ISLAMIC BENCHMARKING:
AN ALTERNATIVE TO INTEREST RATE
(*Evidence from Home Financing in Malaysia*)

1. Introduction

Owning a house is a main goal for many people. To fulfill this goal, people build a home in their own, purchasing it or renting it from others. For some people, however, it is quite difficult to buy a house in cash regarding the price of the house showing an increase trend. As a solution and possible way to own a house is buying a house in deferred payment. Currently many banks concern in offering home financing because the demand for this financing tends to increase as well as people's income tends to increase.

In conventional banks, conventional home mortgages are, of course, interest-based. They use interest rate as a basis to price their financing cost. Because the interest rate is always fluctuate depending on the condition in the financial world for the conventional banks the interest rate which they charged to the customer is also fluctuate. It will make sense when the customer should pay their payments in different amount for each month depends on the interest rate at the month he makes the payment. But in current situation, conventional banks for some cases use a fixed rate to attract more customers to take their home financing product. In this type of contract, the bank will charge the customer in a fixed rate for each month.

Islamic financial institutions then come out with their own way for home ownership which is *shariah* compliant. For some countries like Malaysia, Indonesia and Brunei, *Bai Bithaman 'Ajil* (BBA) contract is the most familiar contract used for home financing. But many scholars look this type of contract is the same like conventional home mortgage. The Middle Eastern *Shariah* Scholars disapprove of the BBA contract, citing that it is similar to the conventional loans. Indeed that, the theory of finance predicts that the Islamic modes like the BBA will converge with its conventional counterpart due to the law-of-one-price. This convergence has caused Islamic finance to evolve greatly, from being a "profit-and-loss" banking to fixed-rate *murabahah* financing, and now towards a floating rate financing mode (Kameel and Abdul Razak 2005).

For central bank of Malaysia, for example, has approved a "floating-rate" BBA where the customer pays a monthly installment amount that is on the higher end, but thereafter gets a rebate based on the prevailing market interest rate. Indeed many BBA customers have shown dissatisfaction over its implementation (Kameel and Abdul Razak 2005).

To address the issue of "not-*shariah*-enough" in BBA contract, some *shariah* scholars and professionals introduce the Diminishing *Musharakah* contract, or known as *Musharakah Mutanaqisah* Partnership (MMP) contract. MMP has become an important issue for them in Islamic finance. For many scholars, MMP looks more "Islamic" rather than BBA. Rosly (2007) argued that MMP is a way to do away with the problem of choice in uncertainty for home financing.

Muhammad Taqi Usmani basically agreed on the implementation process of the *Musharakah Mutanaqisah* Partnership. They agreed that the product could help the people to rely less on other financing facilities such as the BBA *Muraabahah*, ect (Kameel and Abdul Razak 2005).

MMP is a financing technique which involves the concept of undivided ownership of the asset by the partners, which is called *Musha'a*. The MMP actually is a diminishing partnership concept. Under this contract, the bank and the customer are the owner of each and every part of jointly property on a pro rate basis. Kameel and Abdul Razak (2005) described that there are two portions on the MMP contract. First, the customer enters into a partnership (*musharakah*) under the concept of '*Shirkat al-Milk*' (joint ownership) agreement with the bank. Second, the bank then leases its share in the house ownership to the customer under the concept of *ijarah*, i.e. by charging rent; and the customer agrees to pay the rental to the bank for using its share of the property.

Ayub (2008) stated that to ensure the *shariah* compliant, the sequencing of the contract should be:

1. A contract between partners to create a joint ownership. The client partner (the customer) makes a promise (*wa'ad*), before or the lease arrangement is finalized, to purchase the share of the financier partner (the bank),
2. The financier partner (the bank) gives units of his share to the client on lease,
3. The client partner goes on purchasing the units of ownership of the financier partner as his promise.

MMP will be looked the same with the conventional home financing if the bank still use Base Lending Rate (BLR) as their basis to calculate the expected profit, even they cover it as a profit rate. Even it is just a matter of numbers but when the bank use BLR as their calculation basis, the MMP then will begin from the wrong "star". Many people, especially professionals, argued there is nothing wrong if we have an expected rate of return same with

BLR in conventional banks, because the intention (*niat*) of the expected rate of return is as our expected profit margin, not as interest.

