8%) with a p-value of 0.000< 0.1. It is a strong correlation between the independent variables and the dependent variables.

Next, the correlation between physical safety and satisfaction with e-hailing services is 0.719 (71.9%) with a p-value of 0.000< 0.1 showing a strong correlation between the independent variables and the dependent variables.

Besides, the table also indicates that the correlation coefficient between fare and satisfaction with e-hailing services is 0.779 (77.9%) with a p-value of 0.000< 0.1 with a strong correlation between the independent variables and the dependent variables.

6 Finding and Discussion

6.1 Finding

This research to study factor that influence UMK student in using E-Hailing Services. This research aims to identify the relationship between the three-independent variable (service quality, physical safety, and fare) and dependant variable (e-haling). Based on the table 5.1 shows the significant values are less than 0.01 and there is a positive relationship between independent variables and dependant variables. Therefore, the hypothesis of three independent variables is accepted.

Table 5.1 Hypothesis Data

Hypothesis	Result	Finding data analysis
H1) The positive relationship between service quality and UMK student's satisfaction with e-hailing services	**r = 0.838***** **p = 0.000** **strong**	H1 is accepted
H2) The positive relationship between physical safety and UMK student satisfaction with e-hailing services	**r = 0.719***** **p = 0.000** **strong**	H2 is accepted
H3) The positive relationship between fare and UMK student satisfaction with e-hailing service	**r = 0.779***** **p = 0.000** **strong**	H3 is accepted

6.2 Discussion

6.2.1 Service Quality and E-hailing

H1: The positive relationship between service quality and UMK students' satisfaction with e-hailing services.

From the table 5.1show the characteristic of service quality by Pearson Correlation that has a strong correlation relationship with UMK student's satisfaction with e-hailing services. By referring to the value of the Pearson Correlation coefficient in Table 4.1 in Chapter 4, it was positive which is 0.838. It means this element recorded a positive and strong correlation. This study is supported by past research due to the issues of organizations providing unique value to their customers (Chia et al., 2019). Based on the findings, it is based on the relationship between service quality dimensions and customer satisfaction in the service industry

6.2.2 Physical Safety and E-Hailing

H2: The positive relationship between physical safety and UMK student satisfaction with e-hailing services.

Based on the result of the previous chapter, physical safety can conclude as an acceptance that correlates with UMK student's satisfaction with using e-hailing services. Table 5.1 shows that Pearson's correlation score which is 0.719, is categorized as a strong correlation score that has a positive relationship between the variable. This study is also consistent with a previous study, it shows that safety is an important aspect that must be present in e-hailing to insure that passengers feel safe and comfortable (Yunoh & Ibrahim, 2020). If physical safety can reduce the doubt of passengers in using e-hailing services, then the use of this service can be increased because the passengers will feel safe while using the service

6.2.3 Fare and E-Hailing

H3: The positive relationship between fare and UMK student satisfaction with e-hailing services.

The previous result shows that fare has a positive significant relationship with UMK students' satisfaction in using e-hailing services. Based on table above, shows the Pearson correlation score is 0.779 which gives a strong positive correlation between fare and e-hailing services. The previous study's result of fare shows that when e-hailing places a lower fare it gives an advantage for passengers to make a choice. Fare is the reason that can attract users to use e-hailing services (Jais,2020). Meanwhile, it opens up opportunities for e-hailing services to provide affordable services to users.

6.3 Implication of The Study

E-hailing services growing so fast lately. There is about 11 company competing to serve the best services to customers. E-hailing services allow users to reserve public transportation using online applications within the e-hailing applications. Researchers found a problem related to e-hailing services throughout this research. The researcher provides the solution for the problem to the company to attract more customers.

Next, for the implication of the study, related cost and safety are really important factors that affect an individual decision to use e-hailing. E-hailing service providers should improve the security they offer as an efficient method to better serve women. In order to encourage more women to utilize e-hailing services, it is important to recruit more female drivers. This will boost the demand for e-hailing among women, which will then increase the demand for female drivers, creating a positive feedback loop.

