THE IMPACT OF OWNERSHIP RISK IN TRUE SALE-BASED FINANCING ON PROFIT CHARGES: A STRUCTURAL EQUATION MODELLING (SEM) APPROACH

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ABSTRACT

The fundamental principle of true sale is based on the ownership state of the subject matter of sale where the selling party must own the asset legally and keep full ownership of the goods before making the sale. In the *riba*-free system, the Islamic bank assumes a role of a trading entity. It undertakes a trading position and exposes itself to business risk as the asset is booked on its balance sheet. It follows that the profit rate it charges the customer will reflect an additional risk-premium to account for the business risk exposure. Due to business risk exposure, this study introduces the financial infrastructural constraints on the use of true salebased Islamic financing namely 1) economic capital requirement for the on-balance sheet holding of tradable assets and 2) the tax charges by the fiscal authority on the purchase of tradable assets by the bank. Thus, based on this premise, the objective of this study was formulated to empirically investigate the impact of these constructs (cost of fund, overhead, default risk, capital charges, tax burden and profit rate) on profit rate of true sale-based financing. A Survey questionnaire and a semi structured interview were the tools used for data collection. The analysis was done by using Structural Equation Modelling (SEM) technique and the findings revealed that all independent variables except for cost of fund, have positive and significant impacts towards profit rate charged. Given the findings of this study, it is recommended that the true sale-based Islamic financing is to be funded by investment fund rather than deposit fund. Hence, the additional capital and tax charges will be absorbed by the investors. From this study, we hope that future research could be expanded further by investigating cross border Islamic banking practices in terms of the pricing of true sale model and closer comparison can be made between Malaysian Islamic banks and Foreign Islamic banks.

Keywords: True sale-based financing, ownership risk, Islamic banking and finance, Structural Equation Modelling (SEM)

INTRODUCTION

The regulatory and legal infrastructure of the financial system are the critical components in the success of the development of Islamic modes of financing in Malaysia. While Shariah compliance elements do play a dominant role in defining the nature of Islamic modes of financing, product development is also fine-tuned to observe Shariah compliance within regulatory requirements such as economic capital and tax charges under the respective capital adequacy standards and tax laws of sovereign countries. For this reason, the character of true sale-based financing such as *Murabaha* and *Al-Bai' Bithaman Ajil* (BBA) may have to succumb to these regulatory requirements with possible adverse impact of its Shariah compliant position. This is due to the fact that Islamic banks have not been able to prove its true label in so far as taking full ownership of the assets they intend to sell on credit term due to these regulatory impediments. For this reason, the apparent fixation of Shariah compliance parameters to matters relating to contract validity as opposed to risk-taking arrangement seemed to have undermined a critical component of ordinary business conduct, namely the carrying of ownership as well as commercial risk by traders and merchants as amplified by the legal maxim *al-ghurmi bil ghuni* (i.e. profit is accompanied with risk) which also applies to the Islamic banking business.

In the retail trading business, commercial risk takes the form of price risk which originates from risks associated with ownership of tradable assets. Traders generally hold inventories before putting up the goods for sale in the marketplace. The holding of inventories evidently suggest that the trader is carrying ownership risk of the goods. It means that the selling party i.e. the trader must hold full ownership of the goods he intends to sell, hence exposing himself to commercial risk arising from price volatilities. In a sense, commercial risk takes form of ownership risk, which is similar to price and inventory risk. By doing so, the business is exposed to possible gains and losses as the price of goods moves up and down with the market forces. In an economic downturn, when retail price may fall below cost price, the trader suffers losses. Likewise, during booms which saw rising demand for goods and services, sales were often made at attractive profits.

It is unfortunate; however, to see that prevailing practices in the regulatory assessment of Islamic banking contract, the ownership risk has not been made explicit in Shariah compliance process although the existence of business or commercial risk in contracts can be detected in the subject matter (mahallul 'aqdi) of the sale. One of the conditions to the subject matter concerns the ability to deliver it (i.e. subject matter) to the buyer under the pretext of possession of goods (qabd). To do so, it requires the seller to hold complete ownership (milkultam) of the subject matter before he could sell the goods in the marketplace and to affect the transfer of the ownership of goods to the buyer at the conclusion of the sale. According to Section 4 of Sale of Goods Act 1957, a contract of sale of goods is a contract whereby the seller transfers or agrees to transfer the property in goods to the buyer for a price.

This important condition however has yet to be incorporated in the Shariah parameter of regulatory compliance which falls under the purview of the Shariah Advisory Board of the Malaysian Central Bank (Bank Negara Malaysia). However, the test for product Shariah compliance has only positioned the five explicit Shariah rules, namely the prohibitions of interest (riba), ambiguities (gharar), gambling (maysir) and prohibited commodities as the sufficient condition for contract validation. The necessary condition such as the carrying of ownership risk by the selling party has not received its fair share as yet.

Therefore, holding to the fact that the implication of ownership risk is quite technical based on its regulatory and fiscal constraints, the remainder of the paper is organised as follows in view to give more clarity and understanding to the readers: The following section provides some background on the nature of true sale-based financing and its relationship with the ownership of assets. Next, methodology and empirical results are presented and finally, the paper is concluded together with the recommendation.

