

BUSINESS ANALYSIS IN CONVERSION OF REGIONAL DEVELOPMENT BANK INTO SHARIA BANKING: CASE STUDY IN NTB PROVINCE, INDONESIA

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Abstract

This paper aims to formulate strategy to strengthen Regional Development Bank in Indonesia (Bank NTB) and analyze the impact of the strategy using Business valuation method. A Quantitative strategic Planning Matrix (QSPM) is conducted to formulate proper strategy according to Bank NTB's Internal Factor Environment (IFE), External Factors Environment (EFE), and competitive profile Matrix. A Dividend discounted model (DDM) model is also used to assess the effect of Bank NTB business conversion value by comparing the difference from its existing business value in conventional bank. We also include the risk of uncertainty probability return on asset (ROA) both in conventional and sharia based business using combined DDM-Monte Carlo simulations (MCS) that used to estimate the impact of the risk (volatility) of ROA to the Bank NTB Business Value. The results revealed that using QSPM - the best strategy for Bank NTB - is to convert business it business to Sharia based bank. Moreover using business valuation method, Bank NTB with Sharia based business will generate greater value than existing Bank NTB's conventional core business.

Keywords: Business valuation, Regional development bank, Islamic Bank, Bank Conversion, Monte Carlo simulation

INTRODUCTION

Indonesia is the 4th largest country and most of its populations are Muslims. As a country with highest Muslims, the Islamic based economy also has a significant portion in the country's public choice. To the end of 2015, Indonesia Islamic finance asset ranks at 9th position among countries that operates Islamic based business (Thomson and routers, 2016). Saudi Arabia and Iran have the largest Islamic finance asset since their country's ideologies are Islam even differ in sect (sunni and shi'a). Malaysia moreover became the 3rd largest bank with extraordinary growth of Islamic finance performers according to Thomson and routers, (2016), research which based on country's quantitative development, knowledge, government, CSR and awareness, whereas Indonesia ranks at 10th position.

Indonesia Islamic finance is divided into five categories, sukuk (bonds), takaful (insurance), Islamic Banking, Islamic funds/financing, and other Islamic finance instruments. Sukuk are the most popular instrument used in Indonesia while other top 10 countries assets are grown more in Islamic banking instrument (Thomson and routers, 2016).

Islamic banks in Indonesia were grown slowly under 5% before 2016 and then start to grew up after the full flagged conversion of Regional Development Bank (RDB) Aceh to 5, 71% on Islamic market share. Even the conversion results in the declining of Bank Aceh profitability due to the unrecognizing of conventional interest income after the conversion.

Before the conversion of Bank Aceh, several sharia banks in Indonesia are previously converted from the conventional bank. Some of those banks, in the beginning of conversion generated positive trends on their financial performance, and the other experienced the negative trends.

Bank Panin Sharia, Bank Mega Sharia, and Maybank Sharia are the examples of the bank that experienced negative trends in their financial performance (ROA and ROE). In the contrary, Bank Victoria and BRI experienced positive trends in the beginning of their conversion.

In the end of 2016, Bank NTB as a Regional Development Bank owned by the local government in NTB Province decided to follow the mentioned banks by convert it business into Islamic bank. Bank NTB recently operated in conventional bank and provided Islamic Windows Bank/ business unit. This conversion is expected to be completed by August 2018.

Shafii et al. (2016) states that the motivation of conversion varies from bank to bank and from country to country depending on the situation of the State. But in general, almost all research reveals that religion is the main and most significant factor affecting conventional banks to convert to Islamic banking system. Referring to the research, Bank NTB policy came out with a reason that the majority of the population of NTB is Muslim.

The process of conversion requires consideration in both the comprehensive review of the conversion and the performance of the bank during the conversion period. This conversion process should consider the element of business projection both during and after the conversion period in order to make a positive impact on the growth of the company and generate an optimal contribution for the local government through the return of local financial assets investment. Business valuation in this case is a very important aspect in strategic decision making by stakeholder.

This study aims to conduct strategy formulation and business evaluation on the conversion of NTB bank system in the NTB province. More specifically, this study will answer the following :

[1] Are the conversion process has considered the strategy formulation?

[2] What is the business value of conversion using Dividend Discounted Model?

[3] What is the business value of conversion using Monte Carlo simulation to include the risk element of ROA volatility based on the mean and standard deviation of historical data on sharia banking loans allocation in NTB?