Another issue which comes out in MMP home financing is the same expected rate of return which is charged to all customers. For some scholars, the use of the same expected rate of return is seems not be "Islamic". It is because one of the main principles in Islamic financial system is to spread the wealth. When the bank charges the same profit to all customers, it means they will charge the same profit rate to the customer whether the customer take the home financing in luxurious areas (rich customers) or urban areas (poor customers). Even though the value of the financing will be different, it looks unfair if the bank give the same treatment between the rich and the poor. This issue raise when Islamic banks still use BLR as their basis to calculate their profit rate.

Some scholars then offer a rental rate as the basis to calculate MMP. This idea seems logic in the term of Islamic finance sense when the Islamic banks want to calculate MMP. By using rental rate, the bank will treat differently between the rich who can afford the house in luxurious areas and the poor who just can afford the house in urban areas. This is because each area has their rental rate.

Kameel and Abdul Razak (2005) compared between *Bay' Bithaman 'Ajil* (BBA) and *Musyarakah Mutanaqishah* Partnership (MMP). They argued that the MMP contract is a better Islamic financing alternative for long durations compared with the BBA contract. While the BBA is only popular in countries like Malaysia, Indonesia and Brunei, it has proven to be quite unsatisfactory to the customers and bankers.

They also made a comparison between interest rates and average gross rental yields for properties in Kuala Lumpur for the period 1984 to 2005, whereby it was seen that rental yields for all categories of the houses are generally lower than the BLR and average lending rate. Only condominiums have shown higher rental yields than market interest rates. This implies that the bank may use the MMP for properties that have high rental potential only. When this is not feasible for the bank, when rental rates fall short of interest rates, the MMP model can be implemented though cooperatives, which can also be an investment avenue for members.

In this paper will try to explore the use of rental rate in MMP home financing calculation, the comparison between the use of rental rate and interest rate in home financing, and also the feasibility of rental rate to be used in MMP home financing as an alternative to the interest rate.

2. The al-Bay' bi-Thaman 'Ajil (BBA) Contract

Literally, *Bay' bi-Thaman 'Ajil* means sale on the deferred payment of price or deferred payment sale. This type of sale, where the price is deferred, is also known as *bay' al-mu'ajjal*, *bay bi-al-nase'ah, bay al-takher* and *bay' bi-al-ta'jil wa taqsit* (Tarmidzi, 207).

Kameel and Abdul Razak (2005) define BBA that is basically a sale contract which provides the buyer the benefit of a deferred payment, whereby the deferred price of the sale object carries an additional profit. It is an extension of the *murabahah* (cost plus) contract, whereby the commodity exchanged is "delivered" immediately but the sale price (with profit) is paid in installments, over a long period (the *murabahah* itself being generally for short period). While the BBA is widely used in Malaysia, Indonesia, Brunei and few other counties, it has been subjected to much controversy among the *fuqaha'* worldwide regarding its permissibility; whereby most scholars in the Middle East have rejected it.

In the conventional system, home financing is interest based which is forbidden in Islam. The current BBA home financing, however, does not alter much of the above equation. Instead of charging the customer interest, financiers charge a profit derived through a buy-and-sell contract which is permitted in Islam. But regretfully, the profit rate is dependent on the market interest rate due to arbitrage activities. Therefore, while the BBA is practiced as *shariah* compliant in some countries, it is, nonetheless, converging close to the conventional mode where the computational formula are similar to the conventional and where the profit rate tracks the market interest rate (Kameel and Abdul Razak, 2005).

Currently, BBA carried out with several innovations such as implementing the floating rate over the fixed rate in order to compete with conventional banks. This makes the Bank Negara Malaysia (BNM) to allow the implementation of the BBA floating rate where the customer pays the installment according to the agreement that when the interest rate is higher than BBA rate and customers will have a discount if the BBA rate higher than interest rate.

The BBA has taken a huge blow, referred as not-*shariah* compliant or unjust instrument sees as *hilah* (forbidden structure) which opens the back door to riba. The BBA implementation in Malaysia is much criticized because it looks not much different with the conventional system. The main reason is a contract that precedes BBA which is called *Bay'* *al-Inah*. It is that may jurist consider invalid, seen as a legal device to overcome the prohibition of riba as the motive behind the sale is to get a loan with interest.

Another implication of the BBA contract is that people could not distinguish between the products of Islamic banks and the conventional banks. And finally, people will judge that the Islamic and the conventional banks are substantially the same.

