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Exploring Customer Perceptions on Housing Loan: Evidence from the Malaysian Urban Community

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Abstract

The purpose of this study is to examine the factors that influence the customer decision on demand of housing loan. This research is conducted by distributing questionnaires to respondents from 3 urban areas which are Kuala Lumpur, Penang and Johor. Data was used to analyse 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. Result from this research only represents the demand of housing loans in Malaysia, but not the result of the global market.

Keywords: Malaysia; Housing loan demand; Housing price; Interest rate; Taxation benefits; Income level.

1. Introduction

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 Malayan Bank Berhad, CIMB Bank, HSBC Bank, Bank Rakyat, Bank Islam 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 and Koch (2015). In 1980, financial institutions were suffering from liquidity risk which was caused by the mismatch of the funds and housing loan maturity.

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 *et al.*, 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 RM127.6 billion in year 2000.

Based on Guirguis *et al.* (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 and Koch, 2015). Most important is the interest rate as it determined the amounts of loan repayments. According to Dietsch and Petey (2004), 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 percent 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 percent 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

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transaction costs on house purchasers. In the 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.

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 and the dependent variable is demand of housing loan.

2. Literature Review

2.1. Housing Price

The aim of the research of Oikarinen (2009), 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 and Anh (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 Martínez-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 Martínez-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 *et al.*, 2015a). 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.

2.2. Interest Rates

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 (2004), 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 borrower's decline when the interest rates increase.

Ye *et al.* (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 percent. 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.

2.3. 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.

Calmès and Liu (2009), 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 is 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 percent 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 *et al.* (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 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.

2.4. Income Level

Income level is the level of income earned by an individual given a period of time (Gallin, 2006). 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.* (2015b), 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 Visković *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.

2.5. 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 *et al.*, 2015a). 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 percent 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 and 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 *et al.* (2015a), 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 *et al.*, 2015a). The increased in demand for housing also causes the demand for mortgage loan to increase.

2.6. 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 *et al.*, 2010).

There is a relationship between housing prices and the demand of housing loan (Addae-Dapaah and Anh, 2014). This statement is also supported by Gimeno and Martínez-Carrascal (2010). Based on research of Oikarinen (2008), there is a two way interactions between housing prices and housing loan. However, Ismail *et al.* (2015a), 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, 2004), and Ye *et al.* (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.

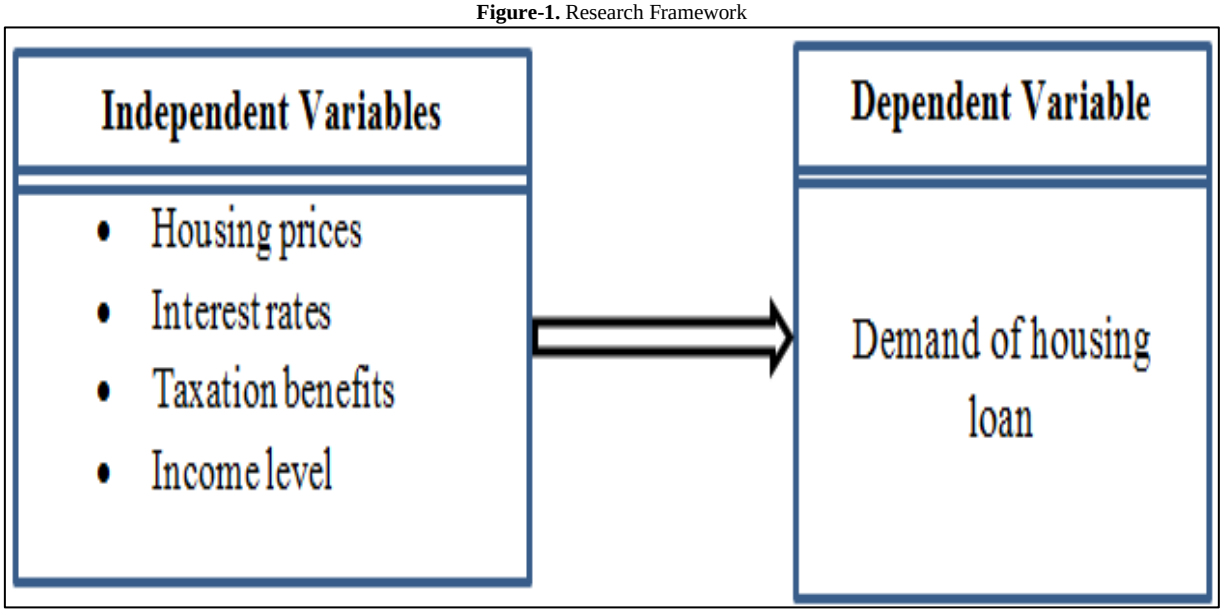
According to Hanson (2012), elimination of taxation benefits only will influence the size of housing, but have less impact on homeownership. This is because of housing price will increase as consequences of eliminate of tax benefits. Bourassa and Yin (2008), also have the same result and suggest that 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, Visković *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.