LITERATURE REVIEW

Conventional vs. Islamic Banks

Imam and Kpodar (2016), classified conventional banks as banks in practice provide loans based on the value of collateral. While the characteristics of risk sharing in Islamic banking is defined by agreement between the borrower and the bank to divide the investment risk based on an agreement and divide any profit or loss between them, without providing payment guarantee. They also found that Islamic banking, which is one of the fastest growing segments in global finance, has a unique feature that is particularly suited to developing countries and almost closely related to the real economy than conventional.

Hutapea and Kasri (2010), in their research on commercial banks and Islamic in Indonesia stated that Islamic banking margins are responsive to market interest rate volatility. This indicates the existence of market interest rate stability is a big concern in developing Islamic banking industry. This result is in line with Trad et al. (2017) who have found that the macroeconomic variables, except for inflation, are external indicators that favor the stability of Islamic Banks.

Louati and Boujelbene (2015), on their research explain that the spectacular growth of Islamic finance in the last few decades is due to several factors, especially the rise in oil prices

and the proportion of Muslims in the population. She also found that in some studies, Islamic banks appear as complementary not a substitute for conventional banks.

Furthermore Louati and Boujelbene (2015) in their research stated that increasing in the size of Islamic banks can contribute to the strength and stability of the banking system as a whole. This opinion is supported by Zarrouk et al. (2016), argued that there are many reasons that may explain the fact of higher capitalization drives profitability. First, Islamic banks with high profit and loss sharing capitalization ratios provide tight and wise loans. Second, Islamic banks with a healthy capital position are able to pursue more effective business opportunities and achieve increased profitability. Moreover Sudarsono (2009), found that Islamic banking system is more stable than conventional bank in facing global financial crisis. He also found that financial performance of Islamic banking compared to conventional bank has more consistent and efficient conditions.

Mahmood (2005) in Hamid and Azmi (2011), with a case study on banks in Pakistan, compared the financial performance of Islamic banking to conventional. He found that, almost in all ratios, Islamic banks were superior to conventional banks during 2000 to 2004. The result was in line with Olson and Zoubi, (2008), Bitar et al. (2017), who found on their research that Islamic bank will have some characteristics such as higher capital, liquidity, and profitability.

Conversion Motives

Zoub (2008) in Zaki and Hussainey (2015), investigates the most important motives behind the conversion process. He found that conventional banks convert to Islamic banks to: (1) retain their customers; (2) for believing in the prohibition of riba; (3) competence to attract customers of Islamic products and (4) to imitate success in Islamic banking and achieve higher returns.

Conversion Forms

Mostufa (2006) in Zaki and Hussainey (2015), divided the conversion forms as follows.

- 1) The full conversion: In this case the conventional banks are converted into to Islamic banks. This might be caused because of a legal conversion of a country (such as Iran, Pakistan and Sudan) or because of the decision of the conventional banks to be full-fledged Islamic banks.
- 2) The other way is the micro conversion which takes many shapes such as (1) establishing an Islamic window in the conventional bank; (2) providing some Islamic products, instruments or investment funds and (3) converting a branch or more of conventional banks into Islamic branches.

RESEARCH METHODOLOGY

Research Design

This paper used two managerial approaches to formulate the best strategies in order to strengthen the regional development Bank Nusa Tenggara Barat, Indonesia. First is strategy formulation method using Quantitative Strategic Planning Matrix (QSPM) and second is business Valuation method using Dividend Discounted model. Moreover, to include the risk of loan growth uncertainty, we combine DDM with Monte Carlo Simulation that generated numbers of pseudo random probability based on firm's Return on Asset (ROA) historical performance.

Strategy Formulation

Strategy formulation according to David (2011) is a part of strategic management refers to developing a vision and mission, identifying an organization's external opportunities and threats, determining internal strengths and weaknesses, establishing long-term objectives, generating alternative strategies, and choosing particular strategies to pursue. Strategy formulation is divided into three stages. First is input Stage. In this stage, we analyze the environmental factor of the firm. David (2011) divided the factors into Internal Factor Environment (IFE), External Factor Environment (EFE) and Competitive Profile Matrix (CPM). IFE is related to the strength and weakness in organization and consisted of its structure, culture and resources. The resources can be analyzed in company's business function such as business operation, human resources management, finance, marketing and technology.