TRUE SALE-BASED FINANCING AND THE OWNERSHIP OF ASSETS

A true sale-based financing contains two parts, namely the 1) cash purchase component i.e. the purchase and holding of assets intended from trading by the bank before the financing sale is executed i.e. the on-balance sheet holding of assets and 2) the financing sale component i.e. the sale of assets on installment payment system. Hence, when the bank undertakes a true sale position, where it will first purchase the asset from the supplier before making the financing sale, business risk will appear on the bank's balance sheet arising from the asset ownership. This new risk will bring in an additional profit to the bank known as the business risk premium to accommodate the business risk carried by the bank. This instrument is also relatively free from Shariah non-compliance risk (SNCR) in view that it has fulfilled all of the contract requirements, especially that dealing with asset ownership, ownership risk and the transfer of ownership from the bank to the customer. A celebrated legal case of Shariah non-compliance risk practice can be referred to Mayban Finance vs Taman Ibsan Jaya, which ruled the Al-Bai' Bithaman Ajil contract as invalid due to the ownership issue. The court Judge says,

"This court holds that where the bank purchased directly from its customer (i.e. PPA) and sold back to the customer with deferred payment (i.e. PSA) at a higher price in total, the sale is not a bona fide sale, but a financing transaction, and the profit portion of such Al-Bai' Bithaman Ajil facility rendered the facility contrary to the Islamic Banking Act 1983 or the Banking and Financial Institutions Act 1989 as the case may be". (MLJ 2008).

Critics of prevailing Islamic financing have put asset ownership as the pivotal attributes of lawful contract. The *al-bay*' concept is expected to be the foundation of the banking business which the Quran poses as the alternative to riba (Surah Al-Bagarah; 275). However, asset ownership and consequently ownership risk in al-bay were both over-looked by Islamic banking and the Shariah regulatory parameters as well. As an example, the sale and buy-back transaction through Property Purchase Agreement (PPA) and Property Sale Agreement (PSA) between bank and customer in the Malaysian Al-Bai' Bithaman Ajil (BBA) financing showed no evidences of actual purchase between the bank and the developer or even between the bank and the customer as per the PPA. Dahlan & Aljunid (2011), argues on the issue whether or not the customer has acquired full ownership to warrant him becoming the legal owner of the house hence evidencing uncertainty or gharar, more particularly gharar al-fahish (exorbitant gharar). Another observation argued that the bank merely acts as a financier rather than a seller and had detached itself from all liabilities. This act obviously ignores the Islamic legal maxim of "al-ghorm bil ghonm" (no reward without risk) and "al-Kharaj bil Daman" (any benefit must be accompanied with liability) (Meera & Razak, 2005). By ignoring these elements of profit earned can be labeled as illegitimate in the eye of Islamic law for not upholding to the Islamic theory of profit.

The Islamic theory of profit can be tracked back to the *Mejelle*, which says that lawful profit is explained by the acquisition of property (*mal*), work (*kasb*) and liability (*daman*). The acquisition of property in general requires the seller to buy from the supplier, hence garnering ownership of the property. Doing so, requires the supplier to use his capital to finance the purchase, thus putting the capital at risk. The connectivity between taking ownership and taking risk is therefore established here, in the subject matter of the contract (*mahallul 'aqdi*). As highlighted by Rosly (2012), observing ownership element in true sale would require Islamic banks to hold more economic capital, incur more tax overhead and require a robust enterprise risk management framework to be in place to meet with the challenges of real business in contrast with credit financing.

This principle of ownership derived from the words of our Prophet SAW: "Do not sell something that you do not own". Basically, the Hadith simply means that the subject matter of sale transaction must exist and must be owned by the seller at the time of contracting. This

implying that future existence of a subject matter clearly contrary to the Hadith's requirements. As quoted by Kamali (2007) that Jaafar ibn Abi Wahshiyah had reported from Yusuf ibn Mahak, from Hakim ibn Hizam who said that he had asked the Prophet: "O Messenger of God, a man comes to me and asked me to sell him what is not with me. I sell him (what he wants) and then buy the goods for him in the market (and deliver them)." The Prophet replied: "Sell not what is not with you." Clearly, the hadith has proposed that by holding full ownership on the subject matter of sale (i.e. true sale transaction), would prevent the contracting parties from facing any disputes due to the existence of *gharar* element. Therefore, putting the ownership element inevitably critical.

Commercial Risk and Capital Requirement

Similar to conventional banking, Islamic banking is driven by profits and earnings that are largely defined by the size of capital it is holding to support the financing activities undertaken by each business units. The risk-appetite policy of the bank is also defined by the capital. Like conventional banks, an Islamic bank is also highly leveraged, based on the size of deposits it holds relative to capital. Risks associated with modes of financing are critical to the bank as the more risks it carries, it will require more capital to back-up the positions taken up.

Capital charge is the economic capital needed to support the financing facility extended to customers. The function of economic capital is to absorb unexpected losses from the exposure. Suppose, bank's exposure is \$80 million which carries risk at RW =100 percent, based on capital adequacy ratio (CAR) = 8 percent, the economic capital is 0.08 = K/RM80 million x 1.00; K = 0.08 x RM80 million x 1.00 = RM6.4 million, which means that the bank is required to hold RM6.4 million of its total capital to back-up the RM80 million facility it gives away. When the facility is funded by deposits and not capital, it is unsafe to allow the bank to take unnecessary risks as this may lead to default. For example, at 5 percent probability of default will results in RM4 million write-off, which is enough to be absorbed by the RM6.4 million capital held against it. However, at 10 percent default, which means at a RM8 million write-off, the bank is short of RM1.7 million to absorb the loss. Depositors will be the ultimate victims to the losses when bank becomes insolvent.