Furthermore, the result of this study will become an aid to e-hailing companies to improve. The regulations needed to cover passengers and the driver. The Malaysian Transport Ministry has controlled the e-hailing business by enforcing on drivers and corporations the same regulations and legislation that apply to traditional taxis. The new rules also address peak pricing, commissions, and passenger and driver safety.

Lastly, the implications of the study can make the e-hailing company compete to improve and attract customers to use their services. Creating competition amongst company that provides the same service benefits the user the most since it improves the services that are currently available. They have provided the user with a lot of private transportation choices. E-hailing services will provide consumers with the lowest costs and maximum levels of comfort as long as the market is running properly.

6.4 Recommendation/Suggestion for Future Research

E-hailing services in Kelantan especially around Pengkalan Chepa will continue to evolve. Firstly, future research might be conducted in other states where respondents not focusing on students only but all citizens. The researcher can focus on the elderly or school students who frequently ride e-hailing. It will be encouraged to research a larger population, such as a study for the entire sample size of e-hailing users in Pengkalan Chepa. It is because this study was conducted in a limited area. While a larger population size can aid researchers in obtaining more accurate results and allow them to generalize in a larger context in future studies.

Next, e-hailing businesses can offer new services to meet the demands of their customers' fundamental needs as well as certain supplemental needs to maintain their businesses' viability and contribute to the country's economy. Variety of services that e-hailing companies can provide to customers such as door-to-door parcel delivery. That makes companies more competitive than others.

Moreover, suggestions for future research to more focusing on customer and driver safety. Companies need to take an action went it happens particularly regarding safety not only for customers but also drivers. E-hailing companies have improved the driving efficiency and flexibility in the working schedules of drivers. However, we still need to pay more attention to taxi drivers' health, as problems may result from this new driving behavior. For example, to take advantage of the opportunity of orders at night, the adjustment in working schedules might lead to fatigue and may increase the risk of traffic accidents.

Lastly, advice to a potential researcher might concentrate on a variety of data-collecting tools. To get the strongest and best results, the researcher might also utilize a qualitative approach like an interview better to the questionnaire. This is so that when respondents are unclear about a question, they may ask the researcher directly. As a result, correct and full data will be found during the collection process. The results of the future study will allow for a deeper exploration of satisfaction with using e-hailing.

6.5 Overall Conclusion of The Study

In conclusion, all their research objectives were successfully achieved in this research. This study's outcome can be used as a guideline for e-hailing service to make changes and improve the courier services offered to individuals to attract their attention and gain satisfaction. E-hailing services must consider that added or new service into corporate strategy relies on various services that can change over time. The determinants factor for implementing added or new services practices vary among companies and depend on the sector of geography, location, customer requirement, and more. In short, added or new service practices play a vital role in competitive scenarios in the future.

7 Acknowledgements

First of all, we praise and thank the presence of God Almighty who has bestowed His grace and gift on us so that this research study can be completed. We cannot go through it without His permission. However, we would like to take this opportunity to express an appreciation to all the people who are involved that have contributed their efforts to help us complete this research study. Moreover, we also would like to express our thankfulness to University Malaysia Kelantan (UMK) for allowing us to conduct this research study. Finally, we would like to thank all group members for always cooperating and guidance in completing this research study. However, this research study would not be possible without the support of many people. Thank you.

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The Study On Factors That Affect The Level Of Customer Satisfaction Towards Courier Services In Kelantan

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Abstract:
The purpose of this study is to understand the study on factors that affect the level of customer satisfaction towards courier services in Kelantan. The aim of this study is to investigate factors that influencing the level of customer satisfaction towards the courier service management in terms of price, service quality and timeliness. This study design used in this study is qualitative method. Next, this research is to identify the relationship between services of courier service and customer satisfaction in courier service management. In this research, customer satisfaction was determined through their own experience, customer service satisfaction and service quality provided by the courier company. The interviews were distributed randomly to university student in Pengkalan Chepa, Kelantan. The location of the sample is in Pengkalan Chepa, Kelantan. In addition, the population in this research is aimed on customers who using courier service. Our respondents focused mainly on customers that using courier service in Malaysia. Interviews were given to the respondents and allowed them to answer the questions we had prepared earlier. Finally, the results of the interviews will be evaluated to build the relationship of each component in the determinants answered by courier service's customers.

