I J A B E R, Vol. 14, No. 11, (2016): 7839-7861

HOME FINANCING THROUGH MODIFIED DIMINISHING PARTNERSHIP

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Abstract: *Home is a basic necessity for human life, so the home financing takes a large chunk of people's income. Therefore Islamic and Conventional Banks try to offer new product inorder torespond to customer needs related to home financing.*

The Islamic Banks propose Rental Rate as replacement of Interest Ratewhich is recognized as the reason of financial crisis.

In order to avoid a big profit for banks and big loss for customers, Islamic banks propose some contracts trying to share profits and losses like Diminishing Partnership.

This paper discusses a several ideas relating to Diminishing Partnership, in the first part of this study we introduce the concept of Diminishing Musharakah;we propose in a second part a modified model of home financing based on Rental Rateand redemption which serve to increase customer ownershipwish is a Diminishing Partnership Contract; and we present in a third part a comparison between interest rate mortgage and Islamic Diminishing Partnership home financing; and in the last part, we compare the late payment charges in islamic and conventional banks.

Keywords: *Home Financing, Interest Rate, Rental Rate, Diminishing Partnership, Musharakah Mutanaqisah.*

1. INTRODUCTION

Owning a personal home is an aspiration of many people. However, it is quite difficult to buy a house in cash regarding the price. As a solution, banks propose to buy a house in deferred payment.

In the conventional system, housing loan is giving a loan to the customer. The product is interest-driven, with the interest charged to the customer over the period of payment. Conventional mortgage use interest rate to price their financing cost, the price for the loan varies according to the changes in the BLR which depends on the country's economic conditions. If, for example, the BLR moved to 6.7%, the

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mortgage rate is then revised to 8.7% and so on.Ahamed Kameel Mydin Meera and Dzuljastri Abdul Razak (2005).

As a substitute product to conventional housing loan, islamic financial institutions (IFIs) have introduced the Islamic house financing which is Shari'ah-compliant modes for home ownership, the dominant contracts are the al-Bay' Bithaman Ajil (BBA) and the Musharakah Mutanaqisah Partnership (MMP) contracts. The BBAcontract is the most familiar contract used for home financing, but many scholars think that this type of contractsis similar to conventional home mortgage. That whyMiddle Eastern *Shariah* Scholars disapprove on the BBA contract, arguing that it is similar tothe 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)

To avoid the issue of "not-shariah-enough" in BBA contract, some shariah scholarsand professionals introduce the Diminishing Partnership contract, known asMusharakah Mutanaqisah house financing.

In MMP contract, the customer and Islamic banks jointly acquire and own the property of the house then the banks lease its shares of property to the customer on the basis of ijarah (leasing). The customer, as an owner tenant, promises to acquire periodically the Islamic banksownership in the property. The customer pays rental to the Islamic banking institution under ijarah, which partially contributes towards increasing their share in the property. Nooraslinda Abdul Aris (2011).

Bendjilali and Khan (1995), agreed that (MMP) could help people to less rely on other financing facilities such as the BBA, Murabahah etc. The scholars agreed that it is best to implement Musharakah MutanaqisahPartnership for house financing whereby both assets can be leased out according to agreed rental. Joint ownership of a house is accepted by all schools of Islamic jurisprudence since the financier sells its shares to the customer. See Taqi Usmani (2002).

Rosly (2007) argued that MMP is a way to avoid the problem of choice in uncertainty for home financing.

The remainder of the paper is as follows:the objectif of the next section is to introducethe Musharakah Mutanaqisah Partnership (MMP) Concept; section three is to provides a mathematical derivation for the Modified Diminishing Partnership (MDP); section four is to compare Islamic home financing (MDP) to conventional house financing contracts.

Figure 1: MM structure in home financing (M. Kabir Hassan 2011)

2. DIMINISHING PARTNERSHIP CONCEPT

Musharakah or Partnership contract is used to provide housing mortgages by forming a partnershipbetween the financier and the customer who own the real estate jointly. This contract is commonly known as Musharakah Mutanaqisah Partnership (MMP) or "diminishing partnership."

1. Customer selects house and applies for the financing
2. Bank once application is approved, enters into a musharakah arrangement with customer
3. Customer leases bank's shares in the house
4. Customer will use his portion from the lease rental amount to buy the bank's shares in the property
5. The partnership will be terminated with the customer owning 100% of the house: the title will be transferred to him/her.

The MMP consists of three contracts: musharakah, ijarah and bay:(partnership, leasing, and sale).

Firstly, the customer enters into a partnership (musharakah) under the principle of "joint ownership", it's an agreement with the bank to co-own the asset being financed. Second, the bank leases its share in the asset to the customer under the principle of "Ijarah".

For example, customer pays 20% of the asset cost as the initial share to co-own the asset whilst the bank provides for the balance of 80%. Third, the customer gradually buys the bank's 80% share at an agreed portion periodically until the asset is fully owned by the customer. The periodic rental will be jointly shared between the customer and the bank according to the percentage share holding at the times which keeps changing as the customer purchases the financier's share. The customer's share ratio would increase after each rental payment due to the periodic redemption until fully owned by the customer.

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.

3. MODIFIED DIMINISHING PARTNERSHIP CONTRACT MODEL

3.1 Musharakah Mutanaqisah Partenership Contract

We will firstly present briefly the MMP proposed by Ahamed Kameel Mydin Meera and Dzuljastri Abdul Razak (2009)which identified the monthly payment of the MMP contract by the formula:

$$x(1 + x)n \ \alpha \ (1 + x)n - 1 \tag{1}$$

Where:

- M is the monthly or periodic payments to the bank that comprises the rental amount and the additional amount being paid in order to redeem the asset early.
- x is a rental rate. Monthly rental divided by the original asset price.
- B_0 is the initial contribution of the bank in the purchase price.
- n is the number of months or periods for the customer to fully own the asset.

