CUSTOMER PERCEPTIONS ON HOUSING LOAN: EVIDENCE FROM URBAN AREA IN MALAYSIA

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DECLARATION

We hereby declare that:

(1) This undergraduate research project is the end result of our own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.

(2) No portion of this research project has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.

(3) Equal contribution has been made by each group member in completing the research project.

(4) The word count of this research report is 19130.

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DEDICATION

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LIST OF ABBREVIATIONS

CEEC   Central and Eastern Europe Countries

GDP   Gross Domestic Product

HL   Housing Loan

HP   Housing Prices

IL   Income Level

IR   Interest Rate

KLSE   Kuala Lumpur Stock Exchange

TB   Taxation Benefit

US   United States of America

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PREFACE

This research project is submitted as a fulfillment of the requirement for the pursuit of the Undergraduate of Bachelor of Finance (Hons). This research took 28 weeks to accomplish. The topic of this research is "Customer Perceptions on Housing Loan: Evidence from Urban Area in Malaysia". The four independent variables used in this research project are housing prices, interest rate, taxation benefit, and income level. While the dependent variable for this study is the housing loan demand in urban area of Malaysia.

Housing loan is an essential instrument for the housing market ever since this instrument first introduced to the world. In Malaysia, the housing loan demand keep on increasing every year due to the high demand of the housing market. Hence, the main objective of this research is to investigate the factors that affecting the customer perception on housing loan demand in urban area of Malaysia.

As housing loan demand may be a concern to several parties like commercial banks, central bank, and government and policymakers, this research may provide better understanding for the readers about the connection between the independent variables and the housing loan demand in urban area of Malaysia in order to help them make a better decision.

ABSTRACT

The purpose of this study is to examine the factors that influence the customer decision on demand of housing loan. Besides, this study also determines whether independent variables such as housing price, interest rate, taxation benefits and income level negatively or positively affect the customer decision on housing loan demand and whether the model significantly explain the change in housing loan demand.

This research is conducted by distributing questionnaires to respondents from 3 urban areas which are Kuala Lumpur, Penang and Johor. After that, survey form will be collected and convert into data form and process by using Microsoft Excel and Statistical Package for Social Science (SPSS) to obtain the useful result. Data will be analysed in term of reliability test, descriptive analysis, Pearson Correlation and so on.

At the end, housing price, interest rate, taxation benefits and income level can be concluded to have a positive relationship with housing loan demand at the point where the increase in housing price or income level will increase the housing loan demand. Interest rate and taxation benefits are not consistent with the previous research conducted by other researchers. This may due to Malaysian currency weaken and economy slow down, therefore, people intend to own a property instead of holding cash, since the property will appreciate in value while currency depreciate in value.

CHAPTER 1: RESEARCH OVERVIEW

1.0   Introduction

This study aims to investigate the relationship between the independent variables and demand of the housing loan in Malaysia. The independent variables included in this study are the housing price, interest rate, taxation benefits, and income level. This chapter comprises of research background, problem statement, objectives, research questions, hypotheses development, significance of study, and chapter layout.

1.1   Research Background

One of the most common types of financial credit is housing loan, which an individual borrows money from a financial institution to purchase a house. Housing loan is essential in the housing market as it is an instrument for people to acquire funds to own a house especially low-income group. In Malaysia, housing loan is mainly issued by financial institutions and commercial bank that monopolize the housing loan market. There are a few primary lenders, which are Malaysian Building Society Berhad (MBSB), Bank Simpanan Nasional (BSN), Bank Rakyat and so on. Since 1970, Malaysia government was trying to implement housing policy to actively promote homeownership among low and middle income groups. The state strongly intervened in the housing market and policies since independence (Basten & Koch, 2015). In 1980, financial institutions were suffering from liquidity risk which was caused by the mismatch of the funds and housing loan maturity. As a result, CAGAMAS Berhad is established with the objective to encourage home ownership by providing liquidity and financial resources.

There are two types of housing loan offered by Malaysia's financial institutions which are conventional mortgage loans and Islamic mortgage loans. The interest rates charged by the conventional mortgage loans can be fixed or variable over the life of the loan. Interest is prohibited in Islamic mortgage loans. Therefore, the interest charged is replaced by cost-plus profit basis where the rate of return follows the interest rate of the market (Meera, Kameel & Abdul Razak, 2005). The implementation of mortgage liberalization has caused the mortgage market boomed from year 1990 to 2004. According to Bank Negara Statistics, the borrowing of bank loans by the property and construction sector through conventional banks and finance companies increased from RM32 billion in the year 1990 to RM127.6billion in year 2000.

Based on Guirguis, Giannikos and Anderson (2005), it mentioned that the housing sector makes up a part of GDP and has an impact on the global economy. This is one of the factors that cause the government trying to implement several policies to increase the home ownership. The fluctuation of housing loan demand is caused by some factors such as the price of the house as well as implementation of various policies like lending rate, taxation and so forth. Gervais (2002) study suggests that the mortgage demand is significantly affected by the tax savings rate in long term. Furthermore, the price of the house has a greater impact on mortgage demand than mortgage supply (Basten & Koch, 2015). Most important is the interest rate as it determined the amounts of loan repayments. According to Dietsch and Petey (2015), this study suggests mortgage demand is one of the factor that affecting the low income borrowers.

The housing market is strongly relying on loan supplied by the banking system (Tan, 2010). According to the reports of Bank Negara Malaysia, 33.6 percent of total conventional bank loans were borrowed by the property sector in the year 1996. The percentage has even further risen from 34.9 percent in 1997 to 44.8 percent in 2003. In year 2005, the mortgage interest rates had reached the lowest in the history which is 5.98% due to the cut-throat mortgage loan's competition between commercial banks (Tan, 2010). Furthermore, with the dropping interest rates, the homeowners can use the additional money to buy another house once they have refinanced their mortgage. In year 2006, lending interest rate has increased to 6.48%

in which affects the demand of housing loan to drop sharply. Another important factor that may affect the trend of residential housing activities is the housing price. The housing transactions will definitely decrease if the housing price keeps increasing which in turn increasing transaction costs on house purchasers. In year 2013, Bank Negara Malaysia has introduced new policies to tightening the personal loan regulations. Those who are going to apply for housing loan no longer get a housing loan with a loan period more than 35 years. This is due to the household debts are keep increasing over these few years. According to Bank Negara Malaysia, household debts had increased from RM588.7 million in 2010 to RM754.6 million in 2012. Therefore, new policies are implemented to curb the problem because uncontrolled debt may lead to a financial problem in the future. Based on this background, this research aims to evaluate whether the changes in housing price, interest rates, taxations benefit and income level are significantly affecting the housing transactions.

1.1.1 Trend of Demand of Housing Loan in Malaysia

Figure 1.1: Malaysia demand of housing loan from year 1999-2014
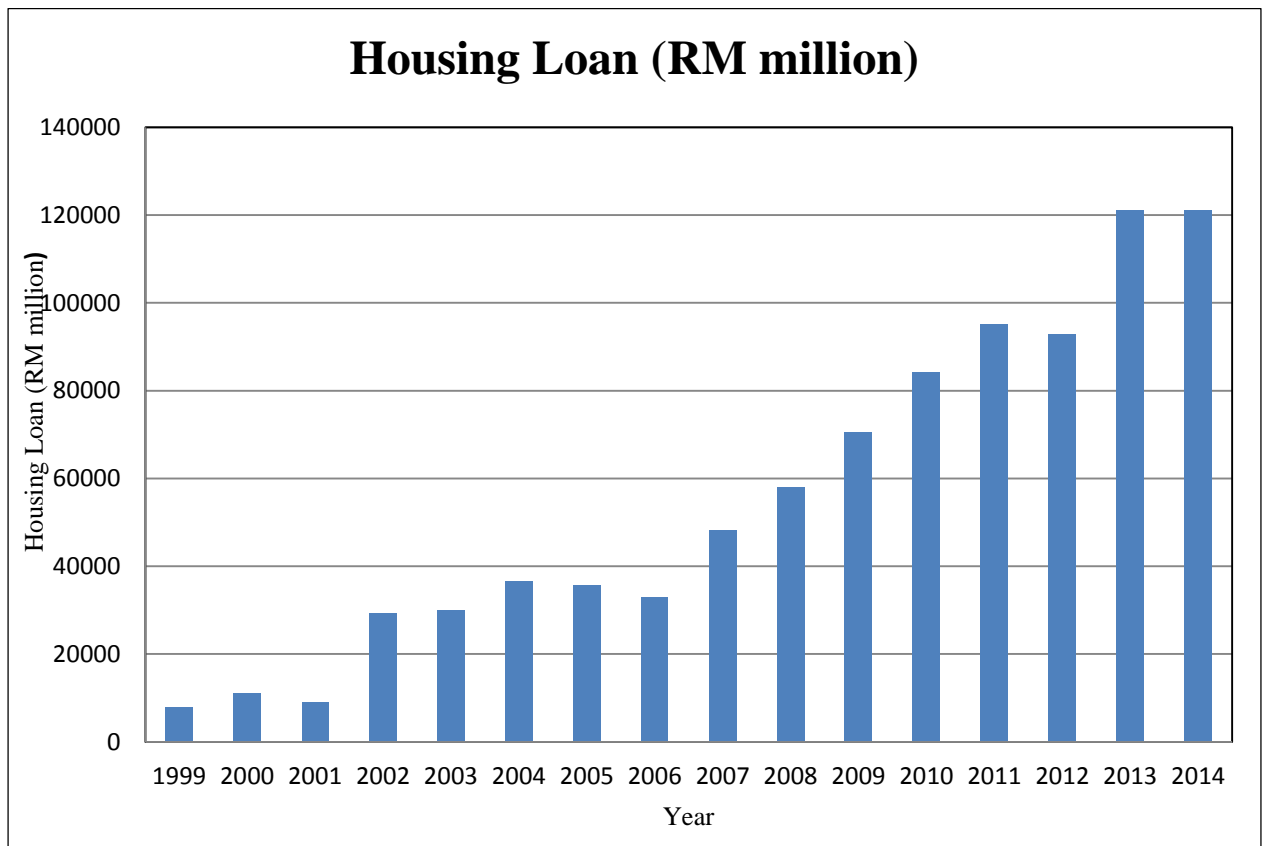
Source: Bank Negara Malaysia (2015)

By referring to the graph shown, the trends of demand of housing loan in Malaysia are going up over the past 15 years. In year 2000, the Malaysian affordability index had increased from 97 to 110 and that is why the amount of demand of housing loan has increased because more citizens were concerning to buy a house (Hashim, 2010). Even though the house price in year 2000 had increased, it didn't affect the housing loan demand. However, it seems to have a mild decrease in loan demand in year 2001 by RM1962.9 million due to the slight decrease in housing price. The decrease in housing price was cause by economic slowdown in US. The demand of housing loan between years 2002 to 2004 have increased gradually because of the rise in residential income and the fallen base lending rate of housing loan (Hashim,

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2010).

According to Hashim (2010), the customer's perspective towards demand of housing loan is related to mortgage interest, affordability index and household income. By comparing year 2004 till 2006, the increased on mortgage interest by RM75 and contraction of affordability index by 7 have drove down the housing loan demand. The performance of housing loan demand between years 2006 till 2011 have improved as Bank Negara Malaysia adjusted the base lending rate in order to encourage citizens to purchase house (Eze & Lim, 2013). Due to the subprime crisis happened by the end of year 2008 in US, Bank Negara Malaysia decided to reduce the interest rate by 0.25%. Nevertheless, the higher housing price in year 2012 had caused the housing loan demand to decrease as purchasers have to consider the greater burden of the higher price (Liew & Hazon, 2013). By referring to the graph above, the demand of housing loan in year 2014 has increased since the housing price has decreased.

1.1.2 Trend of Housing Price in Malaysia

Figure 1.2: Malaysia housing price from year 1998-2015
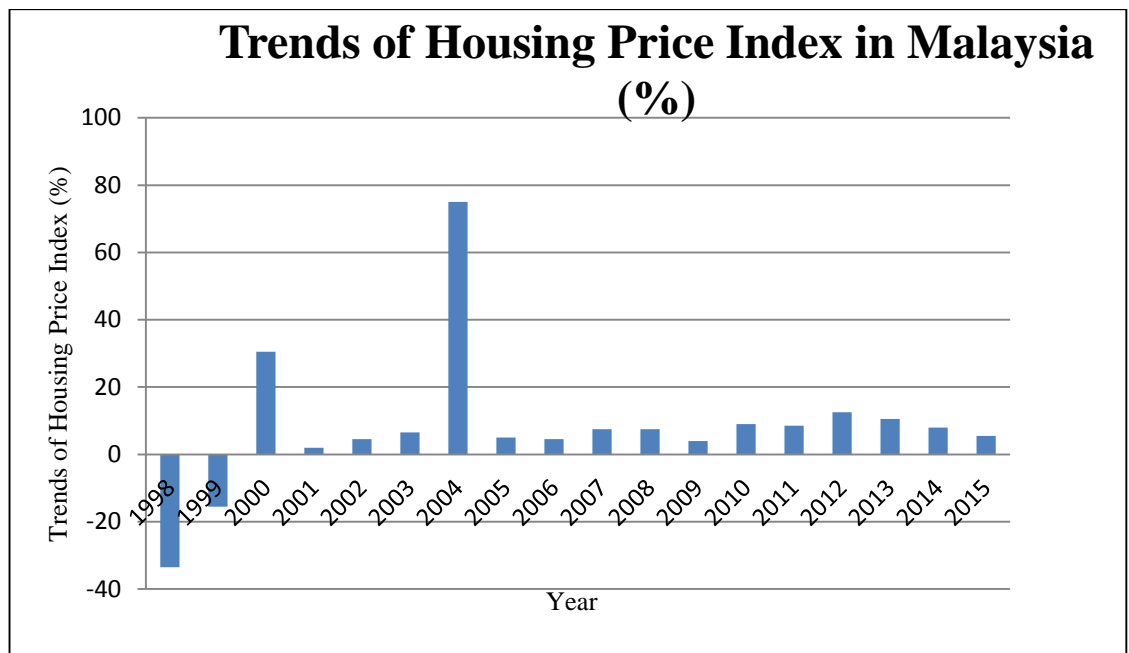
Source: Bank Negara Malaysia (2016)

Since the Asian Financial Crisis in 1998, that see the housing prices suffer big slumped, housing prices in Malaysia have been growing steadily. Since 2000 the annual changes of house price index have been in positive amount. During the period of 2000-2015, the first 2 quarter of 2000 achieved the highest annual percentage change of 44.5%. According to the Bank Negara Malaysia (2001) Annual Report, this record of growth is mainly contributed by the fiscal programme that increases the government spending, in order to further develop the infrastructure and affordable residential housing.

With the entire stimulus programme in placed in 2000, housing price for the year of 2001 suffered a biggest slumped since the financial crisis in 1998. This is due to the oversupply of residential properties that made the market reduce their price to encourage more buyers (Bank Negara Malaysia, 2001). With the help of government to reduce overhang of residential properties, the housing market gradually recover from the slumped after end of 2002.

Due to the global financial crisis during 2008, the housing market of 2009 suffered a decline in housing price. Bank Negara Malaysia Annual Report of 2009 stated that the growth of housing market upraise gradually throughout the year. This is because government implement new activities as part of the fiscal stimulus programme that focus more on the construction sector. Since then, the housing price index in Malaysia going through ups and downs.

1.1.3 Trend of Lending Interest Rate in Malaysia

Figure 1.3: Malaysia Lending Interest Rate from year 1999-2014
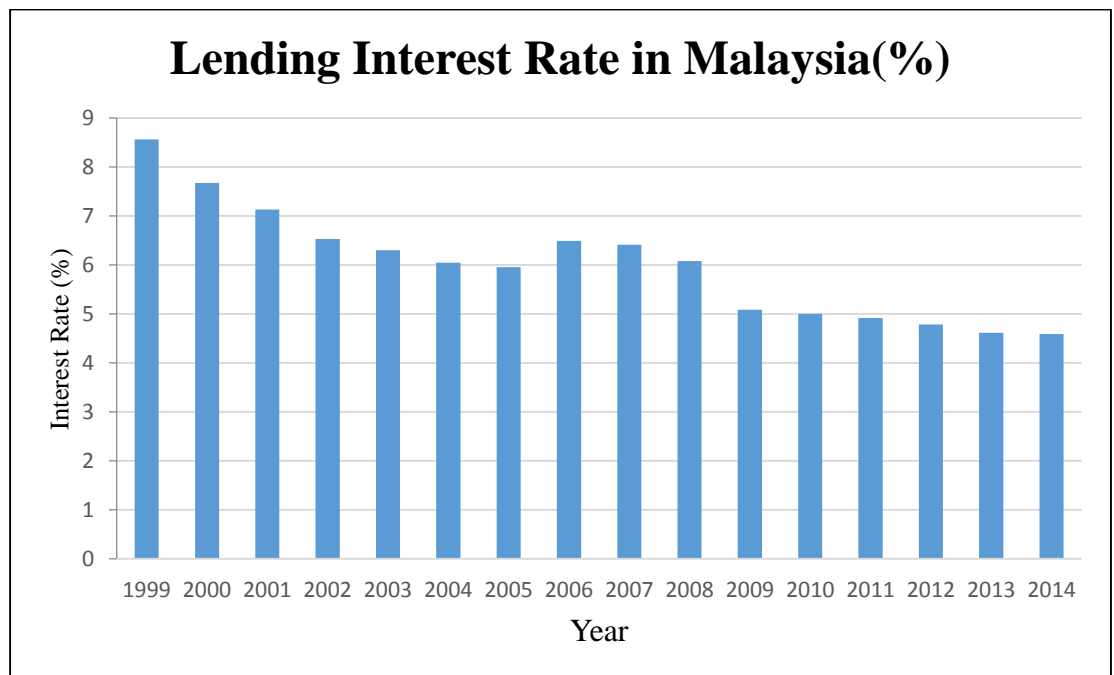
Source: Trading Economics (2015)

From the graph above, it shows that the lending rate in Malaysia was keep decreasing over the 15 years. It has dropped by 3.973% from 1999-2014. It dropped steadily from 8.63% in 1999 to 5.95% in 2005. However, the lending rate has slightly increased by 0.533% in 2006. After that, it continued to decline from 2007 to 2014. This is due the homeownership is

an objective of Malaysia national policy. According to Tan (2011), government has conducted housing policy including lending interest rate to enhance the homeownership rate, primarily the low income group.