Keyword; *Price, Quality Service, Timeliness, Courier Services, Customer satisfaction*

1 Introduction:

This investigation aims to identify factors that affect the level of customer satisfaction towards courier services in Kelantan to assess the effectiveness of tracking updates and examine customer experience with various courier services. Additionally, determine the influence of service quality on customer satisfaction in Kelantan's courier service. Several delivery services and couriers in Kelantan include Easy Parcel, J&T Express, City-Link Kota Bahru, and DHL Express.

This chapter represents an overview of this study. It has seven major sections, including the problem statements, background information, study objectives, and research questions. Moreover, it followed the study's importance and the conceptual model, which comprised the words' operational definitions. The conceptual model of the survey will be made upon the clarified research objectives, which will then be followed by a detailed explanation of the study's significance and scope.

As of the end of 2019, the Malaysian Communications and Multimedia Commission (2019) reported that 2,102 reports from postal and courier service users had been registered. The total number of events was up 70% from the 1,235 occurrences in the prior year. The rise in complaints was ascribed to increased e-commerce sales, particularly during significant online sales like the 11.11 Online Sales. The package was transported in a poor manner, the packaging was not received although the status was, customs clearance took too long, and the customer service was poor, among other things, were criticized (Malaysia Communications and Multimedia Commission, 2019). Moreover, due to excess distribution supplies and poor management during the epidemic, delivery firm employees have recently been protesting their unhappiness on Twitter by throwing away consumer packages and skipping work, were stated by (Malaysia Communications and Multimedia Commission, 2019). Social media has become awash in complaints about delivery service deliveries and customer support answers. Lack of information and increased customer demand for service and assistance exacerbate consumer confusion and misunderstanding.

Additionally, providing high-quality services is essential for success in the courier service sector, particularly in the current climate of fierce competition. As a result, assessing and improving service quality is crucial to increase productivity and revenue stated by (Murfield, Boone, Rutner & Thomas, 2017). Customer satisfaction in service sector is influenced mainly by quality improvement mentioned by (Murfield et al., 2017). Therefore, this study aims to identify the factors that affect the level of customer satisfaction towards courier services in Kelantan. The survey also found that essential predictors of consumer satisfaction with the courier service in Kelantan included pricing, timeliness, tracking, capability, and handling attitude.

1.1 Research Question

1. What do the company's charges contribute to customer satisfaction in courier service?
2. How does the package increase customer satisfaction towards courier service?
3. How does the delivery improve customer satisfaction?

1.2 Research Objective

1. To investigate the charges contributing to customer satisfaction in courier service.
2. To identify the package that increases customer satisfaction in courier service.
3. To investigate the delivery to improve customer satisfaction.

2 Literature Review

2.1 Customer Satisfaction

Customer satisfaction is the most important aspects in business life especially in services to gain a competitive advantage. Customers want it because they know if customer satisfaction is not met customer's wants and needs then other competitors have an advantage because they provide better service. Courier services need to ensure they meet the standards consumer's demand.

Customer satisfaction is said to be an important factor affecting loyalty consumers of firms (Saura, Frances, Contri, & Blasco, 2008). Business of courier service will profitable when companies focus on improving the customer loyalty factor and services. Consumer satisfaction is measured by comparing the difference between know what you will get and what you will get afterward (Parasuraman, 2004). If the courier services company has offered service to people and gain their expectations while using services that is means satisfaction is fulfilled. The quality of services provided and meeting consumer expectations to the extent two of the same thing. It can be said that customer satisfaction is an important part of understanding a company's service quality. (Gorla, Somers, & Wong, 2010) stated that the satisfaction of consumers is the antecedent of quality of service. It means that the service given will lead straight to the satisfaction of their users. Both are well-known to be essential components of any business in order to maintain its relevance in the market and develop profitable relationships.