We notice that the formula turns out to be similar to the conventional loan. The conventional financing uses the standard formula for present value of annuities to compute for the monthly payments:

$$+1 – [1(1 + i)n] \qquad (2)$$

This $\quad i(1 + i)nPV(1 + i)n –1]$

Where

- PV is the present value of the monthly or periodic installments,
- Pmt denote the monthly or periodic installments (principal and interest).
- i is the monthly or periodic interest rate.
- n is the number of months or periods.

We remark that the two formulas are similar,but the interest rate is replaced by the rental rate.

TheLegitimacy of using rental rate was proved by Islamic economics, fiqh (law) and Shariah advisers of Islamic banks wish they all agreed on the usage of actual rental value of property as an alternative to interest rate as the former reflects the real property value in the market.

According to Taqi Usmani (2004),

> "rental must be determined at the time of contract for the whole period of lease. It is permissible that different amounts of rent are fixed for different phases during the lease period, provided that the amount of rent for each phase is specifically agreed upon at the time of affecting a lease."

Table 1

The example presents the Musharakah Mutanaqisah Partnership (MMP) Financing with Varying Rental Rate every five year.

					Rental division				
Month	*Monthly rent*	*Monthly redemption*	*Total payment*	*Customer's ratio*	*Customer*	*Financier*	*Customer's Equity*	*financier Equity*	*Financier's Cash flow*
	A	*B*	*C = A + B*	*D*	*E*		*F*	*G*	*H*
0				0.20			60000	240000	
1	1500	219.43	1719.43	0.2000	300	1200	60519.43	239480.5	1719.43
2	1500	219.43	1719.43	0.20173	302.60	1197.47	61041.46	238958.5	1719.43
3	1500	219.43	1719.43	0.20347	305.21	1194.79	61566.04	238443.9	1719.43
4	1500	219.43	1719.43	0.20522	307.83	1192.17	62093.35	237906.3	1719.43
5	1500	219.43	1719.43	0.20698	310.47	1198.53	62623.25	237376.7	1719.43
6	1500	219.43	1719.43	0.20874	313.12	1186.88	63155.80	236844.2	1719.43
60	1500	219.43	1719.43	0.31848	477.72	1022.23	96240.65	203759.3	1719.43
61	1800	54.35	1854.31	0.32080	577.42	1222.56	96872.40	203127.6	1854.31
62	1800	54.35	1854.31	0.32291	581.23	1218.77	97507.95	202492.0	1854.31
63	1800	54.35	1854.31	0.32503	585.05	1214.95	98147.31	201852.6	1854.31
120	1800	54.35	1854.31	0.46935	844.83	955.17	141704.65	158295.3	1854.31
121	2000	–77.44	1920.36	0.47235	944.70	1055.3	142569.91	157430.0	1920.56
122	2000	–77.44	1920.36	0.47523	950.47	1049.53	142440.93	156599.0	1920.56
123	2000	–77.44	1920.36	0.47814	956.27	1043.73	144317.77	155682.2	1920.56
240	2000	–77.44	1920.36	0.99364	1987.28	12.72	300000.11	-0.11	1920.56

In the following, we will present an example of MMP payment with a variable rental rate presented by Ahamed Kameel Mydin Meera and Dzuljastri Abdul Razak (2009).

3.2 MDP Contract Proposition

Boualem Bendjilali-Tariqullah khan (1995) and Anas Elmalki (2011) applied MMP investment to calculate the profits of the investor(R). we propose to adapt this formula to home financing (MDP) in order to calculate the redemption that the customer need to pay every month to the financier in order to own the home after sharing it.

And than, wemake a comparison between the proposed modified formula and the formula used by Ahamed Kameel Mydin Meera and Dzuljastri Abdul Razak (2009). The comparison shows that the obtained formula allowsreducing the duration of getting the full shares in the house property.

Following Boualem Bendjilali-Tariqullah khan (1995) and Anas Elmalki (2011), we can compute the part of the profit (Rj) of an investment with Musharaka contract us following:

$$RJ = P + 1(1+ PN + 1B] - 1 \tag{3}$$

Where

- RJ represents the Part of the profit in the investment at the disposal of the contractor in the period J with J the total year that customer need to got the property of the house.
- P is the profit of the period
- N is proportionality coefficient of K compared to B, $N > 1$.
  - B is customer's contribution
  - $K = N \times B$ is Islamic bank contribution

In the followingwe will propose a modified formulafor Diminishing Partnership concept that'll be applied to the real estate sector specificallyHome Financing.

In this case the profit of the Islamic bank will be represented by the Rental that the customer has to pay every month to the bank with redemption to increase his shares on the property of the house, we obtain the following formula:

$$RJ = N + 11 + AN + 1Bj - 1$$

Where

RJ is Additional periodic payment by customer to redeem the financier's equity

- A is Periodic rental
- $M = R + A$, is the total periodic payment

- B is Financier's contribution into the partnership
- C is Customer's contribution into the partnership
- $N = B/C$
- J denotes total years that customer need to own the house

3.2.1 Modified Diminishing Partnership with Fix Rental Rate

Consider an example where a customer wishes to buy a house priced atRM300000 Let's assume that the customer pays 20 percent of the price of the asset, RM60, 000, the financier puts the remaining 80 percent,RM240, 000. Thecustomer wishes to redeem the financier's share in 20 years. Now assume that the rental is agreed upon to be RM1, 500 per month.

Here, the additional annual amount needed is.

$$R1 = 14400$$

Table 2
The following example presents a Modified Diminishing Partnership with Fix Rental Rate.