There is a significant drop in lending rate from 6.08% in 2008 to 5.08% in 2009. This is mainly caused by the global financial crisis which threatens the market condition of Malaysia. Malaysia government tried to reduce the Based Lending Rate (BLR) which is a benchmark for bank to set interest rate for various products (Eze & Lim, 2013). This is because it can reduce the lending rate on housing loan that help consumers and companies to acquire loan at lower costs. It was used to increase domestic demand and lead to an economy growth.

1.1.4 Taxation Benefits

According to definition from financial times, tax incentive is some sort of benefits such as mortgage interest tax deductibility and property tax deductibility offer by government to reduce the amount of tax payment. The purpose of government to provide these taxation benefits is to help government to achieve monetary goals and stimulate economy growth. Data from Inland Revenue Board Malaysia revealed that RM1.609 billion of tax exemptions had been offered from 2012 to 2014. Majority with annual income of less than RM100, 000 have benefited from this exemption.

Nowadays, owning a house in urban areas such as Kuala Lumpur, Penang and Johor is extremely hard for Malaysian due to high housing price, low income level and high interest. However, taxation benefits on housing loan offer by government allow citizens to reduce some burden in term of tax paid. For example, Malaysia's Income Tax Act 1967 under Section 46 (b) allow citizens to claim any housing loan repayment incurred as personal tax deduction up to RM10, 000 per year for 3 consecutive years. However, this policy has a condition that all the sales and purchase agreement must be

completed in a specific period of time.

Besides, Real Property Gains Tax (RPGT) had been adjusted to a higher rate after the year 2010 that charge those investors who plan to purchase property for investment purpose and cause them expose to higher tax expenses. Investors who plan to purchase a house and sell it within 3rd to 6th years will be charge 5% to 30% under Real Property Gains Tax (RPGT).

1.1.5 Trend of Household Income in Malaysia

Figure 1.4: Malaysia Household Income from year 1995-2014
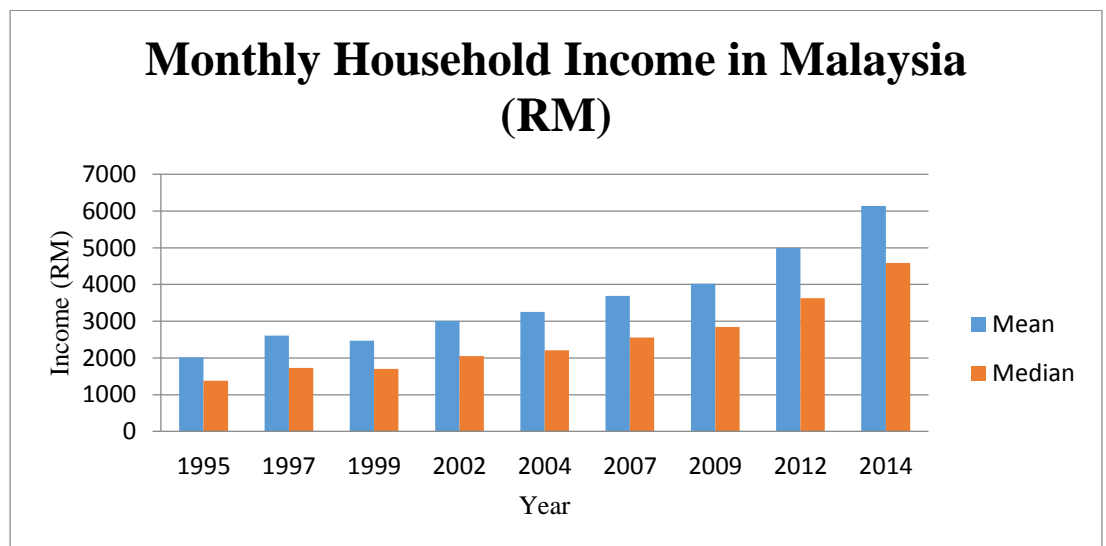
Source: Department of Statistics Malaysia (2015)

According to Figure 1.4, in year 1995, the average and the median monthly household income reported at RM2020 and RM1377 respectively. In year 1997, the average and the median household income grew 29.0% and 25.2%, respectively reported at RM 2,606 and RM 1,724. However, in July 1997, there was an Asia financial crisis. In July 1997, the continuous slump of Thai Baht, while most of the Malaysian Ringgit in the market was being traded by the speculators. The makes the overnight rate sudden bound from below 8% to over 40%. At the end of 1997, ratings had fallen to the ratings

of junk, while both the KLSE and Ringgit suffered heavy lost. This contributed to the falling of Ringgit to the dollar. This is the reason of the average household income drop to RM 2,472, a 5.1% decrease and the median household income drop to RM1704, a 1.2% decrease.

After that, the average monthly household income grow steadily from year 1999 (RM 2472) to year 2014 (RM 6141), a 148.4% growth in 15 years. The median monthly household income also keeps increasing from year 1999 (RM1704) to year 2014 (RM 4585), a 169.1% growth in 15 years. This is mainly due to the standard of living is high which lead to the inflation of goods and services in Malaysia (Department of Statistics Malaysia, 2015). Cities like Kuala Lumpur and popular tourist destination, Penang, cost of living is similar. In September 2013, the government made a decision to roll back the subsidies for local businesses. This caused the businesses to sudden raise the price by 20% during that period as their counter measure to the government decision.

1.2 Problem Statement

In line with the efforts in achieving vision 2020 of the government of Malaysia to become a developed country, provision of housing will be essential for all residents. According to Atati (2014), many developing countries the lack of finance for low income group to afford a house is hindering the property market. According to the Bank Negara Annual Report of 2015, there is not enough to supply the increasing demand of the housing sector. This in turn drives the increases of housing price. Based on the statistic, on 21% of housing in Malaysia were priced below RM 250,000. Thus, there is a shortage of supply for affordable housing market. Moreover, income level has grown at a slower pace than housing price, so it is very difficult for median and lower income group to afford a house without housing loan. But according to the statistic provided by Bank Negara Annual Report 2015, the 2014 amount of housing loan approved is RM 115,628 million, but in 2015 the

amount drops to RM 99,764 million. Critical evaluation of what factors influence the decrease of demand of housing loan will provide a clearer detail on how to deal with this issue.

To achieving vision 2020 of government also require contributions from the financial sector. As what Minister of Finance said, it is important for the financial sector to be advanced in tandem with aspiration for vision 2020. Besides, the government also forecasted annual growth of 7% until year 2020 in the financial sector. Calmès and Liu (2009) mentioned that operating revenue is a major income for banking institutions, following by the interest charge on the loan, and non-interest income. Therefore, the finance sector is required to create more loans to grab more interest income charged on loan lending in order to contribute higher Gross Domestic Production (GDP) in the finance sector. This can help Malaysia to more efficiently achieving Vision 2020 while this study can help banking institution to determine the factors that affecting consumption behaviour of consumer on demanding housing loan. The government also can make adjustment on this factor in order to help financial sector to raise their contribution to Malaysia Gross Domestic Production (GDP).

On the other hand, Kumar and Sudha (2014) have done their research about demand of housing loans in India, one of the similar developing countries with Malaysia. The authors state that the mortgage loan in India has seen some unusual changes in its structure from its beginning stage of being an entirely control by the government to current competitive nature with the emerged of large number of financial institutions all over India. Besides, from 2001 to 2008, there is a raise of housing loans in India. The housing loans market in India has grown sharply for more than 40% over the period of the last four years. Thus, it becomes important for Malaysia to examine the factors that have been instrumental in triggering this high growth period.

Besides, this research is conducted to explore what factors contribute to the increasing of demand of housing loan. The main factor affecting demand of housing loan is housing price. However, based on the previous part, research background, increase in house price will lead to increase in demand of housing loan. But in reality, the housing price increase will make the consumer not afford to own a house;

the demand of housing loan should be decreased. Besides, the demand of housing loan also increases, although the government only offers tax reliefs from year 2009 and 2010. Does a taxation benefit really affect the demand of housing loan? Moreover, based on the trend, the interest rate is decreasing and demand of housing loan is increasing; this means that the relationship between the interest rate and housing loan demand is adverse. But practically, if there is an increase in interest rate, does demand of housing loan will decrease, or will increase? Furthermore, the trend showing increasing mean and median of income level and increasing demand of housing loan; which means a positive relationship between income level and demand of housing loan. But in the future, if there is a decrease in income level, will demand of housing loan will increase, or will decrease?

1.3 Objectives of the Study

1.3.1 General Objective

The general purpose of this research is to examine the consumers' perceptions on demand of housing loan in Malaysia.

1.3.2 Specific Objectives

The general objective can be break down to the following specific objectives:

i)   To analyse the significant relationship of housing price and demand of housing loan in Malaysia.

ii)   To analyse the significant relationship of interest rates and demand of housing loan in Malaysia.

iii) To analyse the significant relationship of taxation and demand of
housing loan in Malaysia.

iv) To analyse the significant relationship of income level and demand
of housing loan in Malaysia.

1.4 Research Questions

Referring to the problem statement and objective of this research, the following
research questions were considered:

(i) Is there a significant relationship between the housing price and demand of
housing loan in Malaysia?

(ii) Is there a significant relationship between the interest rates and demand of
housing loan in Malaysia?

(iii) Is there a significant relationship between the taxation and demand of
housing loan in Malaysia?

(iv) Is there a significant relationship between the income level and demand of
housing loan in Malaysia?

1.5 Hypotheses Development

In this part, there are four hypotheses testing to find out whether the independent
variables are significant in affecting the housing loan demand in Malaysia.

1.5.1 Housing Price

H_0: There is no significant relationship between the housing prices and the

demand of housing loan in Malaysia.

H_1: There is significant relationship between the housing prices and the demand of housing loan in Malaysia.

Based on the research of Anundsen and Jansen (2013), Gimen and Martinez-Carrascal (2010), and Oikarinen (2008), the housing price is positively linked to the demand of housing loan. Hence, the housing prices increases, the demand of housing loan will also increase. Yet, Ismail, Bujang, Jiram, Zarin and Jaafar (2015) reveal that the housing prices will negatively influence the demand of housing loan. Therefore, this hypothesis is used to analyse the relationship between the housing prices and the demand of housing loan in order to test whether the housing prices will significantly affect the demand of housing loan.

1.5.2 Interest Rate

H_0 : There is no significant relationship between the interest rate and demand of housing loan in Malaysia.

H_1 : There is a significant relationship between the interest rate and demand of housing loan in Malaysia.

According to Wolswijk (2006), this research found that the relation of interest rate and demand of housing loan is opposite which means that the borrowers demand for housing loan declines when the interest rates increase. This hypothesis is used to examine the relationship between the interest rate and demand of housing loan.

1.5.3 Taxation Benefits

H_0: There is no significant relationship between the taxation benefits and the housing loan demand in Malaysia.

H_1: There is a significant relationship between the taxation benefits and the housing loan demand in Malaysia.

Chou and Francis (2011) mentioned any amendment on taxation policy for loan will affect how investors allocate resources for their housing portfolio. Taxation benefits such as mortgage interest and property tax deductibility that lower the cost become incentive for citizens to own a larger house.

1.5.4 Income Level

H_0: There is no significant relationship between the income level and the housing loan demand in Malaysia.

H_1: There is a significant relationship between the income level and the housing loan demand in Malaysia.

According to Kim (2010), Bandyopadhya (2016), Shahini (2014) and Ismail et al. (2015), the empirical results show that income level has positive effect on demand of housing loan. Therefore, this indicates that when the income level increase, the demand of housing loan will increase as well. Hence, this hypothesis is adopted to test whether income level significantly affects the demand of housing loan in Malaysia.

1.6 Significance of Study

The demand of housing loan reflects the performance of the housing market, which is the apprehension of the banking industry, real estate industry and so on. Therefore, it is important to know about the demand of housing loan of the citizens and the factors behind that affect the demand of housing loan by few parties, such as

bankers or private financial institutions. Consequently, this study focuses on the empirical analysis on the housing price, interest rates, income level, and income tax in order to learn the relationship between these factors and the demand of housing loans in Malaysia.

Prior researchers have conducted an extensive study on demand of housing loan, housing price, interest rates, income level, and income tax separately and how a single variable correlates with demand of housing loans. On the other hand, this study also attempts to gather these few factors in order to find out the overall correlation of these factors with the demand of housing loans in Malaysia.

1.6.1 Bank or Private Financial Institutions

According to Ismail, Bujang, Jiram, Zarin and Jaafar (2015), the purchasing of a house will always require the financing through a bank or private financial institutions. Banks or private financial institutions may use the results obtained from this study to assist them in predicting the demand of housing loan in the future. For example, when the house prices will increase in the next year, then the demand of housing loan is predicted to decrease in the next year. After knowing the prediction, banks or private financial institutions can come out with some strategies with it. Thus, an approach to determine the demand of housing loan is important.

1.6.2 Government

This study also helps government to manage its fiscal policy by make adjustment on the independent variable in this study such as tax rate, income level, interest rate and housing price. Some variable government unable to control but some variable like tax rate, wage level still can be controlled by government. Therefore, if the government wishes economy to grow faster, the tax rate can be reduced, increase the minimum wage level and vice versa. Fiscal policy can be implemented effectively if government known the

factor that affect the consumer consumption decision on housing loan.

1.6.3 Bank Negara Malaysia (Central Bank)

Besides, Shalini, Kumar and Sudha (2014) had mentioned that mortgage rate is growing all the time and have very less chance to decline in the future. By knowing the relationship between interest rate and consumer perception on housing loan can help Bank Negara Malaysia to effectively adjust the interest rate charged to encourage economy growth or assist government in implementing new favourable policy for the housing sector.

1.7 Chapter Layout

1.7.1 Chapter 1

An overview of research background and problem statements on demand of housing loan in Malaysia is covered in Chapter 1. Besides, this chapter even discusses about research objectives, research questions, hypotheses as well as the significance of the study. A summary of this study will be included at the last 2 parts of this chapter.

1.7.2 Chapter 2

Chapter 2 covers the literature review of the topic. The relevant theoretical models, theoretical or conceptual framework and hypotheses development are discussed to present a clearer picture of the field of study. Lastly, this chapter will be concluded with a conclusion.

1.7.3 Chapter 3

Chapter 3 will be providing the research methodology overview. It will include how this research is being process in term of research design, data collection methods, sampling design, and the data analysis methods. Lastly, this chapter is briefly summarized.

1.7.4 Chapter 4

In chapter 4, the data collected will be analysed through a different form of analysis. For instance, descriptive analysis on the demographic profile of respondents and constructions of central tendencies measurement will be carried out. The reliability analysis is necessary to be applied to the results of hypothesis testing generated. Other than that, inferential analysis is done as well. Lastly, this chapter will be summarized in the conclusion.

1.7.5 Chapter 5

The last chapter will summarize the statistical analyses done on previous chapters. This chapter will included the major findings of the study, implications of study, and limitations of study, followed by the recommendations for future researchers. The overall conclusion of this study will be included in the last part of this chapter.

1.8 Conclusion

In conclusion, this paper has clearly introduced the background and the issues exist in the housing loan of Malaysia. Moreover, the trends of interest rate, income level and housing price over the past 10 years are tracked and showed in this research. Other than that, general objectives, specific objectives and research questions have been mentioned in this chapter that in line with the topic of this study. Lastly, the hypotheses, significance of the study and chapter layout will be presented accordingly.

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CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

This chapter will discuss the literature review about demand of housing loan. The literature review provides the theoretical foundation for the research. Demand of housing loan is determined by the factors such housing price, interest rates, income level and income tax as the theoretical framework of this research. Besides, hypotheses will be developed about the relationship between the demand of housing loan (dependent variable) and housing price, interest rates, income level, income tax (independent variables). The information below is done by referring to other people's written work.

2.1 Review of the Literature

A literature review is an overview of the objectives, theoretical or conceptual frameworks, relevant theoretical models and the results from previous studies done by previous researchers. The purpose of carrying out literature review is to analyse the body of knowledge of different kind of studies. In this paper, the literature review is focused on the demand of housing loan and how does the independent variables (income level, interest rate, taxation benefit and housing prices) affect the dependent variable based on the previous studies.