3. The Musharakah Mutanaqisah Partnership (MMP) Concept.

Another form of *musharakah* is being used to provide housing mortgages by forming a *musharakah* between the financier and the customer who own the real estate jointly. This contract is commonly known as *Musharakah Mutanaqisah* Partnership (MMP) or "diminishing partnership." The *Musharakah Mutanaqisah* Partnership (MMP) financing is a contract of partnership with declining ownership as one of the solution of BBA financing in uncertainty condition. The MMP consists of two contracts – one *musharakah* and the other *ijarah*. As compared to an *ijarah*-based mortgage where the ownership of the house remains with the lessor/owner for the entire lease period, ownership in a diminishing partnership is explicitly shared between the customer and the financier. As indicated by the name, the ownership of the financier diminishes over time as the customer purchases a share with each monthly payment. The periodic payments of the customer can be divided into two parts; one paying a proportionate rental to the financier based on the financier's share of the property and the other, equity contribution to buy out the financier's share of the equity. Gradually, over time, the customer is able to buy out the financier's share and thus acquires complete ownership of the property.

Kameel and Abdul Razak (2005) describe that Customer pays, for example, 10% as the initial share to co-own the house whilst the bank provides for the balance of 90%. The customer will then gradually redeem the financier's 90% share at an agreed portion periodically until the house is fully owned by the customer. Second, the bank leases its share (90%) in the house ownership to the customer under the concept of *ijarah*, i.e. by charging rent; and the customer agrees to pay the rental to the bank for using its share of the property. The periodic rental amounts will be jointly shared between the customer and the bank according to the percentage share holding at the particular times which keeps changing as the customer redeems the financier's share. The customer's share ratio would increase after each rental payment due to the periodic redemption until eventually fully owned by the customer.

Muhammad Taqi Usmani basically agreed on the implementation process of *Musharakah Mutanaqisah* Partnership. They agreed that the product could help the people to less rely on other financing facilities such as the BBA, *Murabahah* etc. The scholars agreed that it is best to implement *Musharakah Mutanaqisah* Partnership for house financing or machinery financing whereby both assets can be leased out according to agreed rental. Joint ownership of a house or machinery is accepted by all schools of Islamic jurisprudence since the financier sells its shares to the customer (See Taqi Usmani 2002).

4. The Differences between the BBA and the MMP Contracts

In summary, the main differences between the joint ownership MMP and debt-type BBA financing are as follows (Kameel and Abdul Razak, 2005):

1. There are two separate contracts under the MMP method. The first is a *musharakah* where the client is a partner and the second one is an *ijarah* which involves the leasing of the property. The BBA, on the contrary, follows the *murabahah* concept of buying and selling of property.
2. Under the BBA, the selling price of the house does not reflect the market value since the mark-up for the deferred payment is quite substantial. On the contrary, the value of the house under the MMP always reflects the market price and the rental are determined by the market rental value.
3. The return to the BBA is based on a fixed selling price (that uses the prevailing interest rate as the benchmark). But under the MMP, the financier need not be tied to a fixed profit rate throughout the financing tenure. This is because the rental rate can be revised periodically to reflect current market conditions. Indeed, as argued earlier, the rental can be tied to some economic variables like Rental Index, House Price Index etc.
4. The financier can manage the liquidity risks better as rental payments can be adjusted at the end of each subcontract period. This is not possible under the current fixed-rate BBA as the profit rate is consistent throughout the entire tenure of financing.
5. Even compared with a floating-rate BBA, the MMP will differ in the balance of financing at any point in time before the end of the contract. Under the MMP the balance can never be larger than the original price/finance of the house. Rebates

for the early redemption under the BBA cannot be specifically stated in the contract.

6. The MMP is a more flexible financing structure than the BBA as the customer can own the property earlier by redeeming faster the principal sum of the financier, without the need to compute rebates[1] as in the BBA.
7. In the event of payment defaults, the penalty charges under the BBA can be challenged, while under the MMP, defaults will cause the equity of the financier to remain constant and therefore entitled to higher rental portions when payments are made later.
8. Currently many customers opine that the BBA is similar to the conventional loan with some "disadvantages" for the customer particularly for early redemptions.
9. The MMP is accepted internationally as *shariah* compliant whereas the BBA is recognized predominantly in the East, i.e. in Malaysia, Indonesia, and Brunei etc.