					Rental division (5)		
Year	*Anual Payment (1) R*	*Customer Equity (2) K*	*Financier Equity (3) B*	*Customer ratio (4) r*	*Custmor (C)*	*Financier (F)*	*Total Payment (6) C + R*
1	14400	60000	240000	0,2	3600	14400	18000
2	14119,2	78000	222000	0,26	4680	13320	18799,2
3	13698,985	96799,2	203200,8	0,322664	5807,9	12192	19506,93
4	13126,939	116306,13	183693,8	0,387687	6978,3	11021	20105,30
5	12391,606	136411,44	163588,5	0,454704	8184,6	9815,3	20576,29
6	11482,959	156987,73	143012,2	0,523292	9419,2	8580,7	20902,22
7	10392,925	177889,96	122110,0	0,592966	10673	7326,6	21066,32
8	9115,9431	198956,28	101043,7	0,663187	11937,37	6062,622	21053,3203
9	7649,5520	220009,60	79990,39	0,733365	13200,57	4799,423	20850,1284
10	5994,9740	240859,73	59140,26	0,802865	14451,58	3548,415	20446,5581
11	4157,6721	261306,29	38693,70	0,871020	15678	2321,622	19836,0497
12	2147,8478	281142,34	18857,65	0,937141	16868,54	1131,459	19016,3883
13	19,163888	300158,73	158,7310	1,000529	18009	9,5238	17990,35

Annual Rent is fix and given byfix Rent: 1500*12 = 18000

1. $Rj = AN + 11 + AN + 1Bj - 1$
2. K = Customer contribution + total payment
3. B = Financier contribution - total payment

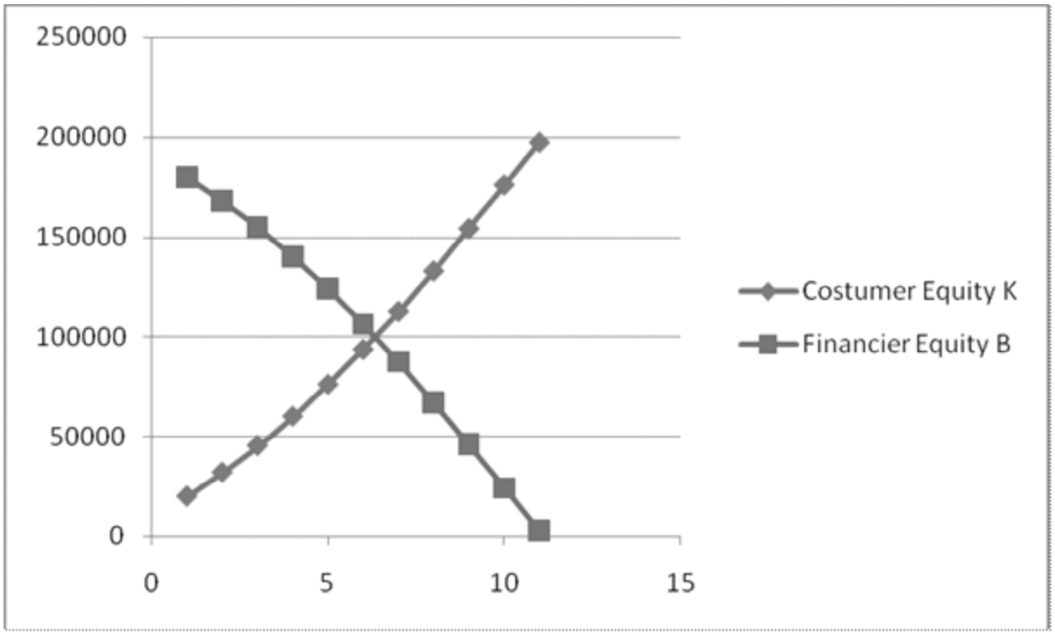

Figure 1: Transfer of the property from financier to the customer with fix annual rental rate.

4. r = Customer Equity/total price of the house (300000)
5. C = Annual Rent* Customer ratio

   F = Annual Rent – customer rent division
6. Annual Payment + customer rent division

In table 2, the customer needs 12 years to own the house with variable rental instead of 13years with a fix rental.

3.2.2 Modified Diminishing Partnership with variable Rental Rate

The total monthly payment denoted 1, 500 + 1200 = 2700

Table (1) provides the schedule for the above MDP contract. At the end of the 5th year, the balance of financing (financier's equity) is 163588,55 while the customer's equity is 136411,44.

Thereafter, the rental would be increased to 1, 800 per month. The new rental rate is x = 1800/300000 =0.6%. The new additional monthly amount can be computed as follows:

1. Variable Rent every 5 years is rent *0.2(inflation)
2. $Rj = AN + 11 + AN + 1Bj - 1$

Table 3
Example for Diminishing Partnership with Varying Rental Rate every five year using MDP.