2.2 Timelines

The changing lifestyle in terms of online spending in Malaysia that is growing every year has prompted courier service providers to focus on the important things that courier companies have in facilitating and speeding up the process of moving goods to be delivered to consumers smoothly. For that, customer satisfaction is a fundamental and priority matter for courier companies. The yardstick that becomes a benchmark is based on the quality expected and the quality seen by the user, when this has been found, and they are satisfied with the offer, the user will tend to bring more profit to the organization either. by making repeat purchases or recommending them to others (Hong, Zheng, Wu and Pu, 2019).

Profit rate can register an increase if the delivery time taken is short. coupled with increased demand for courier services as online purchases have grown rapidly. coupled with an increasing number of purchase mediums such as Shoppe, Lazada, and the latest on Tik Tok. This has become a stepping stone for delivery companies in improving the management and handling system of delivering goods to consumers because the types of goods sent using this courier company include food-based products, whether dry goods or wet goods. This can be realized with the use of technology such as an item tracking system that will make it easier for users and companies to use in addition to fast and efficient delivery periods need to be emphasized. This is because customers need faster and more flexible delivery (Chen & Chankov, 2018). besides being able to stimulate the national economy and local residents, it is also able to have a positive effect on companies and stakeholders.

As a conclusion, everyone related to the organization of the delivery company must always make improvements continuously and consistently from various aspects so that all challenges faced by the company can be easily overcome in the future and will further gain the trust of users in using the services offered.

2.3 Price

A person's attitude can be impacted by a price policy or value when taking into account their logical activities, such as when analysing their wants as a product customer. A person or customer will decide which product's performance is the most effective, efficient, and appropriate for his needs and according to the value of a price or cost. If a product's performance meets expectations and is effective, efficient, and appropriate, customers will be satisfied and will calculate their costs for purchasing the product. Customer satisfaction is positively and significantly impacted by price.

One of the most important factors affecting customer satisfaction is price, and there are many studies that have examined the relationship between price and customer satisfaction. Price is the most important factor consumers consider when assessing the value of a good or service. Customers tend to compare prices with the value or merit of the goods and services they receive. When the perceived value or customer satisfaction associated with a product is higher than its cost, customers are willing to purchase the product (Nasirabadi and Bokaei 2013: Yoon and Kim, 2000).

2.4 Service Quality

According to (Hamari & Koivisto 2017), the definition of service quality is a comparison of the outcomes of the consumer's outlook between expectations and perceived reality. Customer satisfaction serves as the criterion for judging the service's overall quality. Service quality differs from customers' expectations for services and how they view its performance. The function of service quality and customer satisfaction as an originator arises under specific circumstances based on the (Jamal & Azmi, 2018). Customers identify service quality when concerned with cognitive concerns, which results in customer satisfaction. To guarantee customer satisfaction, we must determine the standards that customers use to evaluate the quality of goods or services and improve the services by the quality criteria that the consumer finds most important.

2.5 Research Gap

In this research, what can be said is that the main gap identified in this research is about the lack of knowledge available about courier service in Malaysia. most of the research or thesis is done abroad. Therefore, more data is needed to be used as a reference. Therefore, our research focuses on the Pacific region of Kelantan, Malaysia so that it can be used as a reference for futureresearchers. For a population gap, many researchers only focus on people who have worked. In fact, in our study we only focus on students, this is because students also have great purchasing power. For methodology gap, many researchers use quantitative method as their research. But we use a qualitative as our research to study in more depth about factors that affect the level of customer satisfaction towards courier service in Pengkalan Chepa, Kota Bharu.

2.6 Conceptual Framework

A conceptual framework is a tool for analysis with many applications. It may be used in several fields of employment where a comprehensive image is required. It is employed to categorise concepts and arrange thoughts. This study was conducted to identify the factors that influence the level of customer satisfaction with courier services in Kelantan. Factors that determine users in Kelantan regarding customer satisfaction with courier services in Kelantan are price, service quality and timeliness.