2.1.1 Dependent Variable

A dependent variable in an experiment represents a variable whose value is measured based on independent variables and can be assessed in a mathematical equation as well. The dependent variable is even known as the "result" in an experiment or mathematical equation. The dependent variable

in this research is demand of housing loan.

2.1.1.1 Demand of Housing Loan

Nowadays, borrow mortgage loan from financial institutions is the
primary way for individuals who are not affordable, but wish to
purchase their own house (Ismail, Bujang, Jiram, Zarin and Jaafar,
2015). In Albania, the government is providing a dwelling for the
citizens, but this is not the government's priority; therefore, some
citizens have to rely on housing loan in order to purchase a house
(Shahini, 2014). The demand of housing loan also reflects the
performance of the housing market, which is the apprehension of the
banking industry, real estate industry and so on.

In India, the mortgage loan market has grown at a sharp rate of over
40% from year 2011 to the year 2014. According to the report of one
of the industry experts, he or she has stated that in the future, the
opportunity to a drastic decline in growth rates will be very small.
Hence, it is important to find out the key determinants that have been
led to this rapid growth period (Kumar & Sudha, 2014). Moreover,
income level has become the most significant factor in the rapid
growth of demand of housing loan as compared to housing prices,
thus more people are becoming affordable to purchase houses.

According to Ismail, Bujang, Jiram, Zarin and Jaafar (2015), the
purchasing of houses is often completed by financing through a bank
or private financial institutions. Besides, the majority of the buyers
prefer to borrow housing loan because the loan obtained is able to
help buyers in financial terms. However, in Malaysia, the housing
sector has been affected recently due to the deterioration in terms of
the amount of housing purchasers who fail to obtain bank financing.
The arrival of the rural population to urban areas, even caused the

housing issue in Malaysia arises and this has led to the rising demand for housing, especially low and middle-income citizens (Ismail, Bujang, Jiram, Zarin & Jaafar, 2015). The increased in demand for housing also causes the demand for mortgage loan to increase.

2.1.2 Independent Variables

Independent variable also called as explanatory variable or controlled variable is a factor that has various impacts on the dependent variable. It may influence the dependent variable in term of value or variation. It always stands alone and does not influence by or depend on others. Some scientific procedures have been carried out and shows that the assumption of an independent variable has the same impact in 2 different experiments are false.

2.1.2.1 Housing Price

The aim of the research of Oikarinen (2008) is to find more evidence to prove that there is linkage between the housing prices and housing loan. Using the methodology Johansen Trace Test to examine whether there is a long term relationship between the housing price and demand of housing loan. There are several contributions in this research. The first main contribution will be the data used is longer than all the previous related studies. The second main contribution is used the interaction between the stock prices and credit to investigate the relationship of housing price and demand of housing loan. The result shows that there is a two way interaction between housing price and demand of housing loan. In other words, housing loan will positively affect the housing prices, while housing prices will also positively affect the housing loan. The housing prices are determined by the demand for housing. The availability of the housing loan will

also affect the demand for housing. In another way, the housing prices will influence housing loan through the wealth effect.

The objective of the research conducted by Addae-Dapaah (2014) is to determine the short run and long run relationship to ascertain the extent to which the government can implement some policy to control the housing market inflation. The result reveals the housing price is positively correlated with the housing loan in the long run using long run co-integration test. But there is no correlation between housing prices and housing loan in the short run. The researcher explained that people will tend to spend or take a bigger loan than usual when the property prices is rising, this is due to the increasing of collateral value that makes banks more willing to grant a loan.

Besides, Anundsen and Jansen (2013) used the co-integration analysis to conclude that the housing prices are depending on the real disposable income, household borrowing and the housing stock in the long-run. This analysis method is more efficient compared to recent studies that used single equation method. The researchers also explain that many recent studies failed to include supply side effects when taking housing prices into account, since the supply of housing can affect the housing prices. Anundsen and Jansen (2013) also show that the interest rate can influence the housing prices indirectly. There is an interdependent relationship between housing prices and housing loan in the long-run, since higher housing prices will trigger more loans due to the collateral effects.

The aim of the research of Gimeno and Martinez-Carrascal (2010) is to identify deviations of housing prices and housing loan, and the linkage between them. To achieve this aim, the methodology used by the researcher will be vector error-correction model. According to Gimeno and Martinez-Carrascal (2010), there is existence of interdependence relationship between house prices and housing loans. The housing prices are positively affected to the housing loan.

This is mainly due to two reasons. First, it is because of the collateral effect. Second, this is because housing prices determine housing wealth, changes in prices will affect spending and borrowing plans.

However, another research that focuses on the indigenous people in Malaysia shows that housing prices negatively correlated with housing loans (Ismail, Bujang, Jiram, Zarin & Jaafar, 2015). The research is to identify that factors that influence the indigenous people in Malaysia in obtaining any housing loans. The methodologies used by the researchers are descriptive analysis and cross tabulation analysis using SPSS. The researchers explained that because of the bank will always take into account of pattern of expenditure, number of household and house price in the markets, and low purchasing power when granting loans to the indigenous people. In addition, banks will only grant loan depends on the housing prices, location, type and profile of the borrower, such as age, income level and type of employment. With all these policies and conditions, when the housing prices are high, there is more difficulty for the indigenous people to grant loans.

2.1.2.2 Interest Rates of Housing Loan

According to Wolswijk (2006), the empirical analysis defines that there are few factors can affect the mortgage demand. The research is conducted to determine the factor that influences the growth of mortgage debt. A series of hypothesis testing using pooled regressions had been carried out such as Unit Root Test and Ganger Causality Test to improve the understanding of the factors for the period 1982–2003. The result shows that after-tax interest rates have negative impact to the real mortgage lending. Meanwhile, in the perspective of consumers, when the interest rate increases, it tends to increase the cost of financing and reduce the purchasing power, therefore reduce the willingness of consumers to take out loans.

Lower income households overcome the financial constraints through mechanisms such as adjustable-rate loans as well as public financial support in the form of interest rebates, amortization and so on. Dietsch and Petey (2015) suggest interest rate has an impact on the mortgage demand of low income borrowers. In this research, multi-factor extension of the structural one-factor model and generalized linear mixed model are used to estimate the credit risk of borrowers with low income. It mentioned the types of loan and interest rate together contributes strong effect when borrowers access to housing credit at an acceptable risk. There is a negative relationship between demand of housing loan and interest rate. The numbers of borrowers decline when the interest rates increase.

Ye, Deng and Li (2014) explain that a change in interest rates has significant impact on the mortgagors' choice of loan length. Micro-econometric approach was used to study examine how the spread between short-term interest rate and long-term interest rate of mortgage affects the choice. As a result, an increase of 10 basis points caused the probability of consumers choosing short-term loans by 8.4%. This indicates that when there is a variation in interest rate, consumers have a different perspective on the demand of housing loan in term of duration, amount as well as type of loans.

Based on Yusof and Usman (2015), it concludes that the Islamic home financing depends on the interest rate in the long run in Malaysia but not in the short run. The interest rate is prohibited in Islamic banking, therefore, rental rate or potential alternative rate such as profit sharing ratio and value oriented allocation of credit are to be used as a benchmark. This study had conducted impulse response function (IRF), autoregressive distributed lag (ARDL) bound testing co-integration approach, and forecast error variance decomposition (FEVD) to justify the macroeconomic factors of Islamic house financing. Binner and Day (2015) mention that the

mortgage interest deduction (MID) reduces the cost of purchasing
housing for households to promote home ownership to improve
neighbourhood quality. The MID policy can reduce the interest paid
on a mortgage and hence increase the attractiveness of the mortgage
loan.

2.1.2.3 Taxation Benefits

Every year, companies, businesses and individuals are bound to file
an income tax report in order to find out whether they eligible for
any tax refund or owe any taxes. Income tax is the main source of
funds that allows the government to carry out a different kind of
policy and serve the public. Everyone is bound to file and pay taxes
to the government when the time comes.

Chou and Francis (2011) investigate the impact of tax treatment on
home ownership. The researcher develops a quantitative general
equilibrium lifecycle model with ignore the house price fluctuations
to determine whether to eliminate certain or all benefits will affect
the home ownership. Author concludes that removing of taxation
benefits will encourage people who have intention to own a home to
buy a larger or more luxury home. This causes an increase in
borrowing if the people plan to finance the home with a mortgage
loan.

Hanson (2012) had researched about the relationship between
mortgage interest deduction, housing size and housing purchase.
Researcher compares housing decision made by two different groups
which are residents of state with and without mortgage interest
deduction benefit. Besides, instrumental variables, regression
discontinuity and ordinary least squares also applied to examine the
relationship. The result suggests that the mortgage interest deduction
only have on the size of home purchased but not much impact on

home ownership. However, instrumental variables and ordinary least squares suggest that there are negative relationship between the mortgage interest deduction and home ownership. The researcher also suggests the possible reason of this negative relationship is due to mortgage interest deduction will increase the housing price and the amount of the mortgage interest deduction is actually not enough to cover the higher price.

Bourassa and Yin (2008) examine the relationship between tax deductions and the home ownership of young adults in urban areas in the United State. Researchers used 1998 American Housing Survey data to form a tenure choice equation in order to simulate the changes in tax concessions. The researcher had simulated the impact of eliminating the state and federal mortgage interest and property tax deduction. As result, average cost increase by 1 percentage point from 0.059 to 0.069 while 10% reduction in housing price. Therefore, the researcher concludes that the elimination of taxation benefits has substantial price effects that will increase housing price in larger proportion, especially in expensive location such as urban area.

Chambers, Garriga and Schlagenhauf (2009) study how asymmetries in tax treatment and how home ownership effected by changes in income tax. A quantitative general equilibrium overlapping generation model is conducted to investigate this issue. The researcher had come out with the same conclusion with previous author where mortgage interest deduction may reduce the home ownership rate. Author suggests that the benefits provided, the lesser taxation revenue collected. Therefore, the government may increase income tax rates or any other charges to cover back expenses on tax benefits given. This eliminates the incentive of home ownership and hence there is no effect or might be a negative effect on housing demand.

Hilber and Turner (2014) examine the how combined of United State

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and the federal mortgage interest deduction influence home ownership decisions. Author concludes that there has different impact in different situation. It will have significant positive impact for higher income group if the country is less regulated and have an elastic housing supply, and also will adversely affect the higher income group also if in restrictive places. On the other hand, low income household less likely to be affected by the taxation benefits. Author suggests that this is because housing market tend to be segmented by income and hence, taxation benefits offered have insignificant impact for lower income household.

2.1.2.4 Income Level

Income level is the level of income earned by an individual given a period of time (Gallin, 2003). High income level means the individual earned an income higher than the average; while low income level means the individual earned an income lower than the average. Kim (2010) has done research about the relationship between unsold new housing stocks and demand-supply in the housing market by using augmented Dickey-Fuller (ADF) method. In the journal, the author states that income level definitely affects the demand of housing loan and the amount of loan is proportional to the income level of the borrower. The author's findings show that income level positively and significantly affects the demand of housing loans. This is because when households expect their incomes to increase, they are likely to demand for bigger loans. On the other hand, decrease in income would discourage households from taking loans or from taking bigger loans.

Bandyopadhya (2016) has conducted research about distinctive demand and risk characteristics of the residential housing loan market in India by performing the least square dummy variable (LSDV) regression method using panel data. The author states that

there are many factors, including higher income levels within the urban population are driving the demand of housing loans in India. Shahini (2014) who research about the impact of economic growth in housing loans demand in Albania by using Johansen methodology states that the ability of the consumers to purchase a house by borrowing loans should be reflected in their personal income. In the author's findings, during year 2008 when the economic slowdown, it was noticed a slowdown in the demand for housing loans. This is because the income level of individuals has decreased during the economic slowdown, and lead to decrease in demand of housing loans.

Ismail et al. (2015) research about housing financing facility and the affordability level of bumiputera within Iskandar Malaysia by using Bai Bithamin Ajil (BBA) methodology. In the journal, the authors state that the buyer will apply for housing loan according to their affordability and income level. The studies are done within the bumiputera in Malaysia and shown that the middle income wants to buy a house, however restricted by affordability level, and also worried the loan application got rejected. Besides, the studies of housing loans determinants before and during financial crisis done by Viskovic et al. (2015) mention that the rapid growth of housing loans in CEE countries was a result of increased demand for housing, which was initiated by higher income of the population. The author states that when an individual's income level increases, he will demand for better housing condition and will purchase new houses. Thus, when income level increases, demand for housing increases and demand of housing loan also increases.

2.2 Reviews of Relevant Theoretical Model

2.2.1 Theory of Demographic and Economic Factors on Housing-Consumption Decisions

According to Almaden (2014), he found that the theory of demographic and economic factors on housing-consumption decisions is able to explain the relationship between the factors and housing demand decisions. The demographic and socioeconomic trends in the market are significantly affecting the housing market activity which also directly influences the demand of housing loan. The key driver of housing demand is the growth of the population in a country and the rate of household formation. The higher the rate of household formation, the greater the housing demands as well as housing loan. Moreover, the larger the family size, the higher the education level a person has and the permanency of the job the person has greater potential to buy a house. However, housing consumption decisions not only rely on demographic factors, but also look into economic factors such as income or wealth or a combination of the two (Bujang, Zarin & Jumadi, 2010).

2.3 Proposed Theoretical and Conceptual Framework

Figure 2.1 Factors Affecting Demand of Housing Loan in Urban Area of Malaysia
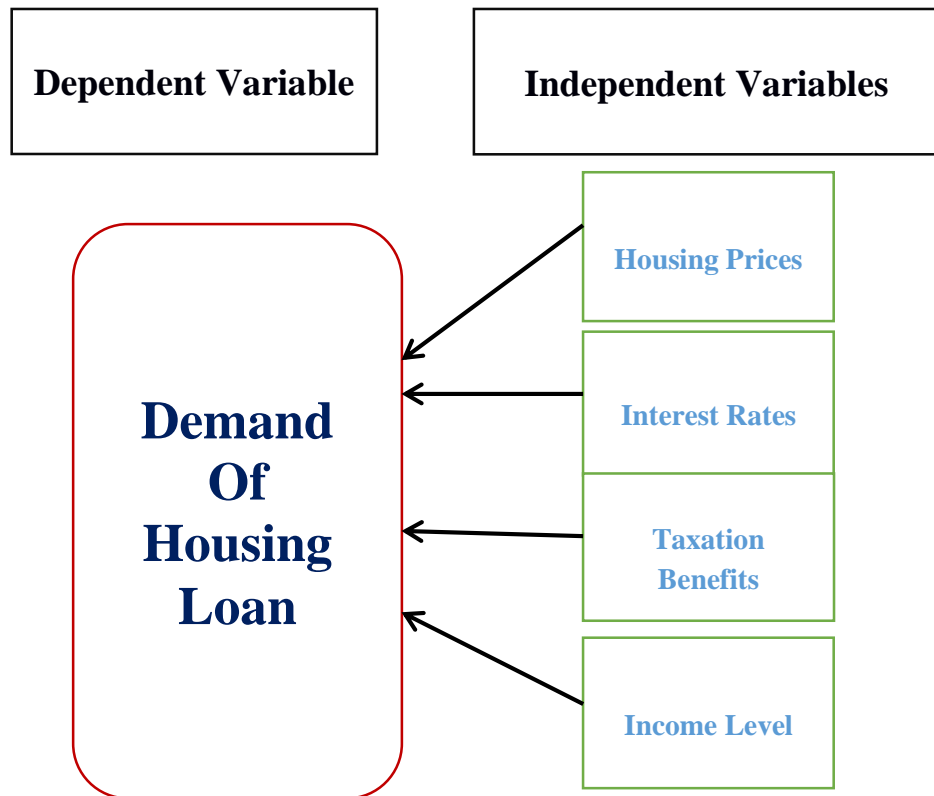
Source: Developed for the research

There is a relationship between housing prices and the demand of housing loan (Addae-Dapaah, 2014). This statement is also supported by Gimen and Martinez-Carrascal (2010). Based on research of Oikarinen (2008), there is a two way interactions between housing prices and housing loan. However, Ismail, Bujang, Jiram, Zarin and Jaafar (2015) also found that the housing price has affected the demand of housing loan. Thus, this study will predict that the housing prices will positively impact the demand of housing loan in the urban area of Malaysia.

Based on Dietsch and Petey (2015) and Ye, Deng and Li (2014), they discovered that the interest rate is one of the factors that affect the demand of housing loan. This statement is supported by Wolswijk (2006) which states that there is a

relationship between after-tax interest rate and mortgage lending. Yusof and Usman
(2015) define that there is a long-run relationship between interest rate and Islamic
home financing. Therefore, this study predicts interest rate has negative effect on
demand of housing loan.

According to Hanson (2012), elimination of taxation benefits only will influence
the size of housing, but have less impact on homeownership. This is because of
housing price will increase as consequences of eliminate of tax benefits. Bourassa
and Yin (2008) also have the same result and suggest that percentage change in the
cost of owning a house is relatively lower than increasing in housing price after
eliminate of taxation benefits, which mean people will tend to not own a house and
show a negative relationship between housing loan and taxation benefits.