EFE especially the societal environment/macro factors is mankind's social system that includes general forces that do not directly touch on the short-run activities of the organization, but that can influence its long-term decisions (Wheelen, 2014). This environment can be analyzed by using PEST analysis which is an acronym of Politic-Law, Economy, Socio-cultural and technological factors. To formulate the environmental factors into alternatives, several matrix are used such as TOWS Matrix, IE Matrix, and Grand Strategy Matrix. TOWS matrix are examined the IFE and EFE and evaluated them using approach proposed by (Vaněk et al. 2012) which score each variable with (-2) to 2 according to degree of their relationship. The second Matrix is IE Matrix which scores the IFE and EFE according to its influence to company with 4 (very strong), 3 (strong) on Strength and Opportunity and 2 (strong), 1 (very strong) on weakness and Threat (Ommani, 2011). The last is grand strategy matrix with map the competitive position and market growth and divide the market profile into four quadrant with each alternatives provided. While CPM is the competitive position of firm among its rivals in the

industry that in this study are based on the profitability profile (ROA) , efficiency profile (BOPO) and credit risk profile (NPL) of Bank NTB competitors based on availability of data.

After executing matching stage by defining alternatives from each matrix, the proposed alternatives are be discussed and added to the list of feasible alternative options to be decided using QSP Matrix. The QSPM is a tool that allows strategists to evaluate alternative strategies objectively, based on previously identified external and internal critical success factors. Like other strategy-formulation analytical tools, the QSPM requires good intuitive judgment (David, 2011).

QSP Matrix consist of strategic alternatives, key factors (IFE and EFE), weights, attractiveness scores, total attractiveness scores, and the sum total attractiveness score. The attractiveness scores range from 1 (not attractive), 2 (somewhat attractive), 3 (reasonably attractive), and 4 (highly attractive). In This research, we used modification on QSPM scoring using Ommani (2011) approach with 4 (highly attractive), 3 (attractive) on Strength and Opportunity and 2 (attractive), 1 (highly attractive) on weakness and Threat (Ommani, 2011).

The Sum Total Attractiveness Scores (STAS) reveal which strategy is most attractive in each set of alternatives. Higher scores indicate more attractive strategies, considering all the relevant external and internal factors that could affect the strategic decisions. The magnitude of the difference between the Sum Total Attractiveness Scores in a given set of strategic alternatives indicates the relative desirability of one strategy over another (David, 2011).

Business Valuation

In valuing the firm under different strategy that formulated using QSP Matrix, we used the income approach. The use of income approach is based on its characteristic that present valuing the future economic benefit of the business. The characteristic is in line with potential economic benefit in different type of business generated from the QSPM analysis. This approach can be applied by using free cash flow (FCF). The FCF models are divided into free cash flow to firm and free cash flow to equity (FCFE). The usage of the models are depends on the firms valued and the purpose of the valuation. For the Financial Firm especially Banks or insurance companies the model used equity valuation by FCFE model (Damodaran, 2009). This model is used based on the difference of financial firm capitals structure. In Financial firms, debts are not simply defined as capital. It more narrowly defined as the banks raw materials that molded into other financial product and can be sold in higher price and yield a profit (Damodaran, 2009).

Although the principles behind discounted cash flow valuation are simple, applying the theory to equity valuation can be challenging. Four broad steps in applying DCF analysis to equity valuation according to Pinto et al. (2010) are:

- 1) Choosing the class of DCF model equivalently, selecting a specific definition of cash flow
- 2) Forecasting the cash flows.
- 3) Choosing a discount rate methodology.
- 4) Estimating the discount rate.

The cash flows of the financial firm using the FCFE are not simply determined. It needs the information that not usually provided or calculated by the firm. The information needed on FCFE model is based on this equation (1):

$$FCFE = \text{Net Income (-) Net Capital Expenditure(-) Change in Net Working Capital (1)}$$

The equation required Net Capital expenditure and working capital information. This two information are usually not determined or provided in the financial statement of the firm because the nature of the business are neither majorly investing in physical asset (Capital expenditure) nor current assets and liabilities (the working capital) but in human (intangible assets) and regulatory capitals. Damodaran (2009), suggest the Dividend cash model as an alternative to substitutes the free cash flow equity allocated to the shareholders. The Equity Value measured by Dividend Model is calculated by this equation (2):

$$EV = \sum_{t=1}^n \frac{D(1+g)}{(1+Ke)^t} + \dots + \frac{TV}{(1+Ke)^n} \quad (2)$$

This model required two variables, dividend growth (g) and discount rate (ke). The number of growth depends on the stages used in the cash flow projection. In this paper, we used two stages dividend growth model that consist of high growth period in year projection and sustain growth in terminal value. The high growth in Pinto et al. (2010) are calculated using the fundamental growth equation, as follows:

$$g = b \times ROE \text{ or} \\ g = b \times ROA \times EM \quad (3)$$

Since the Islamic Windows Banking didn't have equity on their balance but liabilities on parents, the ROE of the banks can be acquired using multiplication of ROA and parents equity multiplier (EM). Moreover, the sustain growth in terminal value is calculated by the average of GDP growth in Indonesia.