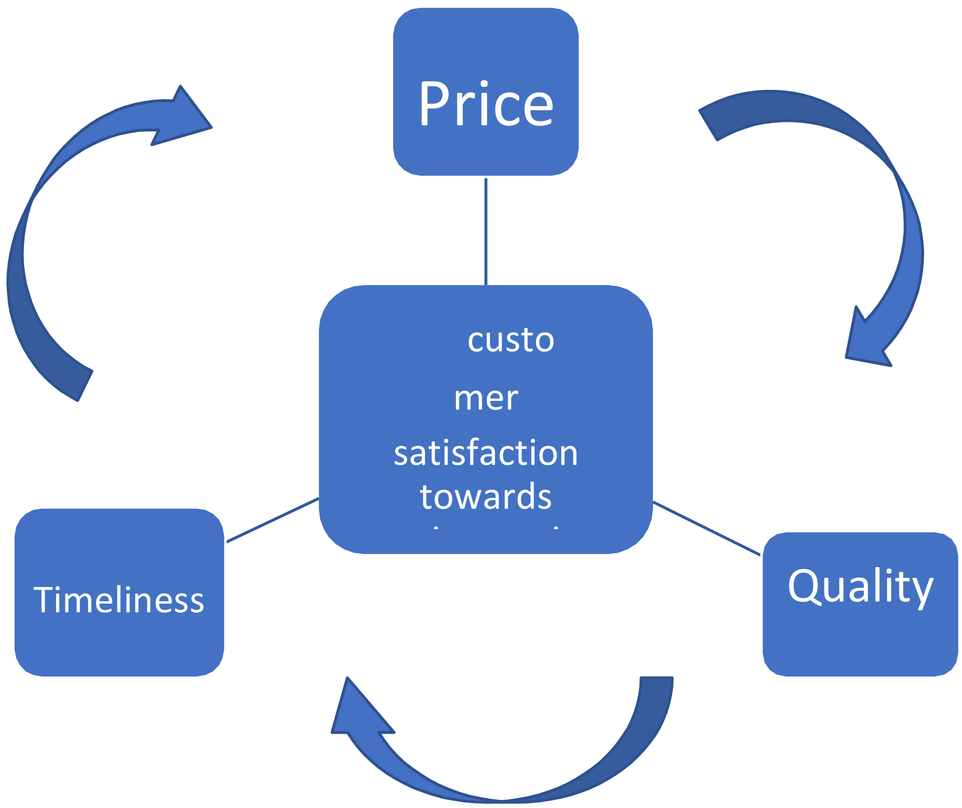

Figure 2.1: The conceptual Framework

The figure 2.1 above shows the relationship of Price, Quality service, and Timelines that affect customer satisfaction towards courier services in Pengkalan Chepa.

3 Methodology

3.1 Research Design

The definition of the term "research design" is a framework or plan for s study that serves as an orientation for data collection and analysis. It is a process that is followed to finish research. According to McCombes, (2019) stated that a research design, also known as a research strategy, is a strategy for finding answers to a specific set of questions. It also aids in achieving our study goals. It is a framework that contains the techniques and steps for gathering, analysing, and interpreting data. The research design aims to provide a framework for the detailed investigation of the causal relationship between the dependent and independent variables. Next, to achieve goals, the study has to collect information on the significance of third-party logistics, the factors that affect customers satisfaction towards courier services, and customer problems. Researchers used small groups to interview help the respondents better comprehend the question. It ensures practical research problems. It investigates how students are perceived in Kota Bahru, Kelantan. Respondents engaged in one of the popular qualitative research methods for data gathering in this study. Only a small number of respondents are often included. On-site data collection is a common practice for qualitative research methodologies where people are experiencing problems or difficulties. Participants are rarely taken outside their own geographic locations to gather data because these are real-time data.

