

THE IMPACT OF CONSUMER PREFERENCE  
FACTORS ON PEOPLE WILLINGNESS TOWARDS  
VEHICLE LEASING PROGRAM

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## List of Abbreviations

IFRS	International Financial Reporting Standards
Orix	Orix Leasing Malaysia Group
Sepadu	Sepadu Fleet Sdn Bhd
SUV	Sport Utility Vehicle
MPV	Multi-Purpose Vehicle
Goldbell	Goldbell Equipment Sdn Bhd
PRAC	Pacific Rent-A-Car Sdn Bhd
PLC	Pembangunan Leasing Corporate Sdn Bhd
CIMB	CIMB Bank Berhad
Bank Muamalat	Bank Muamalat Malaysia Berhad
Bank Islam	Bank Islam Malaysia Berhad
SMFL	SMFL Leasing (Malaysia) Sdn Bhd
Hitachi	Hitachi Capital Malaysia Sdn Bhd
APAD	Malaysia Land Public Transport
JPJ	Road Transport Department
CKD	Complete Knocked-Down
CBU	Complete Built-Up
CDL	Competent Driving License

## PREFACE

I had been working in a car rental company for a few years, the company offered car rental services for few days up to few months' rental, and car leasing services for lease period one year and above. For short term rental, our customers include a mixture of locals and foreigners based on seasonality. However, our customers for long term lease were mainly multinational corporate client, we do not have individual customer and local company client. Before I joined the company, I have no knowledge on vehicle leasing and most of my friends also has little exposure in vehicle leasing, but vehicle leasing to locals is very common in overseas. I foresee that there is a gap in Malaysia vehicle leasing market to be fulfilled; the services could be offered to all the locals as well but not limited to the multinational company only. It triggers my curiosity to understand the factors that affect people using vehicle leasing as an alternative to own a vehicle. I wish to find a way to make vehicle leasing program suitable for the majority in Malaysia, also for those who could not afford to purchase a vehicle to own a vehicle. Hence, I have decided to study on "The Impact of Consumer Preference Factors on People Willingness Towards Vehicle Leasing Program".

## ABSTRACT

Vehicle leasing program is very common in the western countries, but the Malaysia vehicle leasing market was underdeveloped and few of the MNC companies has failed to penetrate the market. Majority of the population own a vehicle by obtaining loan from financial institution and make monthly payment. Malaysia public transport infrastructure was underdeveloped, this has made vehicle to become an essential need in daily life. Hence, this research studies on the vehicle leasing program that is available in the country and analyses the consumer preference factors that affect people willingness in vehicle leasing. The independent variables were as convenience, ownership, cost, and flexibility; the dependent variable was people willingness towards vehicle leasing. A questionnaire was distributed to collect the feedback of the people. In total 257 responses were collected, the data was analysed by descriptive statistics, Pearson correlation coefficient and multiple linear regression analysis. The results shown that there is a positive relationship in between independent variables and dependent variable, except for vehicle ownership, no significant relationship is identified. To make individual willing to lease a vehicle, the leasing providers should take the three deciding elements into consideration, which are convenience, cost, and flexibility.

# CHAPTER 1

## INTRODUCTION

### 1.0 Background

Leasing is an agreement between two parties whereby one party authorizes the other to utilize his asset for a fixed time frame barter for a recurring fee, the asset used to be a building machinery or real estate or automobile. Two of the most general leases are finance lease and operating lease. In brief, capital lease provides a longer lease term, and the ownership shall be possessed with the lessee at the end of the lease. Meanwhile operating lease offers a shorter tenure, and the lessor always holds the ownership (Farlex Financial, 2009). In general, company in this industry used to have two types of business models, which is vehicle rental and vehicle leasing. Vehicle rental is usually formed for short term rental, while leasing is meant for long term lease.

Vehicle leasing business model was established in America by Walter and John during the 20<sup>th</sup> century. In 21<sup>st</sup> century the revenue of this model has breakthrough one hundred billion USD per annum and worldwide vehicle leasing companies has exceeded 6000 in year 2006. 33% of the vehicle in United States was sold thru vehicle leasing, while the Asian country, Japan also takes 15% of the market share. This reflects that leasing industry plays a significant role in global market (Yang et al., 2008). Previously, the biggest players in the global market were Avis, Hertz and Europcar. However, due to Covid-19 pandemic Hertz suffers huge losses, and a bankruptcy was filed in May 2020 (Kelly, 2020), which this is a breaking news to the industry.

Despite Hertz filed bankruptcy in United States, Hertz's franchisee in Malaysia has not been affected yet, they are still operating as usual as Hertz Malaysia is backed



by Sime Darby (“*About,*” n.d.), a well-known conglomerate company in Malaysia. The other main players in Malaysia are Mayflower, Orix Leasing Malaysia Group (Orix) and Sepadu Fleet Sdn Bhd (Sepadu). Malaysia first car rental industry pioneer is Acme Hire and Drive Cars which under Mayflower’s car rental division, they were established in 1963 (“*About,*” n.d.). 10 years later, Orix has propelled into Malaysia market, they provide all sorts of leasing service, including commercial vehicle and passenger vehicle (“*About,*” n.d.), which Mayflower emphasize on passenger vehicle only. On the other hand, Sepadu is the big brother in leasing commercial vehicle to most of the logistics companies, such as J&T, DHL, TNT, Nationwide Express and Aramex (“*Services,*” n.d.). In the recent 5 years, many of the vehicle dealers in Malaysia have started to provide leasing service for their own brand, such as Renault, Mercedes-Benz, Volvo, and Toyota.

Types of vehicles in Malaysia can be differentiate into 2 types which are passenger vehicle and commercial vehicle. Passenger vehicle includes few categories, which are hatchback, sedan, coupe, sport cars, sport utility vehicle (SUV) and multi-purpose vehicle (MPV). Commercial vehicle includes pickup, van, bus, light-duty truck, medium-duty truck, and heavy-duty truck.

Current Malaysia vehicle leasing market can be segregated into two segments, which are individual client and corporate client. An individual will lease a vehicle mostly because they need to temporarily be in Malaysia for a few years and they do not wish to take the hassle of dispose the vehicle before they leave the country. In general, there are 5 reasons of corporate clients will lease a vehicle. The reasons are the company does not have sufficient paid-up capital, the company is a start-up company in Malaysia, they do not have proven track record in Malaysia, the company could not bear the 10%-20% vehicle sales price as down payment, the company posse a weak financial performance and the company require the vehicle for project purpose only.

## 1.1 Problem Statement

According to Jacqueline Mills (2008), leasing had become very common in the western countries since year 2007, the world's leading leasing market was in Europe, it captured 339 billion Euro in year 2007; followed by the United States 168 billion Euro but the leasing market in the Asia countries were relatively low. The world leasing market has been expanding aggressively due to the economic growth, especially in the emerging markets, such as Asia Pacific countries, including Malaysia (Haiss & Kichler, 2009). However, there is a gap between Malaysia leasing industry and western countries' leasing industry, leasing market is yet to be a mainstream in Malaysia, the locals still prefer outright purchase and financing. Leasing would always be the inferior option when they could not afford to own one. Property is a shelter for people, it is mandatory, if the people could not afford to purchase one, they must lease one, but there are alternative for vehicle, if the people could not afford a vehicle, they can use public transport, most of them would not consider vehicle leasing as their alternative.

The pandemic has created lots of uncertainties to the people, the benefits of leasing have increased significantly. Leasing is a tool to mitigate risk for the people, for instance hassle free disposal and eliminate the risk of asset depreciation due to asset becoming obsolete during the pandemic. Besides, for vehicle leasing it created more flexibility in terms of lease term, it would be more suitable for a mid-term run. Other than the impact from the pandemic, we also can see the trend of going green, people started to realize the importance in going green, vehicle leasing is an action of go green as well as it is a durable asset (Agrawal et al., 2012). Hence, we foresee that the leasing industry going to recover from the pandemic and increase in sales.

The public transportation infrastructure in Malaysia was underdeveloped, many places were not in the coverage, it was inconvenient to the user as it was too crowded and the public vehicles were always on maintenance, it caused the users were late to work ("*Rush-hour*," 2022). This made owning a vehicle in Malaysia has become an essential need, but there are limited sources for public to own a vehicle, which are outright purchase and financing. However, many of the people who are not afforded to purchase a vehicle or getting their loan approved will not

be able to get a vehicle. Hence, there is a gap to be fulfilled for the lower income group.

According to Helven (2020), Malaysia has the top vehicles per population ratio as compared to Brunei and Thailand; Malaysia sold 571 thousand of vehicle in 2019 (*Sales & Production Statistics*, 2020). Despite the huge number of vehicle demand, the lease market is still underdeveloped and the international player LeasePlan failed to penetrate into Malaysia market (Helven, 2020), this creates an unsolved puzzle in Malaysia market. Moreover, vehicle leasing program is not commonly known by the Small and Medium-Sized Enterprise (as known as “SME”), and it is not likely to obtain bank loan as they do not have strong financial profile to support them, and the amount of commercial vehicle is more expensive than the passenger vehicle. If their hire purchase loan was rejected by bank or financial institute, they will have lesser alternative to run their business daily operation. Hence, there is a gap between the businesses that have a need to own a vehicle but could not own it.

Types of vehicle leasing and leasing method in Malaysia are limited, consumer usually has less options of choices. The leasing rate in Malaysia was generally sky high, which the ordinary people can hardly afford it (Helven, 2020). For corporate leasing, the current market was mainly demanded by the multinational companies, but not local companies because multinational companies prefer lesser asset, lower depreciation, hassle free disposal to ease them from exiting the market and it is more difficult as it requires many tiers of approval for them to gain capital from the headquarter for vehicle purchasing purpose. Due to the overall lease rate were higher than purchase and local companies do not have strong creditworthiness, most of the leasing companies are not willing to lease to them, this caused the local companies only has one option to get a vehicle, which is outright purchase or financing.

Besides, limited studies were done on this topic, and it had been published for more than ten years as the last related journal article was published in 2007 (Dasgupta et al., 2007). Also, none of the studies were conducted in Malaysia leasing market. Hence, it would be meaningful to have a study targeting Malaysia vehicle leasing market.

## **1.2 Purpose of the Research**

There is a gap between the international market and the local market, in terms of product mix, positioning and pricing. The purpose of this study is to identify the gap and find out the best alternative that is custom made for locals. The main purpose of this study is to find out the popular types of vehicle leasing programs available in Malaysia versus the popular ones in other countries to compute a detailed comparison among it. The gist is to find out what Malaysia market is lacking and the elements that could be adopted to fill the gap of the demand of the locals, especially those lower income group who could not get their loan approved by the financial institution.

Furthermore, the purpose of this research is to find out the advantages and disadvantages of leasing versus buying a vehicle from the position of a consumer, so that the leasing companies could reassess their target customer and launch more types of leasing package to fulfill the needs of each of the category group consumers. This does not only apply on passenger vehicle, but also the commercial vehicle targeting small businesses and corporate client, modify the existing leasing packages to make it suitable for bigger population.

This research is to help the vehicle leasing providers to have a thorough understanding on Malaysian perceptions toward vehicle leasing and which are the most important consumer preference factors in deciding to lease a vehicle, so that they could have higher rate of conversion leasing a vehicle and their business could be more lucrative. Besides, vendor could have better understanding on reclassification of their potential consumer and how they shall set the product's value proposition.

### **1.3 Research Objectives**

Below are the objectives of this study:

1. To identify types of vehicle leasing programs that are available in Malaysia.
2. To investigate how convenience will impact people willingness towards vehicle leasing.
3. To analyze how vehicle ownership will impact people willingness towards vehicle leasing.
4. To find out how cost will impact people willingness towards vehicle leasing.
5. To understand how flexibility in vehicle leasing will impact people willingness towards vehicle leasing.

### **1.4 Research Questions**

Below are the research questions of this study:

1. What types of vehicle leasing programs are available in Malaysia?
2. How will convenience impact people willingness towards vehicle leasing?
3. How will vehicle ownership impact people willingness towards vehicle leasing?
4. How will cost impact people willingness towards vehicle leasing?
5. How will flexibility in vehicle leasing impact people willingness towards vehicle leasing?

### **1.5 Significance of the Study**

According to Helven (2020), Malaysia vehicle leasing market is undeveloped and once the world leading fleet management company, LeasePlan was operating in Malaysia in year 2016 but now they had withdrawn from Malaysia market. It is significant to find out the reasons behind it, so that it could contribute to Malaysia gross domestic product (GDP), especially during this critical time, which Malaysia economy is experiencing post pandemic and the ripple effect of the war between Ukraine and Russia. This study will focus into the types of leases that available around the world and identify the popular ones in other countries and compare it with the popular ones in Malaysia, by looking into their target consumer, lease rate

versus purchase cost and package details, so that we could identify the factors for the vehicle leasing company to motivate Malaysia leasing market.

The infrastructure of the country is underdeveloped, it created a lot of hassle for people daily life, if there were another alternative for the people it would reduce people's burden on travelling from one point to another will become easier, especially for those who could not afford to get a vehicle in current situation. Besides, this study also can help people to have more detail understanding on vehicle leasing and create awareness of vehicle leasing for the locals.

Besides, this study could help the leasing company to reform their business model to cope to the needs of the population and hence the leasing industry could be well-developed, for instance the undeveloped market of leasing to low-income individuals and the newly developed SMEs. This could provide more opportunities for the SMEs to start up and expand; this may boost Malaysia economy.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

The gist of literature review is to support the identity of a research idea, construct theoretical framework and comprise the past literature available for a specific topic (Rowley & Slack, 2004a). In this research, literature review could be divided into several parts, which are definition of lease, types of vehicle leasing program available in overseas and Malaysia, Vehicles available in Malaysia, rules, regulations and tariffs on vehicle leasing and the past study on this topic.

#### **2.1 Underlying Theories**

##### **2.1.1 Consumer Behavior Theory**

The study of consumer behaviour provides businesses and marketers with a way to capitalise on consumer behaviour by anticipating how and when customers will make purchases. It is helpful to identify the variables affecting these decisions and to place an emphasis on proactive behaviour-modification strategies. Top determinants of consumer behaviour include psychological, personal, and societal aspects. A person's attitude, comprehension of information, sources of motivation, personality, impressions of a situation, and beliefs are examples of psychological aspects (Walters, 1979). Age, gender, financial background, employment status, races, culture, and region are examples of personal traits. An older individual will likely shop physically rather than online shopping. In terms of social, the influence may come from a person's friends, workplace, family, neighbourhood, or educational setting, as well as from any groups they belong to, such as their local

society or interest club. Social class, living conditions, and education may also be included.

Usually, the common past studies on consumer behaviour were related to consumer behaviour in purchasing goods, but in the context of this study, it would be related to the services. Service's most importance characteristics is intangibility, it does not have a physical dimension and it does not have a standardization since consumer can request to change the ways that the services being delivered and each customer will probably prefer different service experience (Gabbott & Hogg, 1994). The consumer behaviour of services would be consisted of three steps, which are information search for available alternatives, compare the alternatives and re-evaluate the selection after consumption. Generally, consumer will refer to either internal or external sources. Internal source refers to a scan of memory, whichever information that is relevant to the case. External source may pertain to product complexity, experience with the category, and buyer uncertainty. While comparing the alternatives, service is less likely to evoke than goods, consumer would be more loyal when it is hard to obtain useful information. When internal information was negative, they would depend on the external information, such as Google review and Facebook comments. Consumer will examine their decision after consumption to compare the outcome and their expectation. In order to determine if a customer is satisfied or dissatisfied, a comparison between the perceived quality and expected quality of the service experience is made.

### **2.1.2 Social Exchange Theory**

American sociologist George C. Homans developed the term "social behaviour as exchange" in year 1958. Social exchange theory includes a wide range of areas, such as anthropology, social psychology, and management (Cropanzano et al., 2017). According to the social exchange hypothesis, social behaviour is the outcome of an exchange process. People will assess the cost of a poor outcome social engagement against the benefit of a positive outcome social connection. These expenses and benefits might be in terms of monetary, service, gift, and time. It is not necessary something measurable, it may be intangible, such as pride, humiliation, effort, respect, opportunity, social acceptance, love, and power.