3. Research Framework

The research framework in this study is built upon the literature review. It is therefore theorized that each variable; housing prices, interest rates, taxation benefits and income level has an influence on demand for housing loan. Figure 1 below depicts the research framework of this study:

Figure-1. Research Framework



Hypotheses

Research findings were tested at the level of $p<0.05$. The following are the research hypotheses:

Based on the research of Anundsen and Jansen (2013), Gimeno and Martínez-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 *et al.* (2015a), 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.

H_{A1}:There is a significant influence of housing prices on the demand of housing loan in Malaysia.

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.

H_{A2}:There is a significant influence of interest rate on the demand of housing loan in Malaysia.

According to Chambers *et al.* (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.

H_{A3}:There is a significant influence of taxation benefits on the demand of housing loan in Malaysia.

According to Kim (2010), Bandyopadhya (2016), Shahini (2014) and Ismail *et al.* (2015b), 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 is 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.

H_{A4}:There is a significant influence of income level on the demand of housing loan in Malaysia.

4. Methodology

4.1. Population and Sample Size

Malaysian citizens who are eligible to apply for housing loan and is demanding for housing loan are the targeted population for the research. The sampling location of demand of housing loan is based in three cities; Penang, Kuala Lumpur and Johor. The reason for choosing Penang is, it is a popular state to live in, whereas Kuala Lumpur and Johor are the metropolis of Malaysia with a large population concentration.

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 and Yu, 2007). Besides, convenience sampling is also good to be used for large populations. According to Hair *et al.* (2010), claimed the minimum desirable sample size to be 250. In order to avoid incomplete and partial survey responses, 900 sets of the survey questionnaires were distributed to targeted locations. A total of 366 questionnaires were received and out of this, 14 sets of the questionnaires were considered unusable because over 25 percent of the question in Part 1 – Section A of the questionnaire were not answered (Hair *et al.*, 2010). It was assumed that the respondents were either unwilling to cooperate or not serious with the survey. Therefore, only 352 usable sets of received questionnaires were used for the data analysis. Thereby, the response rate was 39.1 percent.

4.2. Data Analysis Technique

Answers to the questionnaire were coded using the SPSS version 22. The results were then summarized using appropriate descriptive and inferential statistics. A reliability test was done by observing the Cronbach's Alpha value with the cutoff point of 0.70. Descriptive statistics such as means, standard deviation and variance and percentage values for interval-scaled independent and dependent variable were obtained. Frequency distributions were obtained for all the personal data or classification variables. The frequencies were computed to analyze the respondents profile in terms of age and gender. To test the strength of the relationship among the independent variables and dependent variable, Pearson Correlation Coefficient and Multiple Regression analysis was used.

5. Findings

5.1. Profile of Respondents

Table 1 shows that out of the 352 sets of questionnaires collected, 59 percent (208) were male's and 41 percent (144) were female respondents. Table 1 also presents the distribution of respondents according to age. From the output shown below, we know that the largest age group of respondents are 42 percent between the age group of 21-30 years old, 29 percent between 31-40 years old and 21 percent are around the age group 41-50 years old. Majority of the respondents are married with 64 percent (225) and single are 33 percent, while others are merely 3 percent. As for the income level, more than 29 percent are drawing a monthly salary of between RM4001-6000, while 23 percent are drawing a salary between RM2001-4000 per month. Only a mere 4 percent of the respondents are drawing a salary more than RM10,000 per month. Majority of the respondents are Chinese with 55 percent (194), while Malay and Indian are 16 and 17 percent respectively with others are 12 percent. Another observation that can be made from the respondents' occupation are 45 percent of them are from the private sector while the public sector is only 13 percent whereas the self-employed are 33 percent with others a mere 9 percent. Majority of the respondents have a basic degree with 53 percent and 21 percent of them have a diploma. As for the state of residences, majority of the respondents are from Kuala Lumpur with 52 percent (183), followed by 26 percent (92) from Penang and lastly 22 percent (77) are from the state of Johor.