3.2 Justification Qualitative Of Method

We are using qualitative technique and the reason for selecting this technique is that we want to get intensive knowledge to make sure we get an accurate what influence satisfaction customer towards courier service. To collect the answers of "why" "what" and "how" qualitative is the appropriate method (Svenning, 2003). Because of this, qualitative methods of data collection are preferable. This will give us room in our investigation and allow us to consider alternative approaches to the problem. The ability to adapt to new circumstances during research turns data collection into a dynamic process that can reveal previously overlooked concerns. Through conversation with interviewees, we can bring up and resolve these concerns. Throughout the duration of the study, in-depth analyses can be performed on the data as it is collected. The deductive method will be used to conduct this study, which implies that every effort will be made to draw valid conclusions from the information gathered through interviews (survey) and questionnaires.

3.3 Data Collection Method

3.3.1 Primary Data

According to Jankowicz (2005), the qualitative technique delivers the data in a non-numerical way and collects data that are needed for in-depth research. When collecting and analysing data for this study, the researcher will mostly use primary sources of information. The method used in the primary data is by interview survey. The data collected will be used to support this research. In order to fulfill the needs of completing the study of factors that affect the level of customer satisfaction toward courier services in Kelantan.

3.4 Research Instrument

A research instrument is any device you employ to gather and evaluate information about the topic of study. Testing, surveys, scales, questionnaires, and even checklists can all be used as research instruments. In this research, the researcher needs to choose interview survey as one of the ways to get information from the respondents. The first step is creating an interview with respondent. After that, we have to schedule an appointment for interview session. From this, we can manage our time to interview them and other respondents. After all the data collected by Interviewing, We need to analyze the data from the interview input and interprets the data

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3.5 Data Analysis Method

3.5.1 Thematic Analysis

A tool for qualitative evidence analysis is thematic analysis. follow (Caufield 2019) alludes to a grouping of writings, such as transcripts of interviews. Researchers meticulously examine data to identify trends, themes, and patterns of interests that often arise. This technique may be applied to the analysis of non-numerical data, including text, audio, and video. It consists of six steps: identification, coding, generating, review, definition and naming, and writing.

4 Data Analysis

In analysis of finding's chapter, total 5 informant were interviewed that we gained to obtain the data in the area around Pengkalan Chepa. Based on the data collected from the interview results will be used as references and research results so that the validity of the information found will be more guaranteed to maintain the quality of research.

4.1 Finding From The Research Informant

All the data obtained in this study were sourced from interviews conducted with residents around Kelantan, especially around Pengkalan Chepa, and the selection of informants was done by targeted informant. According to the gender breakdown, a total of two male informants were selected to be interviewed. while the remaining three women were also interviewed to obtain data. All informants interviewed are students who have experience using courier services in Pengkalan Chepa to guarantee the validity of the information in the results of this study.

4.2 Finding And Discussions On Research Question

Price, service quality, and timeliness are emphasised in this study in order to obtain accurate data from informants and fulfil the objectives of the study that have been set, which is to identify factors that contribute to user satisfaction with courier services in the Pengkalan Chepa area.

4.2.1 Objective 1: Price

In this section, we will discuss the prices that courier companies have set for consumers. This part of the study was done to see the relationship between the price charged by the courier company and consumer satisfaction with it. In the research question, which is what is the contribution of charges to customer satisfaction in courier services, the results of this interview will look at the extent of user satisfaction with the price that has been set by the courier company. The following are the results of the interview that has been conducted.

Summary of Finding research

Research informants	1	2	3	4	5
Understanding about courier					
care about price					
Convenience with price					
Checking price					

To summarize the findings, the management of the courier company needs to constantly improve the management system so that it becomes more efficient and also organised so that operating costs can be minimized, such as the period of time taken for storage, which can be shortened so that users do not have to bear too expensive costs as a result of storage costs that are too long. The results of the study also show that the price charged by courier companies to customers is a factor in users' satisfaction with courier services in Pengkalan Chepa.