						Rental division (6)		
Year	*Anual Rent (1)*	*Anual Redemption (2)*	*Costumer Equity (3)*	*Financier Equity (4)*	*Customer ratio (5)*	*Custmor*	*Financier*	*Total Payment (7)*
	P	*R*	*K*	*B*	*r*	*(C)*	*(F)*	*C+R*
1	18000	14400	60000	240000	0,2	3600	14400	18000
2	18000	14119,2	78000	222000	0,26	4680	13320	18799,2
3	18000	13698,985	96799,2	203200,8	0,322664	5807,95	12192,4	19506,9
4	18000	13126,939	116306,1371	183693,862	0,387687	6978,3682	11021,63	20105,3
5	18000	12391,606	136411,4451	163588,554	0,454704	8184,68	9815,31	20576,2
6	21600	14577,387	156987,7387	143012,261	0,523292	11303,1	10296,8	25880,5
7	21600	12798,994	182868,2434	117131,756	0,609560	13166,5	8433,48	25965,5
8	21600	10678,987	208833,7518	91166,2482	0,696112	15036,3	6563,96	25715,1
9	21600	8218,8034	234548,7694	65451,2306	0,781829	16887,5	4712,48	25106,3
10	21600	5430,9321	259655,0842	40344,9157	0,865516	18695,1	2904,83	24126,1
11	24000	2801,2168	283781,1825	16218,8175	0,945937	22702,4	1297,50	25503,7
12	24000	71,921656	300084,8939	–84,893899	1,000949	24002,7	-2,79151	23930,8

3. K = Customer contribution + total payment
4. B = Financier contribution - total payment
5. r = Customer Equity/ total price of the house (300000)
6. C = Annual Rent* Customer ratio

   F = Annual Rent- customer rent division
7. Annual Payment + customer rent division

The table 3 shows that the consumer is delivering all its commitment to the bank after 12 years, in return the bank transfer the total ownership of the house to the customer.

The table 3 showed that increasing in rental would reduce the additional share to be acquired by the customer in subsequent years. In case that customer can't afford paying the new rental and choose to continue paying the old rental, the duration of the remaining contract would be extended. As a fact, Islamic banks do not favour periodic revaluation of property. Otherwise, the revaluation of the asset takes place when there is a sale incurring full transfer of property ownership. With regards to redemption, defaults and termination of contract, a revaluation decision would depend on the situations.

The property need not be revalued if the customer does not intend to leave the house as the redemption amount would be the same as the balance outstanding.

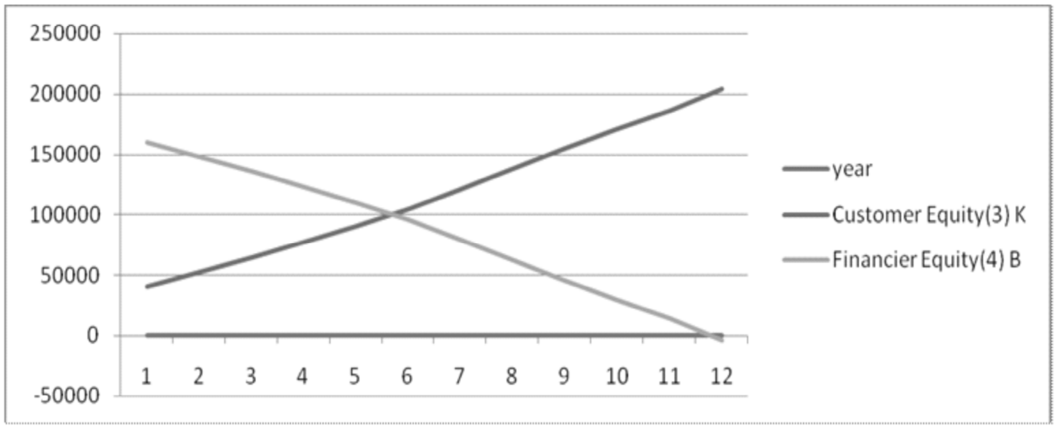

Figure 2: The Graphic demonstrate the transfer of the property from financier to the customer with variable rental rate every five years.

The property would be revalued when the customer intends to leave the house and in cases of default and termination of contract as this would involve the sale of the property. The residual amount will be shared between the customer and the bank after deducting all outstanding arrears, liquidation costs including legal costs etc. based on the prevailing profit sharing ratio.

The MDP contract is a partnership between the financier and the customer in owning a property and then involves the renting of the property by the customer. Periodically the customer also redeems the financier's equity in the said asset until it is fully owned by the customer. In the above section we have seen how the varying rental can be accommodated for. Some quarters nevertheless pose the question on the value of the property. If two parties co-own an asset and share its rental income, they should also share the asset's price appreciation.

The MDP involves the redemption of the financier's equity by the customer. Hence by the end of the MDP contract the customer would have acquired the full ownership of the asset and therefore any price appreciation at that moment would fully belong to the customer.

3.2.3 Comparison between Islamic and Conventional Mortgage model calculation.

Home price =200000
Client contribution = 40000 or 20%
Bank contribution = 160000 or 80%

Musharakah calculation

1. fix Rent is $1000 \times 12 = 12000$
2. $Rj = AN + 11 + AN + 1Bj - 1$

Table 4
Modified Diminishing Partnership (MDP) model calculation for home financing.

Years	*Rental P (1)*	*Redemption R (2)*	*Costumer Equity (3)*	*Financier Equity (4)*	*Customer's ratio*	*Custmor (5)*	*Financier (6)*
1	12000	9600	40000	160000	0,2	2400	9600
2	12000	9412,8	52000	148000	0,26	3120	8880
3	12000	9132,656755	64532,8	135467,2	0,322664	3871,968	8128,032
4	12000	8751,293191	77537,42476	122462,5752	0,387687124	4652,24549	7347,754515
5	12000	8261,071257	90940,96343	109059,0366	0,454704817	5456,45781	6543,542194
6	12000	7655,306637	104658,4925	95341,50751	0,523292462	6279,50955	5720,49045
7	12000	6928,61685	118593,3087	81406,69132	0,592966543	7115,59852	4884,401479
8	12000	6077,295429	132637,5241	67362,47595	0,66318762	7958,25144	4041,748557
9	12000	5099,701394	146673,0709	53326,92908	0,733365355	8800,38426	3199,615745
10	12000	3996,649343	160573,1566	39426,84343	0,802865783	9634,38939	2365,610606
11	12000	2771,781444	174204,1953	25795,80469	0,871020977	10452,2517	1547,748281
12	12000	1431,898546	187428,2285	12571,77153	0,937141142	11245,6937	754,3062915
13	12000	-2,77592581	200005,8207	-5,8207287	1,000000104	12006,3492	–1,349243721
Total payment	156000	79106,29492	–	–	–	–	–

3. Customer contribution + total payment
4. Financier contribution - total payment
5. Customer Equity/ total price of the house (200000)
6. Anual Rent × Customer ratio

   Anual Rent – customer rent division

   The bank profit is computed as following

   – Bank profit is (total rent+total redemption)- bank contribution

   – Bank profit is (156000+79106,29)-160000=55106

Than the bank receive a total profit equal to 55106dh, and released the total property to the customer after 13 years.