Everyone wishes to receive more from a relationship than what they offer. It is a materialistic and reciprocal cycle, it occurs when the relationship costs too much than the benefit, people will cease the relationship. In contrast, when a relationship provides enough benefits, people will maintain the relationship. This exchange is meant to maximise gains and reduce contributions. According to this theory, people weigh the benefits and drawbacks of their social connections, and will cut off or sever links if the risks outweigh the positives. Even if giving and receiving are a feature of most partnerships, this does not mean that the exchanges are always equal. Depending on how much they value each social connection's benefits and drawbacks, people decide whether or not to maintain them. (Cook et al., 2006).

Theorists concur that social trade entails a sequence of encounters that lead to duties; yet these interactions are frequently viewed as interdependent and dependent on the actions of others. It stresses that these interconnected transactions have the potential to build high-quality relationships, despite this will only happen under specific conditions. This theory is useful in board independence, social power, networks, organisational fairness, leadership, and psychological contracts areas (Cropanzano & Mitchell, 2005).

Vehicle leasing can be considered as a type of service as the staff of vehicle leasing company have to service their consumers. An exchange between persons occurs when the trade items have a different value for them and results in an improvement for all participants over their previous status quo. Exchanges can be seen in lease contract discussions, when potential lessees and lessors debate over various contract conditions, both parties can raise the contract's subjectively perceived utility by swapping concessions in matters that are less important to them than to their opponent for concessions in subjects that are more important to them than to their negotiating partner (Pfrang & Wittig, 2008).

A research studied the link between service provider satisfaction, consumer attractiveness and preferred consumer status by using social exchange theory (Pfrang & Wittig, 2008). Suppliers evaluate the benefits and costs actually obtained through interactions with a particular customer and compare these outcomes with the benefits and costs produced in relationships with alternative customers using the expected relationship results and the comparison level for alternatives as

standards. Supplier satisfaction is influenced by a stable business strategy, the effectiveness of the buyer-supplier relationship, and the compatibility of the two companies. The possibility for business prospects for suppliers, the buyer's reputation for cooperation, and a supplier's anticipation of ease of doing business with the specific buyer are the drivers of customer attraction. The three steps to create a sustainable business model is to understand customer attractiveness in details, find out the elements that bring service provider satisfaction and ways to get benefit from being a preferred consumer(Schiele et al., 2012). Applying these steps into vehicle leasing program, it would be how to attract consumer to use this service, it would be the benefit that comes with the vehicle leasing program, such as maintenance, breakdown assistance, replacement vehicle and other dedicated services. A part of it, the supplier satisfaction would be on the earning, they wish to receive a reasonable earning from this exchange. Supplier has to identify their preferred customer that provide the greater benefit at lesser cost and provide more benefit to this group of consumers to create a win-win situation for both parties.

## **2.2 Definition of Lease**

International Financial Reporting Standards (as known as “IFRS”) is a general standard that been used in worldwide and IFRS 16 was effective from 1<sup>st</sup> January 2019 onwards. According to “Leases” (2018), lease is a contract that authorizes the right to use a specific asset within a period in exchange of something. There are two most common types of leases, finance lease and operating lease, which are the basic structure of type of lease, other types of leases are the derivative of these two leases. Many other types of vehicle lease are available in the global market, such as leveraged and non-leveraged leases, sale and leaseback, full and non-payout lease, specialized service lease, net and non-net lease and cross border lease.

### **2.2.1 Finance Lease**

According to “Leases” (2018), finance lease is a lease contract that transfers all the threats and benefits incidental to possession of the listed asset (p.62). Below are the situations which can lead to a finance lease:

- I. there is an option for the lessee to transfer the possession of the underlying asset at the end of the lease period.
- II. lessee has the right to decide whether to purchase the underlying asset at lower than face value at a prescribed future date.
- III. the lease term required to be at least the useful life of the asset even if the ownership is not going to be transferred.
- IV. the present value of the lease payments amount must be at least significantly all the face value of the underlying asset during the inception; and
- V. the lessee only can utilize the asset at a specialized nature that without major modifications.

There is a benefit for the lessee under finance lease, they will be able to claim their interest and depreciation, as the underlying asset is recorded on the lessee balance sheet.

### **2.2.2 Operating Lease**

According to “Leases” (2018), operating lease is a lease that does not transfer all the all the threats and benefits incidental to possession of the listed asset (p.62). Any of the below situation can be classified as an operating lease:

- I. if the lessee nullifies the lease, the losses of the lessor’s corresponding to the nullification shall bear by the lessee;
- II. profits or losses from the movement in the fair value of the remanent result to the lessee; and
- III. an option was given to the lessee to prolong the lease period for a secondary period at a rent which is significantly cheaper than market rent.

For operating lease, lessee utilizes the asset for a prescribed period and the risk of deterioration and contingency. All the asset related expenses shall be borne by the lessor. The underlying asset for operating is recorded under the lessor balance sheet and hence depreciation and interest are borne by the lessor. Meanwhile, lessee does not possess the right to purchase the asset at the end of lease term.

### **2.2.3 Sale and Leaseback**

According to Borad (2018), sale and leaseback is a deal that gives the right for the seller to lease back the asset to him after selling it and the buyer becomes the lessor and the seller will become a lessee. Both parties can come into an agreement to bind this transaction as an operating lease or a finance lease, it would be discrete on the terms and conditions of the contract. This type of transaction typically is made for high value fixed assets, such as property, machinery, vehicle, and land. For instance, a property owner has sold his house, but his new house is yet to complete. Thus, he could lease the house from the buyer until his house is ready to move in.

This model was first established in the United Kingdom in the late 1920s, a family owned-supermarket used this method to convert the asset into capital (Adams & Clarke, 1996). In the 2000s, there were many large corporates in the United Kingdom that had been holding many freehold real estates, these assets were normally debt free due to it were acquired long time ago, but these assets were generating lower return than its core business activities. Thus, most of the companies had separated their possession of the property and applying sale and leaseback method (Tipping & Bullard, 2007).

#### **2.2.4 Full and Non-Payout Lease**

Full payout lease also refers to finance lease, it is a lease that lessee need to pay for the purchase price of the leased asset, profit margin of the lessor, interest, and extra charges. The lease term is typically the economic life of the asset, which this lease can be considered as the derivative of finance lease (Business Dictionary, n.d.). This type of lease usually has only one lessee for each asset and it lasts for longer period (Oke, 2019).

For a non-payout lease, the lessor did not cover all the cost of the lease by leasing it for one single transaction, lessor could repetitively lease out the same asset to multiple users to generate profit. Non-payout lease can also be considered as a type of operating lease (Business Dictionary, n.d.).

#### **2.2.5 Leveraged and Non-Leveraged Lease**

In the 1960s, leverage lease were used by railway companies and airlines companies to finance their equipment's (Sherris, 1987). A leveraged lease consists of one or more third-party lenders, the lessor unable to purchase the asset alone due to huge amount involved. For the lessor who wishes to own the asset he made partial payment of the purchase value and borrow the residual value from third party lender. This type of lease usually happens when the value of lease is huge even hard to finance the asset, for instance aircraft, buses, railway carriages and gas pipelines. The growth of leveraged lease was due to most of the governments provide two tier tax reliefs on capital expenditures, which the purchase price of the asset could be offset against tax liabilities and its depreciation can reduce company taxable income.

The difference between leveraged and non-leveraged lease is non-leveraged lease does not involve third party, the lessor has to fund the asset by using its own fund and the lessee has to pay the lease payment to the lessor (Muhammad, n.d.). Non-leveraged lease is more common and easy to apply on Malaysia vehicle leasing industry.

### **2.2.6 Specialized Service Lease**

Referring to Muhammad (n.d.), a specialized service lease is a lease agreement which lessor provides asset related personalized service to the lessee together with leasing the asset. For instance, there are a few laptop leasing companies providing specialized service laptop lease; they have a few options remote repair, doorstep repair, 24-hour assistance hotline, hardware replacement and even damage insurance as an add-on option. Meanwhile, the specialized services for vehicle leasing in Malaysia include repair, road tax and insurance renewal, breakdown assistance, 24/7 customer service hotline, replacement vehicle, Puspakom inspection, payment for compound, doorstep delivery and collection, vehicle service, and maintenance.

### **2.2.7 Net and Non-Net Lease**

Net lease is a lease that lessee will not only paying rental but including all the extra cost associated with the use of the asset, while lessor is meant for financial services only. Commonly, a net lease has also been known as a finance lease. Meaning the lessee of an automobile net lease needs to bear all the cost incurred on the vehicle, including maintenance cost, repair cost, insurance cost, road tax, no replacement vehicle during breakdown and no delivery and collection services. However, for non-net lease, it is lessor obligation to pay for all the asset incidental expenses (“*Alliance*,” n.d.). In Malaysia, net lease is more common than non-net lease due to non-net lease offered by the financial institutions, but net lease offered by the non-financial companies. However, financial institutions preferred to offer hire purchase loan than lease contract, this made non-net lease less common in the industry.

### 2.2.8 Open-Ended Lease and Close-Ended Lease

In the early 1980s leasing is unfavourable in the United States due to open-ended lease used by majority of the dealers. For open-ended lease, lessee will need to bear the variance of the selling price at the end of 5 years if the selling price is less than the predetermined price. This could create overstatement of the vehicle residual value at the inception of lease, which lead to low monthly payment but high final instalment (Starkey, 1997). However, starting in 1990s dealers begin to transform their leasing structure into closed-ended lease, whereby the close-ended lease does not bind the lessee to purchase the vehicle during the last payment of the lease (Kagan, 2020).

### 2.3 Leasing Business Model and Past Studies

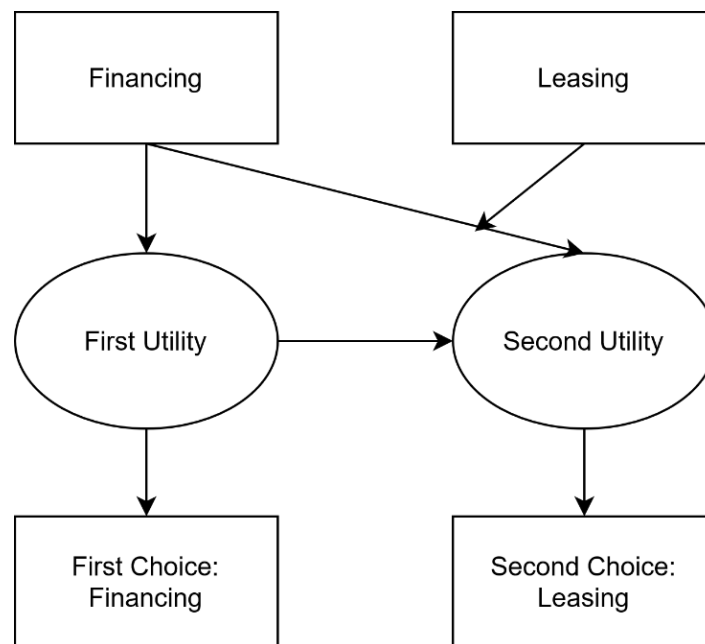


Figure 1: Concept of Leasing

Source: Starkey (1997)

When people wish to purchase a vehicle, there are only three ways, outright purchase, finance, and lease. If a Malaysian has the money, they will opt for outright

purchase, else they will firstly think of finance, instead of lease. When they failed to obtain the lease then only will go for leasing.

Starkey (1997) studied on the reasons of American leasing an automobile, he found that people more likely to lease a vehicle when they have higher debt level, education, and income. People tend to drive a higher price vehicle through lease, instead of paying high instalment on a cheaper model. The research also stated that people with higher income unlike to be bound by credit constraints, while for the indebted household would opt to buy a lower value automobile. During the 1990s, potential customer was concerned on the mileage surcharge for every mile exceeded 12,000 miles per year, this is reducing the likeliness of a potential customer to lease the vehicle. A risk adverse household prefers a predetermined selling price at the end of the lease with no extra payment to be made during final payment. Men with high education and less debt will prefer to outright purchase the vehicle. He also listed that 83.9% people living in urban area prefer to lease the vehicle again, if they had the experience of leasing in prior, while there is only a 42% of the people will opt to lease if he does not have the experience of leasing.

An empirical study on automobile lease versus finance was done by Trocchia & Beatty (2003), it proofed that four human desires for lessee are higher than financier, which are desire for variety of vehicle, hassle free maintenance, social image, gratification on physical comfort and driving excitement. It showed some of the statistics among financier and lessee, people who aged in between 25 and 34 years old and between 45 and 54 years old has taken 55% of automobile market share; the married ones have two times higher intention to finance a vehicle than a never married ones, while for the divorced ones has the least intention. From education level perspective, 91% of the lessee had at lease studied college and only 13% of the financier education is high school or lower, but there was a surprising fact for the income level, the top two income groups who like to lease the most is annual income \$25,000 to \$49,999 and annual income above \$125,000. This may imply that ordinary people and rich people both have the needs of leasing the vehicle.

Factors that an individual need to consider before making the decision for buying or leasing are selling price of the vehicle you like, down payment or deposit required,



amount of monthly payment, how long you would like to utilize the vehicle, vehicle resale value at the point of time, current interest rate, personal satisfaction with ownership, mileage cap and wear and tear in lease agreement and tax savings amount for company vehicle. After gathering all the above information, then 3 types of net present value can be computed, which are present value of net cash outflow for lease, credit financing and outright purchase (Patrick, 1984).

There is a point need to be considered which most of the buyer has omitted this point, which is the maintenance cost, the maintenance cost for a new vehicle is less expensive, however the cost spike up starting from the fourth year to sixth year due to the end of warranty, when the men uses the vehicle for 6 years, which the lease contract of a vehicle usually carries 3 years term and the maintenance cost can be controlled at a low value. The most favourable lease term in year 2000 in Southern California region is 36 months and 48 months lease which capture the market share of 77%; 60 months was the most common term for automobile loan. Lease contract monthly payment would be much lower than the loan monthly instalment, the consumer can drive two different vehicles over the ownership period and they can enjoy hassle-free disposal with no disposal cost (Dasgupta et al., 2007).

According to Hendel & Lizzeri (2002), cars became more durable than the past. Therefore, the depreciation of new vehicle in terms of quality depreciate slower and made leasing more lucrative due to people will not have the intention to hold an aged car which its durability is worse than the new ones. In long run, the used car lease market also could be expanded due to the longer vehicle durability, while the used vehicle can be considered as a substitute of new automobile. However, the used car lease will not be as common as new car lease due to it is less profitable by the reason of shorter lifespan, lower residual value, higher maintenance cost, higher risk of breakdown and minority of the consumers prefer to lease an old vehicle. From the view of the consumer, an old vehicle is referred to vehicle aged older than 5 years, which the vehicle would be performing at top condition as most of the automobile manufacturer provide 5 years or 300km warranty and the common hire purchase loan period is 5 years, 7 years and 9 years, which part of the user will dispose the vehicle after they fully repay the loan. This made the vehicle depreciates the most in year 5, year 7 and year 9.

During the 1970s to 1990s leasing in United Kingdom and United States was deemed as an alternate of finance. From the view of company, leasing could provide the best term with flexible repayment scheme, able to maintain low interest rate for future conventional credit facility, huge working capital can be reserved for other expanding purpose, will not be suffered from tight cash flow, it is less expensive as compare to purchase, protect the asset from being obsolescence and benefit from tax relief (Fawthrop & Terry, 1975; Mayes & Nicholas, 1988; Sykes et al., 1976) as cited in Srinivasan & Murthy (1994).

## **2.4 Context of Malaysia Automobile Industry**

Malaysia government imposed many rules and regulations in automobile industry, which is different from the other countries. In order to fully understand Malaysia automobile leasing industry, the knowledge of Malaysia government's settings on vehicle is required.

### **2.4.1 Duty and Taxation**

ASEAN countries includes Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam (Albert and Maizland, 2019). Starting from year 2010, all import duty was eliminated for the vehicles imported from the above ASEAN countries (ASEAN Trade in Goods Agreement, 2009). For vehicles imported from other countries, it was divided into two categories which is Complete Knocked-Down ("CKD") and Complete Built-Up ("CBU"). For CKD vehicle, it is imported in parts and assembled locally, they will enjoy a lower import duty at ten percent for passenger car and none for commercial vehicle. A part of it, CBU vehicle is imported as completed unit, it is fully assembled, and it charged a 30% of import duty for both passenger and commercial vehicles (MAA, 2019).

Table 1: Excise Duties

Engine Capacity (cc)	Excise Duties
<1,800	75%
1,800 - 1,999	80%
2,000 – 2,499	90%
Above 2,500	105%

Source: (MAA, 2019)

Other than the import duty, an excise duty is applied on all passenger vehicles, including both CBU and CKD vehicles. It was calculated based on the vehicle engine capacity as in Table 1.