4.2.2 Objective 2: Quality Service

In this section, we discuss about quality service. The study's contribution is the generalisation of the factors affecting courier service quality. Regarding the research question, which is how does the package increase customer satisfaction towards courier service, the attribute of the quality service of the courier in this study is based on the four research informants of quality service. Based on the collected from the interview, we can find out the quality service that provide by courier service can give customer satisfaction in Pengkalan Chepa, in Kelantan. Below are the data collected from the interview.

Summary of Finding Research

Research informants	1	2	3	4	5
Understanding about quality service					
Priority to quality service					
Satisfaction to quality service					
Bad experience with quality service					

To Summarise the findings, the courier service should concentrate on this issue because customer dissatisfaction can influence the customer's decision to select a particular courier service. Courier service, make sure to provide in terms of operational to improve the quality of recognizing good level items. An example,courier service glassware item requires special attention. Each piece of glass needs to be wrapped before being placed in a shipping box. For sufficient protection, first, cover them in paper, then at least three layers of bubble wrap. Use a box with inserts, which can be tailored to match your products, as an alternative to wrapping. Using this technique, one can get glassware to the buyer without risk of harm. As a result, the quality of the courier service is an important issue affecting both client fulfillment and the company's profitability. According to the findings, excellent quality service to clients boosts customer satisfaction and loyalty. The information acquired make it possible to say that the four service quality research informants' impact how satisfied customers are with courier service.

4.2.3 Objective 3: Timeliness

This section focuses on timeliness. This is because timeliness is one of the most important factors in customer satisfaction. When a company offers an efficient and effective delivery service, punctuality guarantees customer satisfaction and reduces negative comments about the company. Based on the interview collection, a company's timeliness can satisfy customers. Below is the conversation from the interview.

Summary of Finding Research

Research informants	1	2	3	4	5
Care about delivery time					
Satisfaction on delivery time					
Bad experience with delivery time					

In summaries the findings, the courier company should focus on this problem because customer dissatisfaction can affect the customer's choice of courier service. On-time delivery is one of the main ways customers rate the delivery service. Therefore, time is the most important factor in retaining customers. A delay on-time delivery rate will lead to more customer complaints. Then this will cause customers not to choose the company again. Therefore, every company should make improvements in every matter, for example in terms of adding employees and flexible work so that there are no more issues about delays in delivering goods and so on. In addition, it is important for a company to focus on the use of smart tracking tools for customers because customers can track the movement of their goods from time to time.

5 Discussion and Recommendation

5.1 Discussion

The discussion from the data collected in the previous chapter through a complete study is that most communities around Pengkalan Chepa are aware of the factors that make them satisfied with courier services. the priority of the users of this courier company to facilitate their purchasing affairs in addition to following the trend of the times who are now purchasing online. All weaknesses that occur in courier companies need to be taken seriously by the company's management so that user satisfaction with their services can be increased. This will be beneficial for both parties.

Even so, having the right knowledge and a point of reference is also an important contributor to maximising user satisfaction with courier services. This can be practised by consumers by checking the price offered first to avoid misunderstandings in the future involving both parties. As a result, the consumer has the choice in of choosing a courier company that offers reasonable prices without sacrificing service quality in any way. This point can be evaluated by the consumer by looking at the feedback that has been given previously by the user regarding the service received. From there, it shows the importance of paying attention to the price offered by the courier company to the customer.

Having a good knowledge of current service prices is considered important, but if it is not practiced, that knowledge will not bring any advantage to one party or the other. Because of that, considering the price is a wise action from the consumers in an effort to get quality service from the courier company. In addition to being able to give choices to consumers, it is also able to encourage companies to compete to provide quality services to them. Excellent service, especially guaranteed service quality, will increase trust in the courier company, indirectly benefiting it in the long run.

Another factor that contributes to user satisfaction with the courier service in Pengkalan Chepa is that the service takes a short time to deliver goods to users. Consumers believe that these factors can make courier companies more committed to providing quality and efficient services to consumers. This is significant for consumers because it gives the courier company an advantage, which is trust in the delivery of goods in the future.