With a fixed interest rate evaluated to 4% if the payment is regular otherwise the interest rate fluctuate, a fixed monthly payment is evaluated to 1204.43, we compared the conventional mortgage to our Modified Diminishing Partnership proposition.

Conventional Calculation: Data from a conventional bank (BP).

$$\text{Bank profit} = \text{redemption} - \text{capital}$$

$$\text{Bank profit} = 289065 - 200000 = 89065$$

For the conventional bank, the profit is evaluated to 89065, and released the property to the customer after 20years.

0.005[200000– 1.005240 20000]1.005240– 1

Table 5
Conventional Mortgage for home financing

Years	*Capital*	*Interest*	*Capital balance*
1	6.716,35	7.736,90	193.283,65
2	6.985,00	7.468,25	186.298,65
3	7.264,40	7.188,85	179.034,24
4	7.554,98	6.898,27	171.479,26
5	7.857,18	6.596,07	163.622,08
6	8.171,47	6.281,78	155.450,61
7	8.498,33	5.954,92	146.952,29
8	8.838,26	5.614,99	138.114,03
9	9.191,79	5.261,46	128.922,24
10	9.559,46	4.893,79	119.362,78
11	9.941,84	4.511,41	109.420,94
12	10.339,51	4.113,74	99.081,43
13	10.753,09	3.700,16	88.328,34
14	11.183,22	3.270,03	77.145,12
15	11.630,55	2.822,70	65.514,58
16	12.095,77	2.357,48	53.418,81
17	12.579,60	1.873,65	40.839,21
18	13.082,78	1.370,47	27.756,43
19	13.606,09	847,16	14.150,34
20	14.150,34	302,91	0,00
Total payment	200.000,00	89.065,00	0,00

After 13 years with a conventional mortgage, the customer pays a total interestevaluated to 76220.59 but his shares in the property of the house is 0%, on the other hand with MMP the customer owned the full property shares in the house after 13 years.

Table 6
Summarized three methods for home financing calculation

Conventional Mortgage	*Musharakah Mutanaqisah (Ahamed Kameel 2005)*
APR = 10%	Initial Contribution of customer = *RM* 20,000 (10%)
Downpayment = *RM* 20,000 (10%)	Initial Contribution of financier = *RM* 180,000 (90%)
Loan OR Financing = *RM* 180,000 (90%)	Rental rate = 1000200000
Duration = 20 Years monthly payments	Duration = 20 Years monthly payments
In conventional mortgage the Present	In order to redeem the financier's share within
Value ofAnnuities formula is used:	20 years, the customer has to pay additional amount
The monthly interest rate,	Aper month over and above the rental
I = 10% 12 = 0.8333% = 0.008333	= 0.005[200000 – 1.00524020000]1.005240 – 1
i.e. 180,000 =	= RM289.58
1 Pmt 0.008333 [1(0.008333)240]	Rental=1000
	Redemption=289.58

Cont. table 6

Conventional Mortgage	*Musharakah Mutanaqisah (Ahamed Kameel 2005)*
Using Finance Calculator: PV = –180,000i = 0.8333%n = 240 Total payments = *RM* 1,737.03 × 240 = *RM* 416,889.35 Total interest = *RM* 416,889.35 – 180,000 = *RM* 236,889.35	

Total payment =1,289.58
Initial Contribution of customer = *RM* 20,000 (10%)
Initial Contribution of financier = *RM* 180,000 (90%)
Rental rate = Duration = 20 Years monthly payments
In order to redeem the financier's share within 20 years, the customer has to pay additional amount R per month over and above the rental
A = 12000/12 = 1000R = 10800/12 = 900
Total monthly payment: *RM* 1000 + *RM* 900 = *RM* 1,900
Since the monthly rent is *RM* 1,000 then the additionalamount needed is, therefore, *RM* 900

4. COMPARISON OF DIMINISHING MUSHARAKAH AND CONVENTIONAL HOUSE FINANCING CONTRACTS

The objectif of this section is to compare diminishing musharakah (DM) to conventional house financing contracts (CH) by showing the point of Similarities and Differencesbetween these modes of home financing.

The following aspects of the diminishing musharakah and conventional house financing contracts, we will compare.

- Commencement of agreement
- Termination of contract
- Profit and Loss sharing
- Ownership provision
- Sale transfer
- Security
- Liability of bank/clients
- Rights of bank/clients
- Regulation

The late payment will be studied in section 5

1. Commencement of the Agreement

Diminishing Musharaka house financing contract

The contract of DM can be effected for a future date on the condition that the "profit" rate is payable after possession of the house by the client. Thus an effective forward contract is allowed despite its prohibition in Islam. It is called "a later" contract by the Islamic bank. Repayment of principal and "profit" / rent becomes due on possession of property by the client. George, Sir Edward (2003).

Conventional house financing contract

The contract of (CH) is a loan with interest, he can be effected from the first day of the agreement without the client's possession of the property. George, Sir Edward (2003).