5. Data Specification

In this study, data panel has been used to compare rental rate and interest rate during 1995 to 2004. This study chooses Kuala Lumpur and Johor as place to look into. These places were chosen because Kuala Lumpur is capital city, whereas Johor is far to capital city. The study also applied Based Lending Rate (BLR) data to compare to rental rate.

6. Methodology

This study wants to examine the relationship between rental rate and interest rate. Correlation method is used to determine the relationship of rental rate and interest rate. The direction of relationship and the strength of relationship between two variables can be understood through this method. Hence, this study is expected can explain the relationship between rental rate and interest rate.

6.1. Correlation

In general statistical usage, correlation or co-relation refers to the departure of two variables from independence. It also indicates the strength and direction of a linear relationship between two random variables. A number of different coefficients are used for different situations. The best known is the Pearson product-moment correlation coefficient,

[1] Which is at the discretion of the banks since fixing the rebate upfront is not allowed in Shariah.

which is obtained by dividing the covariance of the two variables by the product of their standard deviations.

6.2. Sample Correlation

If we have a series of n measurement of X and Y written as xi and yi where i=1, 2, …, n, then the Pearson product-moment correlation coefficient can be used to estimate the correlation of X and Y. the Pearson coefficient is also known as the “sample correlation coefficient”. The Pearson correlation coefficient is then the best estimate of the correlation of X and Y. The Pearson correlation coefficient is written:

$$r_{xy} = \frac{\sum x_i y_i - n\bar{x}\bar{y}}{(n-1)s_x s_y} = \frac{n\sum x_i y_i - \sum x_i \sum y_i}{\sqrt{n\sum x_i^2 - (\sum x_i)^2}\ \sqrt{n\sum y_i^2 - (\sum y_i)^2}}.$$

6.3. Interpretation of the Size of a Correlation

Several authors have offered guidelines for the interpretation of a correlation coefficient. As Cohen (1988) himself has observed, however, all such criteria are in some ways arbitrary and should not be observed too strictly. This is because the interpretation of a correlation coefficient depends on the context and purpose. A correlation of 0.9 may be very low if one is verifying a physical law using high-quality instruments, but may be very regarded as very high in social science where there may be a greater contribution from complicating factors.

Along this vein, it is important to remember that large and small should not be taken as synonyms for good and bad in terms of determining that a correlation is of a certain size. For example, a correlation of 1.0 or -1.0 indicates that the two variables analyzed are equivalent modulo scaling. Scientifically, this more frequently indicates a trivial result than a profound one. For example, consider discovering a correlation of 1.0 between how many feet tall a group of people are and the number of inches from the button of their feet to the top of their heads.

7. Finding and Analysis

7.1. Comparison of Actual Rental Rate in Kuala Lumpur and Johor

According to rental price and house price data which are taken from Annual Property Report of Malaysia, we can derive the actual rental rate. This rate provides us the actual condition of property market in Malaysia.

Table I shows us the historical rental rate in Johor and Kuala Lumpur from 1995 to 2004. We can infer that every type of house has different rental rate. The rate tends to be higher in the more luxury type. Condominium has the highest rate compared Single Story, Double Story or Double Story Semi-Detached type. Interestingly Single Story type has higher rental rate than Double Story in average. It indicates that the size of the home is not the only consideration to the determination of rental price.

In general, rental rate in Kuala Lumpur is higher than Johor. Based on the average of rental rate, Single Story, Double Story Semi-Detached and Condominium type in Kuala Lumpur is higher than Johor. This evidence explains that every place has different rental price depend on how strategic the place is. Rental rate has tendency to increase when the place is close to capital city.

Table 1: Rental Rate in Kuala Lumpur and Johor for 10 years

	Kuala Lumpur				Johor				BLR
	SS	DS	DSD	CONDO	SS	DS	DSD	CONDO	
1995	5.39	5.35	6.90	10.54	4.71	3.88	4.65	8.88	8.3
1996	3.93	4.21	3.95	10.68	4.12	4.09	3.40	7.60	9.18
1997	3.93	4.21	3.95	10.68	4.10	4.01	3.40	7.57	10.33
1998	4.47	4.40	3.80	8.33	4.17	3.87	3.20	5.34	8.04
1999	4.36	4.30	4.25	8.11	4.22	3.42	2.90	7.06	6.79
2000	4.36	4.30	4.25	8.11	4.17	3.52	2.90	7.06	6.78
2001	4.25	4.11	4.55	7.91	4.06	3.77	0.30	6.41	6.39
2002	4.25	4.11	4.55	7.91	4.02	3.77	2.15	5.65	6.39
2003	4.35	4.10	4.60	7.62	4.05	3.76	2.66	6.84	6.00
2004	4.05	3.98	3.75	7.46	4.04	3.73	2.66	6.82	5.98