The second step of valuing equity is defines discount rate. The discount rate can be interpreted as the required return of the shareholders where it minimally defined as cost of capital to run the business. in the equity valuation, the cost of equity are used to discount the future cash flow projected at the rate that can be determined by the Capital Asset Pricing Model equation as follows:

$$K_e = R_f + (R_m - R_f) \times \beta \quad (4)$$

Where, R_f is risk free rate determined by Indonesia government bond (SUN) mature more than 10 years, $R_m - R_f$ is Risk Premium which in this paper using country risk premium published by Damodaran (2017) on his web pages, and β is the asset's beta that measures its market or systematic risk, which in the theory is the sensitivity of its returns to the returns on the market portfolio of risky assets. Concretely, beta equals the covariance of returns with the returns on the market portfolio divided by the market portfolio's variance of Returns. Since the Regional Development Bank (RDB) sampled are non-public company. There are procedures to calculate their betas which are difference in financial leverage to public company as the benchmark. First, according to Pinto et al. (2010), the benchmark beta is unlevered to estimate the beta of the benchmark's assets reflecting just the systematic risk arising from the economics of the industry then the re-levered to reflect the financial leverage of the Regional Development Banks (RDB). The Sample's benchmarks of the firm are Bank Jawa Timur. Tbk (BJTM), Bank Banten Tbk. (BJBR), Bank Panin Dubai Islamic Tbk. BJTM and BJBR are selected as part of Indonesia Regional development bank and Bank Panin is selected as one of the listed Islamic bank in Indonesia.

RESULTS AND DISCUSSION

Strategy Formulation

As mentioned previously, the strategies are formulated in three stages, input stage, matching stage and decision stage. Input Stage analyzed the internal (IFE) and external (EFE) environment factors of Bank NTB that summarized in Table 1. The internal factors are extracted from the Bank's business function that became its key strength and weakness to exploit the external opportunity and to defend from the external threat (EFE). This EFE are gathered from the PEST factor's variables suggested by Wheleen (2015). After analyzed the IFE and EFE, we profiled the competition on the industry especially among government's conventional banks in NTB in Table 2 and among another Regional Development Banks in Indonesia in Table 3 based on data's availability.

Table 1. Internal (IFE) and External (EFE) Environment Factors of Bank NTB

| | Factors | Key | Sources |
|--------------------|--------------------|--|---|
| Strength | Operational | local brand, market leader, TOP BPD and Sharia business unit (SBU) | AR Bank NTB (2016) |
| | Marketing | high conventional promo. budget, MOU with local Gov. to managed local saving | AR Bank NTB (2016) |
| | HRM | TOP CEO & masters (governor) awards, good local awreness | AR Bank NTB (2016) |
| | Finance | Local gov. money, low BOPO and NPL, high loan growth | AR Bank NTB (2016) |
| | Technology | Mobile Banking facility | AR Bank NTB (2016) |
| Weakness | Operational | saving, deposit grow slowly, less variation product in sharia windows | AR Bank NTB (2016) |
| | Marketing | low budget in sharia promo ,limited Non local Gov. agency featured product | AR Bank NTB (2016) |
| | HRM | SBU employee limited (not priority) | AR Bank NTB (2016) |
| | Finance | high reliance on local gov. money, low fee based income | AR Bank NTB (2016) |
| | Technology | Limited office and ATM | AR Bank NTB (2016) |
| | Factors | Key | Sources |
| Opportunity | Politic-Law | Increasing local. Gov budget, establishment of BPKH and KNKS | AR Bank NTB (2016),UU 34 (2014), Perpres 91 (2016) |
| | Economy | NTB Eco. growth 5,82%, Halal ourism,Nasional Tourism priority,growth sharia loans NTB 14,99% | BPS NTB 2016, SPS 2016 |
| | Social | 96% Muslim, Islamic school basis(NW), the figure of (the honored teaher)'Tuan Guru' | NTB dalam angka(2016), Oktara (2015) |
| | Technology | EDC potential and sharia credit card | AR Bank NTB |
| Threat | Politic-Law | Gov. election 2018,Regulation of Local gov. money placement | AR Bank NTB |
| | Economy | BOPO of national sharia banking is inefficient, NPLof other sharia bank (BJB sharia) 17% (juni,16) | SPS 2016, KEKR NTB 2016, Sharia Finance Outlook 2017(Karim Business Consulting) |
| | Social | Inclusion rate (63,27%) < national ,financial literacy ranked at 35 on 36 province, poverty 16,07% | Literacy and Inclusion Survey OJK 2016, NTB in Statistic (2016) |
| | Technology | Fin-tech as bank's competitor | PWC Indonesia Press Release No.83 (2016) |