2. Termination of the Contract

Diminishing Musharaka house financing contract

(a) If the financier contravenes any term of the agreement, the client has the right to terminate the Musharaka contract unilaterally. If there is no contravention on the part of the financier, the contract cannot be terminated without mutual consent by the client. The bank can terminate the contract without mutual consent, if the client does not pay "profit" on time, and he is not able to buy the shares of the bank according to schedule, he still keeps shares in home property.

(b) In case of the death of the client the contract will be terminated and it will be renewable.

(c) The client can terminate contract by purchasing the shares of the bank. Mustafa Omar Mohammed (2005).

Conventional house financing contract

(a) The client can terminate the contract unilaterally if the bank contravenes any terms of the contract. The bank also has right to terminate the contract unilaterally, if the client contravenes any terms of the contract. Without mutual consent the bank can also terminate the contract, if the borrower is not able to pay interest with principal according to payment schedule, the borrower loose automatically the house.

(b) In case of death of the client the contract will be terminated, it is renewable by his successors.

(c) Client can terminate the contract by paying the whole principal and interest due at any time. Mustafa Omar Mohammed (2005).

3. Profits and Loss Sharing

Diminishing Musharaka house financing contract

In the Diminishing Musharaka house financing contract Profits are shared as stipulated in the contract, while losses are shared in proportion to capital shares. Yusuf, Varli. Iray, Yildirim (2014). Therefore, according to Imam Shafi'i, the ratio of the share of a partner in profit and loss both must conform to the ratio of his investment. But according to Imam Abu Hanifah and Imam Ahmad, the ratio of the profit may differ from the ratio of investment according to the agreement of the partners, but the loss must be divided between them exactly in accordance with the ratio of capital invested by each one of them.

Conventional house financing contract

In the conventional house financing contract, there is no "profit and loss sharing" agreement between the bank and the customer. The financier and the customer shared profits but only the client who suffered from losses. Yusuf, Varli. Iray, Yildirim (2014)

4. Ownership Provision

Diminishing Musharaka house financing contract

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. Muhammad Taqi Usmani (1998).

Conventional house financing contract

In a conventional house financing contract, the client has ownership, but his property papers remain in the bank until after paying of all scheduled amounts. Conventional banks prefer simple and registered mortgages. Muhammad Taqi Usmani (1998).

5. Sale Transfer

Diminishing Musharaka house financing contract

In Diminishing Musharaka house financing contracts, the client and the bank jointly buy the house on the basis of a debt equity ratio. The bank divides its equity shares into equal units. The bank makes an agreement to allow the client to buy the units periodically, thus reducing the share of the bank and increasing the share of the client.

This arrangement allows the bank to claim "rent" according to its proportion of ownership in the property and at the same time allows a periodical return of a part of the principal through purchase of the units of the bank's share of the house by the client. Meera, Ahamed Kameel Mydin and Abdul Razak, Dzuljastri (2005).

Conventional house financing contract

In conventional house financing contract the client is the sole owner of the property, the bank has the mortgage deed of the client's property. The bank divides its loan into equal installments with fixed interest rate. Thus the client pays principal plus interest periodically. After completion of installments in the required period, the bank releases the mortgaged documents to the client. Meera, Ahamed Kameel Mydin and Abdul Razak, Dzuljastri (2005).

6. Security

Diminishing Musharaka house financing

Standard Chartered (Islamic banking) requires mortgage of the client's part of the house, which the bank and the client buy jointly. Meezan Bank and Alabaraka require mortgage deeds. They prefer simple and registered mortgages. (Meezan Bank and Alabaraka).

Conventional house financing contracts

Conventional banks require memorandum of title deed and mortgage deed of the house which is going to be financed. Conventional banks also prefer simple and registered mortgages. (Meezan Bank and Alabaraka).

7. Liability of Bank and Client

Diminishing Musharaka house financing contract

In Diminishing Musharaka house financing contracts the bank is liable for complying with the terms of the agreements. These include payments according to pre-determined schedules and sale of its share to the client. At the time of agreement the bank must disclose all facts pertinent to the agreement before the agreement is enacted.

The client is also liable for complying with the terms of the agreements. He is responsible for investing according to the mutual agreed "debt" equity ratio, buy unit shares of the bank periodically according to schedule pay "profit" rate on time, disclose all facts before agreement. Mustafa Omar Mohammed (2005).

Conventional project financing

In conventional house financing contracts the bank is liable for complying with the terms of the agreement as is the client. Mustafa Omar Mohammed (2005).

8. Rights of Bank and Client

Diminishing Musharaka house financing

In Diminishing Musharaka house financing contracts the following are the rights and the powers of partners.

- (a) The bank and the client cannot sell their undivided shares of the property. Islamic banks in Pakistan do not recognize the right of the client to sell his share of the property.
- (b) The bank has the right to charge penalty on late payment. It has the right to sell the house if the client is not able to buy unit shares of the bank, according to schedule.
- (c) The client has the right to become a sole owner of the house after buying the full share of the bank.

Conventional house financing

In a conventional house financing contract the following are rights and powers of the bank and the client:

- (a) The bank has the right to auction the property, if the client defaults.
- (b) The client has the right to get his mortgage released from the bank through paying off his debt.
- (c) The bank can vary the interest rate for customer late payment.