Table 1 also provides the comparison between Base Lending Rate and Rental Rate. Base Lending Rate constitutes the minimum rate which commercial bank charged to the housing loan customers. The rate that commercial bank charged to customer can be fluctuated until four percent (4%) above the BLR.

According to table 1, BLR is higher than rental rate in all of type of house except Condominium. This fact explains different perspective about rental rate and interest rate. In customer's point of view, rental rate gives them an advantage. Lower rental rate will imply that they will pay less monthly installment than interest rate. Otherwise, bank will less attractive to use rental rate because it will give lower profit compared to the interest rate.

In addition, table 1 also shows an interesting result where in the period 1995 to 2004, the rental rate has a decreasing trend. This trend becomes good information for customers which enable them to pay lower installment. Based on the standpoint of stability, rental rates tend to be more stable compared to interest rate. Even when the financial crisis in 1997 and 1998 where the interest rate has increased significantly, rental rates did not show a big fluctuation, even only increased around 1 percent. This indicates that the rental rate can be used as an alternative to replace the interest rate in terms of home financing because it was not too affected by monetary fluctuations. This is certainly different from the interest rate that is very vulnerable from monetary fluctuations which finally will affect the community life. We argued that the increase of rental rate only will occur when endorsed by the increase in real economic activity in the area such as increasing the access to quality transportation (roads), infrastructure, the rise of new center of economic activities (markets, supermarkets, etc), university and as well as the development of an area.

Table 2: Mean and Standard Deviation

Variable	Kuala Lumpur		Johor	
	Mean	Std. Dev.	Mean	Std. Dev.
BLR	7.418000	1.481094	7.418000	1.481094
CONDO	8.736021	1.333951	6.921827	1.007783
DS	4.305593	0.385930	3.783251	0.202017
DSD	4.455000	0.915135	2.822000	1.107016
SS	4.331831	0.415284	4.164783	0.202879

Table 2 above shows the mean and standard deviation between Base Lending Rate (BLR) and rental rate for each type of house. It clearly shows that the BLR is more volatile than the rental rate.

7.2. Correlation of Base Lending Rate and Rental Rate

Table 3 below shows correlation analysis between Base Lending Rate (BLR) and rental rate in Kuala Lumpur and Johor. It shows some interesting results. In General, rental rate has positive correlation to interest rate. However, Single Story is negatively correlated. It means that the interest rate goes up; rental rate of Single Story type tends to be decreasing. Besides that, Single Story, Double Story and Double Semi-Detached have a weak and insignificant correlation to interest rate whereas Condominium has a significant correlation. It depicts that every changes in interest rate will affect the rental rate of Condominium.

Table 3: Correlation between Rental Rate and Interest Rate (BLR) in Kuala Lumpur

	BLR	CONDOKL	DSDKL	DSKL	SSKL
BLR	1				
CONDOKL	0.919**	1			
DSDKL	0.021	0.323	1		
DSKL	0.331	0.528	0.865**	1	
SSKL	-0.062	0.146	0.898**	0.909**	1

Note: ** denotes correlation is significant at the 0.01 level (2-tailed)

Table 4: Correlation between Rental Rate and Interest Rate (BLR) in Johor

	BLR	CONDOJOHOR	DSDJOHOR	DSJOHOR	SSJOHOR
BLR	1				
CONDOJOHOR	0.427	1			
DSDJOHOR	0.555	0.592	1		
DSJOHOR	0.695*	0.192	0.260	1	
SSJOHOR	0.288	0.685*	0.666*	0.043	1

Note: *,** denote correlation is significant at the 0.05 and 0.01 level (2-tailed) respectively.

In line with the analysis of correlation in KL, rental rate in Johor has also a positive correlation to interest rate. It means that when the interest rate goes up, rental rate in Johor tends to be increasing. Besides that, all types of house in Johor have a weak and insignificant correlation to interest rate whereas only double story has a significant correlation. It depicts that every changes in interest rate will affect indirectly to the rental rate in Johor.