Kim (2010) stated in his study that there is a strong relationship between income
level and demand of housing loan. Besides, Bandyopadhya (2016) and Shahini
(2014) also stated that income level affects the demand of housing loan in the
evidence in India and Albania respectively. However, Viskovic et al. (2015) proves
that the relationship between income level and demand of housing loan is indirect.
The authors state that the increase in demand of housing loan is due to increase in
demand of houses which initiated by an increase in income level and vice versa.

2.4 Hypotheses Development

In this part, this study has developed four hypotheses testing to examine whether
the independent variables are significant in affecting the dependent variable.

2.4.1 Housing Price

H_0: There is no significant relationship between the housing prices and the
demand of housing loan.

H_1: There is a significant relationship between the housing prices and the

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demand of housing loan.

Based on the research of Anundsen and Jansen (2013), Gimen and Martinez-Carrascal (2010), and Oikarinen (2008), the housing price is positively related to the demand of housing loan. Hence, the housing price increases, the demand of housing loan will also increase. Yet, Ismail, Bujang, Jiram, Zarin and Jaafar (2015) reveal that the housing prices will negatively influence the demand of housing loan. Therefore, this hypothesis is adopted to find out the relationship between the housing prices and the demand of housing loan in order to test whether the housing prices affects demand of housing loan.

2.4.2 Interest Rate

H_0 : There is no significant relationship between the interest rate and demand of housing loan.

H_1: There is a significant relationship between the interest rate and demand of housing loan.

According to Wolswijk (2006), this research found that there is a negative relationship between after-tax interest rates and real mortgage lending, which means borrowers demand for housing loan declines when the interest rates increase. This hypothesis is used to examine the relationship between the interest rate and demand of housing loan.

2.4.3 Taxation Benefits

H_0: There is no significant relationship between the taxation benefits and the housing loan demand.

H_1: There is a significant relationship between the taxation benefits and the

housing loan demand.

According to Chambers, Garriga and Schlagenhauf (2009), there is negative relationship between housing loan demand and taxation benefits as any taxation benefits such as a property tax deduction will indirectly increase the housing price and offset the incentive offer by taxation benefits. This is because taxation benefits will cause government collected lesser tax revenue and thus will implemented some other policy such as increase income tax rate to cover back the tax revenue. Thus, any taxation benefits imposed will cause reduction in homeownership.

2.4.4 Income Level

H_0: There is no significant relationship between the income level and the housing loan demand.

H_1: There is a significant relationship between the income level and the housing loan demand.

According to Kim (2010), Bandyopadhya (2016), Shahini (2014) and Ismail et al. (2015), the empirical results show that income level has a positive effect on demand of housing loan. Therefore, this indicates that when the income level increase, the demand of housing loan will increase as well. Hence, this hypothesis are adopted to examine the relationship between the income level and demand of housing loan in order to test whether the income level significantly affects the demand of housing loan in the urban area of Malaysia.

2.5 Conclusion

In conclusion, the studies of demand of housing loan by previous researchers are reviewed in this chapter through the discussion on the dependent variable and various independent variables. Apart from that, the theoretical framework and proposed conceptual framework have stated the relationship between demand of housing loan with the 4 independent variables which are interest rates, income level, housing price and taxation benefit. Moreover, hypothesis testing for the 4 independent variables are developed to find out whether the independent variables involved are significant in affecting the dependent variable or not. Lastly, the research methodology will be discussed in the next chapter.

CHAPTER 3: METHODOLOGY

3.0   Introduction

In Chapter 2, the research methodologies will be developed and discussed. The main purpose of this research is to investigate the relationship between independent variables and demand of housing loan in urban areas Malaysia. Therefore, it is uttermost to possess a great outline of research methodology that include all the independent variables so as to generate a more accurate result and provide a remarkable contribution to the study.

This chapter consists of research design, data collection method, sampling design, research instrument, data processing, and data analysis. Through this process, this study will attempt to examine the relationship between controlled variables and demand of housing loan in Malaysia.

3.1   Research Design

3.1.1 Quantitative Research Design

This study is a quantitative research since the data are collected from survey questionnaire. The data can be quantified and in numeric form which often arranged in figures, charts or tables. Large sample size is required to represent the population is required and generate reliable result. Quantitative variables include gender, age, income level and so on. All the numbers indicate explainable meaning.

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3.1.1.1   Simple Random Sampling

Simple random sampling is which each element has a chance to be selected without bias. The number of population and sample can be computed; therefore the probability is computed by using the number of sample divide the number of population.

3.1.2 Descriptive Research Design

Descriptive analysis summarizes a specific data set to give a better understanding of a sample characteristic. Descriptive statistics are divided into measures of central tendency which are mode, median, mean and measures of variability include standard deviation, variance, kurtosis as well as skewness. In a research, normally there are a lot of measures and researchers have to measure a large number of sample or population. Therefore, descriptive analysis helps to simplify large numbers of data and used to present quantitative descriptions in a meaningful way. In addition, those less common   descriptive statistics are also very significant which give a simpler summary by cutting down lots of data.

3.2   Data Collection Method

The method of data collection includes primary data and secondary data. Primary data are collected from the target populations. Secondary data is the data has been published by the researchers in the past. The empirical analysis of the consumers' perspective on the housing loan demand can be carried out by collecting data through survey questionnaire.

3.2.1 Primary Data

Primary data is a collection of statistics which are gathered by the researchers. Data can be collected through various ways, including experiments, online survey, questionnaires, interviews and so on. The collection of primary data is time consuming and incurs higher costs. However, it allows researchers to tailor the design to match their needs and control over the methods of data collection. The consumers' perspective will change over time therefore the database may be less accurate. The databases would be hard to facilitate some of the longitudinal studies because they can be flexibly   outlined for each person (Roos, Nicol & Cageorge, 1987). In this study, survey questionnaire will be conducted to gather the primary data from the consumers of housing loan. Survey questionnaires will be gave out to the respondents in Penang, Kuala Lumpur and Johor.

Table 3.1: Sources of Independent Variable

Independent Variable	Actual	Unit Description	Sources
Housing Price	HP	The price of houses that respondent want to purchase	Survey Questionnaires
Interest Rate	IR	The interest rates charge on the housing loan by financial institutions	Survey Questionnaires
Tax Benefits	TB	The tax benefits that respondent get when they purchase houses	Survey Questionnaires
Income Level	IL	The income level of the respondent	Survey Questionnaires

Source: Developed for the research

3.3 Sampling Design

3.3.1 Target Populations

Malaysian citizens who eligible to apply housing loan and is demanding for housing loan are the targeted population for the research.

3.3.2 Sampling Locations

The sampling location of demand of housing loan is based on Penang, Kuala Lumpur and Johor. The reason of choosing Penang in this research is because Penang is a popular tourist destination. Besides, Kuala Lumpur and Johor are the target sampling locations as well because Kuala Lumpur is the metropolis of Malaysia while Johor has a large population.

3.3.3 Sampling Element

The sampling element is the target population which means the specific pool of cases one wants to study. The sampling element of this study is random citizens that live in urban area in Malaysia, including Kuala Lumpur, Penang and Johor.

3.3.4 Sampling Technique

In order to obtain the primary data, survey is compulsory. Therefore, a non-probability sampling is selected to conduct the survey. Convenience sampling is a type of non-probability sampling, which involves drawing samples that are   both easily accessible and willing to participate in a

study (Teddlie & Yu, 2007). Besides, convenience sampling is also good to be used for large populations.

3.3.5 Sampling Sizes

According to MacCallum et al. (2001), claimed the minimum desirable sample size to be 250. In order to avoid incomplete and partial survey responses, 350 sets of the survey will be distributed to targeted locations.

3.4 Research Instrument

3.4.1 Purpose of Using Questionnaire

Questionnaire is the tool for recording and collecting information that implemented for this research. Questionnaire need to be set in a way that will help to attain the objective of the research. The questionnaire is a very effective way to collect data from large respondents in a short period. The questionnaire technique has a very high response rate when need to gather data from a large quantity of respondents. The questionnaire is designed based on four variables which are housing prices, interest rate, tax benefit, and income level.

3.4.2 Questionnaire Design

According to Makienko and Bernard (2012), a good questionnaire design will get quality data from the respondents that can determine that quality of the research. Thus, questionnaire is set through referring to the past studies that suit the objective of this research.

The questionnaire is separated into Section A and B. Section A determines respondents' demographic profile with questions about: gender, age, region, state of residence, marital status, race, level of income, education, and occupation. Section A is applying nominal scale which respondents can tick the options provided to answer the questions.

Section B examines the dependent variable and independent variables which are housing prices, interest rate, tax benefit, and income level to find out customer perceptions on demand of housing loan in the urban area of Malaysia. One dependent variable and four independent variables consist of 5 questions which will discuss about the elements or situation that will affect the customer perception on housing loan in Malaysia by using Likert Scale. The respondents can rate the extent of agree or disagree from 1-5 (1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree).

3.4.3 Pilot Test

Pilot test is an important step to take before conduct the actual survey process. It can examine the effectiveness of the questionnaire that helps us certify the quality of survey (Trakulmaykee, Lim & Trakulmaykee, 2013). Prior to the actual survey process, supervisor had reviewed the questionnaires. There are some amendments in order to deliver better understanding to future respondents. The amended version of the questionnaire is delivers to 50 respondents for pilot testing and getting their feedback for correction purposes.

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Table 3.2: Reliability Statistics

	Cronbach's Alpha	N of Items
Housing Loan	0.816	5
Housing Price	0.881	5
Interest rate	0.750	5
Tax Benefit	0.762	5
Income Level	0.735	5

Source: Developed for the research

According to Cronbach and Shavelson (2004), when the Cronbach's Alpha value is greater than 0.7, the variable is consider as reliable. Based on the table above, the reliability test result shows that all variables' Cronbach's Alpha values are above 0.7. Thus, this shows that the variables are valid and well in explaining the research topic.

3.4.4 Data Collection

The questionnaire was sent to 350 respondents in Penang, Kuala Lumpur, and Johor. The survey was distributed to the respondents and will collect it back immediately right after they finish answering. Two members went to Kuala Lumpur to distribute the question to random respondents. Another two members went to Johor to distribute the questionnaires to random respondents.   One member went to Penang area. The whole data collection period took around 4 days to complete.

3.5 Construct Measurement

The questionnaire comprised of two sections in which Section A is demographic profile whereas Section B are questions aimed at different independent variables to

measure their impact on demand of housing loan. The independent variables include in this study are housing price, interest rate, tax benefits and income level. In this research, nominal, ordinal and Likert scale are applied.

3.5.1 Nominal Scale

 A nominal scale (or sometimes known as categorical scale) does not contain any quantitative value as it is basically used to label natural categories like gender or artificial categories like education level. For gender, it can be called as dichotomous scale because it only has two categories. The nominal scale is mutually exclusive which mean there is no overlapping among the categories and no one has any numerical significance (Brown, 2011). Hence, nominal scale is suitable in designing the demographic questions in this research as it is   important in labelling the categories verbally or numerically.

3.5.2 Ordinal Scale

Ordinal scale allows category to be arranged in order and at the same time used to rank objects. The categories have their own characteristics and the order of the categories is known by assigning number to them to determine their relative extent but the distance along the ordering is unknown. The distance between the categories cannot be quantified by using the number assigned. Ordinary scale is also known as ranked scale (Brown, 2011).

3.5.3 Likert Scale

Likert scale is applied in Section B of the questionnaire. Likert scale is a five-point scale in which the respondent is asked to specify their extent of agreement or disagreement for a statement with the points provided. Point 5

is representing strongly agree, point 4 is representing agree, point 3 is representing neutral, point 2 is representing disagree whereas point 1 is representing strongly disagree.

3.6 Data Processing

The data processing cycle is important before the data evaluation. Data processing helps to prevent errors that exist in the data through the steps involved. The steps include data collection, data checking, data editing and data coding.

3.6.1 Data Collection

The data required in this study are primary data or survey. According to Hox and Boeije (2005), primary data are the initial data collected for specific research purposes. The topic of this study is "Customer Perceptions on Demand of Housing Loan: Evidence in Urban Area of Malaysia" and therefore, the target state or location of this survey are Johor, Kuala Lumpur and Penang. Furthermore, the target number of respondents involved is 350 respondents who are eligible to apply housing loan and demanding for housing loan.

3.6.2 Data Sorting

It is significant to arrange data in accordance to different categories in order to save the time on items finding. Moreover, it even helps in data checking as the researcher can easily find out the missing data and correct it.

3.6.3 Data Checking

The primary data collected are probably in the form of sentence, qualitative or quantitative terms. Hence, each questionnaire collected have to undergo the checking process because some questionnaires may have errors that may cause the data become inaccurate or unreliable. The errors are generally the omitted questions by the respondents, unclear answers, messy writing of respondents, respondents not answering in accordance with the instructions and so on.

3.6.4 Data Editing

After the checking process, the data have to be edited to make sure that they are complete and accurate. For example, if there are unanswered questions exist in a questionnaire, the researcher should mark it as "no answer" rather than just leave it blank. The task of ensuring the accuracy of the information provided is always difficult for the researcher. If the information is wrong in terms of the calculation, the editor can easily detect and correct it. However, if the information is wrongly provided by the respondents, the editor has no way to solve it since they can't even notice it.

3.6.5 Data Coding

It is necessary to assign some alphabetical or numerical symbol as a code for the qualitative answers to limit the answers with just a few alternatives, for example, ranking. In section B in which all the answers are coded with numerical symbol, the code "5" represent "strongly agree", code "4" represent "agree" and so on. Other than ranking, the code is useful in demographic questions. For example, gender and race. Male is coded as "1" while female is coded as "2". For race, code "1" represents "Chinese", "2"

represents "Malay", "3" represents "Indian" while "4" represents others.

3.7 Data Analysis

There is some test will be used to carry out the objective of this paper which is determining how the independent variables adopted which are interest rate, housing price, income level and taxation benefits affecting the demand of housing loan. Tests such as inferential analysis and descriptive analysis will be applied in this paper.

3.7.1 Description Analysis

Descriptive analysis used to provide summaries about the sample and measures. Together with table, graph and pie chart applied to simplify large and complicated data into simpler summary. Descriptive analysis summarize demographic information of respondent simplify what is the perception of respondent on how interest rate, housing price, income level, and taxation benefits effect demand of housing loan. Central tendency and variability of each variable also will be analyzed.

3.7.2 Reliability Analysis

The respondent is required to rank their personal opinion when doing the questionnaire. Therefore, reliability analysis adopted to measure the stability and consistency of respondents' rating. Cronbach's alpha is the most common method to determine the degree of scale's internal consistency and determine the dependability of the scale in the questionnaire. The value of Cronbach's alpha range from 0 to 1 and the greater value indicate better internal consistency between the scales in the questionnaire.

Table 3.3: Rules of Thumb about Cronbach Alpha's coefficient sizes

Alpha Coefficient Range	Strength of Association
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

Source: Matkar, A. (2012).

3.7.3 Inferential Analysis

The inferential analysis is applied to analyze data and draw a conclusion on what the respondent might think, the probability that might happen in this study or forecast what may happen in future. Few inferential analyses are used in this paper such as Pearson correlation coefficient and R squared.

3.7.3.1 Pearson correlation coefficient

The Pearson correlation coefficient is one of the basic inferential analysis measures. It applied to measure the strength of a linear connection between the independent variables and a dependent variable. The value of the Pearson correlation coefficient is ranged from -1 to 1. If the value tends to closer to positive 1 expresses that strong positive relationship exists between the two variables while strong negative relationship exists if the value close to negative 1.

Table 3.4: Interpretation of the Strength of Correlation results

Coefficient Range	Strength of Association
0.0 - ± 0.20	Very Low
±0.20 – ±0.40	Low
±0.40 – ±0.60	Moderate
±0.60 – ±0.80	Highly Moderate
±0.80 – ±0.90	High
±0.90 – ±1.00	Very High

Source: Mukaka, M. M. (2012).

3.7.3.2 Multiple Linear Regression Model

$$Y = \widehat{\beta_1} + \widehat{\beta_2}HP + \widehat{\beta_3}IR + \widehat{\beta_4}IL + \widehat{\beta_5}TB + \widehat{\mu_i}$$

Where:

Y = Demand of Housing Loan from Urban Area in Malaysia

HP = Housing Price

IR = Interest Rate

IL = Income Level

TB = Taxation Benefits

There is 1 dependent variable and 4 independent variables in the multiple linear regression models. The main aim of the multiple linear regression model is to study the connection between four independent variables and a dependent variable. Independent

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variables included housing price, income level, taxation benefits, and interest rate while dependent variable is housing loan demand.

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3.8 Conclusion

Research methodologies such as questionnaire design, data process and research design had been developed and discuss in this chapter. Few tests will be run to investigate the relationship between independent variables and dependent variable. Detail of result will be discussed in next chapter.

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

Objective of this chapter is to analyse and interpret the data collected. 350 sets of questionnaires were distributed but only 300 sets of survey questionnaires were collected from urban areas in Malaysia including Kuala Lumpur, Penang and Johor. All the tests will be run by using Statistical Package for Social Science (SPSS) software. Analysis of results involves descriptive analysis, scale of measurement, Pearson Correlation Analysis, central tendencies measurement of constructs and multiple linear regression analysis.