Capital charges for sale-based financing with property rights and hence the holding of ownership risk can be punitive to Islamic banks as the risk-weights (RW) associated for assets intended for trading is set at 150 percent and higher depending on the commercial risk it carries (refer to **Table 1**). By trading position, it means the purchase and holding of assets by the bank prior to the financing sale. This ownership risk can mean a drop-in asset quality when the intended sales are not concluded by clients who the bank has no recourse to. Based on the same example as above, the capital charge on the financing sale with property rights is 0.08 = K/RM80 million x 1.5 = RM9.6 million. The bank now has to hold RM3.2 million additional capital to back up the same exposure, which could add stress on the overall capital requirement of the bank.

Table 1: Risk-weights for Islamic assets

Financial Product	Risk-Weights (%)
Murabaha with collateral	50
Murabaha without collateral	100
Murabaha with commercial risk - (Assets held	150
intended for trading)	

Source: Bank Negara Malaysia and IFSB

Commercial Risk and Taxation

Government imposes tax on sales and income generated by business and individuals. For example, when a customer purchases a property using a bank loan, he pays the relevant taxes or stamp duties based on the specified tax rates and value of the property. The illustration as in **Table 2** below:

Table 2: Taxes on sale and purchase of assets

Stamp duty tax is one of the important property taxes applicable within the country. For comparison, the stamp duties in Malaysia within the year 2007 and 2008 are given below:

•	Price Stamp (MYR)	Stamp Duty in 2007 (MYR)	Stamp Duty in 2008 (MYR)
	250, 000	4, 500	2, 250 (-50%)
	150, 000	2,000	1,000 (-50%)
	350, 000	6,000	6, 000 (unchanged)

Based on the current rate of 1% for first MYR100,000 and 2% for MYR100,001 to MYR1,000,000). New home buyers face two main Stamp Duties: for title transfer and the bank loan facility agreement.

Likewise, in true sale-based financing for asset purchases, the bank buys the asset from the vendor on cash basis and sells it to the customer on credit term. This means that the bank carries a tax liability which it can either be absorbed as overhead expenses or to pass it on to the customer. For the jurisdictions such as the Gulf countries where tax is a non-issue, Islamic banks in those countries can find comfort to buy assets intended for sale. However, for countries where tax revenues constitute a major income to the government, tax expenses on asset purchases are carried by the customer by imputing it as part of bank's overhead cost. This in turn will make financing charges more expensive than interest-bearing loans. When these expenses were absorbed by the bank as overheads, it reduces bank's earnings.

As a response to the above, tax neutrality status is awarded to Islamic banks in reducing transaction cost of sale-based financing. This applies both to *Al-Bai' Bithaman Ajil* (BBA) and *Enah* products since the first purchase where tax is levied on the customer, is initiated between the customer and vendor. In BBA, the bank appoints the customer to purchase the asset from the vendor on its behalf which it (i.e the bank) later sells on credit terms. Tax liability is however carried by the customer. In *Enah* modes of financing, the tax is borne by the customer at the conclusion of the sale and purchase agreement (SPA).

The nature of commercial banks are such that they are not made to undertake sale and purchase business involving assets and commodities sanctioned by Shariah since loans are not funded by bank capital but from deposits. To protect deposits, banks are required to hold ample capital acting as a cushion against unexpected loss.

Commercial Risk and Pricing

While the Shariah requires the selling party to take ownership risk to evidence compliance to the twin-principles "al-ghorm bil ghuni" (with risk comes profit) and "al-kharaj bil daman" (profit is accompanied with responsibility) in a sale, the financing pricing system will carry a commercial premium which is unaccounted for in a non-true sale Murabaha and loans. The sahih hadiths which says, "do not sell what you do not own" further intensify the risk-taking requirement in the business involving sales and purchases of assets. At the next level, when the asset is sold on deferred payment basis, a credit risk premium is added to the price. On top of that, the seller (i.e. financier) pays a sales tax as required from any true sale, which can further inflate the price.

Based on **Table 3**, the profit rate charged to the Islamic sale-based financing facility can be examined from two perspectives, namely:

- 1. Islamic financing facility with true-sale character
 Profit rate (P1) = Cost of deposits + overhead + asset tax burden + business risk
 premium + credit risk premium.
- 2. Islamic financing facility without true-sale character
 Profit rate (P2) = Cost of deposits + overhead (without asset tax) + credit risk premium.

In jurisdictions where no taxes are levied on sales, for example in most GCC countries, the tax burden will not be a major concern to the Islamic banks. However, the capital charge is highly critical as many Islamic banks operate under the Basel standards. As shown in **Table 3**, the profit rate for true sale *Murabaha* is higher than that of *Murabaha* without true-sale character. The commercial risk premium constitutes the additional charge to the selling price arising from higher risk carried by the bank. This premium is similar to the equity risk premium of the capital asset pricing model (CAPM) which is applied in arriving at the expected return from a stock investment.

Table 3: Cost of true sale-based financing

Cost of Capital Charges	Capital Charge at 150% Risk-Weight			
Cost of ownership risk/inventory risk	Transfer of asset title from Bank to			
	Customer			
	Sale of Goods Act 1957			
Cost of tax charges	Stamp duties and Goods and Service Tax			
	on sale and purchase agreement paid by			
	Bank			