A weak correlation between interest rate and rental rate in both different places shows that price and rental of real estate are not determined by interest rate. There are many factors influencing price and rental of real estate such as location, characteristic of the property, like floor size, number of rooms, type of house, etc.

8. Implication of Rental Rate in Home Financing Practice

8.1. Comparison of Home Financing Practice between Rental Rate and Interest Rate

The different between rental rate and interest rate (BLR) also has an effect to home financing practice. Since Islamic Bank utilizes the same formula and method to Conventional Bank in calculating the monthly installment, customer will get advantage when the rental rate is lower than interest rate and vice versa. Interestingly, Islamic scheme will be similar to conventional one when rental rate is equal to interest rate. In this case, the amortization schedule becomes similar between Islamic home financing and conventional mortgage.

Suppose that you want to buy RM 300,000 house by having only RM 60,000 cash on hand. The rental rate price at that price is RM 1,000 per month. You are considering applying RM 240,000 financing for 10 years either from Islamic or conventional bank that gives you 6 percent interest charge.

By applying the same formula to conventional loan[2], the amount of monthly payment which customer must pay is RM 2,249.88 and total house price that customer have to pay in 10 years is RM 291,586. Furthermore, it is equal to 4 percent annual percentage rate (APR).

Table 4 below provides the variance of monthly payment and total payment which customer should pay. According to the table, MMP's customer will pay less than

[2] See appendix 1

conventional when the annual rental rate[3] (ARR) is lower than Annual Percentage Rate (APR) of conventional bank.

If conventional bank imposes 6 percent interest rate, customer has to pay RM 2,664.49 for monthly installment and RM 319,739.05 in 10 years. Interestingly, MMP will have similar arrangement when the annual rental rate is the same with conventional APR, namely 6 percent.

Nevertheless, this amount is higher compared to *Musharakah Mutanaqisah* when the annual rental rate is 4 percent that gives you RM 2,429.88 for monthly installment and RM 291,586 for total payment. Otherwise, MMP will be more expensive when the annual rate is more than conventional APR. if the annual rental rate is 8 percent, the customer's monthly payment is RM 2,911.86 and RM 349,423.47 for total payment.

Table 5: Comparison of MMP and Conventional

	Musyarakah Mutanaqisah Partnership			Conventional
Rental Price	1,000.00	1,500.00	2,000.00	-
Rental rate	0.0033	0.005	0.0067	-
Monthly Payment	2,429.88	2,664.49	2,911.86	2,664.49
Total Payment	291,586.00	319,739.05	349,423.47	319,739.05
APR	4%	6%	8%	6%

8.2. Comparison of MMP in Kuala Lumpur and Johor

According discussion before about disparity of rental price in every place, it will make variation of rental rate. Thus, the bank cannot charge similar rate to all customer. The bank should consider of the house that customer want to buy. Different place will give different rental price. It will impact to variation of rental rate, monthly payment and total payment that is imposed to customer.

[3] Annual rental rate is similar to Annual Percentage Rate (APR). it is used to distinguished the conventional term of APR.

Comparing MMP financing between Kuala Lumpur and Johor, we can find that a place that in capital city or close to capital city tends to have higher rental price than others. Hence, it will give higher rental rate, monthly payment and total payment.

Suppose that a customer is considering buying a RM 150,000 house between Kuala Lumpur and Johor. The rental price in Kuala Lumpur is RM 716 per month whereas Johor is RM 385. Then the bank gives financing RM 120,000. Due to difference in rental price, the bank cannot charge the same rate between Kuala Lumpur and Johor. Table 6 below shows that the bank will give 0.48 percent rate per month in Kuala Lumpur and 0.26 percent rate in Johor. Higher rate in Kuala Lumpur will make the customer pays higher monthly payment and total payment compared to Johor.

Hence, we can conclude that every place with different rental rate price will have different rental rate, monthly payment and total payment. Furthermore, the place that close to capital city tends to have higher rental price and be more expensive compared to the other.

Table 6: Comparison of MMP in Kula Lumpur and Johor

	KL	Johor
Rental Price	716	385
Rental Rate	0.0048	0.0026
Monthly Payment	1315.91	1163.17
Total Payment	157909.69	139579.87
APR	5.73%	3.08%

9. Conclusion and Recommendation

9.1. Conclusion

Interest rate as cost of capital which is used widely has given bad effect to economic circumstance. On the other hand, rental rate appears as an alternative to replace interest rate. Even though rental rate cannot replace perfectly, it can be applied to some form of contract such as home financing which is based on *Musharakah Mutanaqisah* contract.