The results of the study show that the informants in Pengkalan Chepa are aware of the importance of user satisfaction with courier services. But at the same time, they have challenges in terms of getting services that give satisfaction to users. That improvement is important and should be pinned on the courier company because this will help them become more advanced in the future.

5.2 Recommendation

Researchers recommended the following further study based on the findings. First, future researchers could use a large sample size to focus on the factors that affect the level of customer satisfaction towards courier service in Pengkalan Chepa, Kelantan. Only five informants were selected as target informants for the present research. This is so because only students from Pengkalan Chepa were used as interviewees. Future researchers should three type of informants whose are residents, students, and those who conduct online business to increase the sample size. These informants are located in Pengkalan Chepa. As a result, the research will be able to collect a variety of informant viewpoints. It will be able to develop more accurate and reliable themes as a result of including more informants in future studies.

Next, the researcher make a few recommendations to strengthen the study’s findings. Researchers must plan and allow appropriate time to gather information at a given location.

Time management was important to assign tasks and to gather all sample informants within a set time frame. Moreover, researchers advise selecting the appropriate informants to obtain their authentic experience. In this method, informants can respond to interview questions honestly and provide additional themes, which helps researchers obtain more effective results. The researchers also plan with the interviewee about scheduling an interview so they can respond to the question outside of work hours. It will change the direction of their viewpoint. This data collection method was more truthful, and respondents provided helpful responses.

The researcher offers several suggestions based on the findings and discussion of the research's result. Regardless of their quality, courier services sometimes use the term 'operational firm.' Without a great strategy, the company could struggle to make deliveries on time, which would ultimately upset customers. Logistics procedures run smoothly when quality standards are followed. Designing logistics procedures requires taking quality standards into mind. It is simpler to put them into place from the start than to modify the process mid-operation or modify them to meet their criteria.

In addition, there are a few methods by that couriers can enhance their future route plans and delivery performance by receiving team input. Firstly, a courier service determines busy periods and traffic bottlenecks that are a constant issue. Additionally, be mindful to customers who frequently disrupt delivery dates and demand additional time per stop. Furthermore, find out if there are beginning location requirements so that the courier can incorporate those into the schedule and provide job flexibility. Courier service if particular drivers are more adept at navigating specific neighbourhoods and can be given specialised areas, do so. Therefore, courier companies should focus on delivering top-quality service to increase customer satisfaction and maintain a good brand image.

In conclusion, this study will serve as motivation for future research and serve as a guide for completing and researching the variables that affect the level of customer satisfaction in courier services. This research can used as reference material and data supporting other studies.

6 Conclusion of the Study

Based on this study, it can be concluded that the objectives had been achieved by the study methodology, which includes literature review, observation and interview sessions. The findings of this study prove that factors can affect the level of customer satisfaction towards courier service in Kelantan. This study can also help courier service companies improve their business and help customers choose a suitable courier service. In addition, the researcher has also completed the survey within the estimated time given. In addition, this study can also provide the researcher with the opportunity to discuss the study's limitations. Finally, the researcher has given suggestions for future studies to improve the research, thus bringing the research to a new level. This study is important because it can define the main reason why it is done and why it needs to be explored because the information will help the researcher go further in the future.

7 Acknowledgement

First, we want to thank the Almighty Lord for giving us the skills, opportunities, and strength needed to complete our project effectively and on time. Our project's success will also depend on how seriously we take it and, on the support, and direction of many others. So, regardless of how long it took, we would like to express our gratitude and appreciation to everyone who helped us complete this project.

Additionally, we are grateful to the University Malaysia Kelantan library for providing various resources that helped us with this project by serving as references and materials. The same goes for our friends, who have offered additional help and encouragement throughout this research. Moreover, our co-workers have shown outstanding commitment and cooperation throughout this endeavour.

Last but not least, we take this chance to express our gratitude to our wonderful friends who never fail to support us, walk beside us, and share details about how they are finishing their research papers. In addition, we express our gratitude to our family for aiding us with financial difficulties so that we could carry out our research. Without each of them, the research's outcome would not be conceivable.

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e ISBN 978-629-7555-11-9