4.1 Descriptive Analysis

This part shows the demographic information of respondents that collected from the questionnaires. This descriptive profile have analyse data in term of gender, age, state of residence, marital status, race, education level, income level and occupation. Figures, tables and pie charts are used to interpret the results.

4.1.1 Respondent Demographic Profile

4.1.1.1 Gender

Table 4.1: Statistics of Respondents' Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	177	59.0	59.0	59.0
	Female	123	41.0	41.0	100.0
	Total	300	100.0	100.0	

Source: Developed for the research

Figure 4.1: Statistics of Respondents' Gender
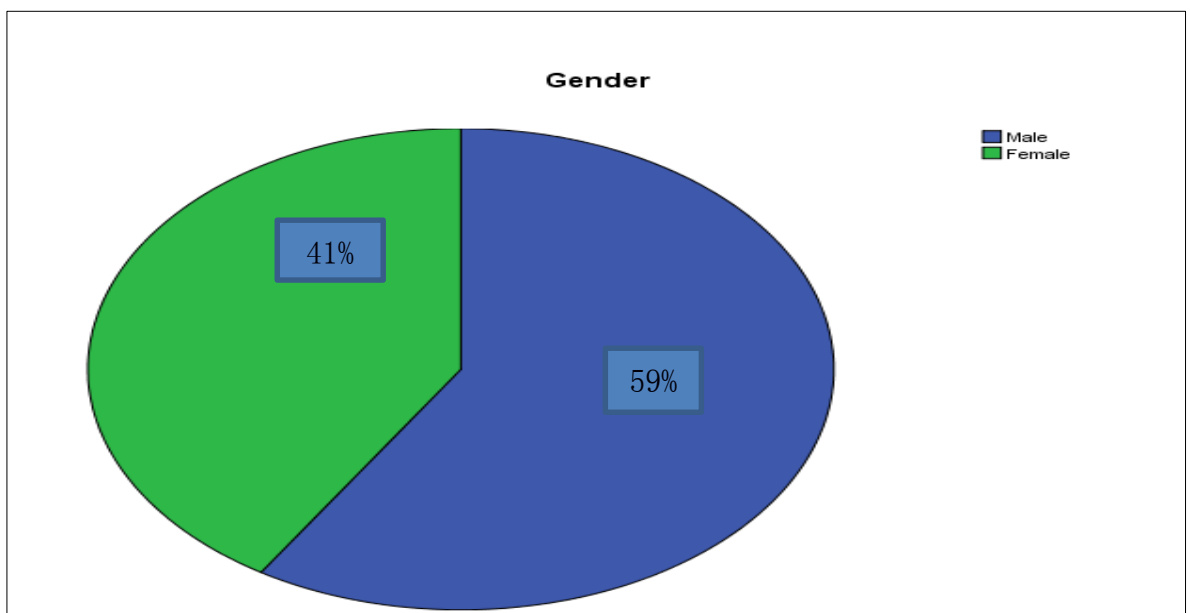
Source: Developed for the research

Table 4.1 and figure 4.1 shows there is 177 respondents are male or 59% while female only consists of 123 respondents or 41%. There are total of 300 respondents who committed to the questionnaire.

4.1.1.2 Age

Table 4.2: Statistics of Respondents' Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	21 to 30 years old	127	42.3	42.3	42.3
	31 to 40 years old	87	29.0	29.0	71.3
	41 to 50 years old	64	21.3	21.3	92.7
	51 to 60 years old	20	6.7	6.7	99.3
	61 years old and above	2	0.7	0.7	100.0
	Total	300	100.0	100.0	

Source: Developed for the research

Figure 4.2: Statistics of Respondents' Age
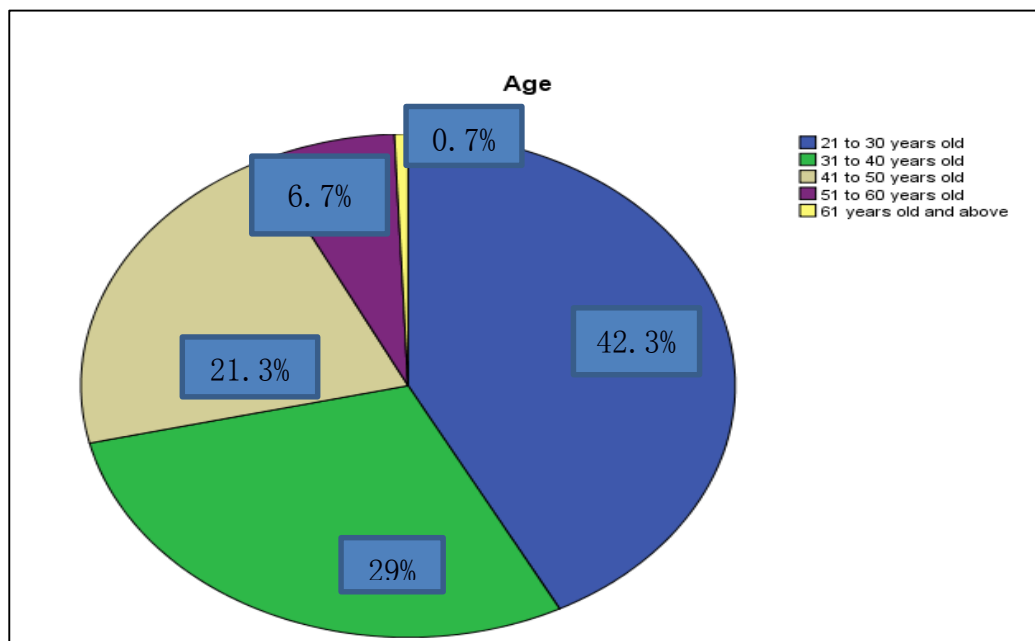
Source: Developed for the research

Table and Figure above shows the statistic detail of age group between 21 to 30 years old to 61 years old and above for 300 respondents. There are 127 respondents or 42.3%, who are between 21 to 30 years old, 87 respondents are 31 to 40 years old which is 29%, 64 respondents are 41 to 50 years old which is 21.3%, 20

respondents are 51 to 60 years old which is 6.7% and 2 respondents are 61 years old and above which is 0.7%.

4.1.1.3 State of Residence

Table 4.3: Statistic of Respondent's State of Residence

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Kuala Lumpur	156	52.0	52.0	52.0
	Penang	80	26.7	26.7	78.7
	Johor	64	21.3	21.3	100.0
	Total	300	100.0	100.0	

Source: Develop for the research

Figure 4.3: Statistics of Respondent's State of Residence
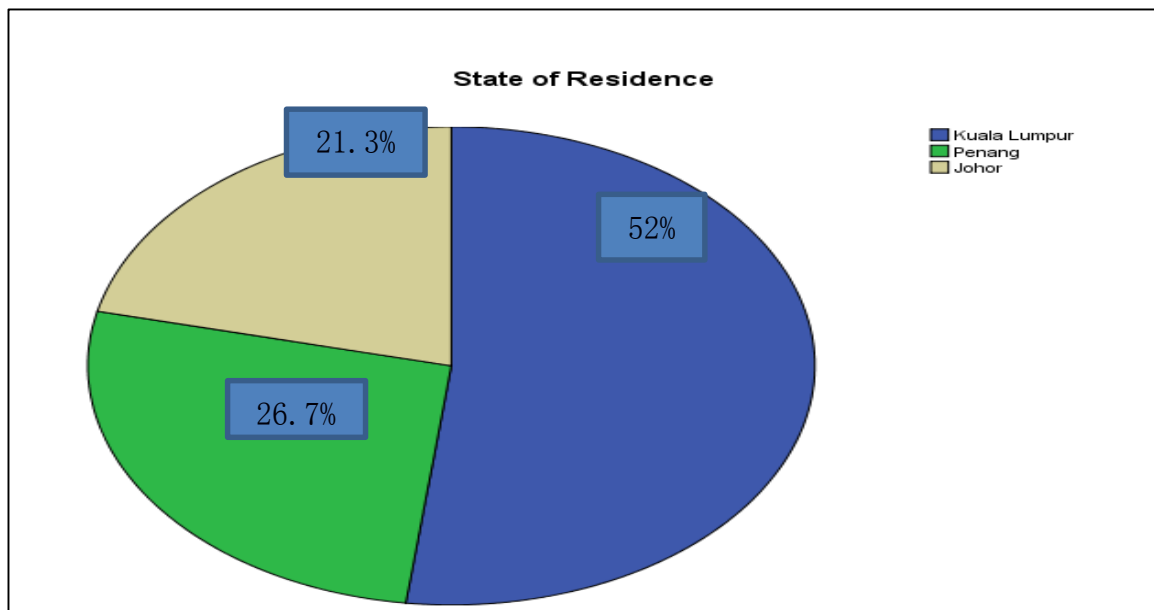
Source: Developed for the research

Table and figure above show statistic detail of state of residence group of respondent in this research. There are only three state of residential areas which are Kuala Lumpur, Penang and Johor since this research is focusing in the urban areas. In this research, 156

respondents live in Kuala Lumpur which is 52%, 80 respondents live
in Penang which is 26.7% and 64 respondents live in Johor which is
21.3%.

4.1.1.4 Marital Status

Table 4.4: Statistics of Respondent's Marital Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	191	63.7	63.7	63.7
	Married	104	34.7	34.7	98.3
	Others	5	1.7	1.7	100.0
	Total	300	100.0	100.0	

Source: Developed for the research

Figure 4.4: Statistics of Respondent's Marital Status
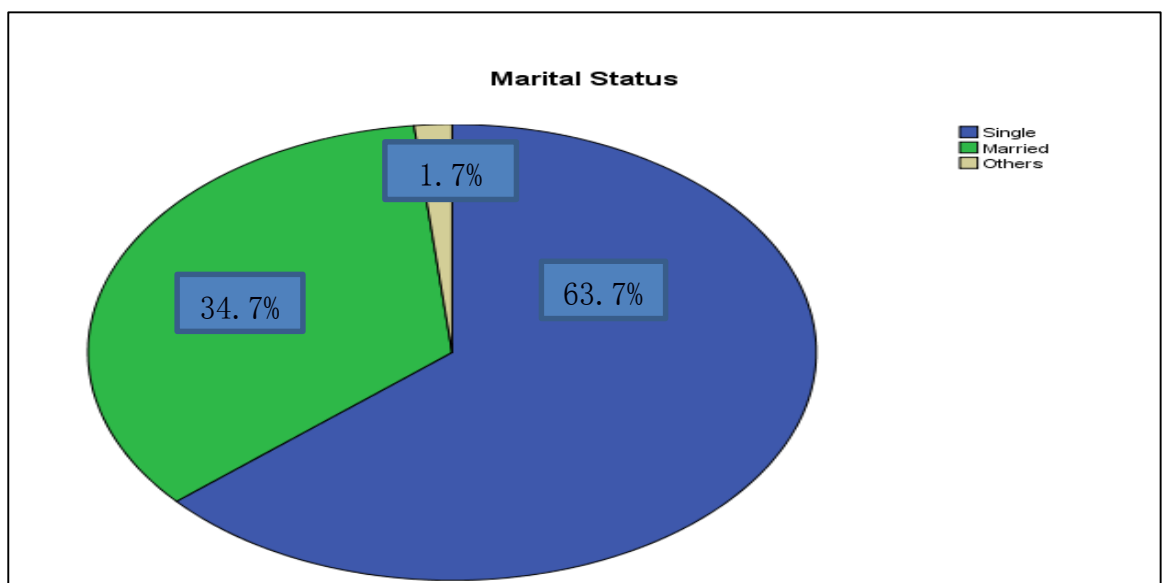
Source: Developed for the research

Table 4.4 and figure 4.4 show the frequency and percentages of the marital status of respondents. As show in above, 191 respondents are single which is 63.7%, 104 respondents are married which is 34.7% and 5 respondents are not single nor married which is 1.7%.

4.1.1.5 Race

Table 4.5: Statistics of Respondent's Race

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Malay	53	17.7	17.7	17.7
	Chinese	207	69.0	69.0	86.7
	Indian	40	13.3	13.3	100.0
	Total	300	100.0	100.0	

Source: Developed for the research

Figure 4.5: Statistics of respondent's Race
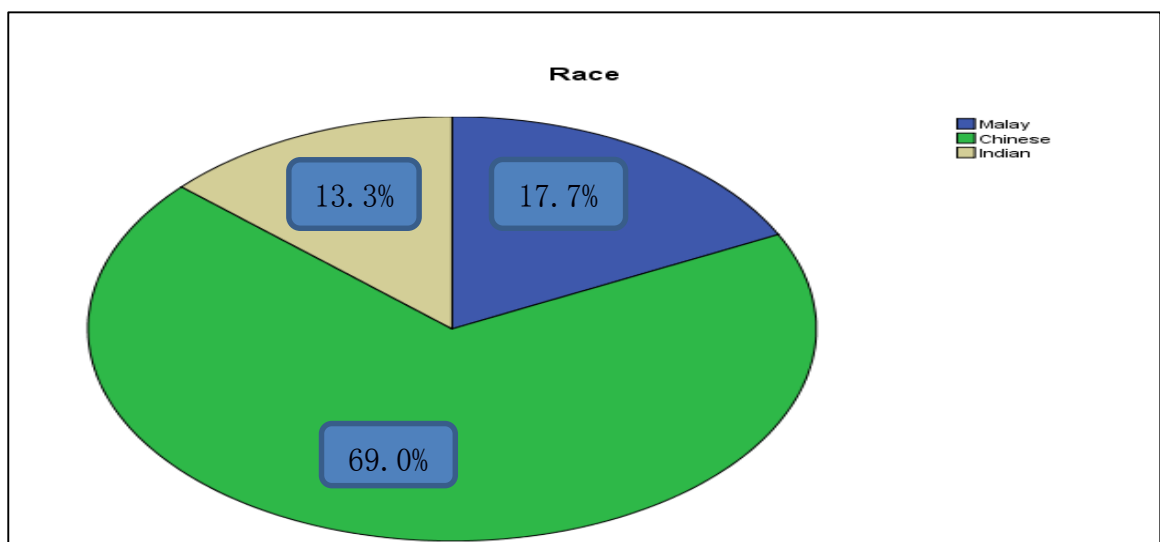
Source: Developed for the research

In this research, Chinese respondent is the major, while Malay and

Indian respondents are minority. Table and figure above shows that 207 respondents which represents 69.0%% are Chinese respondents. There are 53 Malay respondents which is 17.7% while Indian respondent only occupied 13.3% which is 40 respondents out of 300 respondents.

4.1.1.6 Education Level

Table 4.6: Statistics of Respondents' Education Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Primary School	11	3.7	3.7	3.7
	Secondary School	62	20.7	20.7	24.3
	Foundation/ Diploma/ A-Level	47	15.7	15.7	40.0
	Bachelor degree	166	55.3	55.3	95.3
	Master	13	4.3	4.3	99.7
	PHD	1	0.3	0.3	100.0
	Total	300	100.0	100.0	

Source: Developed for the research

Figure 4.6: Statistics of Respondents' Education Level
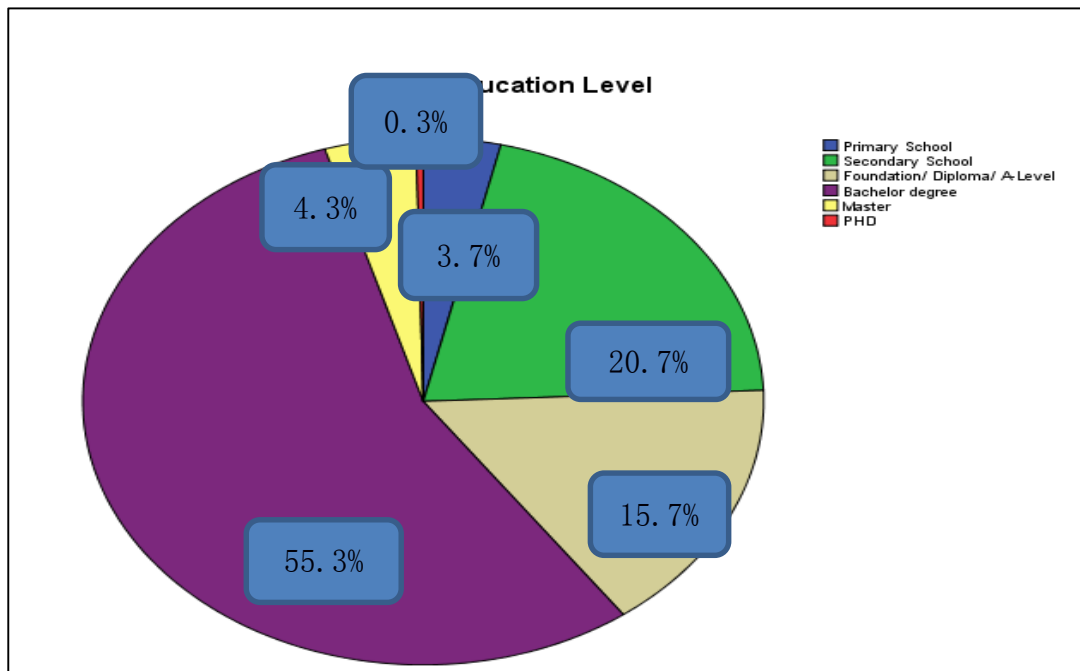
Source: Developed for the research

There are 6 categories of the education level, which included primary school, secondary school, foundation/diploma/A-level, bachelor degree, master and PHD. Based on the table 4.6, there are 11 respondents has an educational level of primary school, 62 respondents has an educational level of secondary school, 47 respondents has an educational level of foundation/diploma/A-level, 166 respondents has an educational level of bachelor degree, 13 respondents has an educational level of master and 1 respondent has an educational level of PHD. Respondents with education level of bachelor degree are occupied the most percentages which are 55.3%, followed by secondary school which is 20.7%, foundation/diploma/A-level which is 15.7%, master which is 4.3%, primary school which is 3.7% and PHD which is 0.3%.