On top of the import duty and excise duty, a flat rate of ten percent sales tax is charged for all vehicles. However, Malaysia economy was downed due to the Covid-19 pandemic and Malaysia government wish to stimulate the economy by imposing a 100% sales tax exemption on CKD models and 50% exemption on CBU model starting from 15<sup>th</sup> June 20 to 31<sup>st</sup> Dec 20.

However, there is some exemptions of taxes and duties in certain areas in Malaysia, which are Langkawi and Labuan, provided if the vehicle is bought and used in the islands only. The duty-free vehicle is only allowed to move out from the island for less than 90 days in a year and it required to be registered with the Road Transport Department (Bernama, 2019).

Other than the taxes incurred on the vehicle, the government also imposed a tax relief for company car, which written in Income Tax Act 1967 Schedule 3 the cap amount for qualifying expenditure on private vehicle is RM50,000 and RM100,000 if the vehicle is ranged between RM100,000 and RM150,000, while the interest and principal payment in financing an automobile is tax deductible ( "Tax," n.d.; "Accelerated," 2013). However, the full amount of the lease rate is tax deductible in Malaysia as it is an operation expense.

### **2.4.2 Vehicle Permits in Malaysia**

According to Malaysia Land Public Transport (“APAD”), all vehicles used to rent or lease vehicle to the hirer are required to registered with Hire and Drive permit. Vehicles that registered with this permit will require to purchase the specific hire and drive vehicle insurance, which the cost is normally three times higher than the ordinary vehicle insurance. Road Transport Department (“JPJ”) inspection is required every six months for all Hire and Drive vehicle.

A Permit A or Permit C is required for commercial van and trucks. Permit A is used to apply on the commercial vehicle that requires to carry third party cargo, only with apply of this permit the goods loaded in the vehicle can be insured with goods insurance. Permit C is required for all commercial vehicle load capacity exceed five tonnes, usually for medium and heavy-duty truck. Other than the two permits above, there is another permit specially made for carrying container only, which is Permit KA. To register this permit, the company must have at least RM500,000 paid up capital (“*Panduan*”, 2013)

### **2.4.3 Driving License**

In Malaysia, many types of driving license can be obtained to drive specific vehicle, before obtaining the full valid driving license, a learner need to choose either learning manual transmission vehicle or automatic transmission vehicle and then he can partake a test on the law of driving in Malaysia and obtains a Learners Driving License. This license permits the learner to drive the vehicle with L plate, provided that it is with the companion of an instructor. After a driving test is passed by the learner, the new driver will be given a Provisional Driving License which valid for two years. After two years of provisional period, a Competent Driving License (“CDL”) for passenger vehicle can be obtained by the driver (*Types of Driving License*, n.d.). A part of it, international driving license is recognized in Malaysia for driving a passenger car. Becoming as an E-hailing driver or taxi driver, the driver also required to register D Class Public Service Vehicle (“PSV”) license (“*Vocational*,” n.d.).

There are a few requirements need to be fulfilled to drive a truck, need to own a CDL with at least Class D, driver need to be over 21 years old, have a healthy body and pass the theory exam then only Goods Driving License (“GDL”) will be given, driver with this license is allowed to drive the vehicle curb weight below 3,500kg. It applies the same case for PSV Van and PSV Bus, which are specialized for passenger van and bus. License E is made for the vehicle curb weight more than 7,500kg, while GDL Class E is compulsory for driving more than 7,500kg curb weight vehicle and carrying goods. The ultimate driving license would be the GDL Bersendi Class E, it is meant for driving prime mover with a maximum gross vehicle weight of 44,000kg (“*Vocational,*” n.d.).

#### **2.4.4 Hire-Purchase Information**

Outright purchase was less common in Malaysia, majority of the people will choose to purchase a vehicle by using financing option, as all our banks offers a fixed-rate loan, which the interest rate will not fluctuate throughout the financing period. An overnight policy rate (“OPR”) will be announced by Bank Negara Malaysia on alternate months, this interest rate appears when a bank does not has sufficient money and has to borrow money from another financial institution, indirectly this would affect the fluctuations of the interest rate, the higher the OPR, the higher interest rate and vice versa (Yeoh, 2022). As compared to property, automobile is not an appreciating asset, it does not charge at a floating rate due to its shorter loan period (Kem, 2022). The interest rate of automobile hire purchase loan is pre-fixed and positively correlated to the OPR. It is calculated based on the method of sum of digit, majority of the repayments in the initial period were to pay for the interest charges and a small portion was paid to the principal, this is the way that the banks trying to maximize their profit and discourage early settlement (Lye, 2021)

The available loan tenures are 3 years, 5 years, 7 years, and 9 years. However, the more common tenures are 5 years for corporate, 7 years and 9 years for individual. Hire-purchase maximum loan amount is 90% of the new vehicle price and 80% for the used vehicle, this represents that the user has to fork out 10% or 20% of the price as the down payment. Usually, used car possess a higher interest rate than a

new car, due to a new car may have collaboration with the banks at promotion rate. For used vehicle higher risk was associated, such as vehicle breakdown,

## 2.4.5 Vehicles available in Malaysia

In overseas, many of the different vehicle models can be seen, which some of it is not available in Malaysia, due to the climate is a tropical rainforest, we have high humidity and only have one season for the entire year long, which the vehicle engine required to be customized to suit Malaysia whether. Besides, Malaysia government had imposed some duty and taxes for the vehicle, which increase the cost of the vehicle. Hence, vehicle model in Malaysia is different from the others and some of the manufacturers tend to name the vehicle differently in different country. In short, vehicle in Malaysia can be categorized into two distinct types of vehicles, which are passenger vehicle and commercial vehicle.

### 2.4.5.1 Passenger Vehicle

Table 2: Total Number of Passenger Vehicle Brands and Models

Segment	Number of Brand	Number of Model
Hatchback	14	24
Sedan	20	49
Coupe	6	14
Sport Car	11	31
SUV	27	80
MPV	9	14
Passenger Van	7	9
	Total	221

Source: Developed for research

Passenger vehicle can be diversified into 7 branches, which are hatchback, sedan, coupe, sport car, SUV, MPV and passenger van. Hatchback usually is a vehicle with one extra rear door so that there is a luggage space for the user (Cambridge

Dictionary, n.d.). Sedan car has four doors and a minimum of 4 seats, it separated the area of engine, passenger, and cargo (Cambridge Dictionary, n.d.). In Malaysia, sedan vehicle has various price range from the most economical car Proton Saga to the most luxurious car Bentley Mulsanne base price start from RM3mil. Coupe has 2 doors with two or four seats, it will often look sporty, and its rear interior volume is fixed to be less than 33 cubic feet (Burdick, 2009). In Malaysia, all the coupes are from luxury brand, such as Lexus, Infiniti, Porsche, and Bentley. According to Chandler (n.d.), sports car is a small in size, its base is near to the ground, equipped with high torque engine and 2 seats, it is meant for high-speed racing.

SUV has the maximum total number of brands and models, which are 27 brands and 80 models. Most of the SUVs in Malaysia is quite expensive can easily exceed one hundred thousand Malaysia Ringgit, except for Perodua Aruz, Proton X70, Haval H1 and Haval H2. Perhaps SUV is the most lucrative segment in Malaysia and usually its premium version will come with four-wheel drive. MPV also comes with the name of minivan and people carrier, which is a car that can carry 7 or 8 people. The most famous MPV in Malaysia is Toyota Innova and Proton Exora. Each passenger van model has a few variants, which come with different number seats, such as C.A.M Placer- X it can fit in 10 to 18 seats depends on the customer requirement. The list below only includes the new vehicle available in Malaysia in year 2022. In total, we have 221 models for passenger cars.

#### 2.4.5.2 Commercial Vehicle

Table 3: Total Number of Commercial Vehicle Brands and Models

Segment	Number of Brand	Number of Model
Pickup	8	11
Panel Van	7	7
Bus	3	9
Light Duty Truck	8	14
Medium Duty Truck	7	10
Heavy Duty Truck	12	23
	Total	74

Source: Developed for research

For the commercial vehicle, there are in total of 6 types of vehicles, which are pickup, commercial van, bus, light duty truck medium duty truck and heavy-duty truck. Pickup often comes with 4 wheels drive, and they have single and double cabins, single cabin is driver seats and co-driver seats only, double cabin has the second row as the passenger seats. Commercial van is a panel van or semi panel van, meaning that there is a spacious boot space for people to load things. For bus, we will have single decker and double decker, some even come with toilet, but there are only Scania, Hino and King Long who are currently still selling buses.

Light Duty truck is a 1 tonne and 3 tonnes truck. Its body could be an aluminium box, wooden cargo, freezer, or chiller box. Its body length is 10ft for 1 tonne and 17ft for 3 tonnes, of course they can extend the wheelbase to 13footer and 21footer. Besides, medium duty truck would be 10 tonnes and above, some of it is installed with a crane. Heavy duty truck often refers to the prime mover, they are many brands who are offering prime mover, it is also the most expensive ones, among all the trucks listed. Other than the trucks leased in the official website of each brand, there are reconditioned trucks as well, it was imported by the local dealer, most of it is imported from Japan, vehicle age would be around 5 years old.



## **2.5 Vehicle Leasing Program Available in Malaysia**

Malaysia vehicle leasing companies are from three origins, one is from the normal leasing companies, their business nature itself is doing leasing of equipment and asset, another origin is from the car dealer, their nature of business is manufacturing and sales of vehicles, but they begin to engage in leasing they own vehicle out to consumer to increase their profit. The third origin is from the financial institutions, they are doing both financial services and leasing.

Normal leasing companies in Malaysia include Mayflower, Hertz, Avis, Europcar, Hawk, Pacific Rent-A-Car (“PRAC”) and other small local players. Basically, they are doing operating lease to their customer. Two types of leases are available for their option, one is the short-term leasing which the renewal is based on monthly basis, another would be yearly lease, for yearly lease up to 3 years a brand-new vehicle may be provided to the lessee. It is the right of the lessor on imposing mileage cap and the lessor will provide services such as, replacement vehicle, road tax renewal, insurance renewal, maintenance, 24 hotline, breakdown assistance and delivery and collection service. The lessee is required to pay a certain amount of deposit upon the contract is signed and usually it is one to three months of the lease payment. A monthly billing will be issued to the lessee and a 30-day credit term will be given to the lessee. Since that it is an operating lease, the lessee did not have to suffer depreciation in their fixed asset listing. Majority of the leasing company clients are from multinational companies, and they are leasing the vehicle for their managerial position worker, typically the vehicles are high-end sedans and SUVs. The main reasons for them to lease the vehicle is because the companies are new in Malaysia, they could not obtain loan from the banks, and it is a lengthy process for them to obtain approval from their head quarter to purchase of company asset or they are having a short-term project in Malaysia, or the company does not wish to take the hassle of maintenance and dispose the vehicle.

Goldbell Equipment (“Goldbell”), Pembangunan Leasing Corporate Sdn Bhd (“PLC”) Orix and Sepadu are the big brothers in commercial leasing industry. They offered operating lease for pickup, vans, and trucks to corporate only. They have their inhouse maintenance and service team. 24 hours breakdown recovery service, accident reporting, Puspakom inspection, insurance coverage, tyre replacement,

road tax renewal, vehicle tracking system and flexible lease term are included in their leasing package. They imposed a restriction on driving their vehicle to cross border (“*Commercial*,” n.d.). On the other hand, Orix is one of the leasing companies that provides Islamic lease, and the company was recognized by ISO specializing in vans and light commercial trucks (“*Automobile*,” n.d.). To apply for the lease from PLC, client is required to have operational profit for the recent 2 years and positive shareholders fund for application evaluation. Apart of providing operating lease only, the two leasing companies oriented from Japan, SMFL Leasing (Malaysia) Sdn Bhd (“SMFL”) and Hitachi Capital Malaysia Sdn Bhd (“Hitachi”) are offering both finance lease and operating lease to corporate and listed company (“*Service*,” n.d.).

Some of the banks are providing finance lease to the clients, such as CIMB Bank Berhad (“CIMB”), Bank Muamalat Malaysia Berhad (“Bank Muamalat”) and Bank Islam Malaysia Berhad (“Bank Islam”). CIMB is focusing on providing leasing to private and listed companies, government bodies and agencies (“*Equipment*,” n.d.). Bank Muamalat is providing the Sale and Leaseback transaction to individual and corporate, it is Syariah compliance based on the principle of Al-Ijarah. Bank Islam offers another Islamic package to the customer, it is using the structure of Ijarah Thumma Bai-I and Ijarah Muntahiah Bit Tamlik-I, which are similar with the conventional finance lease. Their customer will enjoy a rebate upon early settlement of the facility, and they have more flexible lease period, which is ranged from 1 year to 10 years. In addition, the margin of financing can be up to 100% of the asset value and they have higher risk tolerance by taking sole proprietor, partnership, and SME into consideration (“*Muamalat*,” n.d.).

Mercedes-Benz, Mini-Cooper, Volvo, and BMW were creative, they were offering a similar package, which was actually a combination of both finance lease and operating lease. Customer may select a 3 years or 5 years lease option, which both comes with the all-inclusive package, from warranty, insurance, road tax to maintenance (“*Sign*,” n.d.). A 10% to 30% down payment of the vehicle value has to be paid by the lessee, some of the package comes with a mileage cap (“*The*,” n.d.). For the 3 to 5 years lease term, each comes with a guaranteed future value, lessee has the right to return the vehicle or trade in the vehicle or fully settled the

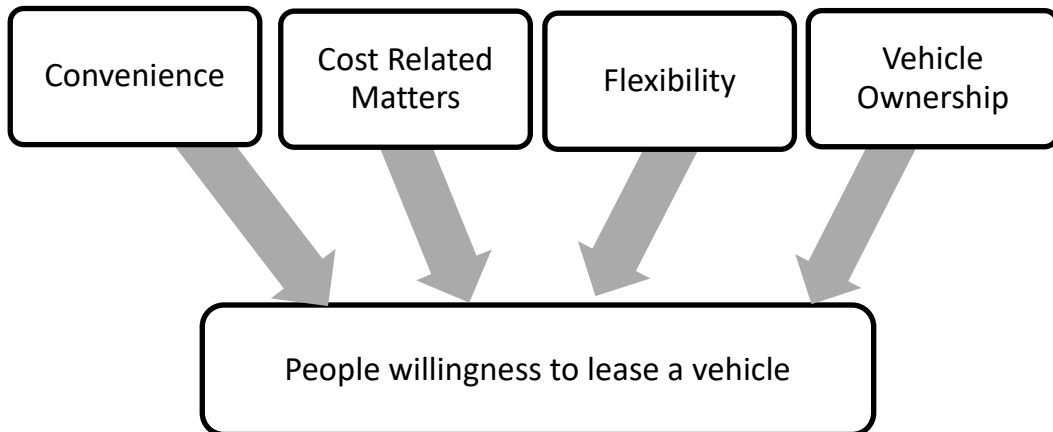
contract or extend the contract (“*The*,” n.d.). The only thing extra for Mercedes-Benz is they are providing pure operating lease as well, it could be either a used or a new vehicle (“*Leasing*,” n.d.).

In Toyota Capital Sdn Bhd web page, it stated that a leasing for commercial vehicle is available, and the maintenance will be covered by UMW Toyota Motor Sdn Bhd (“*Vehicle*,” n.d.). Renault leasing ads can always be seen on the social media, they are supplying two types of lease packages to their consumers, which are fixed plan and switch plan. The fixed plan is fixed on one vehicle for 1 to 3 years, a deposit of RM2,500 is collected, the mileage is limited at 20,000km per annum, other than periodic renewal and maintenance, a solar film is included in the package. Switch plan promoting a year lease plan, which comes with a primary vehicle, and the lessee can enjoy two months of other Renault models of course the deposit for this plan is higher at RM3,500 (“*Renault*”, n.d.).

In short, the vehicle leasing programs in Malaysia were operating lease and finance lease the ingredients of the programs were similar, but a few of the companies were more creative providing highly flexible and attractive packages, such as swap car, mileage cap and down payment for a combination of finance and operating lease.

## 2.6 Conceptual Framework

Figure 2: Conceptual Framework



Source: Developed for research

The conceptual framework of this research is shown in figure above. The purpose of this framework was designed to examine the impact of consumer preference factors on people willingness to lease a vehicle. It consists of four independent variables which are convenience, cost, flexibility, and vehicle ownership. These independent variables will bring impact towards the dependent variable, people willingness to lease a vehicle.