Commercial Risk and Impact on Competitiveness

While financing without evidencing the true-sale character had given way to the practices of Enah financing, the profit rate chargeable on this type of facility is relatively lower than a true sale Murabaha, which makes the former a superior option. Prevailing Enah and Tavarua or Commodity Murabaha facilities are able to avoid the fiscal liabilities and commercial risk associated with the contract as both are able to circumvent price volatilities. Although Tawaruq and Commodity Murabaha had both substantiated the provisions of property rights, the price risk is relatively absent as the transactions were conducted in rapid sequences which practically leave no possibility of price movement. For example, if the commodity is bought for RM1000 per ton from Vendor A at 10 am on 1st March 2014 and sold to Vendor B at 10.10 am on same day, the price risk is actually zero. Siddiqui (2001) quoted Justice Taqi Usmani's comments on the financing modes based on Murabahah and Ijarah, that ".... there should be a gap between purchasing the commodity and selling it to the customer and the risk of owning the commodity during the period should be borne with all its basic components and all its essential consequences."The lack of gap is attributed to the fact that the Commodity Murabaha is designed to secure full principle and profit payments arising from the debt created from the Murabaha credit sale. These financing arrangements have made it difficult to ascertain the commercial viability of true-sale Murabaha. That is, as the true-sale Murabaha can trigger a higher cost of doing business, it is expected to inflate the term charges, namely the profit rate and consequently deemed the facility less competitive to Enah, Tawaruq and conventional loans. In this way, true sale-based Murabaha is not feasible solution to replace interest-bearing loans as well as the Islamic financing instruments devoid of true-sale attributes.

While the true sale *Murabaha* is relatively more costly than *Enah*, *Tawaruq* and *Commodity Murabaha*, Islamic banks that operate under a dual-banking system should be able to identify the benefits from true sale *Murabaha*. One advantage is that banks can undertake block purchase of assets and hence enabling them to buy them below the retail price, say at 10 to 20 percent

discount. Although the profit rate charged to bank customers may be higher, the cost price can be relatively lower than those paid under *Enah*. This should make it possible for Islamic banks to offer the customers a facility with a cost of purchase that is lower than market prices. This should dilute the higher profit rate charge to the true-sale credit facilities. Likewise, under a *Musharaka* agreement the bank can also pursue a joint-venture project with say, a property developer and underwrite the property before selling them to end-users. This may require Islamic banks to explore potential businesses in the physical and financial *halal* supply chain. For this to happen, one must look at the funding issue which is examined in the final section of the paper.

Components of Islamic Profit Rate

When an Islamic financing arrangement is executed without the true-sale attribute, the bank will only charge a credit or default risk premium as it (i.e. the bank) only faces credit risk being a major risk from the exposure. In this case, the components of profit rate are as follows:

Profit rate = cost of funds + overhead expenditures + default risk premium

- a) The cost of funds constitutes the first component of bank's profit rate. This is income distributable to the depositors, namely the current, savings and investment account holders. Changes in the cost of funds from changes in the official policy rate (OPR) will be reflected to the profit rate charges. For example, a 1 percent increase in the OPR, will increase in cost of funds by 1 percent which raises the profit rate by 1 percent.
- b) Overhead expenditures explain cost of administering the bank such as covering expenses on salaries and bonuses of employees, rents and general administrative expenses of the firm. These overhead costs are imputed in the profit rate, as these banking expenses are shifted to the customers. In this way, a big bank that may benefit from scale economies is likely to charge lower profit rate than a smaller bank as the former holds lower average fixed costs.
- c) The default risk premium is the additional profit charged by the Islamic bank to the customer arising from the potential loss in the credit exposure. A customer with weak credit rating will have to pay more for the financing amount received compared with one with higher credit standing. Hence, an aggressive bank can pursue a risky financing strategy by extending an unsecured *Murabaha* facility that gives a higher profit in view of the higher default risk premium. This study will exclude cost of maintaining Statutory Liquidity ratio (SLR) and Cash Reserve ratio (CRR) as one component of the profit rate. This is due to the fact that these two components are policy tools, hence beyond the control of the banking firms to do anything substantial in determining the size of its profit rate.

Under the offering of the true-sale financing facility, bank's holding of asset ownership prior to the credit sale introduces an additional profit component to the profit equation. This additional profit is the result of taking ownership risk which is captured by the capital charges. The corresponding components of the profit-rate are as follows:

Profit rate = cost of deposits + overhead expenditures + tax charges + default risk premium + business risk premium

a) Business risk premium: this additional profit charge to the facility is a consequence of risk taken by the bank in the purchase of asset from the vendor. Value at Risk (VaR) model can be used to measure this type of risk.

b) Tax charges: the tax levied on bank's asset purchases will be treated separately from the overhead costs although it can later be added to the overall overhead expenditures. In this way the profit rate model based on the true sale-based financing is as follows:

Profit rate = f (cost of funds, overhead costs, default risk capital charge, business risk capital charge, tax charges)

Based on the above arguments, the objective of the study is to investigate the implication of offering the true sale-based financing model in relation to its impact on pricing of the financing facility with special reference to the term charges, namely the annual profit rate chargeable to the facility. This is an exploratory study as no research on this area has been conducted, thus the lack of literatures on this aspect of Islamic banking is evident.

The above model attempts to examine factors affecting the profit rate of true sale-based financing facilities. Cost of funds is indirectly affected by macro variables such as recession, inflation and monetary policies intended to maintain economic stability. Default risk is influenced by credit standing of the banking customers, collateral and tenure of the facility. The two new variables, namely business risk capital charges on trading exposures and tax expenses from the purchases of assets is a direct result of putting asset on the balance sheet of the bank, hence evidencing full ownership of the asset. Based on the above, the hypotheses of the study are as follows:

- 1) H_i : Cost of Fund has an impact on Profit rate.
- 2) H_2 : Overhead has an impact on Profit rate.
- 3) H_i : Default Risk has an impact on Profit rate.
- 4) H_{i} Capital Charge on business risk has an impact on Profit rate.
- 5) $H_{\tilde{s}}$ Tax burden or charge has an impact on Profit rate.