4.1.1.7 Income Level

Table 4.7: Statistics of Respondents' Income Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below RM2,000	123	41.0	41.0	41.0
	RM2,001-RM4,000	81	27.0	27.0	68.0
	RM4,001-RM6,000	70	23.3	23.3	91.3
	RM6,001-RM8,000	18	6.0	6.0	97.3
	RM8,001-RM10,000	7	2.3	2.3	99.7
	RM 10,0001 and above	1	0.3	0.3	100.0
	Total	300	100.0	100.0	

Source: Developed for the research

Figure 4.7: Statistics of Respondents' Income Level
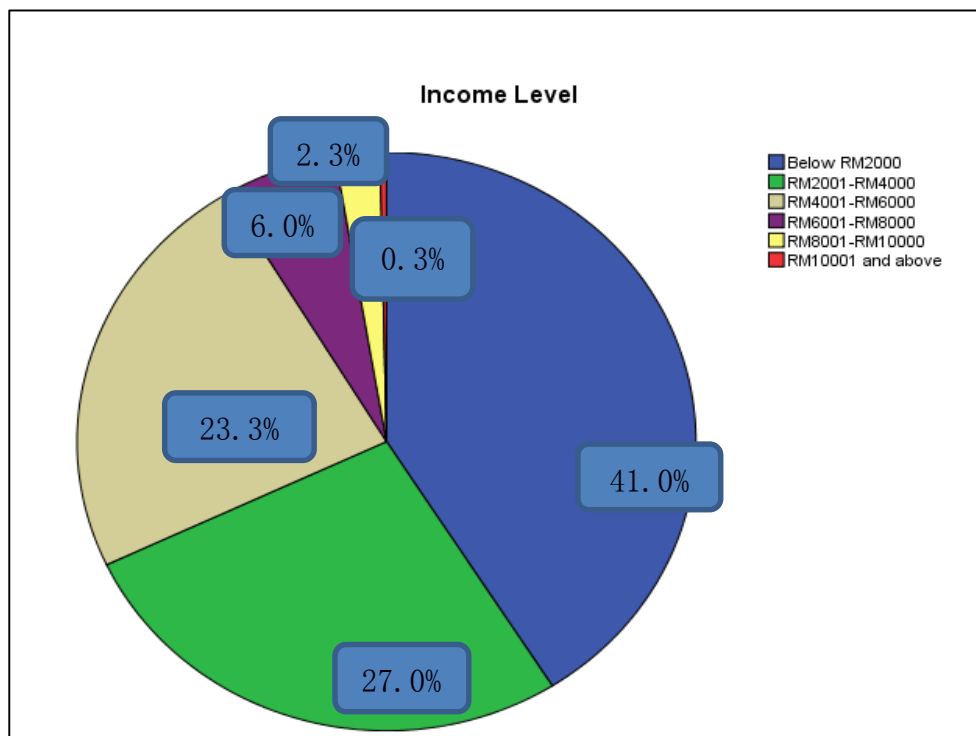
Source: Developed for the research

Questionnaires are distributed to respondents from 6 group of

income. There are 123 respondents have income level of below
RM2,000 which is 41.0%, 81 respondents have income level of
RM2,001-RM4,000 which is 27.0%, 70 respondents have income
level of RM4,001-RM6,001 which is 23.3%, 18 respondents have
income level of RM6,001-RM8,000 which is 6.0%, 7 respondents
have income level of RM8,001-RM10,000 which is 2.3% and 1
respondent has income level of RM10,001 and above which is 0.3%.

4.1.1.8 Occupation

Table 4.8: Statistics of Respondent's Occupation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Self-employed	70	23.3	23.3	23.3
	Private sector	135	45.0	45.0	68.3
	Government sector	29	9.7	9.7	78.0
	Others	66	22.0	22.0	100.0
	Total	300	100.0	100.0	

Source: Developed for the research

Figure 4.8: Statistics of Respondent's Occupation
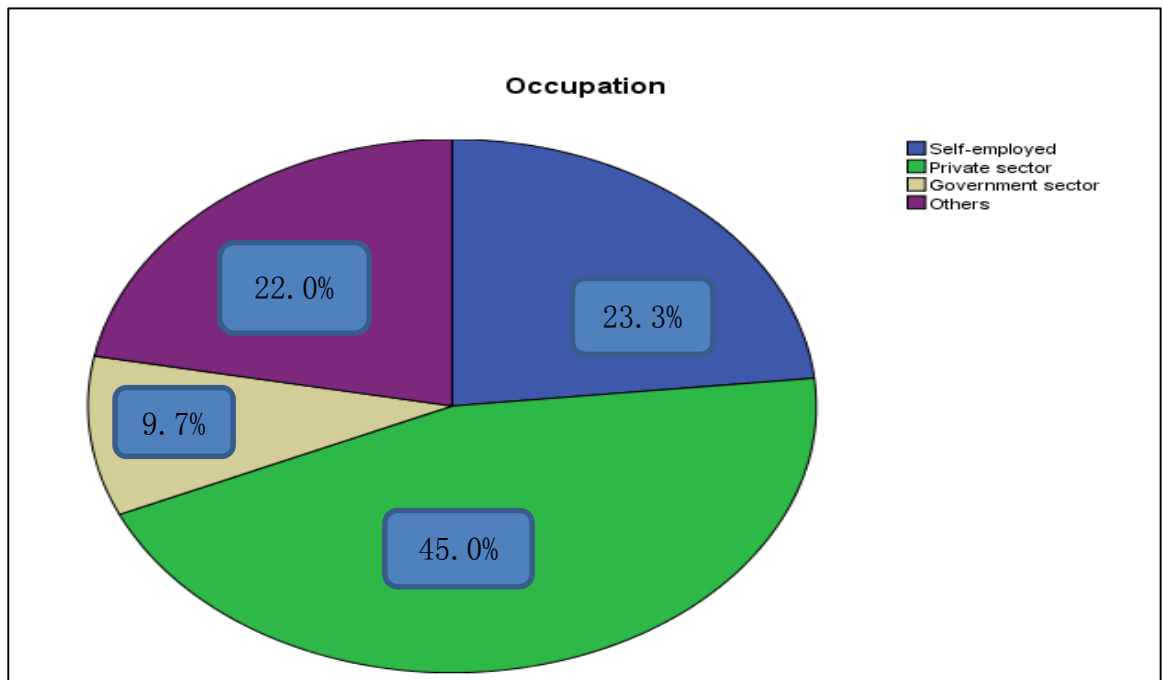
Source: Developed for the research

Table and figure above shows statistic detail of respondents'
occupation. The statistics above show that 70 respondents are self-
employed which is 23.3%, 135 respondents work in private sector
which is 45.0%, 29 respondents work in government sector which is
9.7% and 66 respondents are not self-employed nor private sector
nor government sector which is 22.0%.

4.1.2 Central Tendencies Measurement of Constructs

4.1.2.1 Demand of Housing Loan

Table 4.9: Descriptive Statistics of Demand of Housing Loan

N	Statement	Mean	Standard Deviation
HL1	I will apply for housing loan from bank if I decided to own a house.	3.45	0.870
HL2	I will apply for housing loan at least once in a lifetime.	3.66	1.287
HL3	I will demand for housing loan even I have the ability to settle the full payment in lump sum.	3.66	1.011
HL4	I believe housing loan is very important in urban areas.	4.20	0.754
HL5	I will apply for housing loan although I still have other loans not yet settle.	4.05	0.881

Source: Developed for the research

* HL: Demand of Housing Loan

The table shown above indicated the central tendencies of demand of housing loan. By referring to the table, majority of the respondents agree with HL4 (I believe housing loan is very important in urban areas.) which has the highest mean value (4.20) compared with other statements. HL5 has second highest with the mean value of 4.05. The following statements are HL2 and HL3 with the mean value of 3.66 and followed by HL1 which has the lowest mean value of 3.45.

For the standard deviation, HL2 has the highest standard deviation of 1.287 while the lowest is HL4 with the standard deviation value of 0.754. The second highest is HL3 with value of 0.881 and followed by HL5 as well as HL1 which have the values of 0.881 and 0.870 respectively.

4.1.2.2 Housing Price

Table 4.10: Descriptive Statistics of Housing Price

N	Statement	Mean	Standard Deviation
H1	I consider housing prices as a significant factor when applying for housing loan.	3.65	1.174
H2	I constantly update the housing prices of my living area.	3.35	1.041
H3	I believe that housing prices depends on location-specific factors.	3.73	1.320
H4	I believe that raising or falling of housing prices closely related on the current economy situation in the country.	3.86	1.035
H5	I believe that increasing housing prices make lower and medium income group difficult in owning a house.	3.85	1.374

Source: Developed for the research

* H: Housing price

Table 4.10 shown central tendencies of housing price. H4 (I believe that raising or falling of housing prices closely related on the current economy situation in the country.) has the highest mean value of 3.86 among the other statements and followed by H5 with value of 3.85. The third and fourth are H3 and H1 which have the means value of 3.73 and 3.65 respectively while the lowest is H2 with the value of 3.35.

Next, the statement with the highest standard deviation is H5 which is 1.374 as illustrated on the table above. The following statements with the second and third highest value are H3 and H1. Their values are 1.320 and 1.174 respectively. H2 is the fourth highest in which its value is 1.041. The lowest is H4 with the value of 1.035.

4.1.2.3 Interest Rate

Table 4.11: Descriptive Statistics of Interest Rate

N	Statement	Mean	Standard Deviation
I1	I believe that lower interest rate will induce the application for housing loan	3.66	1.011
I2	I believe that lower interest rate will increase the willingness to own a luxury house.	3.43	0.997
I3	I think that the decision of owning housing loan is affected by interest rate.	3.66	1.078
I4	I believe that change on interest rate will affect the purchasing power.	3.73	1.014
I5	I would demand for housing loan no matter how much the interest rate is.	3.23	1.077

Source: Developed for the research

* I: Interest Rates

Table above shown the descriptive statistics of interest rate, it indicates that I4 (I believe that change on interest rate will affect the purchasing power.) has the highest mean value which is 1.014. Both I1 and I3 are the second highest statements with mean value of 3.66. While for I2 and I5, their mean values are 3.43 and 3.23 respectively which are the fourth and the lowest compared to others.

For standard deviation, the value of I3 and I5 are 1.078 and 1.077 respectively which leads them occupied the first and second highest positions. The third highest is I4 with value of 1.014 and follow by I1 which is 10.11. The lowest standard deviation is possessed by I2 in which its value is 0.997.

4.1.2.4 Tax Benefits

Table 4.12: Descriptive Statistics of Tax Benefits

N	Statement	Mean	Standard Deviation
T1	I believe that change on government taxation policy will induce me to own a house instead of renting a house.	3.49	0.912
T2	I believe that change on housing loan demand can be affected by deductibility on interest of mortgage loan which will affect the taxation amount.	3.39	0.898
T3	I believe that tax reforms that reduce tax benefits on housing loan will decrease the demand of housing loan.	3.45	0.870
T4	I believe that taxation benefits removed only will cause insignificant impact on housing loan demand.	3.26	0.846
T5	I believe that favorable tax policy provide incentive for citizen to own a house rather than rent it.	3.53	0.989

Source: Developed for the research

* T: Tax Benefits

From table 4.12, T5 with the statement of "I believe that favourable tax policy provide incentive for citizen to own a house rather than rent it" has the highest mean value which is 3.53. This indicates that majority of the respondents agreed with this statement. T1 has second highest statement with the mean value of 3.49. Third and fourth are T3 and T2 are 3.45 and 3.39 respectively. The lowest mean value is 3.26 which is possessed by T4.

Based on the table illustrated above, T5 also has highest standard deviation compare to other statement which is 0.989 and followed by T1 with value of 0.912. T2 and T3 are the third and fourth highest as compared with others. Lastly, T4 is the lowest with the value of 0.846.

4.1.2.5 Income Level

Table 4.13: Descriptive Statistics of Income Level

N	Statement	Mean	Standard Deviation
IL1	I believe income level would affect the demand of housing loan.	3.74	1.282
IL2	I believe my intention to demand for housing loan will reduce if my income decreases.	3.66	1.287
IL3	I believe it is easier to apply for housing loan if my income level is high.	3.70	1.343
IL4	I am less likely to demand for housing loan if the economic is uncertainty such as currency deflation.	3.63	0.971
IL5	I would demand for housing loan no matter what my income level is.	3.16	1.278

Source: Developed for the research

* IL: Income Level

Table 4.13 indicated the statistics detail of income level. IL1 (I believe income level would affect the demand of housing loan.) has the highest mean value of 3.74. This shows majority of the respondents agreed with the statement of IL1. The lowest mean value is 3.16 which is possessed by IL5. The second highest is IL3 and followed by IL2 as well as IL4. Their values are 3.70, 3.66 and 3.63 respectively.

Next, the highest standard deviation goes to IL3 with value of 1.343 and follow by IL2 with value of 1.287. IL1 takes the third place while IL5 takes the fourth place in standard deviation comparison. The lowest standard deviation is 0.971 which is took by IL4. The standard deviation values of IL1, IL5 and IL4 are 1.282, 1.278 and 0.971 respectively.

4.2 Scale of Measurement

4.2.1 Reliability Analysis

A reliable result should be consistent and stable in measurement over different conditions. Generally, the results generated have to be same to ensure that the data collected is reliable. Besides, the amount of measurement errors can be estimated as well in a test. Statistical Package for The Social Sciences (SPSS) had been used to obtain the actual reliability result.

To measure how well are the internal consistency among all the items, Cronbach's Alpha rule of thumb which was designed by Lee Cronbach in 1951 has provided a estimate of internal consistency of a test of scale (Dennick & Tavakol, 2011). The range of Cronbach's Alpha rule of thumb is between 0 and 1. The table below shows level of strength of internal consistency of the items by referring to the coefficient of the Cronbach's Alpha.

Table 4.14: Rules of Thumb about Cronbach Alpha's coefficient sizes

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

Source: Matkar, A. (2012).

4.2.1.1 Reliability Test

Table 4.15: Reliability Test

	Actual Result
Housing Loan	0.739
Housing Price	0.837
Interest Rate	0.715
Taxation Benefits	0.818
Income Level	0.734

Source: Developed for the research

Reliability result for housing price and taxation benefits are more than 0.8 which is consider good while housing loan, interest rate, and income level have strength of association between 0.7 and 0.8 which still consider acceptable in reliability test. Overall, all of the variable are above the limit of 0.70 and hence the data is reliable and able to process to further analysis.

4.3 Inferential Analysis

Inferential analysis allows the data collected to represent the remaining population and also determine the relationship between variables and strength of that relationship. Test applied consists of Pearson Correlation Analysis and Multiple Linear Regression Analysis.

4.3.1 Analysis of Pearson Correlation

Pearson Correlation is designed to determine the relationship between two or more variables. Correlation can vary from +1 to -1. Values close to +1

indicate that the variables are highly correlated while values close to -1
indicate that the variable lowly correlated.

Table 4.16: Correlations

	HL	HP	IR	TB	IL

HL   Pearson Correlation
    Sig. (2 tailed)
      N
	1.000
	
	300.00
		0.765
		0.000
		300
			0.749
			0.000
			300
				0.730
				0.000
				300
					0.804
					0.000
					300

HP   Pearson Correlation
    Sig. (2 tailed)
      N
	0.765
	0.000
	300
		1.000
		
		300.00			

IR   Pearson Correlation
    Sig. (2 tailed)
      N
	0.749
	0.000
	300
			1.000
			
			300.00		

TB   Pearson Correlation
    Sig. (2 tailed)
      N
	0.730
	0.000
	300
				1.000
				
				300.00	

IL   Pearson Correlation
    Sig. (2 Tailed)
      N
	0.804
	0.000
	300
					1.000
					300.00

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

Source: Developed for the research

Table 4.16 indicates that housing price and housing loan demand in urban
area has a correlation of p=0.765. Besides, it also shows that interest rate
and housing loan demand in urban area has a correlation of p=0.749. While
the tax benefit and housing loan demand in urban has a correlation of
p=0.730 which is lowest correlation. Last but not least, the table indicates
that the income level and housing loan demand in urban area has highest
correlation (p = 0.804). In short, the result obtained indicated that all
independent variables are significantly correlated with the dependent
variable.

As shown in the Table 4.16, the Pearson Correlation values of the variables were below 0.9. Since Multicollinearity problem only arise when Pearson Correlation value is greater than 0.9 (El-Fallah & El-Sallam, 2011). Therefore, it can be concluded that the multicollinearity problem is absence in the research.