## **2.7 Hypothesis Development**

The independent variables were developed based on the elements that are available in overseas vehicle leasing package and the packages that are currently available in Malaysia market.

### **2.7.1 Relationship between Convenience and People Willingness towards Vehicle Leasing**

Operating lease is the most common lease package that is currently available in Malaysia. According to the package that is offering in the market, it includes vehicle maintenance, repair, replacement, road tax and insurance renewal, Puspakom inspection and no need to dispose the vehicle only have to return the vehicle to the lessor. All kind of services are included in the lease package, the lessor will send his staff to collect the vehicle for routine maintenance or minor roadside breakdown repair or assistance in handling the car accident and a replacement vehicle is provided to minimize the downtime and everything could be backed on track as soon as possible. They also provide a 24/7 breakdown assistance hotline. All the fees incurred on the vehicle for repair, maintenance, wear, and tear will be bear by the lessor, lessee do not have to suffer from consequences of having accident. For vehicle collection and return, the staff will come to your doorstep to handover the vehicle. This lease package is all about providing all types of premium services and everything is included. It creates hassle-free experience to the user in vehicle leasing. Hence, wish to find out whether the current package is attractive to the majority and the first hypothesis is developed, as below:

H1: Convenience of vehicle leasing has a significant impact on people willingness to lease a vehicle.

### **2.7.2 Relationship between Vehicle Ownership and People Willingness towards Vehicle Leasing**

The most significant difference between leasing and financing is the ownership of the vehicle. For financing, the ownership of the vehicle belongs to the people at the end of repayment of loan amount but for leasing there would be two types of lease packages, which are operating lease and finance lease. For operating lease, the risk and the ownership does not belong to the lessee at all, the lessee does not have an option to acquire the vehicle. For finance lease, the lessee has the right to acquire the vehicle at the end of the lease period. Some people might have concern on vehicle ownership, but some of them might not they only need the vehicle for daily usage. Hence, the hypothesis is developed to test the people:

H2: Vehicle ownership has a significant impact on people willingness to lease a vehicle.

### **2.7.3 Relationship between Cost and People Willingness towards Vehicle Leasing**

Cost is the main concern of most of the ordinary people as in May 2022, Malaysia inflation has increased 0.6% in a month (*Consumer Price Index Malaysia, 2022*). Many Malaysians have claimed that all price is increasing except for the salary, indirectly this has made the locals become price sensitive and like to choose the cheapest products. Hence, the price between financing and leasing would be one of the main factors affecting people willingness in vehicle leasing.

Other than lease rate, people's affordability in paying down payment will also affect people willingness in leasing a vehicle. Nowadays, majority of the financial institutions required a 10% of asset value to become down payment for financing but a lease contract does not require it, this might become an attractive point for vehicle leasing. Despite leasing do not collect down payment, but in Malaysia's context, some of the cases the lessor collects two to three months lease fare as deposit, only those with strong financial background and proven record, deposit is not required. The current payment term available in Malaysia market is charged at

monthly fixed rate; daily, weekly, biweekly, quarterly, semi-annually, and annually rate was not available and the credit term for corporate is normally 30 days. Based on the above context, the third hypothesis is formed:

H3: Cost has a significant impact on people willingness to lease a vehicle.

#### **2.7.4 Relationship between Flexibility and People Willingness towards Vehicle Leasing**

Normally for financing it meant for a longer period due to the common hire purchase period would be 5 years, 7 years, and 9 years and most of the people will not change the vehicle within that time frame because it is not worthy to do so, as Malaysia hire purchase is charging a flat rate and no incentives for early prepayment. However, a lease contract is more flexible, it could be fixed at 1 year, 2 years, 3 years, or 5 years. In Malaysia context, the contract period is pre-fixed and non-changeable due to different rate at different length of lease period; it would be charged at a cheaper rate for a longer contract and vice versa.

Due to the constraint of limited budget, people can afford lesser variety of vehicle model and brand but leasing charge at a monthly rate, a slight increase on the lease rate budget, but user could have many more options as compared to purchasing as the user has to fork out the full amount of the variance between the purchase prices. For the lease packages available in Malaysia, the consumer has the option to choose their desire vehicle brand, model, specification, and condition. Renault Malaysia even offer option to swap the vehicle at a higher rate, so that the consumer would be able to try different variety of their brand's vehicle. According to Ding & Keh (2016), customized and personalized plans create better consumer satisfaction and higher sales conversion. With the above factors, a hypothesis was created.

H4: Flexibility of vehicle leasing package has a significant impact on people willingness to lease a vehicle.

## **2.8 Conclusion**

Due to the underdeveloped infrastructure, many people must purchase vehicle as one of the daily essential needs. These made the industry became very lucrative and many type of vehicle models are available in Malaysia. There were many types of leases available in Malaysia, such as finance lease, operating lease, sale and leaseback, full lease, non-pay-out lease, leveraged lease, non-leveraged lease, specialized service lease, net lease, non-net lease, open-ended and close-ended lease. However, operating lease and finance lease is the most common type of lease available in Malaysia. Malaysia automobile industry was affected by many elements, such as duty and taxation, vehicle permit requirement, type of driving license and hire-purchase information. Based on the package available around the world, four hypotheses were developed.



## **CHAPTER 3**

### **METHODOLOGY**

#### **3.0 Introduction**

This chapter discuss about the research design, sample size, target respondents, sampling methods, survey instruments, data collection method, analysis method and the result of pilot test.

#### **3.1 Research Design**

Qualitative method and quantitative method are complement to each other in order to assure the completeness of a research (Jick, 1979). Qualitative method shall be used to reveal the phenomena which is yet to be known (Strauss & Corbin, 1990). Content analysis is a type of qualitative research method, “it provides a systematics and objective means to make valid inferences from verbal, visual, or written data in order to describe and quantify specific phenomena” (Downe-Wamboldt, 1992, p. 314). Quantitative method emphasizes on collecting statistical and numerical data over different groups of human to illustrate specific case (Babbie, 2010).

To fulfil the objectives of this study, quantitative research methods will be utilized. For types of vehicle leasing program available in Malaysia and Malaysia automobile industry context, information will be collected via literature review, such as manufacturer official websites, leasing company official websites, trade publications, market research websites and government entities. Secondary resources to understand the global vehicle leasing industry were obtain from Research Gate, Science Direct, Google Scholar and UTAR Library. Primary data

will be collected via distribution of questionnaires to analyse the consumer socio-demographics characteristics and consumer preferences.

### 3.2 Sample Size and Target Respondent

Due to the constraints of the time and manpower, it is impossible to collect the data from the entire Malaysia population. Hence, a sample of respondents were chosen based on the below sample size formula.

$$n = \frac{Z^2 \times p \times (1 - p)}{d^2}$$

Source: (Kadam & Bhalerao, 2010)

Z: Statistic for a level of confidence. With 95% confident level, Z value is 1.96.

p: Expected prevalence. Considered it as 0.5.

d: Precision. Considered it as 0.065 to generate a smaller error of estimate.

With the above assumption the formula would be:

$$\begin{aligned} n &= \frac{1.96^2 \times 0.5 \times 0.5}{0.06^2} \\ &= 266.78 \\ &= 267 \text{ people} \end{aligned}$$

A structured survey questionnaire is going to be conducted on 267 individuals by using cross-sectional study, whom might be a potential client of vehicle leasing. Non-probability quota sampling is employed as the sampling method. Targeting on adults who are aged above 18 years old, which fulfil Malaysia age restriction on driving license and possess the ability to own a vehicle. Malaysia consists of three main races, which are Malays, Chinese and Indians; this survey have no restriction on races. The population include the people in various income levels, educational levels, household sizes and gender. Only targeting the people who leave in Malaysia, the survey encourages people living in all states to fill up, which this could provide

higher accuracy of what the people think towards vehicle leasing. Over 350 questionnaires were distributed to the public, but only able to receive 257 responses, the response rate was only 73%.

### **3.3 Sampling Methods**

Sampling is a strategy for selecting a group of people to serve as a data source to study; sampling techniques can be classified into probability and non-probability sampling (Sharma, 2017). Probability sampling also as known as random sampling, the probability of selecting each of the respondents is equal and this provide higher accuracy for the research. Some of the others probability sampling techniques include stratified sampling, systematic sampling, and cluster sampling.

The non-probability sampling methods are quota sampling, convenience sampling, judgement sampling and snowball sampling. These types of sampling methods mostly involve judgments while drawing the sample (Adam, 2014). Convenience sampling method was used in this research as it would consume lesser time, easy to access and this is a cost-effective approach, for instance approaching to friends and family are easier and less risky during this post-pandemic period.

### **3.4 Survey Instrument**

The questionnaires are divided into two sections, which are socio-demographic and perceptions-based questions. In socio-demographics section, it consisted of nine questions, which include gender, age, race, size of household, role in household, education level, monthly income, purpose of having vehicle and experience in vehicle leasing. For all the above questions the participants only can select one answer, except for the purpose of having a vehicle the respondents were allowed to select up to three options.

According to Dalati (2018), two dimensions are available in Likert scale, it indicates a person's likeliness towards a product or service. For section two, it focused in five areas including convenience, cost, flexibility, vehicle ownership, and people willingness in vehicle leasing. All the consumer preference factors leasing will be

tested through Likert scale by choosing from 1 (strongly disagree) to 5 (strongly agree) refer to Figure 3. A total of 24 questions were available for section two, refer to Appendix C for the questionnaires.

1) Hassle-free vehicle maintenance is the main factor that affects my vehicle leasing decision. \*

1      2      3      4      5

Strongly Disagree                                    Strongly Agree

Figure 3:Sample of Likert Scale Questions

### 3.5 Data Collection Method

Two types of research were conducted in this study, which were primary research and secondary research. Primary research is about the process of gathering real and first-hand data, it could be sourced from surveys, interviews, case studies, and observations. In this paper, an electronic questionnaire was applied to collect primary data from the targeted respondents. The questionnaires were constructed using Google Form and distributed from 28<sup>th</sup> June to 10<sup>th</sup> July 2022. The forms were distributed via multiple social media platforms, such as Facebook, Whatsapp, Microsoft Teams, Instagram and sharing between respondents.

On the other hand, secondary data was used as a reference to support this study. These data are the data that had already compiled by the previous researchers, such as government publications, books, journal articles, webpages, and others.

### 3.6 Analysis Method

The below table illustrated the analysis method that will be used in analysing the primary and secondary data.

Table 4: Summary of Analysis Method

Objectives	Analysis Method	Method	Type of Data
To explores types of vehicle leasing program in Malaysia.	Content Analysis	Qualitative Research	Secondary Data
To investigate how convenience will impact people willingness towards vehicle leasing.	Descriptive Analysis, Pearson Correlation Coefficient, Multiple Linear Regression Analysis	Quantitative Research	Primary Data
To analyze how vehicle ownership will impact people willingness towards vehicle leasing.			
To find out how cost will impact people willingness towards vehicle leasing.			
To understand how flexibility in vehicle leasing will impact people willingness towards vehicle leasing.			

Source: Developed for research

Content analysis method is used to find out the types of vehicle leasing program in Malaysia and comparing the similarities and differences of leasing and financing a vehicle in Malaysia. A descriptive analysis will be applied on the socio-demographics information collected from the questionnaires; this represent the characteristics of a population that is being studied. Dependent variable is the people willingness to lease a vehicle, independent variable is convenience of vehicle leasing, cost, flexibility, and vehicle ownership.

### **3.6.1 Descriptive Analysis**

Descriptive analysis, the first kind of analysis, may help researchers summarize data and spot trends since it measures central tendency, variation, and asymmetry. The process of calculating the data's mean includes calculating the numerical mean, which is the average of a set of values, the median, which is the midpoint of a list of numbers, the mode, which is the most common standard among a set of values, the percentage, which is used to show the significance of a particular group of respondents within the measure of variation to a wider group of people, and the frequency, which is the number of times a value is found. In other words, descriptive statistics are essential at the initial phase of data analysis because it establish the foundation for conducting inferential statistical tests to assess the variables (Schiele et al., 2012).

### **3.6.2 Inferential Analysis**

The generalizations made from the results of the target population are referred to as inferential analysis. It is crucial for developing conclusions and testing hypotheses. Inferential analysis includes the estimation of sample statistics as well as statistical hypothesis tests or tests of significance. It is used to conduct analyses based on a small sample of data in order to draw conclusions about a larger population. It may also be used to detect differences or links between variables, whether they are positively or negatively associated, by employing subgroups of the sampled data. It is crucial to measure the correlation since the research's variables are connected and changes in one variable will have an impact on others.

### 3.6.2.1 Pearson Correlation Coefficient

An analytical tool for assessing the strength of the linear link between two continuous variables is the Pearson's correlation coefficient (Schober & Schwarte, 2018). According to (Lee Rodgers & Alan Nicewander, 1988), Pearson's coefficient is denoted by an r-value that ranges from negative one to positive one, where negative one represents a totally negative correlation and positive one denotes a perfectly positive correlation, and 0 denotes no correlation, or no association between the variables. In particular, the stronger the correlation between the two variables, or vice versa, the higher the r-value.

Table 5: Pearson Correlation Coefficient: Rules of Thumb

Correlation Coefficient	Strength of Correlation
$1.00 =  r $	Perfect Correlation
$0.60 \leq  r  < 1.00$	Strong Correlation
$0.40 \leq  r  < 0.60$	Moderate Correlation
$0.00 <  r  < 0.40$	Weak Correlation
$0.00 = r$	No Correlation

Source: (Schiele et al., 2012)

This coefficient represents a linear relationship between two continuous variables, it is used to describe correlation between the variables, such as convenience, cost, flexibility, vehicle ownership, and people willingness to lease a vehicle. When the data follow a bivariate normal distribution, this coefficient is frequently employed to characterize jointly normally distributed data.

### 3.6.2.2 Multiple Linear Regression Analysis

In order to understand the link between independent and dependent variables, multiple linear regression analysis investigates the normality, linearity, no extreme value, and missing value analysis (Zikmund et al., 2009). It is used in the study when there are several explanatory variables present. A significant link between the variables is also found if the p-value is lower than the 0.05 alpha threshold. In order to determine if the independent factors have a bigger impact on the dependent variable, the multiple regression analysis was used to obtain complete and accurate prediction. It is a statistical technique that identifies the result or effect of a response variable using a limited number of explanatory factors. This research will study the associations between convenience, cost, flexibility, and vehicle ownership in connection with people willingness to lease a vehicle by using ANOVA statistics. The multiple regression equation is constructed as the formula below:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + \dots + b_nX_n + e$$

Whereas it represents the following meanings:

$Y$  = People willingness to lease a vehicle

$X_1, X_2, X_3$  = Dimension of consumer preference factors applied

$b_1, b_2, b_3$  = convenience, cost, flexibility, vehicle ownership

$a$  = as constant, value of  $Y$  when  $X$  become 0

$e$  = error (if applicable)

### 3.7 Pilot Test

Pilot test is a small population and preliminary test before the official data collection (Yusak et al., 2016). It was run through before officially distributing the questionnaires to the public. It is required to test the reliability of the sampling method and the construction of questions; it is very important in terms of identifying the potential problem and weakness of the study and improve the accuracy of data collection. The first 30 questionnaires were distributed to the targeted audience and the data was analyzed via Jamovi software. The below table indicates the result of Cronbach's Alpha Reliability Analysis.



Table 6: Cronbach's Alpha Pilot Test Result

<b>Construct</b>	<b>Alpha Coefficient</b>	<b>Number of Items</b>
Convenience	0.797	5
Cost	0.821	4
Flexibility	0.835	6
Vehicle Ownership	0.721	2
Willingness	0.675	7

Source: Developed for research

The Cronbach's Alpha Coefficient for "Willingness" is the lowest due to this pilot test only consist of small sample size at 30 pax only. All the other variables were at least ranked "Good" or above. The pilot test result was acceptable and good to distribute to more people.

### **3.8 Conclusion**

The targeted respondents were all the adults that living in Malaysia. The questionnaires were constructed using Google Form and 257 questionnaires were collected from the target respondents. The data collected was downloaded into Microsoft Excel format and input into Jamovi, an analysis software, to analyse; the analysis will be discussed in next chapter. The Google link was share to the respondents via Whatsapp, Facebook, Instagram, and other social media platforms. The data will be analysed using descriptive statistics, Pearson Correlation Coefficient and Multiple Linear Regression.