Table-1. Demographics Profile of the Respondents

No.	Demographics	Frequency	Percentage
Gender	Female	208	59
	Male	144	41
Age	21-30	148	42
	31-40	102	29
	41-50	74	21
	51-60	25	7
	Above 60	4	1
Marital Status	Single	116	33
	Married	225	64
	Others	11	3
Income	Below 2000 per month	67	19
	2001 – 4000 per month	81	23
	4001k – 6000 per month	102	29
	6001 – 8000 per month	28	8
	8001 – 10,000 per month	60	17
	Above 10,000 per month	14	4
Race	Malay	56	16
	Chinese	194	55
	Indian	60	17

	Others	42	12
Occupation	Self-employed	116	33
	Private sector	158	45
	Government/PSD	46	13
	Others	32	9
Education	Primary/	11	3
	Secondary/High school	14	4
	Diploma	74	21
	Degree	187	53
	Master	60	17
	Ph.D	7	2
State of Residence	Kuala Lumpur	183	52
	Penang	92	26
	Johor	77	22

6. Measures

6.1. Data Analysis

This study consists of two analytical steps. Step 1 compiles the demographic data of the 352 respondents which includes gender, age, race, marital status, occupation, education, state of residence and income level. Step 2 consists of Pearson product moment correlations were tested among the extracted factors to determine which of them have a high correlation with the dependent variable; demand of housing loan. Finally, a multiple regression analysis was run to examine which of the extracted factors have the strongest influence on demand of housing loan in Malaysia. These analyses were computed using the software SPSS version 22.0.

6.2. Results

Table 2 presents the descriptive statistics for the study variables. The reliability coefficients for all the scales and subscales exceeded the conventional 0.70 level of acceptance (Hair *et al.*, 2010). The scales and subscales' reliabilities and intercorrelations between the overall scales on the different scales are reported in Table 2. It is clear that all the scales have acceptable reliabilities.

Table-2. Measure of Central Tendency and Scales' Reliability Coefficient

Variables	N	Min	Max	Mean	Std.Dev. (SD)	Alphas (*a*)
Demand of housing loan	352	1.0	5.0	3.72	0.78	0.76
Housing prices	352	1.0	5.0	3.84	0.69	0.79
Interest rates	352	1.0	5.0	3.91	0.83	0.92
Taxation benefits	352	1.0	5.0	3.68	0.71	0.71
Income level	352	1.0	5.0	3.77	0.84	0.78

Table 3 indicates that housing price and housing loan demand in urban area has a correlation of p=0.645. Besides, it also shows that interest rate and housing loan demand in urban area has a correlation of p=0.639. While the tax benefit and housing loan demand in urban has a correlation of p=0.590 which is lowest correlation. Last but not least, the table indicates that the income level and housing loan demand in urban area has the highest correlation (p = 0.674). In short, the result obtained indicated that all independent variables are significantly correlated with the dependent variable.

Table-3. Pearson's Correlation of Independent Variables and Dependent Variables

Independent Variables	Dependent Variables	Pearson (*r*)	P
Housing Prices	Demand of housing	0.645**	0.00
Interest rates	Demand of housing loan	0.639**	0.00
Taxation benefits	Demand of housing loan	0.590**	0.00
Income level	Demand of housing loan	0.674**	0.00

**correlation is significant at p< 0.01

The hypotheses ($H_{A1,}$ $H_{A2,}$ $H_{A3\ \&}$ H_{A4}) about the influence of housing prices, interest rates, taxation benefits and income level on the demand of housing loan is tested using multiple regression analysis. The more detailed picture of the relationship between independent variables and dependent variable at construct level and factor levels were revealed by the findings of regression analysis. Table 4 summarizes the regression results of the regression analysis at the construct level. The data indicate that housing prices, interest rates, taxation benefits and income level accounts for 71 percent of the variance in conditions for demand of housing loan (*adjusted* R^2 *0.711*). However, it is

still left 29 percent 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. The results confirm the alternative hypothesis of housing prices, interest rates, taxation benefits and income level as having a positive influence on the demand of housing loan and is accepted. Thus, the hypotheses ($H_{A1,}$ $H_{A2,}$ $H_{A3\ \&}$ H_{A4}) are supported. All the 4 independent variables of housing prices, interest rates, taxation benefits and income level has positive and significant influence on demand of housing loan.