4.3.2 Multiple Regression Analysis

Table 4.17: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
	.866[d]	.749	.746	.3446	1.727

Source: Developed for the research

Table show above the Adjusted R-square value is 0.746. This indicates that 74.6% of the variation of the housing loan demand in Malaysia can be explain by the housing price, interest rate, tax benefit and income level. However, it is still left 25.4% cannot be explained in this research, meaning that, there are other variables that are significant and explained the housing loan demand in Malaysia. In fact, the higher the Adjusted R-square value, the better the model fit with the data.

Table 4.18: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	104.803	4	26.201	220.635	.000[d]
Residual	35.032	295	.119		
Total	139.835	299			

Source: Developed for the research

Based on the 4.18, F value is 0.000 and its significance level is less than 0.05. This can concluded that the model is significant. Therefore, all four independent variables are significant to explain the variation of the housing loan demand in Malaysia.

Table 4.19: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.801	.113		7.117	.000
IL	.272	.044	.343	6.154	.000
TB	.305	.039	.307	7.745	.000
HP	.145	.040	.197	3.583	.000
IR	.127	.051	.132	2.487	.013

Source: Developed for the research

Based on table 4.19, IL (Income Level) is significant to the housing loan demand for this research since the p-value of IL is equal to 0.000 which is less than the alpha value of 0.05. TB (Tax Benefit) are significant to the housing loan demand for this research since the p-value of TB is equal to 0.000 which is less than the alpha value of 0.05. As shown in the table 4.19, HP (Housing Price) is significant to the housing loan demand. This is due to p-value (0.000) of HP is lower compare to alpha value of 0.05. P-value of IR (Interest Rate) is 0.000 which is less than alpha value of 0.05. This also indicates that IR is significant to the housing loan demand for this research

Multiple Regression Equation:

Based on table 4.19,
Regression equation,
$$Y = C + \beta X1 + \beta X2 + \beta X3 + \beta X4 + \beta X5$$

_____

Y = Housing loan demand

C = Constant value

β = Unstandardized coefficient

X1 = Income level

X2 = Tax Benefit

X3 = Housing Price

X4 = Interest rate

Housing loan demand = 0.801 + 0.272 (Income level) + 0.305 (Tax Benefit) + 0.145 (Housing Price) + 0.127 (Interest rate)

4.3.2.1 Test of Significant

(i) Income Level:

H0: There is no significant relationship between the income level and the housing loan demand in Malaysia.
H1: There is a significant relationship between income level and the housing loan demand in Malaysia.

According to the Table 4.19, income level has a significant value of 0.000 which is less than the significant level of 0.05. Therefore, null hypothesis had been rejected and concluded there are significant relationship between income level and housing loan demand in Malaysia.

Based on the multiple equations above, the housing loan demand will increase by 0.272 for every RM 1 increased in income level, while other variables remain constant.

_____

(ii) Tax Benefit:

H0: There is no significant relationship between tax benefits and housing loan demand in Malaysia.

H1: There is a significant relationship between tax benefits and housing loan demand in Malaysia.

According to the Table 4.19, tax benefit has a significant value of 0.000 and it is less than the significant level of 0.05. Therefore, null hypothesis had been rejected and concluded there are significant relationship between tax benefits and housing loan demand in Malaysia.

Based on the multiple equations above, the housing loan demand will increase by 0.305 for every 1 unit increased in tax benefit, while other variables remain constant.

(iii) Housing Price:

H0: There is no significant relationship between housing price and housing loan demand in Malaysia.

H1: There is a significant relationship between housing price and housing loan demand in Malaysia.

According to the Table 4.19, housing price has a significant value of 0.000 and it is less than the significant level of 0.05. Therefore, null hypothesis had been rejected and concluded there are significant relationship between housing price and housing loan demand in Malaysia.

Based on the multiple equation above, the housing loan demand will increase by 0.145 for every RM1 increased in housing price, while other variables remain constant.

(iv) Interest Rate:

H0: There is no significant relationship between interest rate and housing loan demand in Malaysia.

H1: There is a significant relationship between interest rate and housing loan demand in Malaysia.

According to the Table 4.19, interest rate has a significant value of 0.013 and it is less than the significant level of 0.05. Therefore, null hypothesis had been rejected and concluded there are significant relationship between interest rate and housing loan in Malaysia.

Based on the multiple equations above, the housing loan demand will increase by 0.127 for every 1 percent increase in interest rate, while other variables remain constant.

4.4 Conclusion

In short, descriptive analysis had been employed to analyze the profile and attitude of all the respondents towards demand of housing loan. Mean and standard deviation value of the data set is measured under central tendencies measurement. The scales are defined by measuring the consistency of items through reliability analysis. The relationships between two or more variables are learnt through Pearson correlation analysis and multiple regression analysis. This research also shows that all the independent variables are well correlated with the dependent variable. The data will be further explain and discuss in the following chapter.

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CHAPTER 5: DISCUSSION, CONCLUSION AND IMPLICATION

5.0 Introduction

The statistical analysis of chapter 4 is summarised in the first part of this chapter. The discussions of major findings also elaborate about the relationships between the demands of housing loan with all the independent variables. Furthermore, this chapter even explains about the implications and limitations of this study by referring to the statistical results from chapter 4. The limitations will be recommended with some suggestions that may improve or solve the problems. Last but not least, conclusion will roughly summarize the results.

5.1 Summary of Statistical Analysis

A total of 300 sets of data had been analysed by using SPSS Software and Microsoft Excel to measure the relationship between the customers' decision on housing loan demand, housing price, income level, interests rate and taxation benefits. Statistical analysis divided into two parts which is descriptive statistic and inferential statistic. Descriptive analysis analyses the demographic variable while inferential analysis used to identify the relationship between dependent variable and independent variables. Reliability test is also applied to examine whether the data collected valid to be used.

5.1.1 Summary of Descriptive Analysis

There are few demographic variables such as gender, age, state of residence, marital status, race, education level, income level, and occupation had been carried out in descriptive analysis. For gender, there are 59% who are male,

while 41% who are female. Most of the respondents are within the range of 21 to 30 years old which consists of 127 respondents, while 87 respondents in the range of 31 to 40 years old. There are another 64, 20 and 2 respondents in the range of 41 to 50 years old, 51 to 60 years old, and 61 years old and above respectively.

Next, the questionnaire was targeted respondent from urban areas which are Kuala Lumpur, Penang and Johor. There is a highest percentage of 52 % or 156 respondents from Kuala Lumpur, while Penang and Johor are relatively lesser which is 26.7% and 21.3% respectively. Majority of the respondents is single which composes of 63.7%, while the rest are 34.7% who are married 1.7% for other categories. Most of the respondents are Chinese which have the highest percentage of 69%, while 17% of Malay and 13.3% of Indian respondents.

The greatest percentage of respondent education level is Bachelor degree which is 55.3%, while respondents from secondary school and foundation or diploma or A-level consist of 20.7% and 15.7% respectively. There are very less respondents who are from primary school, Master and PhD which is only 3.7% of primary school, 4.3% for Master and 0.3% for PhD. For income level, most of the respondents have income below RM 2,000 which consists of 41%, the second highest is 27% that within the range of RM 2,001-RM 4,000 and 23.3% within the range of RM 4,001-RM 6,000. There are very less respondent which is only 6% within the range of RM 6,001-RM 8,000, 2.3% for RM 8,001-RM 10,000, and 0.3 % for RM 10,001 and above.

Besides, there are 45% of respondents working in private sector, while government sector are 9.7%. There are another 23.3% of respondents are self-employed while another 22% are others such as student and housewife.

Descriptive analysis also runs on each independent variable statement. For housing loan, the higher mean value of 4.20 and 4.05 is the statement housing loan is very important in urban area and they will apply for a

housing loan although still have other loans yet to settle. While other statement which is they will apply for a housing loan from bank loan at least once in a lifetime, when they are deciding to own a house, and demand for housing loan even I have the ability to settle the full payment in lump sum have the mean value of 3.66, 3.45 and 3.66 respectively.

For an independent variable of housing price, the higher mean value which is 3.86 and 3.85 is the statement that believes housing price movement is related to the economy situation and increasing in housing price make lower and medium income group difficult in owning a house. While the remaining statement which consider housing price as significant factor that affect housing loan, believes housing prices depends on location and will constantly update housing price is 3.65, 3.73 and 3.35 respectively.

While for the result of interest rate, the highest mean value is 3.73 which is believed that change on interest rates will affect the purchasing power and statement of demand for housing loan no matter how much the interest rate have a lower mean value which is 3.23. Other statement such as decision of owning housing loan is affected by interest rate; lower interest rate will induce the application for housing loan and increase the willingness to own a luxury house is 3.66, 3.66 and 3.43 respectively.

The highest mean value 3.53 for taxation benefits is relatively smaller than other variables is the statement that believe favourable tax policy providing incentive for citizens to own a house rather than rent it. While other statement such as believing that change on government taxation policy will induce me to own a house instead of renting a house, change on housing loan demand can be affected by deductibility on interest of mortgage loan which will affect the taxation amount, tax reforms that reduce tax benefits on housing loan will decrease the demand of housing loan and taxation benefits removed only will cause insignificant impact on housing loan demand is 3.49, 3.39, 3.45 and 3.26 respectively.

For income level, the highest mean value is 3.74 for statement that believe

income level would affect the demand of housing loan while the lowest mean value 3.16 is the statement that demand for housing loan no matter what my income level is. Other statement such as intention to demand for housing loan will reduce if my income decreases, it is easier to apply for a housing loan if my income level is high and less likely to demand for housing loan if the economy is uncertainty such as currency deflation is 3.66, 3.70 and 3.63 respectively.

5.1.2 Summary of Reliability Test

A reliability test shoe that housing price and taxation benefits have more than 0.8 in reliability test which is considered good while other variables such as interest rate, income level and housing loan are between 0.715 and 0.739 which is still above the limit and acceptable.

5.1.3 Inferential Analysis

5.1.3.1 Pearson Correlation Analysis

By referring to the results obtained by using SPSS, the demand of housing loan in Malaysia has strong positive relationship with the housing price. This is proven by the correlation test obtained. The correlation between the demand of housing loan in Malaysia and the housing price is 0.765.

Besides, the demand of housing loan in Malaysia also has a strong positive relationship with the interest rates. Based on the results, the demand of housing loan in Malaysia and the interest rates are found out to have 0.749 of correlation between them.

Furthermore, the demand of housing loan in Malaysia has a strong positive relationship with the taxation benefits. From the results obtained, the demand of housing loan in Malaysia and the taxation benefits have a correlation of 0.730.

Moreover, the demand of housing loan in Malaysia has a strong positive relationship with the income level. This is proven by the correlation of 0.804 between the demand of housing loan and the income level.

5.1.3.2 Multiple Regression Analysis

Based on the table 4.17, the Adjusted R-square value is 0.746 which indicates that 74.6% of the variation in the housing loan demand in Malaysia can be explain by the housing price, interest rate, tax benefit, and income level. Besides, based on the table 4.18, the F-value is 0.000 and its significant value is less than the significant level of 0.05. Therefore, the four independent variables are able to explain the variation of the housing loan demand in Malaysia.

Multiple Regression Equation:

Based on table 4.19,

Regression equation,

$Y = C + \beta X1 + \beta X2 + \beta X3 + \beta X4 + \beta X5$

Y = Housing loan demand

C = Constant value

β = Unstandardized coefficient

$X1$ = Income level

$X2$ = Tax Benefit

$X3$ = Housing Price

$X4$ = Interest rate

Housing loan demand = 0.801 + 0.272 (Income level) + 0.305 (Tax

_____

Benefit) + 0.145 (Housing Price) + 0.127 (Interest rate)

By referring to the table 4.19, income level is significant to explain the housing loan demand in Malaysia since its significant value is less than the significant level of 0.05. Based on the multiple regression equation above, the housing loan demand will increase by 0.272 for every RM 1 increased in income level, while other variables remain constant. Moreover, the tax benefit is significant to explain the housing loan demand in Malaysia since its significant value is less than the significant level of 0.05. With every 1 unit increase of tax benefit, housing loan demand in Malaysia will rise by 0.305, while other variables remain constant. For housing price, it is significant to explain the housing loan demand in Malaysia since its significant value is less than the significant level of 0.05. The housing loan demand in Malaysia will increase by 0.145 for every RM1 increased in housing price, while other variables remain constant. Lastly, the interest rate is significant to explain the housing loan demand in Malaysia since its significant value is less than the significant level of 0.05. For every 1 percent increase of interest rate, housing loan demand in Malaysia will increase by 0.127, while other variables remain constant.

5.2 Discussion of Major Findings

5.2.1 Relationship between the demand of housing loan and the housing prices

Based on the results of this research, the housing price has a significant and positive relationship with the demand of housing loan in Malaysia. The result of this research is consistent with the result of previous researchers. The housing price has a positive relationship with the demand of housing

loan in the long run (Addae-Dapaah, 2014). The result is also proven consistent with the research of Oikarinen (2008), which the author mentioned that the housing loan will positively affect the demand of housing loan in Malaysia. Thus, housing price can concluded as one of the important factors that affecting the demand of housing loan in Malaysia.

5.2.2 Relationship between the demand of housing loan and the interest rates

In this study, the relationship between demand of housing loan and interest rate has a p-value of 0.013. The p-value is lower than the alpha value 0.05 shows that there is a significant relationship between the demand of housing loan and interest rate. The results show the interest rate is positively influencing the demand of housing loan. This finding is inconsistent with Wolswijk (2006) where increase the cost of financing will reduce the willingness of consumers to acquire loans. Dietsch and Petey (2015) suggest that numbers of borrowers decline when the interest rates increase. The difference between this study and previous researches may due to the people nowadays are trying to own a house. Therefore, the demand of housing loan increases, even though the interest rate is high.

5.2.3 Relationship between the demand of housing loan and the taxation benefits

According result in chapter 4, the p-value of the relationship between demand of housing loan and taxation benefits is 0.000 which is less than the alpha of value of 0.05. This indicated that there is a significant relationship between relationship between demand of housing loan and taxation benefits. Thus, any taxation benefits provided by government will have significant effect toward demand of housing loan. However, the result obtained from chapter 4 has mentioned that there are positive relationship between taxation

benefits and housing loan demand do not consistent with Bourassa and Yin
(2008) that suggested the negative relationship between taxation benefits
and housing loan due to taxation benefits implemented will drive up housing
price which offsetting the incentives. The inconsistent in result may due to
people nowadays aware of important of property to protecting their wealth
in term of value since currency Malaysia weaken all the way recently.
Therefore, any incentives that reduce the cost homeownership will
encourage people to own a property with mortgage loan.

5.2.4 Relationship between the demand of housing loan and the income level

In this study, the relationship between the demand of housing loan and the
income level has a p-value of 0.000. The p-value is lower than the alpha
value 0.05 indicates that there is a significant relationship between the
demand of housing loan and the income level. Besides, there is a positive
relationship between demand of housing loan and income level and the beta
of income level is 0.272. This means that every increase in income level will
increase 0.272 of demand of housing loan, holding other variables constant.
The results also tally with the previous studies by Kim (2010),
Bandyopadhya (2016), Shahini (2014), Ismail et al. (2015) and Viskovic et
al. (2015). Therefore, the higher the income level, the higher the demand of
housing loan.

5.3 Implications of Study

Independent variables that affecting the housing loan demand in Malaysia had been
examined in this research. The independent variables are housing prices, interest
rate, tax benefit, and income level, which proven have a significant relationship
with the housing loan demand. According to the findings, comparison between the
independent variables and the housing loan demand had been carried out in order

to determine the factors affecting the customer perception on the housing loan demand in Malaysia. Therefore, making proper adjustment in these factors will improve the housing loan demand in Malaysia.

5.3.1 Bank or Private Financial Institutions

Most of the bank's revenues are loan interest paid by borrower. A bank performance is indicated by its interest income. Hence, understanding the factors affect the perceptions of customers towards the demand of loan is significant to boost their revenue by increasing the amount of loan lent out. In this study which focuses on demand of housing loan, a bank should take into account the impact of housing price, interest rate, taxation benefit and income level in affecting the decision of an individual to demand housing loan. This is solely because of the results done in chapter four showed that all factors included in this study are significant. Moreover, the correlations between demand of housing loan and the four independent variables are all positive.

As housing price and taxation benefit are not under a bank's control, they can increase the demand of housing loan through interest rate and income level. By referring to chapter four's result, interest rate has a positive relationship with demand of housing loan. This means that an individual will still apply for housing loan even the interest rate is high, resulting in decreasing in competitiveness among bank in terms of offering the interest rate as low as possible to attract more clients. However, the competition still exists in the aspect of bank reputation and popularity. As a bank has a good reputation and popular in that country, an individual will automatically goes for that particular bank to demand for housing loan since he or she believe in it. Hence, a bank can try to build up their reputation and increase popularity through providing sponsorship, advertisement, charity and so on. For income level, the higher the income of an individual, the higher the chance he or she demands for housing loan. However, an individual with lower income may have their own concern about their affordability. In order

to boost housing loan demand among the lower income population, bank can provide more benefits to the public by speeding up the process of loan approval, provide instant cash back and so on.