## **CHAPTER 4**

### **FINDINGS & ANALYSIS**

#### **4.0 Introduction**

This chapter was divided into two parts, the first part is about the descriptive statistics and the second part is about the inferential analysis. The analysis was based on 257 responses collected from the questionnaires. The second part focus on descriptive analysis, the results were generated by Google Forms built-in data visualization functions and Jamovi data analysis software. The third part is focused on the reliability test and logistic regression model. All the data collected were valid, all of the entries were properly filled up.

#### **4.1 Survey Responses**

Over 350 questionnaires were distributed but only 257 respondents were collected, the response rate was 73%. All the responses were valid response. This section will discuss the socio-demographic status of the respondents, including, gender, age, income group, education level, household size, role in the household, races, experience in vehicle leasing and purpose of having a vehicle.

#### 4.1.1 Respondents' Gender

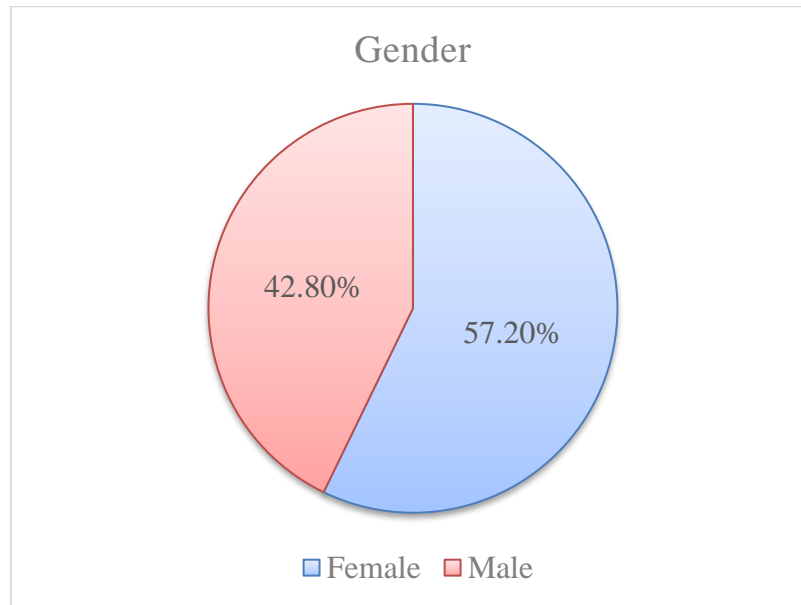


Figure 4: Gender

Source: Developed for research

Department of statistics Malaysia released that the current gender ratio as at year 2021 quarter 3 was 110 males per 100 females (Mohd Uzir Mahidin, Dato' Sri, 2021). However, referring to Figure 4, majority of the respondents were female, 147 (57%) of them were females and 110 (43%) of them were males, this shown that the gender distribution was different from population gender ratio.

#### 4.1.2 Respondents' Race

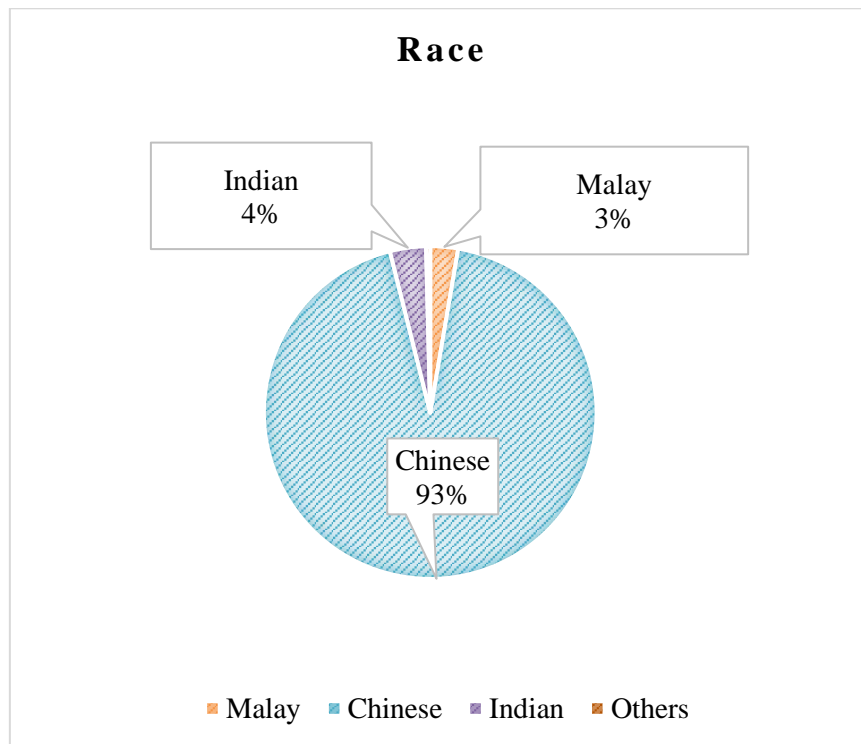


Figure 5: Races

Source: Developed for research

Malaysia is a multicultural country that constitutes three races in Malaysia, all the races were included for this survey, (93%) 240 of them were Chinese, nine (4%) of them were Indians and seven (3%) of them were Malay and one of the respondents was African. The respondents' ethnic group was different from citizen population by races, it was 70% of Bumiputera, 22% Chinese, 7% Indians and 1% foreigners (Mohd Uzir Mahidin, 2022). The background of each of the race was different, it is fair to include all the races in the survey as it represents the study for Malaysia's context.

### 4.1.3 Respondents' Age and Education Level

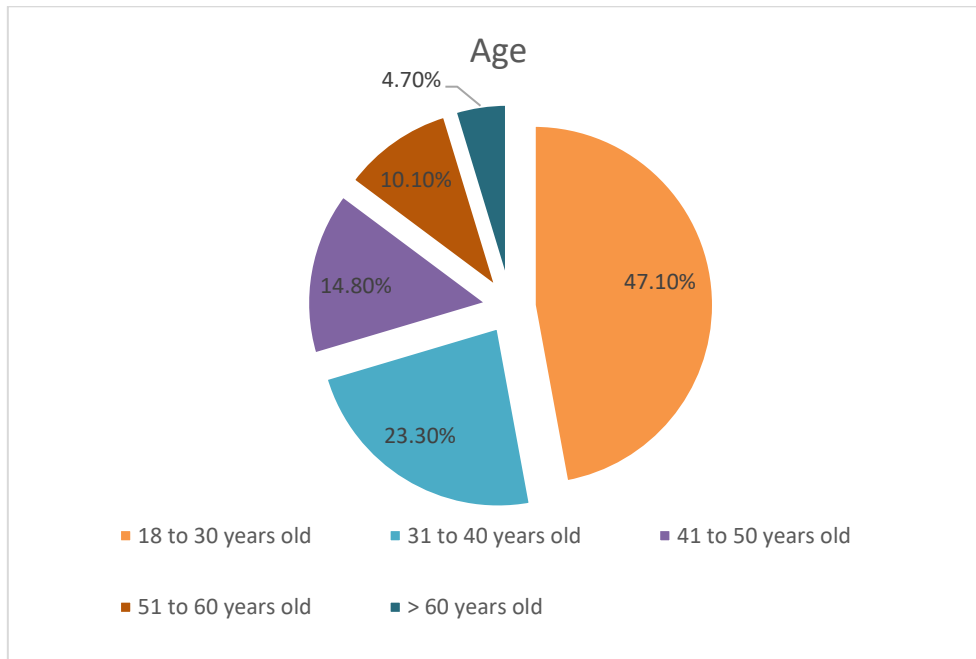


Figure 6: Age

Source: Developed for research

According to the latest Malaysia census report 2020, largest age group and largest working population were 15 to 64 years old, it consisted 69% of the population, the 0 to 14 years old people was 24% of the population. Only targeted adults who were 18 years old and above but only 5% or 12 of them were over 60 years old, 10% or 26 of them were 51 to 60 years old, 15% or 38 of them were between 41 years old and 50 years old, 31 years old to 40 years old was consisted of 23% of the responses and the largest respondents' group was between 18 to 30 years old. 121 or 47% of the respondents were in the largest respondents' group. This survey would be a fair survey as it included adults from different age group.

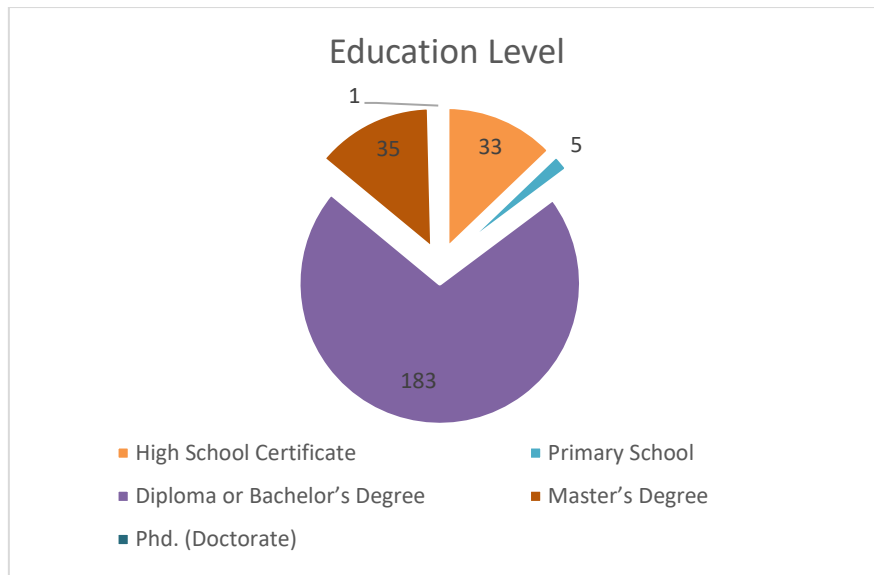


Figure 7: Education Level

Source: Developed for research

Table 7: Education Level and Age Group

Education Level	18 to 30 years old	31 to 40 years old	41 to 50 years old	51 to 60 years old	> 60 years old	Total
Primary School	2%	0%	3%	4%	8%	2%
High School Certificate	9%	13%	18%	23%	8%	13%
Diploma or bachelor's degree	76%	65%	68%	69%	67%	71%
Master's Degree	12%	22%	11%	4%	17%	14%
Phd. (Doctorate)	1%	0%	0%	0%	0%	0%
Grand Total	100%	100%	100%	100%	100%	100%

Source: Developed from research

In year 2010, a data shown that 9% of the population were no schooling, 23% of the population has studied up to primary school, 56% of them were studied up to secondary, and the remaining 30% has at least a tertiary certificate (“Quick Facts 2018 Malaysia Educational Statistic,” 2018). As compared to the participants educational level in this study, 85% (219) of our audiences’ education level were diploma and above, this reflected most of the users could fully understand the content of the survey, provide true feedbacks, and contribute to high data accuracy. Only 2% (5) of the respondents’ education level were up to primary school, 13%

(33) of them has a high school certificate. 71% or 183 respondents studied up to diploma or bachelor's degree, 35% and 14 of them have a master's degree and only one of the respondents were PhDs graduand. This survey has covered people from different educational backgrounds, which this reflects the distribution of educational level of the people who live in Malaysia. Referring to Table 7, 88% of the respondents between 18 years old and 30 years old were a diploma or a degree holder.

#### 4.1.4 Respondents' Household Size

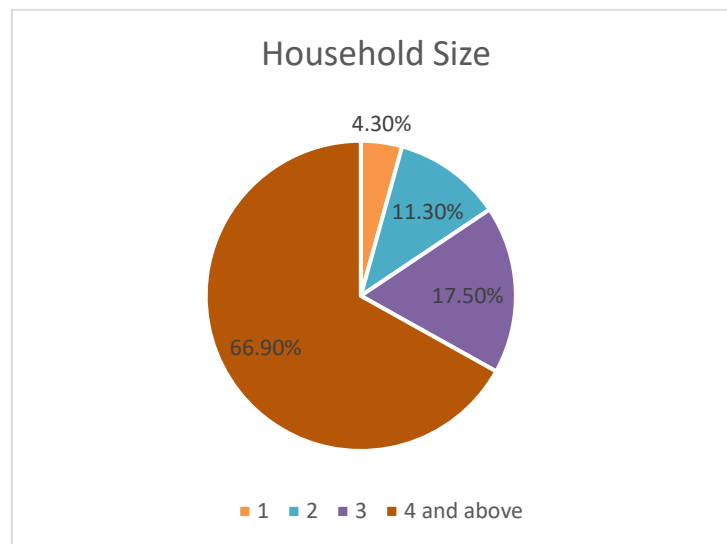


Figure 8: Household Size

Source: Developed from research

In year 2020, Malaysia average household size is 4.1 people per household (Esri, 2021). In comparison, 67% or 172 of the respondents' household size is four and above, 18% of the participants has four people in their household, 11% of the respondents have two people in the household and 4% of the people only have one people in the household. Majority of the respondents have larger household size; this might bring significant impact to the study as people with different household size may need a vehicle for different purposes.

#### 4.1.5 Respondents' Role in Household

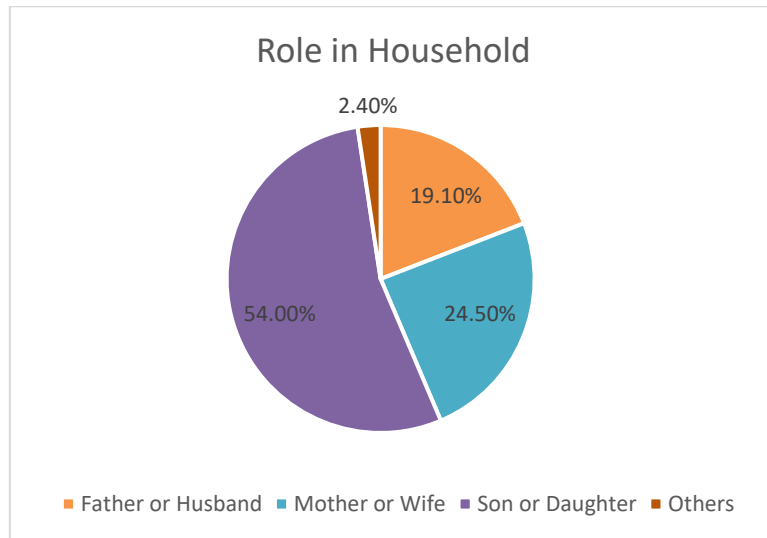


Figure 9: Role in Household

Source: Developed from research

Household size refers to the people living together in a house. The roles in a household have impact on the requirement of leasing a vehicle, for instance a mother would require breakdown assistance, door-step maintenance, and replacement car. 54% of the participants' role in the household were a son or daughter, this related to the largest age group was in between 18 years old and 30 years old. The second largest group were the wife or mother, it consisted 25% of the participants, while for the father or husband group, it consisted 19% of the respondents. The remaining 2% of the participants were living alone, not living with their families.