METHODOLOGY

The data collection method used in this study was survey questionnaire. A cross-sectional survey was conducted. In order to address the research questions and objectives, a set of questionnaires was prepared consisting of two sections, A and B. Section A consists of demographic questions to identify the respondents' background. Section B is about the five essential variables addressed in this study. The variables are profit rate, cost of fund, overhead, default risk, business capital charges and tax burden. The question items used in this study were a newly developed ones based on reviewed literature, underpinning theories and suggestions from academicians and practitioners. A close-ended 7-point Likert scale (refer to APPENDIX I) has been used in the questionnaire and employing Structural Equation Modelling (SEM) via AMOS version 22 for data analysis.

Sampling

Since this present study is closely related to Shariah Governance, in order to establish the size of survey population for this study, the Shariah Governance Framework¹ (SGF) was used as the basis in determining the survey population. SGF was developed by the Central Bank of Malaysia (BNM) in view of enhancing the role of the board, the Shariah Committee and the management in relation to Shariah matters; including enhancing the relevant key organs responsible in executing Shariah compliance and research functions aimed at the attainment of a Shariah-based operating environment. Hence, the key people who falls under the Shariah compliance and research functions are those who are attached to Shariah department (including Shariah

¹A complete document on Governance Framework can be accessed at: http://www.bnm.gov.my/index.php?ch=7&pg=1038&ac=352&bb=file1

committee members), Risk Management department, Audit department and Product Development department.

This study employed one-shot time horizon studies over the period of 2014. The sample size of the current study is 250 respondents. The composition of respondents for this study is illustrated in **Table 4**. The targeted group of respondents for this study is from executive up to managerial level at selected departments in the head office as mentioned in the previous paragraph, of each Islamic bank operating in Malaysia. All the respondents in this study are Muslims. Most of the respondents who answered the survey range between 30-40 years of age carrying 45.2 percent weightage.

This study used samples of 250 respondents which indicate a balanced proportion between male and female. In addition, the composition of occupation is seen to be fairly represented. Furthermore, having more than 5 years working experience signifies that the respondents selected in this study are considered appropriate.

Table 4: Respondent profiles

Age	Frequency	Percentage
		(%)
Below 30	80	32.0
30-40	113	45.2
41-50	49	19.6
Above 50	8	3.2
Total	250	100

Gender	Frequency	Percentage (%)
Male	122	48.8
Female	128	51.2
Total	250	100

Religion	Frequency	Percentage (%)
Muslim	250	100
Total	250	100

Occupation	Frequency	Percentage (%)
Shariah Committee Member	30	12.0
Auditors	35	14.0
Risk Managers	41	16.4
Shariah & Compliance	52	20.8
Officer		
Product Managers	34	13.6
Regulators	58	23.2
Total	250	100

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Working Duration	Frequency	Percentage
		(%)
1. years	181	72.4
>10 years	69	27.6
Total	250	100

Qualification	Frequency	Percentage
		(%)
Postgraduate	56	22.4
Degree	147	58.8
Diploma	6	2.4
Professional Certificate	41	16.4
Total	250	100

This research employs quantitative work supported by Islamic theory of profit captured from the Mejelle, which examines the inter-relationship among multivariate analysis simultaneously expressed in the Structural Equation Modelling (SEM). The software used to analyze SEM is the Analysis of Moments Structure (AMOS) version 22.0. The advantage of AMOS when compared to other software is that it can construct graphic representations of models. Five testable hypotheses were proposed as stated earlier.

RESULTS

The proposed structural model equation for this study is as follow:

$$Pr = \beta_0 + \beta_1 Cf + \beta_2 Oh + \beta_3 Tb + \beta_4 Cc + \beta_5 Dr + \varepsilon$$

Where:

Pr = Profit Rate, Cf = Cost of Fund, Oh = Overhead, Tb = Tax Burden, Cc = Capital Charges, Dr = Default Risk

 $\boldsymbol{\varepsilon} = \text{error term}$

Data analysis used in SEM was conducted in two stages. The first stage is the Measurement Model or Confirmatory Factor Analysis (CFA) and second stage is the Structural Model.

Confirmatory Factor Analysis

The Confirmatory Factor Analysis (CFA) was performed to check the reliability and validity of the instrument. Internal reliability test by Cronbach's Alpha indicated that all constructs meet the minimum requirement of above 0.7. The results are also strengthened by the validity test of convergent and construct validity. With reference to **Table 5**, values of factor loading between latent variables and their indicators as well as the scores of the composite reliability and average variance extracted are presented. It was found that all the 35 item loadings were statistically significant. On top of that scores for Construct Reliability (CR) and Average Variance Extracted indicated an acceptable result. All results for AVE are above 0.5 and CR scored above 0.6. Thus, these provide support to the reliability and validity of the instruments used in this study.

Table 5: The CFA Results Reporting for the Measurement Model

Construct	Item	Factor	Cronbach's	CR	AVE
		Loading	Alpha	(Above	(Above
			(Above 0.7)	0.6)	0.5)

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Cost of	CF1	0.752	0.912	0.906	0.661
Fund	CF2	0.844			
	CF3	0.753			
	CF4	0.833			
	CF5	0.874			
Overhead	OH1	0.794	0.909	0.910	0.669
	OH2	0.828			
	OH3	0.882			
	OH4	0.798			
	OH5	0.784			
Tax	TB1	0.872	0.945	0.946	0.660
Burden	TB2	0.837			
	TB3	0.784			
	TB4	0.844			
	TB5	0.849			
	TB6	0.789			
	TB7	0.752			
	TB8	0.714			
	TB9	0.855			
Business	CC1	0.851	0.919	0.921	0.626
risk	CC2	0.815			
Capital	CC3	0.865			
Charges	CC4	0.810			
	CC5	0.798			
	CC6	0.710			
	CC7	0.667			
Default	DR1	0.773	0.921	0.921	0.70
Risk	DR2	0.874			
	DR3	0.908			
	DR4	0.874			
	DR5	0.743			
Profit	PR2	0.619	0.786	0.918	0.694
Rate	PR3	0.622			
	PR4	0.645			
	PR5	0.785			