9. Regulation

Diminishing house financing contract

The concept of profit and loss sharing (PLS) through musharakah modes of finance still need for further auxiliary legislation in order to fully realize the goals of Islamic banking. No law has been introduced to define modes of PLS financing in Musharakah. It is observed that whenever there is a conflict between the Islamic banking framework and the existing law, the latter prevailed. In essence, therefore, the relationship between the bank and the client, which of creditor and debtor is left unchanged as specified by the existing law. The existing banking law was developed to protect mainly the credit transactions. Its application to other modes of financing also results in the treatment of those modes as credit transactions. Saiful Azhar Rosly (2005)

Conventional house financing

In the conventional banks there is one contract between the bank and the customer so the transaction of the contract is quiet simple.

The bank give the loan to the customer, in return the customer pays redemption every month to the bank. If the customer can't afford the monthly payment, the banks charge penalties (1% for each month late payment).

Differences in provisions of Contracts of Diminishing Musharaka house financing and Conventional house financing

Contract	*Differences Yes/No*
Commencement of agreement	NO
Termination of contract	NO
Profit and Loss sharing	YES
Sale transfer	YES
Security	NO
Liability of bank/clients	YES
Rights of bank/clients regulation	YES
Regulation	YES

The major differences between Conventional and Islamic contract are:

- In the conventional contract, the customer start by paying interest first than capital without buying shares in the property of the house. On the other hand, in islamic contract (DP) customer pays monthly rental wish is depend on his capital rate contribution for household use and a redemption who serves for buying shares in the property of the house.
- In case of late payment, conventional contract imposes charges of late payment without studying the customer's situation, that why customer looses automatically the house. On the other hand, Islamic banks give a great interest to the situation of the customer.In Islamic contract (DP) the customer is a partner with the bank on the house property.

In the following we will study the late payment charge and we will compare customer charges in Islamic and conventional banking.

5. LATE PAYMENT CHARGE

Fundamentally, Islam prohibits riba and permits halal transactions. Any excessive amount in loanrepayment is regarded riba. Basing on this principle, Islamic banks should not charge excessive repayment of loan to the customer.Al-Bukhari, Sahih al-Bukhari (1982).

This may consequently affected customer serious default risks. The practice of excessive repayment charges may negatively impact Islamic banking and contributes to cases of late payment and defaults. Excessive repayment charges could affect the flow of capital for Islamic banks. On the other hand, unlike Islamic banking, conventional banks charges cumulative interests on late payments and defaulting customers, thus permits to secure their capitals. Regarding these issues, Islamic banking seems to be relatively more exposed to risks compared to the conventional banking. Thus, an alternative mechanism must be brought into force to manage the repercussions of Islamic banking loan repayment issues, that why many Muslim countries take their own approach in dealing with this matter based on theirunderstanding and respective national fatwa.

In addition to impose financial penalty on latepayment, a few other prevention methods have been studied. The most common method is preemptiveinvestigation to ensure that the customers who will sign the contract havegood credit rating and have the ability to repay. Thus, early prevention can avoid subsequent occurrence of problems.

If default occurs, the banks will use methods to study the customer data in order to be sure that the penalty charge is not oppressive. For example, extending the contracts until the customers are able to repay, or, ending the contract with the obligation of repayment of all the outstanding balance of the debt; or, selling assets as collateral in contract at the market and using the money to pay the rest of the payment. Another possibility relating to selling the asset is to mentioned in case of musharakah contract which is based on profit and loss sharing that each part will receive a capital and profits according to the monthly payment ratio.

To ensure the sustainability of Islamic banking, Shari'ah compliant allow to Islamic banks to use mechanisms to avoid detriments, mainly "ta'widh and gharamah". M.S Muhamad Abdul Hakim (2013).

***Diagram for late payment charges structure* (ta'widh *and* gharamah)**

Key

1. Gharamah (penalty = *G*)
2. Ta'widh (compensation) = *T*
3. Combined Rate = *C*

Maximum combined rate « C »

$$C = G + T$$

$$G = C + T$$

Gharamah/Penalty

Ta'widh/Compensation

Maximum rate « T » = reference rate

> ta'widhis "defined as reward or financial compensation payment incurred as a result ofcausing harm to others, While gharamah refers to a fine that must be paid as a disciplinary measure or penalty. Latest definition for gharamah refers to the penalty charged on the defaulters over and above ta'widh". Central Bank of Malaysia (2013)

The major principle is that the money from penalty should go to charity and not for the benefit of the bank. In its 95th meeting in 2010, the Sari'ah advisory council (SAC) decided that Compensation *"ta'widh"*is permissible and known as income on the basis that it is imposed based on actual loss incurred by Islamic banks. On the other hand, penalty "*gharamah"*is not allowed to be recognized as income, and it must be channeled to specified charitable bodies. Resolusi *Shari'ah* dalam Kewangan Islam (2010-2011).

Table
Describing the Characteristics of Ta'widh, Gharamahand conventional penalty

Item	*Ta'widh*	*Gharamah*	*Conventional Penalty*
Concept	Losses borne by creditors due to late payment	Penalty to avoid late payment	Charge for late payment
Rate of charge	– Base on real loss – fixed 1% – Based on outstanding balance	– Based on BNM – Non compounding – Based on outstanding balance	– Based on BNM – Compounding – Based on outstanding balance
Fund	– Income of bank	Channel to charity	– Income of bank
Liability	Customer Liability not exceeding 1%	Customer Liability, bank to channel for charity	Customer full Liability
Hukum	– shari'ah compliant – recommended – No riba	– shari'ah compliant – recommended – No riba	– shari'ah non-compliant riba

It is no doubt that Islamic banks are allowed to charge penalty on default payment. However, the mechanism of Ta'widh implementation is different from penalty charged in conventional banks which is riba'. The imposition of Ta'widh and gharamah may help Islamic banks to mitigate default payment risk. Ezani Yaakub (2013).