#### 4.1.6 Respondents' Income Group and Correlations

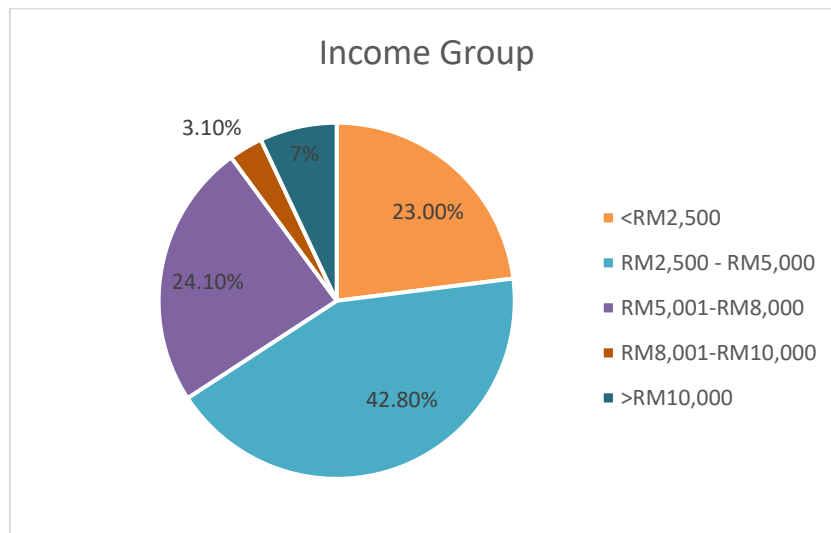


Figure 10: Income Group

Source: Developed from research

Table 8: Income Group by Gender

Income Group	Female		Male	
	Headcount	%	Headcount	%
Less than RM2,500	40	27%	19	17%
RM2,500 – RM5,000	64	44%	46	42%
RM5,001 – RM8,000	33	22%	29	26%
RM8,001 – RM10,000	3	2%	5	5%
Above RM10,000	7	5%	11	10%
Total	147	100%	110	100%

Source: Developed from research

Malaysia household income distribution is categorized into Bottom 40% (“B40”), Middle 40% (“M40”), and Top 20% (“T20”); B40 covers all the household income less than RM4,850, M40s’ income range between RM4,851 and RM10,959, while T20s’ income include all income that more than RM10,959 per month (Mohd Uzir Mahidin, 2021). (110) 43% of the respondents were in RM2,500 to RM5,000 income group and (59) 23% of them were less than RM2,500, this reflects that approximate 66% of the respondents were under B40 income group. (62) 24% of the respondents’ income were above RM5,000 and below RM8,001, (8) 3% of the respondents’ income were in the range of RM8,000 to RM10,000. Surprisingly, the highest income group, above RM10,000 was not the smallest group, it has 18 respondents. From Table 8, we can see the income distribution between female and

male was similar, both genders have the maximum headcount in the range of RM2,500 to RM5,000, but for female the second largest group is below RM2,500 and for male was RM5,001 to RM8,000.

Table 9: Income Group by Race

Income Group	Chinese	Indian	Malay or Bumiputera
Less than RM2,500	23%	11%	29%
RM2,500 – RM5,000	44%	22%	29%
RM5,001 – RM8,000	23%	44%	29%
RM8,001 – RM10,000	3%	11%	0%
Above RM10,000	7%	11%	14%
Total	100%	100%	100%

Source: Developed from research

Referring to Table 9, the survey participants included races from all income group except for Malay or Bumiputera of the income group RM8,001 to RM10,000. The biggest income group in the Chinese respondents was RM2,500 to RM5,000, but it is RM8,001 to RM10,000 for Indian. Meanwhile, for Malay or Bumiputera it was distributed evenly among the three groups from RM0 to RM8,000 and 14% of them were above RM10,000.

Table 10: Education Level by Income Level

Education Level	<RM2,500	RM2,500 – RM5,000	RM5,001 – RM8,000	RM8,001 – RM10,000	>RM10,000	Total
Primary School	1%	0%	0%	0%	0%	2%
High School Certificate	5%	5%	2%	0%	1%	13%
Diploma or bachelor's degree	14%	35%	16%	2%	5%	71%
Master's Degree	3%	3%	6%	1%	1%	14%
Phd. (Doctorate)	0%	0%	0%	0%	0%	0%
Total	23%	43%	24%	3%	7%	100%

Source: Developed from research

Table 10 shown the income distribution by education level, the most common group was the people with a diploma or a bachelor's degree and income fell in between RM2,500 to RM5,000 it consisted 35% of the respondents. The second largest group was also diploma or a bachelor's degree but with income RM5,001 to

RM8,000. It was not compulsory to have high education level in order to be in the high-income group, there were outliers who only study up to high school but receiving more than RM10,000 income per month but majority of the respondents with a master's degree were in M40 income group.

Table 11: Age Group by Income Level

Age Group	<RM2,500	RM2,500 – RM5,000	RM5,001 – RM8,000	RM8,001 – RM10,000	>RM10,000	Total
18 to 30 years old	33%	<b>47%</b>	17%	2%	1%	100%
31 to 40 years old	12%	<b>40%</b>	35%	0%	13%	100%
41 to 50 years old	8%	<b>34%</b>	32%	11%	16%	100%
51 to 60 years old	23%	<b>35%</b>	23%	8%	12%	100%
Above 60 years old	25%	<b>58%</b>	17%	0%	0%	100%
Total	23%	<b>43%</b>	24%	3%	7%	100%

Source: Developed from research

Table 11 shown that for all age groups, the biggest portion of the respondents were in the income group of RM5,001 to RM8,000. It shows that income group does not change according to age. The second largest income group of 31 to 40 years old, 41 to 50 years old, and 51 to 60 years old was RM5,0001 to RM8,000, this reflected people who were in between 31 to 60 years would have higher chances to demand for a higher income. However, age was not the reason of restriction to high income group as 1% of the respondents between 18 to 30 years old were able to achieve above RM10,000 monthly income. Majority of the adults who were over 60 years old were in RM2,500 to RM5,000 income group and none of them income was above RM8,000. The age group between 41 to 50 years old and 51 to 60 years old have more types of income groups and more people within the group income were above RM8,000, this implied higher age have higher tendency of getting higher income.

#### 4.1.7 Respondents' Vehicle Usage

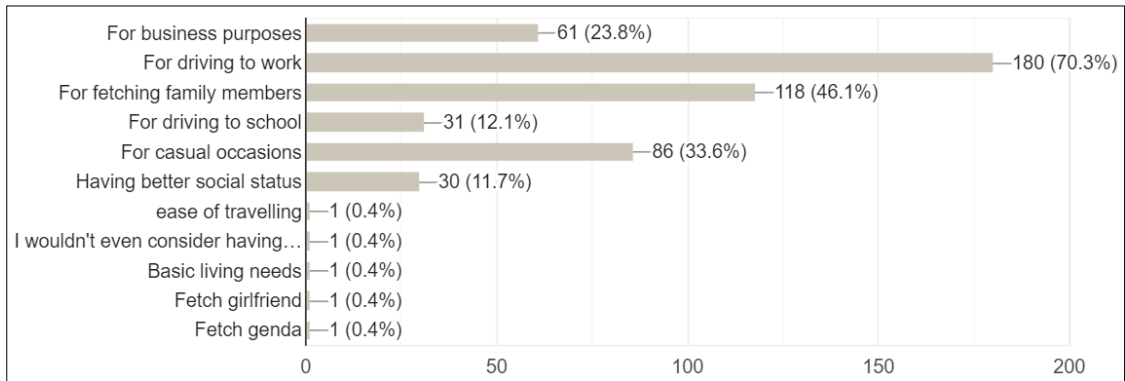


Figure 11: Vehicle Usage

Source: Developed from research

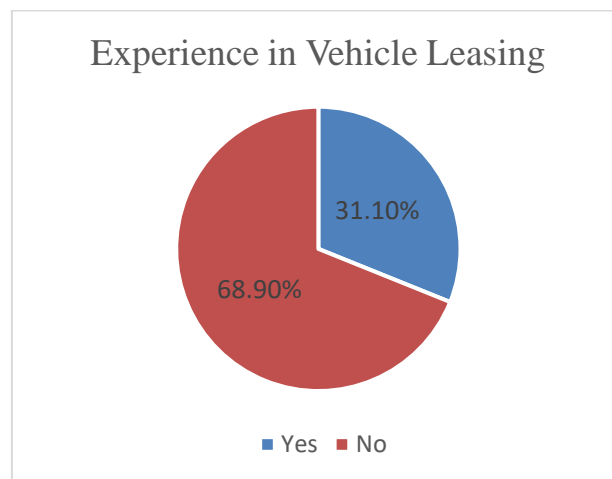


Figure 12: Experience in Vehicle Leasing

Source: Developed from research

Figure 12 was the respondents' responses regarding purpose of having a vehicle, many options were given to the respondents, and they were allowed to add on more options but only can choose at most three main purposes. The top rankings were driving to work (70%), fetching family members (46%), travels occasionally (34%) and for business purposes (24%). The responses given by the respondents reflects Malaysia public transport infrastructure was underdeveloped, vehicle is an essential need of the people. According to Figure 13, 69% or 177 of the respondents do not have vehicle leasing experience only 31% or 80 respondents had leased a car before, vehicle leasing was uncommon in Malaysia. This may affect people understanding

and acceptance in vehicle leasing as people prefer to remain as status quo using the same method as the past and refuse to try on new products.

## 4.2 Results of the Study

Section two of the questionnaires examined impact of consumer preference factors on people willingness towards vehicle leasing program. Respondents were requested rate the questionnaire according to their agreement or disagreement on a five-point Likert scale, with one representing "strongly disagree" and five representing "strongly agree". The results, including mean, mode, median and standard deviations that obtained from 257 respondents were shown in below tables.

### 4.2.1 Convenience

Table 12: Convenience's Results

Convenience									
	SD	D	N	A	SA	Mean	Median	Mode	Standard deviation
CN1	3	16	58	109	71	3.9	4	4	0.921
CN2	3	12	59	110	73	3.9	4	4	0.896
CN3	3	18	77	88	71	3.8	4	4	0.962
CN4	5	22	73	84	73	3.8	4	4	1.020
CN5	9	22	91	74	61	3.6	4	3	1.050

Source: Developed for research

Five parts were covered in "convenience" most of the respondents have chosen "agree" as their answer, except for CN5, it scored the lowest mean at only 3.6 and with the mode of 3 which is neither agree nor disagree, this represents the respondents have least concern on vehicle disposal. CN2 has the lowest standard deviation, which shown the highest consistency, most of the respondents agreed that hassle-free vehicle repair and replacement vehicle are needed to include in vehicle leasing decision. The higher the standard deviation reflects higher data discrepancies, all the standard deviation in Table 12 was below 1.5, it shown consistent result.

#### 4.2.2 Vehicle Ownership

Table 13: Vehicle Ownership

Vehicle Ownership									
	SD	D	N	A	SA	Mean	Median	Mode	Standard deviation
VO1	23	28	76	61	69	3.5	4	3	1.240
VO2	21	33	75	55	73	3.5	3	3	1.250

Source: Developed for research

For vehicle ownership, majority of the responses were gathered at neither agree nor disagree to strongly agree, minority of the people do not require vehicle ownership at all. More people tend to have vehicle ownership either in the beginning of the contract or at the end of the lease period, but there is also a significant number of the respondents who have no comments towards vehicle ownership due to both modes were neither agree nor disagree, this might not be a deciding factor for them to lease a vehicle. The standard deviation between the two questions were similar, both were above 1.2, this represents the responses were less consistency as "convenience" and people have different opinions towards vehicle ownership.

#### 4.2.3 Cost

Table 14: Cost

Cost									
	SD	D	N	A	SA	Mean	Median	Mode	Standard deviation
CO1	4	20	65	77	91	3.9	4	5	1.030
CO2	3	28	86	78	62	3.7	4	3	1.000
CO3	2	24	69	94	68	3.8	4	4	0.967
CO4	2	11	66	80	98	4.0	4	5	0.939

Source: Developed for research

Table 14 studies on the cost, as most of the Malaysians are price sensitive and our bombastic inflation rate create stronger people attention on price and cost related factors. Most of the responses concentrated at neither agree nor disagree to strongly agree, the mean was ranged around 3.7 to 4.0. The highest mean was CO4, which is the lease rate. Most of the people agree that lease rate would be the main factor affecting their vehicle leasing decision. CO1 served the second highest ranked mean at 3.9, which the people prefer not to fork out the down payment. CO2 has the lowest mean and majority has chosen neither agree nor disagree, this shown that it is not necessary for to have a longer credit term.

#### 4.2.4 Flexibility

Table 15: Flexibility

Flexibility									
	SD	D	N	A	SA	Mean	Median	Mode	Standard deviation
FL1	2	15	69	90	81	3.9	4	4	0.939
FL2	0	11	69	86	91	4.0	4	5	0.893
FL3	4	17	90	86	60	3.7	4	3	0.951
FL4	5	16	70	99	67	3.8	4	4	0.961
FL5	1	9	64	86	97	4.1	4	5	0.896
FL6	1	6	70	92	88	4.0	4	4	0.864

Source: Developed for research

In flexibility, it consists of 6 items, all the standard deviation are below 1, it shows the highest consistency among all the five variables. All the median of the items were 4, which is agree. All the opinions are aligned while it is related to flexibility in vehicle leasing program. Only FL3's mode is neither agree nor disagree, the others would be either agree or strongly agree. FL3 is about the option to swap vehicle during the leasing period but 90 of the respondents believe that this shown indifferent to their vehicle leasing decision. For FL2 and FL5, people strongly agree

that these two factors will affect their decision, which are early termination at no penalty, vehicle model, specification, and condition.

#### 4.2.5 Willingness in Vehicle Leasing

Table 16: Willingness in Vehicle Leasing

Willingness in Vehicle Leasing									
	SD	D	N	A	SA	Mean	Median	Mode	Standard deviation
WI1	10	22	82	81	62	3.6	4	3	1.060
WI2	5	16	57	77	102	4.0	4	5	1.020
WI3	0	10	50	77	120	4.2	4	5	0.884
WI4	2	20	81	72	82	3.8	4	5	0.994
WI5	30	50	93	45	39	3.1	3	3	1.200
WI6	3	17	73	89	75	3.8	4	4	0.961
WI7	8	20	62	78	89	3.9	4	5	1.080

Source: Developed for research

WI5 has the highest standard deviation, which means the responses are less consistent than the others. Its mean and mode both rated at 3, this reflects the respondents neither agree nor disagree that if they have sufficient money, they will lease a vehicle. WI2, WI3, WI4, and WI7 has the median of 4 and mode of 5, which these shown positive intention towards vehicle leasing. People would prefer to lease a vehicle under these four scenarios, such as when the lease rate is lower than purchasing, the vehicle is new and safe to drive, and their jobs require to travel frequently. WI3 has the lowest standard deviation, most of the people are very concern on vehicle safety as no one has rated strongly disagree.



### 4.3 Reliability Test

Reliability test is essential to test the consistency of the sample (Livingston, 2018). All the responses collected via survey questionnaires are invalid unless it has been verified that it is reliable (Amirrudin et al., 2020). Reliability analysis focus on consistency over the time and across multiple items, for instance the results that collected via the survey were similar, it reflects the validity of the results. Multiple types of reliability measurements are available, such as internal consistency, test-retest and inter-rater. Cronbach's Alpha often being used by the researchers to test the consistency of the results. It is suitable to use in measuring the reliability in behavioural, social and education sciences scenarios (Ravinder & Saraswathi, 2020). The reliability of the responses will be considered as valid and reliable only when the Cronbach's Alpha coefficient ranges between 0.7 and 1.0, refer to Table 17 for the rules of thumb about Cronbach's Alpha coefficient.

Table 17: Rules of thumb of Cronbach's Alpha Coefficient

<b>Cronbach's Alpha Coefficient</b>	<b>Strength of Association</b>
Less than 0.60	Poor
0.60 to less than 0.70	Moderate
0.70 to less than 0.80	Good
0.80 to less than 0.90	Very Good
More than 0.90	Excellent

Sources: (Hair et al., 2015)

In this research, the Cronbach's alpha test on the grouped Likert items was used to evaluate the impact of consumer preference factors towards vehicle leasing program. The five variables were convenience, cost, flexibility, ownership, and people willingness to lease a vehicle.

Table 18: Cronbach's Alpha Test Result

Variable	Alpha Coefficient	Number of Items
Convenience	0.797	5
Cost	0.821	4
Flexibility	0.835	6
Vehicle Ownership	0.721	2
Willingness	0.806	7

Source: Developed for research

The Cronbach's Alpha test were conducted by using Jamovi software. Flexibility has the highest scoring for the Alpha Coefficient, according to rule of thumb it is considered as "very good" level. It shown the highest consistency most of the respondents share the same opinion on this. It was measured by five items in the group. The second highest variable was cost, it was measured by 4 items and scored at 0.821, which also considered as a "very good" level. This implies that the locals have the same opinion towards cost. Malaysia inflation rate has been increasing tremendously since the beginning of the war between Ukraine and Russia. This has made the locals putting more concerns into price and cost to ensure each of the penny spent is worthwhile.

Willingness consists of 7 questions; it scored the lowest during the pilot test, but its consistency was increased to 0.806 when more samples were collected. The variable, convenience was measured by five items in the group, its Cronbach's Alpha Coefficient was scored at 0.797 and fell under the category of "good". This reflected that the internal consistency was strong and less discrepancies. The lowest scoring was the vehicle ownership only 2 items were used to measure its internal consistency and it shown that the respondents have different opinions. Despite that this was the lowest ranking, but it was still falls within the "good" level.

In short, all the independent and dependent variables were valid and reliable, as all the variables were shown at least at good level, which this shown the consistency in the responses.