Table-4. The Influence of Transformational Leadership on Workplace Spirituality

Independent Variables	**Dependent Variable-Demand of housing loan**
	(β)
Housing prices (H_{A1})	.547*
Interest rates (H_{A2})	.632*
Taxation benefits (H_{A3})	.514*
Income level (H_{A4})	.536*
R	.790
R^2	.718
Adjusted R^2	.711
f-statistics	256.89
Durbin-Watson	1.87

* significant at p<0.01

7. Discussion

For housing loan, the higher mean value of 3.72 suggests that housing loan is very important in the urban area and home buyers will apply for a housing loan to purchase a house even though they have not settled their existing housing loan with their banks. As for the housing prices, the higher mean of 3.84 suggests that housing price movement is related to the economic situation of a country and an increase in housing price makes lower and medium income group difficult in owning a house in the urban area. These category of people would be inclined to buy a house in the rural area instead of urban area because of the high cost of house prices in the city. The interest rates have the highest mean of 3.91, which indicate that any changes in the interest rates will affect potential buyers' purchasing power and demand for housing loan will increase significantly if the interest are lowered. Lower and medium income group buyers will be able to afford a housing loan in the urban area if this happens. The taxation benefits have the lowest mean value of 3.68 suggests that the current taxation benefits offered by the government is not attractive enough for potential home buyers. A change in the government taxation policy will induce potential buyers to own a house instead of renting a house, while a change on housing loan demand will affect the deductibility on interest rates of mortgages which in turn will have a spin effect on taxation paid, taxation benefits and the demand of housing loan for potential buyers. And lastly for the income level which has a mean of 3.77, suggests that if the income level of potential home buyers' increase, the demand for housing loan will increase respectively and vice versa. More middle and lower income level group will be able to afford a house loan in the urban area. This could have a spin effect on the availability of houses in the urban area and could lead to an increase of house prices significantly in the urban area.

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 and Anh, 2014). The result is also consistent with the research of Oikarinen (2008), in which the author mentioned that the housing prices will positively affect the demand of housing loan in Malaysia. Thus, housing price can be concluded as one of the important factors affecting the demand of housing loan in Malaysia. The results show the interest rate is positively influencing the demand of housing loan. This finding is inconsistent with Wolswijk (2006), where increase in the cost of financing will reduce the willingness of consumers to acquire loans. Dietsch and Petey (2004), suggest that numbers of borrowers' decline when the interest rates increase. The difference between this study and previous researches may be due to the potential buyers' preferences nowadays which is to own a house rather than renting. This means even if the interest rates increases, potential buyers' demand for housing loan increases respectively.

As for the taxation benefits provided by the government will have significant effect toward demand of housing loan. However, the result obtained suggests there are positive relationship between taxation benefits and housing loan demand; which is 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 eventually will offset the incentives. The inconsistency in this result may be due to potential buyers nowadays are much aware of the important of owning a property to protecting their wealth in terms of appreciation with the weakening of the ringgit Malaysia recently. Therefore, any incentives that reduce the cost homeownership will encourage people to own a property with mortgage loan. As for the income level, the results are consistent with the previous studies conducted by Kim (2010); Bandyopadhya (2016); Shahini (2014); Ismail *et al.* (2015a); and Visković *et al.* (2015). Therefore, the higher the income level, the higher the demand for housing loan by potential buyers.

7.1. Implications of Study

Independent variables that affect 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 has proven to have a significant relationship with the housing loan demand in the urban area in Malaysia. 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, commercial banks, government and other financial institutions in Malaysia could benefit from making constructive adjustment in these factors which will greatly improve the housing loan demand in Malaysia significantly among potential home buyers especially in the urban area.

7.2. 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 future research. It gives an opportunity to researchers to explain and overcome the limitations. One of the limitations is this research is this study only focuses on 3 urban areas in Malaysia; 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. 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 be 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.

8. Recommendation for Future Research

There are few limitations that to 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.

9. Conclusion

This study concludes by identifying the higher housing price is reflected in the increase in demand of housing loan in Malaysia. As the property market in Malaysia is robust and has been on the upward trend since the year 2000, banks should target potential buyers especially those who are keen on venturing into the property market in the urban area in Malaysia. 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 states that negative relationship between interest rate and demand of housing loan. In Malaysia, the increase in interest rates does not deter potential buyers to invest in property market in the urban area in Malaysia and so the relevant institutions could play their role effectively to boost potential buyers to increase the demand for housing loan.

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 of 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 which will give them a better return on their investment in the future.

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