Apart from reliability and validity tests, test of the model fit was conducted. **Figure 1** illustrates the measurement model for study variables. An indicator that represents the discrepancy per degree of freedom measured in terms of the population, RMSEA, is one of the indicators that were used as reference in this analysis. RMSEA value in this present model is 0.071. This is below the recommended 0.08. The cut off points as suggested by Hair et al. (2006) are 0.08 and 0.07 respectively. In addition to RMSEA, other means that were used in this measurement of model fit exhibit tolerable results which signify that the model under consideration display good fits. For instance, the values of CFI show a good fit of 0.954 (Byrne, 2001). The same thing goes to other indicators – GFI and TLI, all are well loaded, parallel with suggested model fit indices by Hair et al. (2006). Thus, this explains that the model under consideration exhibit good fits.

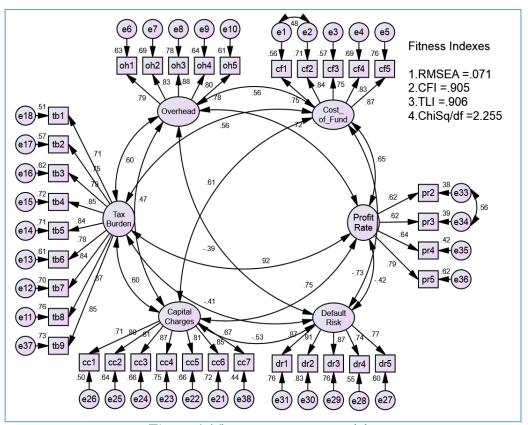


Figure 1: The Measurement Model

The second stage involves a structural equation model. A structural equation model was developed to ensure that all instruments are fit for the model in order to be used to test the hypotheses and to obtain the r² coefficient. The endogenous construct in this study is Profit Rate, whereas exogenous constructs include Cost of Fund, Overhead, Tax Burden, Business risk Capital Charges and Default Risk. Fit statistics show that the structural model in **Figure 2** exhibits an acceptable fit (i.e CFI = 0.904; TLI = 0.905; Chisq/df = 2.261). These reviews of fit statistics indices are important to test whether there is any misspecification or violations of assumptions. Parameters are fixed to specific values of either zero or one. The fixed parameters are strongly supported by literature review.

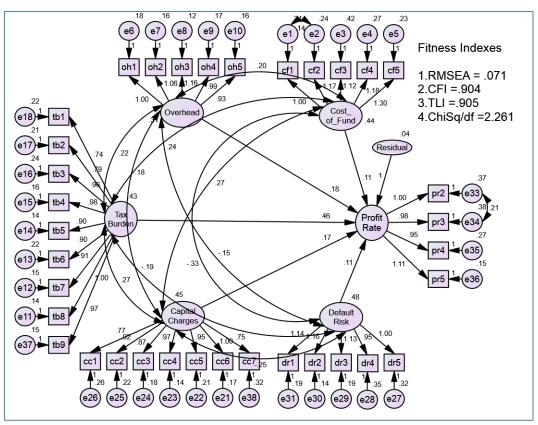


Figure 2: The Structural Equation Model

From **Figure 2**, the regression weight estimates of Cost of fund is 0.108, Overhead is 0.182, Default risk is 0.108, Capital charges is 0.175 and Tax burden is 0.465 respectively. The value of squared multiple correlation (r^2 coefficient) of the exogenous constructs toward the endogenous construct for the whole model is 0.85, indicating that the contribution of all the exogenous constructs (Cost of fund, Overhead, Default risk, Capital charges and Tax burden) in estimating endogenous construct (Profit rate) is 84 percent. This value is indicated at the endogenous construct.

According to Zainudin (2012), the value of r-squared (r^2) is the most important output in the Regression Weight for the model. From **Figure 2**, we could conclude that the model is good since it could capture 85 percent of the estimate on endogenous construct by including certain exogenous constructs in the model. At the same time, the fitness indexes all achieved the required level and the factor loading for all items were also good, being above the required 0.6.

The result of hypotheses is presented in **Table 6**. The regression weights indicate that Overhead, Tax Burden, Capital Charges and Default Risk are significantly positive related to Profit Rate. All of the hypotheses $(H_2 \ H_3 \ H_4 \ \text{and} \ H_5)$ are supported except for H_p the effects of Costs of Fund on Profit Rate.

Table 6: The Regression Path Coefficient in the Model and its Significance

Endogenous		Exogenous	Regression	Standard	Critical	P-	Result
			Weight	Error	Ratio	Value	
				(S.E)	(C.R)		
Profit rate	←	Cost of	0.108	0.067	1.627	.104	Not
		fund					significant
Profit rate	←	Overhead	0.182	0.059	3.095	.002	Significant
Profit rate	←	Tax burden	0.465	0.061	7.556	***	Significant
Profit rate	←	Capital	0.175	0.051	3.452	***	Significant
		charges					
Profit rate	←	Default risk	0.108	0.053	2.030	.042	Significant

RESULTS

Our findings suggest that an Islamic bank that drives its business based on the true sale-based financing model will not be able to provide competitive pricing alternatives relative to prevailing Islamic financing facilities despite its true-label with possible zero Shariah non-compliance risk. The two determinants of profit rate arising from the true-sale model, namely business risk capital charges and tax burden on asset purchases have evidence significant relationship with the predictor variable. It is therefore confirmed that regulatory and fiscal elements do influence the charging of profit rate in Islamic banks. On the former, the use of deposit funds to finance true-sale credit facilities will carry higher capital charges on the exposures which can add more stress of bank's capital. Banks may have less incentive into using the true-sale financing model as its current risk-appetite does not accept business risk as yet. Tax burden is also critical when a bank is considering using the true-sale model as the cost of transactions can be overwhelmingly high since the bank is expected to pay off the tax at the point of purchase. To some extent, these costs may later be shifted to the customer, but initial tax expenses should be carried by the bank and these have to be budgeted as projected overhead costs.