## 4.4 Inferential Analysis

Based on 257 survey questions sent to respondents using Google Form, the researcher will investigate and analyze the data in this section utilizing Pearson correlation analysis and logistic regression analysis. The statistics were generated by using Jamovi Statistics software, it will be shown and described in the following sections of this document.

### 4.4.1 Pearson Correlation Analysis

Table 19: Pearson Correlation Coefficient

Correlation Matrix		Mean_CN	Mean_O W	Mean_CO	Mean_FL	Mean_W L
Mean_CN	Pearson's r	—				
	p-value	—				
	N	—				
Mean_O W	Pearson's r	0.169 **	—			
	p-value	0.007	—			
	N	257	—			
Mean_CO	Pearson's r	0.510 ***	0.310 ***	—		
	p-value	< .001	< .001	—		
	N	257	257	—		
Mean_FL	Pearson's r	0.530 ***	0.213 ***	0.703 ***	—	
	p-value	< .001	< .001	< .001	—	
	N	257	257	257	—	
Mean_WL	Pearson's r	0.521 ***	0.254 ***	0.580 ***	0.645 ***	—
	p-value	< .001	< .001	< .001	< .001	—
	N	257	257	257	257	—

Note. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Source: Developed for research

Table 19 shows the Pearson Correlation Coefficient, the five variables that were included in the analysis were convenience, cost, flexibility, vehicle ownership and people willingness to lease a vehicle. All the correlation coefficients were showing positive correlations and all p-value were lesser than 0.001, except for the correlation between ownership and convenience but its p-value still lesser than 0.01. Referring to Table 5, flexibility and cost related factors have the strongest correlation at 0.703, this represents that people who preferred high flexibility in leasing package customization are also very concern on the cost. The other five pairs of variables were having moderate correlation in between 0.510 to 0.645, which are cost and convenience at 0.510, willingness and convenience at 0.521, willingness and cost at 0.58, willingness and flexibility at 0.645. The correlation between people willingness to lease a vehicle and vehicle ownership was in weak positive correlation. Flexibility and ownership's correlation was weak, resulted at 0.213. Ownership has a weak correlation with all the other variables, cost and ownership has the strongest correlation in the pairs of ownership, but it was still weak and ranked in between 0.21 to 0.40. The weakest correlation was in between ownership and convenience. In short, all the variables shown positive correlation, majority of the pairs were showing at least moderate correlations except for the pairs that were related to ownership.

#### 4.4.2 Multiple Linear Regression Analysis

Table 20, Table 21, and Table 22 were the result generated by Jamovi, a data analysis software by using the responses of 257 respondents. These tables include the result of model summary, ANOVA, and model coefficients.

Table 20: Multiple Linear Regression Model Summary

Model Fit Measures				Overall Model Test			
Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	F	df1	df2	p
1	0.696	0.484	0.476	59.2	4	252	< .001

Source: Developed for research

In multiple linear regression analysis, the first thing would be verifying the p-value of the F-statistics, which is lesser than 0.001, this represents that the result is very significant and at least one of the independent variables is strongly related to the dependent variable and the null hypothesis is rejected. R value can be deemed as the accuracy of the dependent variable's assumption. Table 20 shown R value, R square, Adjusted R, and the result of the overall model test. The R value of 0.696 refers to the sum of all the correlated coefficients in the collected data are moderately correlated. R square refers to the correlation between the independent variables and dependent variable. In this study, it is 0.484, which means 48.4% of the dependent variable, people willingness to lease a vehicle are affected by the independent variables, which include convenience, ownership, cost, and flexibility. They might be other possible factors that are affecting consumer preferences. The adjusted R square is lower than R square, which one of the variables does not has impact on the model and shall remove it from the model.

Table 21: Omnibus ANOVA Test Result

Omnibus ANOVA Test					
	Sum of Squares	df	Mean Square	F	p
Mean_CN	3.866	1	3.866	14.94	< .001
Mean_OW	0.766	1	0.766	2.96	0.087
Mean_CO	1.593	1	1.593	6.16	0.014
Mean_FL	9.354	1	9.354	36.15	< .001
Residuals	65.201	252	0.259		

Note. Type 3 sum of squares

Source: Developed for research

Table 22: Model Coefficients

Model Coefficients - Mean_WL				
Predictor	Estimate	SE	t	p
Intercept	0.6282	0.2088	3.01	0.003
Mean_CN	0.1933	0.0500	3.87	< .001
Mean_OW	0.0511	0.0297	1.72	0.087
Mean_CO	0.1553	0.0626	2.48	0.014
Mean_FL	0.4175	0.0694	6.01	< .001

Source: Developed for research

Referring to Table 21, there are four degrees of freedom, which includes convenience, cost, flexibility, and ownership. The p-value of convenience is less than 0.001, this shows a positive correlation towards people willingness. P-value of ownership is more than the significance level of 0.05, which means that ownership has no significant impact to people willingness. Both cost and flexibility p-value are lesser than the significance level of 0.05 and showing a positive correlation.

In short, the p-value of the variables are all lesser than 0.05 except for ownership, it is slightly higher than 0.05, this represents that other than ownership, all other null hypotheses are rejected. Convenience, cost, and flexibility have a significant impact to people willingness to lease a vehicle.

There is a significant finding that ownership has no significant impact to people willingness to lease a vehicle, as current most common model to have a vehicle is to own the ownership. This finding shown that ownership is not necessary for the users, people prefer to be able to use the vehicle when it is required, even if there the ownership does not belong to the person.

The multiple regression equation is construct as the formula below:

$$Y = a + b_1X_1 + b_2X_2 + \dots + b_nX_n + e$$

Whereas it represents the following meanings:

$$Y = \text{People willingness to lease a vehicle}$$

$X1, X2$  = Dimension of consumer preference factors applied

$b1, b2, b3$  = convenience, cost, and flexibility

$a$  = as constant, value of Y when X become 0

$e$  = error (if applicable)

Table 23: Hypothesis Results

H1 is accepted where convenience of vehicle leasing has a significant impact on people willingness to lease a vehicle.
H2 is rejected where vehicle ownership does not have a significant impact on people willingness to lease a vehicle.
H3 is accepted where cost has a significant impact on people willingness to lease a vehicle.
H4 is accepted where flexibility of vehicle leasing package has a significant impact on people willingness to lease a vehicle.

The hypothesis results in Table 23 are computed based on the p-value in Table 22. H1, H3, and H4 are accepted, but H2 is rejected due to the significant relationship between vehicle ownership and people willingness to lease a vehicle is not identified.

## 4.5 Conclusion

The analysis was conducted based on 257 responses. Majority of the respondents were female and most of them have at least a degree certificate. Pearson coefficient analysis and multiple linear regression analysis were used to examine the validity of the hypothesis. All independent variables shown a positive relationship towards people willingness to lease a vehicle, except for ownership the impact is not significant. Hence, only H1, H3, and H4 were accepted.

## **CHAPTER 5**

### **CONCLUSION**

#### **5.0 Introduction**

This chapter focus on discussing the research outcomes, summary of statistical analysis and major findings that collected from the previous chapters. It consists of 4 parts which are conclusion, implication of study, limitation of study and recommendation for future research.

#### **5.1 Conclusion**

In general, two types of vehicle lease are available in Malaysia market, which are operating lease and finance lease. Most of the vehicle leasing companies are serving corporate consumers, which this has omitted the individuals' market. This study is to identify the factors that would affect consumer preference towards vehicle leasing. Four independent variables were constructed based on the vehicle leasing packages that are available in overseas versus what are offering in Malaysia market. The four independent variables are convenience, cost, flexibility, and vehicle ownership.

A survey was conducted to understand the consumer preference factors in vehicle leasing and 257 responses were collected. Majority of the respondents were female, over 93% of the respondents were Chinese. The largest respondents' age group is between 18 to 30 years old and most of the participants were playing a son or daughter role in the family. 85% of the respondent's education level were diploma and above. Surprisingly, 67% of the respondents' household size is four and above,



which aligned to Malaysia average household size of 4.1 people. 66% % of the respondents were under B40 income group which their income was under RM5,000, but there are respondents from each level of income group. 69% of the respondents do not have any experience in vehicle leasing. The major vehicle usage purposes are to drive to work, fetch family members and for casual occasions. A more detailed analysis can be conducted with the background information of the respondents.

From the collected responses, it shows that the respondents have least concern on hassle free vehicle disposal. This might be due to there are many second-hand car dealers in the market, caused less hassle in vehicle disposal but the respondents prefer that hassle-free vehicle repair and replacement vehicle are needed to be included in vehicle leasing package. Respondents strongly agree that these factors will affect their vehicle leasing decision, which are early termination at no penalty, vehicle model, specification, and condition. Flexibility has the lowest standard deviation among all the independent variables, which reflects the highest consistency in response. Lease rate would be the main factor that affects their vehicle leasing decision. This study also shows that the people do not wish to pay the down payment, which this is a benefit to convince the user to lease rather than purchase. Long credit term is not necessary for the individuals.

A reliability test was conducted to test the strength of association of each of the variables. According to the rules of thumb of Cronbach's Alpha Coefficient, all the variables were at least at "Good" level, this shown that the variables were valid and reliable. In Pearson Correlation analysis, most of the correlation coefficients were showing at least moderate level of positive correlations, except for the pairs of variables that were related to ownership. From multiple linear regression analysis, it shown that most of the hypothesis are supported, there is a relationship between the independent variables, convenience, cost, and flexibility, and the dependent variable people willingness to lease a vehicle. However, the relationship between ownership and people willingness to lease a vehicle was not significant, which caused H2 being rejected.

## 5.2 Implication of Study

Referring to the analysis in Chapter 4, it shown that cost is the main concern of the people who lives in Malaysia. The study shown that majority of the people prefer to lease a vehicle is the lease rate is lower than purchasing. Hence, it is necessary to drill down into the cost of vehicle leasing. The biggest cost in vehicle leasing would the vehicle cost, it is difficult to get a vehicle at a cheaper rate, even if it is corporate rate, the vehicle price variance would not be significant. Hence, it is suggested for automobile manufacturer or distributor to dap into this market because they would be able to get the first-hand price and normally the distributors have its own service and repair hub, so that they could control on the maintenance cost and can easily adjust a convenient time for maintenance. Also, the distributors are stronger in terms of knowledge in taking care of the vehicle and making sure the vehicle are well-maintained, this may secure a good resell value. All these cost reduction methods could reduce the pricing of leasing and maintain the business at lucrative position. With these methods, vehicle leasing market in Malaysia could be expanded.

The other major cost in vehicle leasing would be the interest payment. Currently, majority of the vehicle leasing providers were not purchasing the vehicle with cash but getting loan from financial institution to purchase the vehicle and repay the principal amount and the interest on monthly basis. From the reverse thinking method, the bank could be the one offering vehicle leasing program, they may opt to outsource the service and maintenance to third party vendor or only offering finance lease to the consumer. Many financial institutions were also offering vehicle insurance packages, which they might impose terms and conditions to restrict the lessee purchase insurance package with them. This would be a win-win situation for the banks and the consumers, banks get more revenue from vehicle leasing program and insurance payment, while the consumer would be able to enjoy the vehicle at a lower rate.

For ordinary vehicle leasing companies that are neither financial institution nor vehicle manufacturing company, they might offer vehicle leasing program with higher resell value vehicle, such as Toyota Vios, Honda City, Perodua Bezza, Perodua Myvi, Toyota Hilux, Toyota Hiace, Hino, and Isuzu lorries. Vehicle that

with low resell value is not recommended, such as Volkswagen Passat, Peugeot 5008, Haval H2, Renault Megan, Ford Fiesta, and electronics vehicle. Vehicle leasing provider may take the resell value of the vehicle into consideration while computing the pricing, so that they might offer at a more affordable price, while penetrating into individuals. Their current business model is lucrative, but if they expand the market, they would be able to earn more and be benefited from economies of scale.

Most of the vehicle leasing provider are offering new vehicle to their users due to limited available cars. There is another opportunity for the second-hand car dealers as in the survey people are concern on the vehicle leasing price and safety of the vehicle. Second-hand car dealer may refurbish their vehicle and lease it out for before it is sold. Existing leasing provider may also source good condition second hand vehicle to do leasing, as with this they may have more options to the users and target different income group.

Multiple linear regression analysis result shown that vehicle ownership has no impact on people willingness to lease a vehicle. Hence, it is not necessary to provide vehicle ownership, but it may be an option for the lessee at the end of the lease period if it is a hassle for the lessor to dispose the vehicle. In terms of convenience in vehicle leasing, people are more concern on the hassle-free vehicle repair and replacement vehicle, it is necessary to include this into the vehicle leasing package. In terms of credit term, it is unnecessary to include a long credit term for Malaysia individual consumer as majority of the respondents shown neither agree nor disagree.

Consumer has strong preference in flexibility of vehicle leasing package. They prefer to have a customizable leasing plan, which has the freedom to choose the vehicle model, vehicle condition, vehicle specifications, payment term, lease period, service, and maintenance. Also, the consumer also prefers to have the clause of early termination at zero cost, which the vehicle leasing provider may take this into consideration by giving the user 7 days of hassle-free return trial period or provide zero early termination penalty at higher price and those who wish to bind for the fixed lease period may enjoy a better price. However, not all the respondents require

the option to swap the vehicle during the lease period, what Malaysians need is a safe vehicle to travel due to the inconvenient public transport infrastructure.

### **5.3 Limitation of Study**

Few limitations were discovered while conducting this research. As of year 2020, Malaysia working adults' population consisted of 22.32 million people. However, this research only collected 257 respondents which is insufficient and insignificant to represent the whole population who lives in Malaysia. Also, due to limited past studies in this area, the research might miss out some of the other factors that will affect people willingness to lease a vehicle.

Besides, there are many different contexts in Malaysia, such as different regions that are serving different vehicle selling price, living expenses, public transport infrastructure, geographical landform, and income. For instance, Malaysia vehicle selling price varies based on locations, in duty free areas, such as Langkawi the vehicle price is much lower than the other regions, then vehicle price for Peninsular Malaysia is generally lower than East Malaysia due to logistics cost. Public transport is less convenient in Sarawak, from one place to another it takes longer time, there are limited alternatives to travel, automobile might be the only option to travel, the context may cause the result varies from one state to another. Also, there are many islands in Malaysia and automobile for them is unapplicable, which this study may be irrelevant to them. Living expenses and income in urban areas and rural areas varies a lot this has strong impact towards the affordability to own a vehicle and this affect the willingness to lease a vehicle.

Due to the used sampling method, most of the questionnaires were distributed to the Chinese, which this might cause a bias result, the races ratio is not distributed as per the population. Limited respondents were from Malay, Indians, and foreigners' group. The questionnaires were distributed to friends and family, which most of them living in Selangor region, which this might not be able to represent the voice of the nations.

A part of it, there are limited past studies on this topic and no relevant studies in this area in Malaysia, limited resources has caused the study to be less fruitful and

limited comparison versus the past can be conducted. Moreover, this segment in Malaysia is underdeveloped and the people has limited knowledge in understanding vehicle leasing business model. This might cause some of the important deciding factors have not been included into the research because Malaysian may have different purchasing power, behaviour, and preference factor due to the environment and context. Furthermore, people wish to remain status quo and refuse to change from current financing method may cause the data collection contains certain biases, no matter what changes begin made in vehicle leasing part of the people will still refuse to lease a vehicle.

There are some people who have randomly fill up the questionnaires without reading it carefully which might cause data inaccuracy. The survey was written in English, some of the respondents might not be fully understand on certain terms as Malay is more common in Malaysia as it is our national language.

#### **5.4 Recommendation for Future Study**

There are several things can be done in future study. The researcher may conduct the survey by choosing a larger sample size and collecting their living area to conduct a more precise analysis, by taking the respondents background into considerations. Also, a detailed study on Malaysia transportation infrastructure is required to fully understand the needs of the people. The study may segregate the respondents into multiple groups according to their characteristics and explore on the differences between each of the group, so that a more complete model could be constructed and each of the group can be taken into consideration, so that vehicle leasing could bring benefit to more people in the nation.

Not every place in Malaysia is suitable for vehicle, for instance in Pangkor island, motor is more common, a boat is more relevant to the people who lives in the island or nearby the coaster areas. Hence, future study may drill deep into the others vehicle that are available in Malaysia, but not limited to only cars. Those vehicles that comes with higher selling price, it may be easier to convert into leasing as individual's loan may not be easily approved.