5.3.2 Government

The housing market can be an important component in a developing economy. With more and more citizen struggling to afford to buy new house in urban area, government plays an important role to prevent further slumping of the housing market in urban area of Malaysia. By taking into account the factors discussed in this study and their relationship with the housing loan demand in urban area, the government and policymaker can improve the housing market by controlling the factor such as housing price and tax benefit. As a result, this study will help the government gain better understanding on the housing loan demand in urban area of Malaysia.

The government and policymaker can use this study to implement appropriate fiscal policy in order to prevent any housing market bubble happen and spread to the whole economy. Other than that, the government can implement new housing regulations and policies that can deal with the factor that caused the housing price to increase every year. This will prevent sudden fluctuation of the housing price in the market. With the taxation benefit has a positive relationship with the housing loan demand, the government and policymaker can implement benefits for the citizens in order to encourage them to take housing loan. Hence, government can offer citizens extra tax deductibility that takes housing loan exceed specific amount or looser income tax underwriting.

The last tax benefits provided were mortgage loan deducibility up to RM 10,000 per year for 3 consecutive years with requirement that sales and purchase of property that must be carried out between 10 March 2009 and 31 December 2010. After that, Malaysians have no any tax benefits for

housing loan. As there are positive relationship between taxation benefits and demand of housing loan in this study, government can offer more tax benefits to the citizens to improve economy growth.

5.3.3 Central Bank

From chapter 4, this study found out that the greater the interest rates, the greater the demand of housing loan in Malaysia. This means that no matter what interest rates are, consumers also demand for housing loan. This may be because houses are considered necessary for the consumers, therefore they must demand for housing loan to purchase houses. Although central bank has set a base lending rate, but private banking institutions can mark up or mark down the rate themselves. Therefore, the central bank should set a range for private banking institutions for the lending rate. This can reduce burden for consumers as consumers no need pay higher interest rates. Besides, the central bank also need to concern with the economic factors, such as inflation, foreign exchange rate to set the base lending rate in order to lower down the default risk of the citizens.

5.4 Limitations of Study

After conducting this research, the limitations of the research have to be identified and acknowledged. The features of methodology and design that affected the findings are the limitations of the study. They constraint the generalizability and have impacts on the interpretation and reliability of results. The acknowledgement of limitations is important as it can improve the future research. It gives an opportunity to researchers to explain and overcome the limitations.

One of the limitations is this research only focuses on 3 urban areas in Malaysia including Kuala Lumpur, Penang and Johor. These 3 areas are chosen because they are the largest urban agglomerations in Malaysia. The population of each area is

more than 1 million people. However, there are 19 urban areas in Malaysia which means that another 16 urban areas were not taken into account. The research has covered less than half of the total population of urban areas in Malaysia. This may result in a bias since the sample size does not represent the whole population of urban areas.

Furthermore, this research does not study the customer perceptions on housing loan in rural areas in Malaysia. Nevertheless, the rural population has been declining over the years while the urban population has been rising. This may due to the people live in rural areas were immigrating to urban areas in order to seek for a better standard of living. Malaysia as a developing country always considers the importance of rural development. The government has implemented many schemes and strategies for development of agriculture, industrialization as well as infrastructures to influence the well-being of rural. As a result, it gradually transforms the rural areas into urban areas. Therefore, the perception of customer in rural areas is also very important to the research.

This research also focuses only on Malaysia. Result from this research only represents the demand of housing loan in Malaysia, but not the result of the global market. Because of the limitations, not all foreigners benefits from this research, unless they are interested to invest in Malaysia or immigrate to Malaysia. Therefore, research on other countries is also very important.

Besides that, this research uses 4 factors, including housing price, interest rate, tax benefits and income level as independent variables. The relationship between a dependent variable (demand of housing loan) and independent variables are determined. However, these 4 factors may not enough to explain the customer perceptions on housing loans. Lacking of variables will make the model imperfect and also affect the final result of the research.

5.5 Recommendation for Future Research

There are few limitations that can be overcome and improve in this research paper .There are few recommendations that might help the future researchers who interested to conduct researches on the similar topic.

One of the limitations is this research only focuses on 3 urban areas in Malaysia which are Kuala Lumpur, Penang and Johor. This is due to lack of funds to conduct research in all urban areas in Malaysia. It is important to know the demand of the housing loan in Malaysia. The result of 3 urban areas in Malaysia cannot represent the result of Malaysia. Future researchers can find sponsorship from government, or agencies that can provide funds for the researchers so that a research on all the areas around Malaysia can be conducted.

Besides, this research only focuses on Malaysia. Future researchers can do research to more countries, such as Singapore, Thailand, and Taiwan and make comparison. This is to let the reader of the research can compare and know which countries' citizens demand higher housing loan. This also useful for banks that operate more than one country, and make adjustment to their loan types or marketing strategy based on the demand of housing loan in different countries.

This study only involves dependent variable, demand of housing loan and also independent variables, housing price, interest rate, tax benefits and income level. Future researchers should include more variables in their research. Other variables such as the pattern of spending, geographical factors, inflation rate and so on should be taken into account in an effort to have a better explanation. For example, the spending and saving pattern of the people may affect the capability to acquire a housing loan even though they have a high income level. This research also suggests that future researchers can try to exclude interest rate in future study of demand of housing loan as customers still demand for housing loan even the interest rate

increase.

5.6 Conclusion

The purpose of this research is to determine the consumers' perceptions on demand of housing loan in Malaysia. The independent variables included in this study are the housing price, interest rate, taxation benefits, and income level. Studies have been done on the dependent variable (demand of housing loan) and independent variables (housing price, interest rate, taxation benefits, and income level) by using the journals done by previous researcher. Then, questionnaire for the dependent variable and independent variables had been prepared and distributed to respondents.

As conclusion, the higher the housing price, the higher the demand of housing loan in Malaysia, because citizens are hard to pay a lump sum of money to purchase the houses. Therefore, banks should target the customers in the area of higher housing price.

Besides, this study suggests that higher the interest rates, the higher the demand of housing loan in Malaysia. The results are not aligned with the previous studies since the previous studies state that negative relationship between interest rate and demand of housing loan. However, it can be explain that citizens tend to demand for housing loan to purchase houses no matter what interest rates is because houses are necessity in their live. Therefore, government should control the interest rates offered by the banks to reduce the burdens of citizens.

Furthermore, previous researcher suggests there is negative relationship between housing loan and taxation benefits. This is because benefit provided can indirectly drive up housing price and offset the incentive. The result obtained is not consistent with the previous research. This may due to Malaysian have a concept that keep property safer than keep cash since inflation is high and Malaysia currency weaken against US Dollar. Therefore, any benefits that allow people to reduce the cost of

homeownership will encourage them to own a property without thinking the side effect of the benefits.

Moreover, the higher the income level, the higher the demand of housing loan. This is because citizens with higher income tend to invest their income by purchasing houses. Thus, citizens should work hard and get a better income so that can invest the income in property.

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Appendix 3.0: Questionnaire Survey Form

FACULTY OF BUSINESS AND FINANCE
BACHELOR OF FINANCE (HONS)
FINAL YEAR PROJECT
SURVEY QUESTIONNAIRE

Dear Respondent(s),

We are final year undergraduate students who currently pursuing Bachelor of Finance (HONS) at Universiti Tunku Abdul Rahman. We are required to conduct a survey regarding the determinants that affect customers' decision on housing loan demand in Malaysia. All information will be kept private and confidential. Please answer all the questions provided by following the instructions given. Your cooperation is much appreciated.

Instructions:

1) There are TWO (2) sections in this questionnaire. Please answer ALL questions in ALL sections.

Section A: Demographic Profile

Section B: Determinants that affect customers' decision on housing loan demand in Malaysia

2) It will take you around 5 to 10 minutes to complete this questionnaire.

3) All information will be kept private and confidential.

Group Members:

	Student ID	Name
1.	13ABB02655	CHAN YAN YEE
2.	13ABB01656	LEE WEI JIEH
3.	13ABB04855	LEONG JEAN EU
4.	13ABB04793	LIOW KIEN FAH
5.	13ABB03586	THUM PEI SIN

_____

UNIVERSITI TUNKU ABDUL RAHMAN
FACULTY OF BUSINESS AND FINANCE
BACHELOR OF FINANCE (HONS)
FINAL YEAR PROJECT
SURVEY QUESTIONNAIRE

Responden yang dihormati,

Kami adalah pelajar ijazah tahun akhir yang sedang mengikut kursus Kewangan di Universiti Tunku Abdul Rahman. Kami sedang menjalankan kajian tentang penentu yang mempengaruhi keputusan pengguna terhadap permintaan pinjaman perumahan di Malaysia. Segala maklumat adalah sulit and rahsia. Sila jawab semua soalan-soalan yang diberikan dengan mengikuti arahan yang diberi. Kerjasama anda amat dihargai.

Arahan:

1) Terdapat DUA (2) bahagian di dalam soal selidik ini. Sila jawab SEMUA soalan di dalam SEMUA bahagian.

    Bahagian A: Profil Demografi

    Bahagian B: Penentu yang mempengaruhi keputusan pengguna terhadap permintaan pinjaman perumahan di Malaysia

2) Ia akan memerlu anda sekitar 5 hingga 10 minit untuk melengkapkan soal selidik ini.

3) Semua maklumat adalah sulit dan rahsia.

Ahli Kumpulan:

	Student ID	Nama
1.	13ABB02655	CHAN YAN YEE
2.	13ABB01656	LEE WEI JIEH
3.	13ABB04855	LEONG JEAN EU
4.	13ABB04793	LIOW KIEN FAH
5.	13ABB03586	THUM PEI SIN

Section A: Demographic Profile

Please tick (√) on one appropriate answer with the column provided.

1. Gender (Jantina)
   □ Male (Lelaki)
   □ Female (Perempuan)

2. Age (Umur)
   □ 21 to 30 years old (berumur 21 hingga 30)
   □ 31 to 40 years old (berumur 31 hingga 40)
   □ 41 to 50 years old (berumur 41 hingga 50)
   □ 51 to 60 years old (berumur 51 hingga 60)
   □ 61 years old and above (berumur 61 dan ke atas)

3. State of Residence (Negeri)
   □ Kuala Lumpur
   □ Penang
   □ Johor

4. Marital Status (Status Perkahwinan)
   □ Single (bujang)
   □ Married (berkahwin)
   □ Others (lain-lain)

5. Race (Bangsa)
   □ Malay (Melayu)
   □ Chinese (Cina)
   □ Indian (lndia)
   □ Others (lain-lain)

6. Education Level (Tahap Pendidikan)
   □ Primary School (Sekolah Rendah)
   □ Secondary School (Sekolah Menengah)
   □ Diploma / A-Levels / STPM / Foundation
   □ Bachelor (Ijazah)
   □ Master (Sarjana)
   □ PhD (Phd)

7. Income Level (Gaji Bulanan)
   □ Below RM2000 (RM2000 dan ke bawah)
   □ RM2001-RM4000
   □ RM4001-RM6000
   □ RM6001-RM8000
   □ RM8001-RM10000
   □ RM10001 and above (RM10001 dan ke atas)

8. Occupation (Jenis pekerjaan)
- □   Self-employed (bekerja sendiri)
- □   Private sector (Pekerja swasta)
- □   Government sector (Pekerja kerajaan)
- □   Others (lain-lain):……………..

Section B
Please circle only one response for each of the following statement below from the scale of 1 to 5 where,
Strongly agree = 1, Agree = 2, Neutral = 3, Disagree = 4, Strongly disagree = 5

(Sila bulatkan satu jawapan sahaja untuk setiap pernyataan yang berikut dari skala 1 hingga 5 di mana,

Sangat setuju = 1, Setuju = 2, Neutral = 3, Tidak Setuju = 4, Sangat tidak bersetuju = 5)

Demand of Housing Loan (Permintaan Pinjaman Perumahan)

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. I will apply for housing loan from bank if I decided to own a house. (Saya akan menuntut untuk pinjaman perumahan untuk membeli rumah baru.)	5	4	3	2	1
2. I will apply for housing loan at least once in a lifetime. (Saya akan menuntut untuk pinjaman perumahan sekurang-kurangnya sekali dalam seumur hidup.)	5	4	3	2	1

3. I will demand for housing loan even I have the ability to settle the full payment in lump sum. (Saya akan memohon pinjaman perumahan walaupun saya berupaya untuk menjelaskan bayaran penuh sekaligus.	5	4	3	2	1
4. I believe housing loan is very important in urban areas. (Saya percaya pinjaman perumahan adalah sangat penting di bandar.)	5	4	3	2	1
5. I will apply for housing loan although I still have other loans not yet settle. (Saya akan memohon pinjaman perumahan walaupun saya masih ada pinjaman yang belum habis bayar.)	5	4	3	2	1

Housing Prices (Harga Rumah)

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. I consider housing prices as a significant factor when applying for housing loan. (Saya menganggap harga perumahan sebagai factor penting apabila memohon pinjaman perumahan)	5	4	3	2	1
2. I constantly update the housing prices of my living area. (Saya sentiasa mengemaskini harga kawasan perumahan saya.)	5	4	3	2	1
3. I believe that housing prices depends on location-specific factors. (Saya percaya bahawa harga perumahan bergantung kepada faktor-faktor khusus lokasi)	5	4	3	2	1

4. I believe that raising or falling of housing prices closely related on the current economy situation in the country. (Saya percaya bahawa menaikkan atau jatuh harga perumahan berkaitan rapat dengan keadaan ekonomi Negara.)	5	4	3	2	1
5. I believe that increasing housing prices make lower and medium income group difficult in owning a house. (Saya percaya bahawa peningkatan harga rumah akan menyebabkan kumpulan berpendapatan rendah dan sederhana sukar untuk memiliki rumah.)	5	4	3	2	1

Interest Rate (Kadar Faedah)

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. I believe that lower interest rate will induce the application for housing loan. (Saya yakin bahawa kadar faedah yang lebih rendah akan mendorong untuk memohon pinjaman perumahan.)	5	4	3	2	1
2. I believe that lower interest rate will increase the willingness to own a luxury house. (Saya yakin bahawa kadar faedah yang lebih rendah akan meningkatkan kesediaan untuk memiliki rumah yang mewah.)	5	4	3	2	1

3. I think that the decision of owning housing loan is affected by interest rate. (Saya rasa keputusan memiliki pinjaman perumahan dipengaruhi oleh kadar faedah.)	5	4	3	2	1
4. I believe that change on interest rate will affect the purchasing power. (Saya yakin bahawa perubahan kepada kadar faedah yang akan menjejaskan kuasa beli.)	5	4	3	2	1
5. I would demand for housing loan no matter how much the interest rate is. (Saya akan menuntut untuk pinjaman perumahan tidak kira berapa kadar faedah.)	5	4	3	2	1

Tax Benefits (Keputusan Cukai)

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. I believe that change on government taxation policy will induce me to own a house instead of renting a house. (Saya yakin bahawa perubahan dalam polisi cukai kerajaan akan mendorong penduduk membeli rumah sendiri.)	5	4	3	2	1
2. I believe that change on housing loan demand can be affected by deductibility on interest of mortgage loan which will affect the taxation amount. (Saya yakin bahawa perubahan atas permintaan untuk pinjaman perumahan akan dipengaruhi oleh permotongan faedah pinjaman gadaian.)	5	4	3	2	1
3. I believe that tax reforms that reduce tax benefits on housing loan will decrease the demand of housing loan. (Saya yakin bahawa pembaharuan cukai yang mengurangkan manfaat pencukaian dalam pinjaman perumahan akan mengurangkan permintaan dalam pinjaman perumahan.)	5	4	3	2	1

4. I believe that taxation benefits removed only will cause insignificant impact on housing loan demand. (Saya yakin bahawa permotongan manfaat pencukaian hanya akan membawa kesan yang tidak ketara.)	5	4	3	2	1
5. I believe that favourable tax policy provide incentive for citizen to own a house rather than rent it. (Saya yakin bahawa polisi percukaian yang baik akan menggalakkan penduduk untuk memiliki rumah sendiri daripada menyewa.)	5	4	3	2	1

Income Level (Taraf Pendapatan)

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. I believe income level would affect the demand of housing loan. (Saya yakin bahawa taraf pendapatan akan menjejaskan permintaan pinjaman perumahan.)	5	4	3	2	1
2. I believe my intention to demand for housing loan will reduce if my income decreases. (Saya yakin bahawa niat saya untuk meminta pinjaman perumahan akan berkurang sekiranya pendapatan saya berkurang.)	5	4	3	2	1
3. I believe it is easier to apply for housing loan if my income level is high. (Saya yakin bahawa permohonan pinjaman perumahan menjadi mudah jika pendapatan saya tinggi.)	5	4	3	2	1
4. I am less likely to demand for housing loan if the economic is uncertainty such as currency deflation. (Saya kurang berminat untuk memohon pinjaman perumahan ketika ketidakpastian ekonomi seperti deflasi mata wang.)	5	4	3	2	1

_____

5. I would demand for housing loan no matter what my income level is. (Saya akan meminta pinjaman perumahan tidak kira berapa pendapatan saya.)	5	4	3	2	1

Please state your comment (Sila nyatakan komen anda):

_____

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