Table
Showing the calculation of late payment penalty between the conventional and Islamic banks

Home financing through Musharakah Mutanaqisah contract	*Home financing through Conventional contract*
In Islamic banks, *ta'widh* rate charged is one per cent and non-compounding. Hence, it is lower than the conventional ones. For example, *B* made a financing from the Islamic banks of RM100,000 In the first year *B* failed to pay as installments of *RM* 2,000 per month. On top of that for 2 months arrears. There are, the amount of penalty to be paid is: • 1% × 4,000 = 40 • 40 + (2,000 × 2) = 4,040 As illustrated, the amount of the fine imposed by Islamic banks for 2 months in arrears is only *RM* 40 plus 2 months overdue installments of *RM* 4, 000. Thus, the total to be paid by *B* is *RM* 4,040. Therefore those computation illustrates how penalty is different from penalty (*riba'*) charged in conventional banks.	In conventional mortgages the interest charged is a mark-up on the money lent.In conventional banking, a penalty for late payment of loan is about 2 to 5 percent of total loans outstanding. Rates charged by conventional banks are compounding and the penalty will be included in the loan amount. If there is it further penalty, it will be pegged to the percentage of the original loan amount. For example, A makes a housing loan of *RM* 100,00 and the outstanding is *RM* 90, 000. A fails to pay the debt for a month. A set of penalty of 5 percent is imposed. As a result if the amount to be paid by *A* is: • *RM* 90,000 × 5% = *RM* 4500 • *RM* 90,000 + *RM* 4,500 = *RM* 94500 • *RM* 94500 × 6.75% (interest rate) = *RM* 6378.75 • *RM* 94500 + *RM* 6378.75 = *RM* 100,878.7

CONCLUSION

This paper presents a new model for monthly mortgage payment financed by Diminishing Musharakah Partnership contract.

The model proposes a monthly payment based on a Rental which is related to customers use for the house, and Redemption to allowed customers to increase their shares in house property. The proposed model allows customers to reduce the duration of getting the total ownership of the house compared to other models (Kameel 2009 and Elmalki 2011).

On the other hand we made a comparative analysis between the conventional mortgage and Diminishing Partnership contracts for home financing. A home is basic necessity, it consumes a large chunk of people's income for a long periods, that why mortgages are one of the significant causes of bankruptcies. While price of homes keep rising, the mortgage duration also keep rising.

The Modified Diminishing Partnership is a better alternative to the conventional mortgage, it's permits to avoid Riba and to reduce the duration of the total ownership of the asset by the customer.

The paper suggests a new method based on Redemption in determining the monthly charge for each specified contract period.

As for the society, the (MDP) brings stability into the economy by promoting positive partnership instead of negative indebtedness thus assisting in the equitable distribution of society's wealth; minimizing the large number of debt defaults and bankruptcies that are observed in the current financial system.

References

Al-Bukhari, M. (1982), Supporting Shari'ah Concepts Shari'ah Resolutions in Islamic finance. Bank Negara Malaysia, 130-131.

Bendjilali, B. Khan, T. (1995), Economics of Diminishing Musharakah. Islamic Research And Training Institute, No. 31, 23-25.

Yacuby, S.N. Usmani, M.T. (1998), Fatwa on Usage of Libor as a Benchmark.

Saiful Azhar, R. (2001), Iwad as a Requirement of Lawful Sale: A Critical Analysis. Journal of Economics and Management, Vol. 9 No 2, 187–201.

Meera, A.K. (2002), The Islamic Gold Dinar. Subang Jaya, Malaysia: Pelanduk Publications.

George, S. (2003), Towards Islamic House Financing in the UK, Review of Islamic Economics. No,1. 73–78.

Meera, A.K. Moussa,L. (2004). The Gold Dinar: The Next Component in Islamic Economics, Banking and Finance, Review of Islamic Economics, Vol. 8 No. 1. 5-34.

Usmani, M.T. (2004). An Introduction To Islamic Finance, Maktab Maa'rul Quran,Karachi-Pakistan. 10-16.

Meera, A.K. Dzuljastri, A.R. (2005). Islamic Home Financing through Musharakah Mutanaqisah and Al-Bay' Bithaman Ajil Contracts: A Comparative Analysis. Review of Islamic Economics, 5-30.

Mustafa, O.M. (2005), Islamic Financial Contracts (Module 2). Fiqh Muamalat Course Material.

International Islamic University Malaysia, 5-9.

Rosly. (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.

Kameel, A.M. Dzuljastri, A.R. (2009), Home Financing through the Musharakah Mutanaqisah Contracts: Some Practical Issues. Islamic Economics Journal, 121-143.

ISRA Monograph Series, (2009), International Shariah Research Academy for Islamic Finance. Resolusi Shari'ah dalam Kewangan Islam. Majlis Penasihat Shari'ah Bank Negara, (2010-2011). Central Bank of Malaysia, 5.

Elmelki, A. (2011), Le Principe De Partage Des Profits Ou Des Pertes: Illustration Modélisée Des Contrats De Financement Participatifs Moudaraba Et Moucharaka, Global journal of Management and Business Research, 101-105.

Ezani ,Y. Azam,M. Adil, M. (2013), late payment charge in islamic bank. The 5th International Conference on Financial Criminology (ICFC 035).

Guidelines on Late Payment Charges for Islamic Financial Institutions. (2013), Central Bank of Malaysia, 13-14.

Muhamad, A.H. Head of Shariah Secretariat. Kuwait Finance House (Malaysia). (2013), Refer to Taqiuddin, M. Paper Presented Intellectual Discourses on 26 June 2013 by Academy of Contemporary Islamic Studies, Malaysia.

Varli, Y. Iray, Y. (2014), Default and Prepayment Modeling in participation Mortgages, 16-17.