This study shown that majority of the people who lived in Malaysia are having cost saver personality, if the price of leasing is higher than financing it would be unfavoured by the audience. Hence, the researcher may focus on the method to reduce the price of leasing to offer more competitive packages. To sustain the margin of vehicle leasing, the provider has to lower down the cost, such as vehicle cost, maintenance cost, replacement vehicle, human resources, repair cost, insurance cost and road tax cost.

The current study focusses on individuals' perception towards vehicle leasing but the current Malaysia's market focus more on corporate users. Hence, the study can emphasize on company, as the needs and impact will be different to individual requirement and it has different usage, vehicle type, for instance corporate may require panel van, truck, prime mover, and pickup to carry goods. Tariffs, taxes, return on investment, manpower, credibility, debt ratio and others should be taken into considerations.

To reduce data inaccuracy due to misinterpretation, an interview shall be conducted to assure the respondents could fully understand the terms, also the questionnaires or interviews can be conducted in multiple languages so that everyone could fully understand the terms and the actual thoughts of the people. Collection of qualitative data will help the study to be able to identify more undiscovered areas.

The future trend for vehicle would be electrical vehicle and auto-driving system, both technologies are more common in Western countries. Currently, these technologies are very expensive and uncommon in Malaysia, for instance there are no electricity power station for electrical vehicle in the rural areas, these made travelling in Malaysia become unrealistic at current situation. These vehicles are not only expensive but also depreciate faster than the common vehicles, this had increased the cost in vehicle leasing as there are more risks to be bear by the providers. Hence, should vehicle leasing companies offer this type of vehicle could be a direction to explore in future studies.

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## APPENDIX A: List of Passenger Vehicle

Table 24: List of Passenger Vehicle

Passenger Vehicle	Brand	Model
Hatchback	Proton	Iriz
	Perodua	Axia
		Myvi
	Nissan	Leaf
	Toyota	Yaris
	Honda	City Hatchback
	Mazda	Mazda 3
	Hyundai	i30 N
	Kia	Rio
		Picanto
	Ford	Fiesta
		Focus
	Renault	Megane R. S
	Volkswagen	Polo
Golf		
Mini Cooper	Mini 3 Door Mini 5 Door Mini Clubman Mini Countryman Mini John Cooper Works Clubman	
Mercedes-Benz	A-Class Hatchback	
	B-Class Sports Tourer	
BMW	BMW M135i X Drive	
	BMW i3s	
Sedan	Proton	Saga
		Persona
		Perdana
	Perodua	Bezza
	Nissan	Almera
Toyota		Vios
	Corolla	
	Camry	
Honda	City	
	Civic	
	Accord	
	Type R	

Passenger Vehicle	Brand	Model
	Mazda	Mazda 2 Mazda 6
	Hyundai	Elantra
	Volkswagen	Vento Passat Arteon
	Kia	Cerato Optima Stinger
	Ford	Mondeo
	Volvo	S60 S90
	Lexus	ES 250 LS 500
	Bentley	Mulsanne Flying Spur
	Maserati	Ghibli Quattroporte
	Mercedes-Benz	A-Class Sedan C-Class E-Class S-Class Maybach S-Class
	BMW	BMW 3 Series BMW 5 Series BMW 7 Series Sedan BMW M5
	Porsche	Panamera
	Audi	A3 A4 A5 A6 A7 A8
	Jaguar	XE XF
	Infiniti	Q50
Coupe	Mercedes-Benz	C-Class Coupe E-Class Coupe S-Class Coupe CLA Coupe

Passenger Vehicle	Brand	Model
		CLS Coupe
	BMW	BMW 8 Series Coupe BMW M2 Competition BMW M4 Coupe BMW M8 Coupe BMW i8 Coupe
	Lexus	LC 500
	Infiniti	Q60
	Porsche	718 Cayman
	Bentley	Continental
	Sports Car	Ford
	Mazda	MX-5 RF
	Subaru	WRX BRZ
	Mercedes-Benz	SLC E-Class Cabriolet S-Class Cabriolet AMG GT
	BMW	BMW 6 Series GT BMW Z4 BMW i8 Roadster
	Porsche	718 Boxster 911 Carrera & Targa 911 Turbo
	Mini Cooper	Convertible
	Ferrari	812 Superfast 812 GTS SF90 Stradale F8 Tributo F8 Spider Ferrari 488 Pista GTC4Lusso Ferrari Roma Ferrari Portofino Ferrari Monza
	Jaguar	F-Type
	Lamborghini	Aventador Huracan Urus SIAN
	Maserati	GranTurismo

Passenger Vehicle	Brand	Model
SUV	Proton	X70 X50
	Perodua	Ativa Aruz
	Nissan	X-Trail
	Toyota	Rush C-HR Fortuner Rav4 Harrier Cross
	Honda	HR-V CR-V
	Mazda	CX-3 CX-30 CX-5 CX-8 CX-9
	Hyundai	Tucson Santa Fe
	Peugeot	3008 5008
	Haval	H1 H2 H9
	Renault	Captur Koleos
	Volkswagen	Tiguan
	Subaru	XV Outback Forester Levorg
	Mitsubishi	ASX Outlander
	Ford	Kuga EcoSport Everest
	Kia	Sportage Sorento
	Citroen	C3 Aircross
	Volvo	XC40

Passenger Vehicle	Brand	Model	
		XC60 XC90	
	Mercedes-Benz	GLA GLC GLE G-Class GLC Coupe	
	BMW	BMW X1 BMW X2 BMW X3 BMW X4 BMW X5 BMW X6 BMW X7	
	Porsche	Macan Cayenne	
	Audi	RS 4 RS 5 RS 6 RS 7 Q2 Q3 Q5 Q7 Q8	
	Jaguar	F-Pace E-Pace I-Pace	
	Infiniti	QX70	
	Lexus	UX 200 NX 300 RX 300 LX 570	
	Land Rover	Range Rover Range Rover Velar Range Rover Evoque Discovery	
	Bentley	Bentayga	
	Maserati	Levante	
	MPV	Proton	Exora
		Perodua	Alza

Passenger Vehicle	Brand	Model
	Nissan	Serena
	Toyota	Avanza Innova Alphard Vellfire
	Mitsubishi	Xpander
	Honda	BR-V Odyssey
	Hyundai	Starex
	Ford	S-Max
	Kia	Grand Carnival
	Citroen	Grand C4 Spacetourer
Passenger Van	Toyota	Hiace
	Foton	View CS2
	Ford	Transit
	Golden Dragon	X5
	Era Jinbei	H2L
	Mercedes-Benz	Vito Tourer
	C.A.M	Placer-X Co-Star Caravan

*The list was purposed by researcher.*

## APPENDIX B: List of Commercial Vehicle Model

Table 25: Commercial Vehicle Models

Commercial Vehicle	Brand	Model
Pick-up Truck	Isuzu	D-Max
	Toyota	Hilux
	Nissan	Navara
	Ford	Ranger Raptor Ranger Wildtrak Ranger Splash Ranger XLT
	Mitsubishi	Triton
	Mazda	BT-50
	Foton	Toplander
	Chana	Era Star II Pickup
Van	Nissan	NV200
	Toyota	Hiace
	Foton	View CS2
	Daihatsu	Grand Max
	Tata	Xenon
	Ford	Transit
	Chana	Era Star II Van
Bus	Hino	XZU720R RN8JSPA RK8JSKA RM1ESKU
	King Long	XMQ6120AS
	Scania	Citywide Interlink Touring Marcopolo
Light Duty Truck	Fuso	FE71PB FE85PE/FE85PG FG83PE FJ1828R
	Hino	300 Series
	Isuzu	ELF
	Auman	BJ Series
	JAC	N75 N45

Commercial Vehicle	Brand	Model
		X30
	UD Trucks	Kuzer
	JMC	Potente N800
	Mercedes	Unimog U219-U530
Medium Duty Truck	Fuso	FM65FJ FM65FN
	Hino	500 SERIES
	Isuzu	Forward
	UD Trucks	Croner
	Tata	8 Tonner Ultra 10 Tonner Ultra
	Man	TGS
	Mercedes	Unimog U 4023/U 5023 Unimog U 4000/ U 5000
Heavy Duty Truck	Fuso	FN62FM
	Hino	700 SERIES
	Isuzu	GIGA
	Volvo	FMX FH FM
	Mercedes-Benz	Actros
	Auman	Daimler EST
	Tata	Prima 40 Tonners Prima 49 Tonners
	Man	TGM
	Beiben	NG80
	UD Trucks	New Quester
	Scania	Crewcab L-Series P-Series G-Series R-Series S-Series
	Sinotruk	SWZ Series A7 Series T Series Mining Truck

*The list was purposed by researcher.*



## APPENDIX C: Questionnaires



### The Impact of Consumer Preference Factors on People Willingness towards Vehicle Leasing Program

Dear Respondent,

I am a student from University Tunku Abdul Rahman (UTAR) who is currently pursuing Master of Business Administration program. I am conducting research in title " The Impact of Consumer Preference Factors on People Willingness Towards Vehicle Leasing Program". The purpose of this research is to identify the factors that affect people willingness towards vehicle leasing program. This survey would take approximately of 10 minutes to complete. Please answer all the questions in the best of your knowledge. The participation of this survey is voluntary, and all the responses are collected for academic research purpose and kept PRIVATE and strictly CONFIDENTIAL. If you have any inquiries regarding this research project, please do not hesitate to contact me through 012-302 8927 or email at [heloeaf@1utar.my](mailto:heloeaf@1utar.my)

Thank you for your participation and cooperation.

# The Impact of Consumer Preference Factors on People Willingness towards Vehicle Leasing Program



\* Required

## Section A: Socio-Demographic Profile and Background

Please read the questions carefully and select the answer for each question.

1) What is your gender? \*

- Male
- Female

2) How many people are in your household? \*

- 1
- 2
- 3
- 4 and above

3) What is your race? Please state in others, if you are a foreigner. \*

- Malay or Bumiputera
- Chinese
- Indian
- Other: \_\_\_\_\_

4) How old are you? \*

- 18 to 30 years old
- 31 to 40 years old
- 41 to 50 years old
- 51 to 60 years old
- Above 60 years old

5) What is your role in your household? \*

- Father or Husband
- Mother or Wife
- Son or Daughter
- Other: \_\_\_\_\_

6) What is your education level? \*

- Primary School
- High School Certificate (SPM)
- Diploma or Bachelor's Degree
- Master's Degree
- Phd. (Doctorate)

7) What is your monthly income (RM)? \*

- less than RM2,500
- RM2,500 – RM5,000
- RM5,001 – RM8,000
- RM8,001 – RM10,000
- Above RM10,000

8) What would be your main purposes of having the vehicle? \*

- For business purposes
- For driving to work
- For fetching family members
- For driving to school
- For casual occasions
- Having better social status
- Other: \_\_\_\_\_

9) Do you have experience in vehicle leasing? \*

- Yes
- No

### Section B: The Impact of Consumer Preference Factors on People Willingness towards Vehicle Leasing Program

This section is looking for your opinion regarding how consumer preference factors affect people willingness to lease a vehicle. The respondents are asked to indicate the extent to which they agreed or disagreed with each statement using 5-point Likert scale response framework.

1) Hassle-free vehicle maintenance is the main factor that affects my vehicle leasing decision. \*

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

2) Hassle-free vehicle repair and replacement vehicle are the main factors that affect my vehicle leasing decision. \*

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

3) Hassle-free road tax and insurance renewal are the main factors that affect my vehicle leasing decision. \*

1      2      3      4      5

Strongly Disagree                        Strongly Agree

4) 24 hours breakdown assistance is the main factor that affect my vehicle leasing decision. \*

1      2      3      4      5

Strongly Disagree                        Strongly Agree

5) Hassle free vehicle disposal is the main factor that affect my vehicle leasing decision. \*

1      2      3      4      5

Strongly Disagree                        Strongly Agree

6) I would like to own the vehicle at the end of the lease period. \*

1      2      3      4      5

Strongly Disagree                        Strongly Agree

7) I would like the vehicle belongs to me (vehicle registered under my name) at the beginning of the lease period. \*

1      2      3      4      5

Strongly Disagree                        Strongly Agree

8) Zero down payment is the main factor that affecting my vehicle leasing decision. (down payment is not required in lease contract) \*

1      2      3      4      5

Strongly Disagree                        Strongly Agree

9) Longer credit term is the main factor that affecting my vehicle leasing decision. \*

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

10) Flexible payment is the main factor that affecting my vehicle leasing decision. \*  
(Flexible payment may refers to flexible payment schedule and payment amount.)

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

11) Lease rate is the main factor that affecting my vehicle leasing decision. \*

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

12) Flexible lease period is the main factor that affecting my vehicle leasing decision. \*

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

13) Early termination of contract at no penalty is the main factor that affecting my vehicle leasing decision. \*

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

14) Option to swap vehicle during the lease period is the main factor that affecting my vehicle leasing decision. \*

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

15) Options of vehicle brand and model are the main factors that affecting my vehicle leasing decision. \*

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

16) The specification and condition of the vehicle are the main factors that affecting my vehicle leasing decision. \*

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

17) I would like to customize the lease package by vehicle model, specification, lease period, payment term, vehicle ownership and services. \*

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

18) I would consider leasing as an alternative of owning my vehicle. \*

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

19) I would like to lease a vehicle, if the lease rate is lower than purchasing. \*

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

20) Vehicle safety is my main concern on vehicle leasing. \*

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

21) I would like to lease a brand new vehicle. \*

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

22) I would like to lease a vehicle, even if I have sufficient money to own a vehicle. \*

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

23) I am willing to lease a vehicle, if it provides unlimited mileage cap. \*

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

24) I am willing to lease a vehicle, if my work always require me to travel. \*

	1	2	3	4	5	
Strongly Disagree	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree



## APPENDIX D: Ethical Clearance Approval Letter



**UNIVERSITI TUNKU ABDUL RAHMAN** DU012(A)  
Wholly owned by UTAR Education Foundation Co. No. 578227-M

Re: U/SERC/125/2022

23 June 2022

Dr Omar Hamdan Mohammad Alkharabsheh  
Department of International Business  
Faculty of Accountancy and Management  
Universiti Tunku Abdul Rahman  
Jalan Sungai Long  
Bandar Sungai Long  
43000 Kajang, Selangor

Dear Dr Omar Hamdan,

### Ethical Approval For Research Project/Protocol

We refer to your application for ethical approval for your research project (Master student's project) and are pleased to inform you that your application has been approved under Expedited Review.

The details of your research project are as follows:

The details of your research project are as follows:

<b>Research Title</b>	The Impact of Consumer Preference Factors on People Willingness Towards Vehicle Leasing Program
<b>Investigator(s)</b>	Dr Omar Hamdan Mohammad Alkharabsheh Pan Ying Qian (UTAR Postgraduate Student)
<b>Research Area</b>	Social Sciences
<b>Research Location</b>	Malaysia
<b>No of Participants</b>	385 participants (Age: 21 - 60)
<b>Research Costs</b>	Self-funded
<b>Approval Validity</b>	23 June 2022 - 22 June 2023

The conduct of this research is subject to the following:

- (1) The participants' informed consent be obtained prior to the commencement of the research,
- (2) Confidentiality of participants' personal data must be maintained,
- (3) Compliance with procedures set out in related policies of UTAR such as the UTAR Research Ethics and Code of Conduct, Code of Practice for Research Involving Humans and other related policies/guidelines; and
- (4) Written consent be obtained from the institution(s)/company(ies) in which the physical or/and online survey will be carried out, prior to the commencement of the research.

Kampar Campus : Jalan Universiti, Bandar Barat, 31900 Kampar, Perak Darul Ridzuan, Malaysia  
Tel: (605) 468 8888 Fax: (605) 466 1313  
Sungai Long Campus : Jalan Sungai Long, Bandar Sungai Long, Cheras, 43000 Kajang, Selangor Darul Ehsan, Malaysia  
Tel: (603) 9086 0288 Fax: (603) 9019 8868  
Website: www.utar.edu.my



Should you collect personal data of participants in your study, please have the participants sign the attached Personal Data Protection Statement for your records.

The University wishes you all the best in your research.

Thank you.

Yours sincerely,



**Professor Ts Dr Faidz bin Abd Rahman**  
Chairman  
UTAR Scientific and Ethical Review Committee

c.c    Dean, Faculty of Accountancy and Management  
         Director, Institute of Postgraduate Studies and Research

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