On the other hand, the insignificant result of hypothesis I, most probably is due to the fact that the cost of funds is a policy variable which is set by overnight policy rate (OPR) of Bank Negara Malaysia. It is a variable that is out of the control of the Islamic banks unlike overhead cost, credit and business risk premium. Hence, an increase in the OPR will increase cost of funds but these are not captured by an increase in the profit rate as profit rate is influenced by the performance of the bank as reflected in the control of overheads and assessment and measurement of credit and business risks by the bank.

The way out of these regulatory impediments to the true-sale model is to resort to the new legislation on Islamic banking in Malaysia, namely the Islamic Financial Service Act 2013 (IFSA 2013). The new law requires banks to categorize their funding sources into 1) deposit funds and 2) investment funds. Exposures using deposit funds are subject to the regulatory capital charges while those using investment funds are not. Investment funds are in essence equity funds that can behave similar to mutual funds or unit trust funds where capital and income protection are not guaranteed to investors (BNM Investment Accounts, 2014). The new law will put an end to the use of investment accounts as deposit funds which can somewhat bring possible Shariah non-compliance risk issues when these investment accounts are conceived of as deposit funds which gave depositors legal claim on the principle and earnings. It should also open up new opportunities for Islamic banks to venture into trading arrangements that could spur the halal supply chain with positive impact on real sector development. Under this new arrangement, Islamic banks that are keen to adopt the true-sale model will not be required to hold additional capital to cushion the exposures against unexpected losses as these will be carried by the investment account holders. The matching of risk-appetite of the investors and the true sale-based financing and other equity exposures can be made possible through the Islamic

Account Platform (IAP) that has received a MRY150 million development budget from the Prime Minister of Malaysia (BNM Financial Stability Report, 2014).

CONCLUSION

The charging of economic capital on the asset holding and its adverse tax treatment will have negative bearing on the pricing of the BBA facility, with special reference to the annual profit rate charged on the financing amount. This constitutes one downside of using the true sale-based financing system but on the upside, the absence of Shariah non-compliance risk in the true-sale system establishes the rationale for pursuing it. The Islamic Financial Service Act 2013 introduces many enhancements on Shariah governance one of which is the severe penalties on Shariah non-compliance such as MYR25 million fines and 8 years of imprisonment or both (IFSA, 2013). This puts Islamic banks on guard to avoid falling into non-compliance of Shariah rules in the effort to minimize contact with regulatory and fiscal requirement of true sale financing. It is on this premise that this study seeks to explore the impact of true sale-based financing on the profit rate of BBA facility by virtue of the ownership risk carried by the Islamic banks.

Business in general and trading in particular, ownership of assets gives rise to ownership risk which can invariably impact both earnings and capital under volatile situations. The ownership of asset would trigger new capital charges to accommodate the business risk the Islamic bank now carries on the balance-sheet and additional tax overheads from the purchase of the tradable assets by the bank. These variables are expected to be factored into the analysis of BBA pricing with special reference to the Islamic profit rate of BBA under the true sale financing system. Doing so will evidence the disadvantages of applying true sale-based financing with funding acquired from bank deposits as the profit rate of Islamic products will be relatively more expensive than the interest rate from conventional products. Therefore, we would like to recommend the way out of this regulatory impediment that the true sale-based Islamic financing is to be funded by investment fund rather than deposit fund as proposed by IFSA 2013. This will release the capital charges from Islamic bank where the extra capital charges can now be absorbed by the investment account holder, since IFSA 2013 requires the Islamic bank to segregate funding sources into both deposit and investment funding. When financing is funded by investment fund, the bank is no longer required to hold capital against the exposure.

For what it is worth, pursuing true sale-based financing not only meeting the compliancy to the Shariah but it is also will project better transparency when it comes to Islamic banks' financial reporting. Clearer accounting treatment on true sale-based financing can be shared with the stakeholders which could provide better understanding on the implications of ownership of assets in true sale-based financing arrangement. Even though both Islamic and conventional banks are using the same accounting standards, there are unique cases that are exclusively belong to Islamic banks that require different type of information to be provided in the annual reports (Mohd Sapian et al., 2012). Which in this case, we are referring to true sale-based financing.

The exploratory nature of this study where it identifies the 'what if' rather than the 'why is' has been tailored to accommodate the 'what if' concern when asset ownership is taken into consideration under the true sale-based Islamic financing transaction. While this study is investigating the impact of true sale model into the pricing of Islamic financing instrument in Malaysian Islamic banks, future research could be expanded further by investigating cross border Islamic banking practices in terms of the pricing of true-sale model and closer comparison can be made between Malaysian Islamic banks and Foreign Islamic banks as mentioned earlier.

Finally, it is important to note that, this study employed data in year 2014. Thus, it could be reported in a different manner if the latest years be taken into consideration. However, it is worth to revisit this study in order to find a clearer path for future research.