This paper has shown that rental rate will be different in every place. They tend to be higher in the place that is near to capital city or more luxury type. According to correlation analysis, in general this paper finds that rental rate has positive and weak correlation to interest rate. However, Single Story in Kuala Lumpur has negative correlation and condominium in Kuala Lumpur has strong correlation to interest rate.

Furthermore, rental rate is lower than interest rate in general, except rental rate of Condominium that is higher than interest rate. By employing similar formula and method to conventional bank in calculating amortization schedule, this paper describes that MMP customer will have lower payment than conventional one. MMP has possibility to be more expensive if rental rate is higher than interest rate. Interestingly, MMP will be identical to conventional when the rental rate is similar to interest rate.

This paper also compares the MMP when it is applied in Kuala Lumpur and Johor. By having different rental price and rental rate, it will affect the disparity of monthly payment and total payment in those places. Hence, this paper concludes that rental rate can be used as an alternative to interest rate because it has some advantages and reflect the market value of the house.

9.2. Recommendation

Based on this finding then offered some practical recommendations that can be done by stakeholder of Islamic banking in order to enhance the performance of Islamic banking products and innovations in the future. Recommendations are as follows:

1. To create a different rental rate based on the location and types of housing. The more strategic the location of a house the higher rental price.
2. To make a classification of house in *Musharakah Mutanaqisah* Partnership home financing, for example, one Single Story, Double Story, Double Semi-Detached and Condominium. The more luxurious type of home, the higher the rental price.
3. To establish an independent institution with authority to rating and updating the periodic rental rate for every area.
4. To use rental rate as calculation basis in MMP home financing. In determining the expected rate of return is not based on interest rate but rental rate. This system is more "Islamic" because it treats every customer differently, especially low income customers and customers with high income. Customers who receive financing with type of Single Story with Condominium and location of the homes closes to

the city with a rural location will pay different on their monthly payment and total payment due to its each different rental rate.

BIBLIOGRAPHY

Ayub, Muhammad, (2008), "Understanding Islamic Finance", John Wiley & Sons Ltd, England.

Cohen, J. (1988). "Statistical Power Analysis for the Behavior Science (2nd edition)". Hillsdale, NJ, Erlbaun

Iqbal, Z. and Mirakhor, A. (2007). "An Introduction to Islamic Finance Theory and Practice", John Wiley & Sons (Asia) Pte Ltd, Singapore.

Muttaqi, Mahmod and Tarmidzi, Ahmad (2007). "Bay' bi-Thaman 'Ajil (BBA) in House Financing as Implemented by Malaysia Financial Institutions: A Critical Analysis of its Application from the Fiqh Point of View", lib.iiu.edu.my

Kameeel, A. Meera. (2006), "Alternative for Islamic Home financing". http://ahamedkameel.com/MMP-EDGE.pdf

Kameel, A. Meera. M and Abdul Razak, (2005). "Islamic Home Financing through Musharakah Mutanaqisah and Al-Bay' Bithaman Ajil Contracts: Comparative Analysis". *Review of Islamic Economics*, 9 (2).

Kameel, A. Meera. M and Abdul Razak, (2007). "The Musharakah Mutanaqisah Contracts: Some Practical Issues". Review of Islamic Economics.

Rosly, S. A. (2007). "Critical Issues on Islamic Banking and Financial Markets: Islamic economics, banking and finance, investments, takaful and financial planning". Dinamas Publishing 89, Kuala Lumpur Malaysia.

Usmani, T. (2006*). "Islamic Finance - Musharakah & Mudarabah"*. Karachi: Darul Uloom. Jamia Darul Uloom

Appendix 1

Formula to calculate monthly rental rate (Kameel, 2005):

$$r = \frac{\textbf{monthly}}{\textbf{house price}}$$

Formula to calculate monthly payment

$$\mathbf{PMT} = \frac{\mathbf{PV}}{\frac{\left(\left[\left(\frac{1}{1+r}\right)^{\square}\right]\right.}{r}}$$

Whereby:

PMT : Monthly payment

PV : Bank's financing to customer

r : Monthly rental rate

n : Period of financing (month)