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APPENDIX I

Sample of 7-points Likert Scale used in the study

Section 2: Profit Rate Components Please indicate your level of agreement on the given statements. You can rate anywhere between 1 to 7. 1=Extremely Disagree to 7=Extremely Agree								
Code	Measurement item	Extremely Disagree						Extremely Agree 7
		st of Fund						
If asset ownership for true sale financing is taken into account in Islamic sale-based financing:								
C01	The cost of fund will be higher.	O 1	O 2	3	O 4	O 5	O 6	
C02	The cost of fund will be affected.	O 1	O 2	3	O 4	O 5	O 6	0 7
C03	The cost of fund will be higher due to higher expectation of return by the depositor.	0 1	O 2	3	O 4	O 5	O 6	O ₇
C04	The risk of the fund will be higher.	O 1	O 2	3	O 4	O 5	O 6	07
C05	The depositor will demand higher rate of return from the deposit due to increase in financing risk.	O 1	O 2	O 3	O 4	O 5	O 6	O ₇
		verhead	•		•		•	
If as	set ownership for true sale financi fi	ng is take nancing:	en into	accou	nt in I	slamic	sale-l	oased
ОН01	The overhead cost will be higher.	O1	O 2	O 3	O 4	O 5	O 6	O ₇
ОН02	The cost of inventory will increase.	O 1	O 2	3	O 4	O 5	O 6	O ₇
ОН03	The overhead cost will be absorbed by the bank.	O 1	O 2	3	O 4	O 5	O 6	O 7
ОН04	The overhead cost allocation will increase.	O 1	O 2	<u>3</u>	O 4	O 5	O 6	0 7
ОН05	The Security expenditure for warehouse would increase	O 1	O 2	3	O 4	O 5	0 6	07

Default Risk								
If asset ownership for true sale financing is taken into account in Islamic sale-based financing:								
DR01	The bank is exposed to default risk.	O 1	O 2	3	O 4	O 5	O 6	O ₇
DR02	There will be changes in the exposure of default risk.	O 1	O 2	3	O 4	O 5	O 6	0 7
DR03	Default risk exposure will be higher.	O 1	O 2	3	O 4	O 5	O 6	0 7
DR04	Default risk is carried by the customer.	O1	O 2	O 3	O 4	O 5	O 6	0 7
DR05	Default risk will be reflected in profit rate.	O 1	O 2	3	O 4	O 5	O 6	0 7
	Та	x burden]	I	I	I	I	
If asset ownership for true sale financing is taken into account in Islamic sale-based								
TX01	The tax charges on sale of asset will	nancing:						
	be borne by the customer.	O1	O 2	○3	O 4	O 5	○ 6	 7
TX02	The tax charges on sale of asset will be borne by the bank.	O1	O 2	3	O 4	O 5	O 6	O ₇
TX03	All sales and purchases are liable to taxation.	O1	O 2	3	O 4	O 5	O 6	O 7
TX04	Bank as the purchaser of asset has a tax obligation to the government.	O1	O 2	3	O 4	O 5	O 6	O ₇
TX05	Tax will be charged on mortgage financing.	O1	O 2	O 3	O 4	O 5	O 6	O 7
TX06	Tax will be charged on hire purchase financing.	O1	O 2	O 3	O 4	O 5	O 6	O 7
TX07	Tax will be imputed in profit rate calculation.	O1	O 2	O 3	O 4	O 5	O 6	O 7
TX08	The service tax will increase.	O 1	O 2	3	O 4	O 5	O 6	O ₇
TX09	The stamp duty will increase.	O 1	O 2	3	O 4	O 5	O 6	O ₇
Capital Charges								
If asset ownership for true sale financing is taken into account in Islamic sale-based financing:								
CC01	The capital charges will be higher.	O1	O 2	3	O 4	O 5	O 6	0 7
CC02	The bank is required to hold more capital.	O 1	O 2	3	O 4	O 5	O 6	0 7
CC03	The bank is required to make capital allocation for Business risk.	O 1	O 2	O 3	O 4	O 5	O 6	O ₇

CC04	Capital allocation will make the Islamic credit financing more pricy.	O 1	<u></u>	O 3	O 4	<u></u> 5	O 6	0 7
CC05	The capital allocation will put stress on bank's capital.	O 1	O 2	3	O 4	O 5	O 6	0 7
CC06	The adoption of Profit Sharing Investment Account (PSIA) would make true sale financing more viable.	O 1	O 2	3	O 4	O 5	O 6	0 7
CC07	The Profit Sharing Investment Account (PSIA) is used to finance true sale product which put less stress on capital.	O 1	O 2	O 3	O 4	O 5	O 6	0 7
Section 3: Profit Rate Please indicate your level of agreement on the following statements based on your understanding on the profit rate determination. The rating is from 1=Extremely Disagree to 7=Extremely Agree								
Code	Measurement item	Extremely Disagree 1						Extremely Agree 7
	set ownership for true sale financi		en into	accou	int in I	slamic	: sale-ł	
	set ownership for true sale financi fi The profit rate will be affected.	ng is take	en into	o accou	ont in I	slamic O5	sale-t	
If as	set ownership for true sale financi fi	ng is take nancing:						pased
If as	set ownership for true sale financi fi The profit rate will be affected.	ng is take nancing:	O 2	3	O 4	O 5	O6	oased
PR01	The profit rate will be affected. The profit rate will be higher. Higher profit rate will make the Islamic credit financing more	ng is take nancing:	○2 ○2	○3 ○3	○ 4	○ 5	○6 ○6	~ 7 ~ 7

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