Table 2. Growth of financial performance on selected Central Government banks

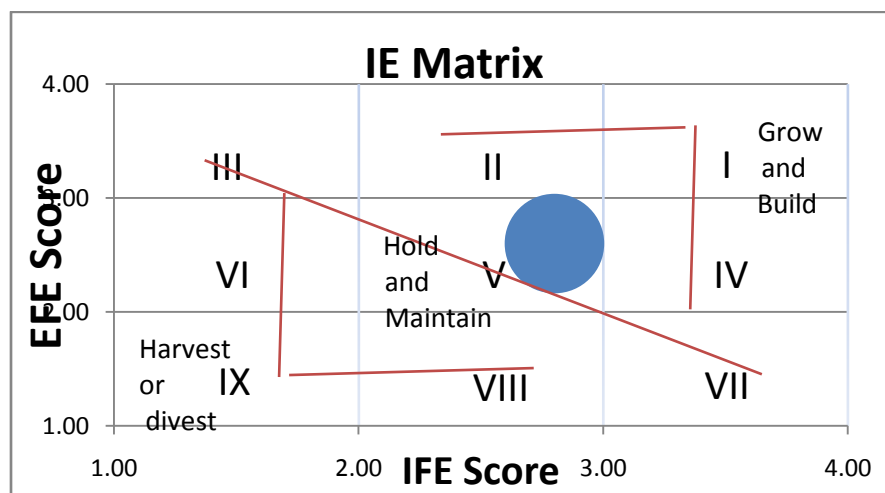
| Bank | ROA | CIR | NPL | Sales (Loan) growth | Revenue growth | Net income growth |
|---------|------|-------|------|------------------------|-------------------|----------------------|
| BNI | 1,89 | 71,00 | 2,84 | 19,90 | 18,63 | 24,83 |
| Mandiri | 1,41 | 83,05 | 4,00 | 10,06 | 7,18 | -30,74 |
| BRI | 2,61 | 68,93 | 2,03 | 13,50 | 7,68 | 3,22 |
| BTN | 1,22 | 82,48 | 2,84 | 18,55 | 14,25 | 41,49 |
| BNTB | 3,95 | 68,69 | 1,2 | 10,63 | 8,19 | 1,33 |

Table 3. Growth of financial performance on selected Regional Government banks

| Bank | ROA | CIR | NPL | Sales (Loan) growth | Revenue growth | Net income growth |
|------------|------|--------|------|------------------------|-------------------|----------------------|
| BPD Kalbar | 2.22 | 72.80 | 0.70 | 7.98 | -1.38 | 4.20 |
| BPD NTB | 3,95 | 68,69 | 1,2 | 10,63 | 8,19 | 1,33 |
| BPD DIY | 2.17 | 70.15 | 5.35 | 6.84 | 6.22 | 12.55 |
| BPD Jambi | 2.24 | 71.89 | 8.46 | 10.69 | -6.51 | 27.05 |
| BPD Kalsel | 1.80 | 131.33 | 3.40 | 7.43 | -21.42 | 24.38 |

We then matched the IFE, EFE and CPM items into formulated matrix such as Internal-External Matrix, TOWS Matrix, and Grand Strategy Matrix. Each Matrix divided into quadrants with provided alternative strategies according to company profile described in the Input stages. The first matching matrix used is IE matrix, using the weighting of IFE and EFE score, we defined the position of Bank NTB Internal and external environment and matched it with the alternative provided in each quadrant as showed in Figure 1

Figure 1. Internal External (IE) Matrix.



Based on the matrix, the Bank NTB position on IE matrix is in Quadrant V with the score 2,8 on IFE and 2,6 on EFE. According to David (2011) the alternative strategy for this position is grow and build which suggest company to use the strategies such as backward, forward, or horizontal integration, market penetration, market development, or product development. The second matrix used is Grand Strategy Matrix. This matrix is based on the input in the CPM. We chose four bank to compare with Bank NTB, they are BNI, BRI, BMRI, and BTN. We chose those bank based on their share on national level are the largest in the industry.

Figure 2. Grand Strategy Matrix among government bank in NTB.



According to the matrix in Figure 2, Bank NTB position among the competitors and the growth of industry is in the Quadrant I with loans growth (sales) above 5 % and ROA 4, 37%. The position suggest Bank NTB some strategy such as backward, forward, or horizontal integration, market penetration, market development, or product development and also related diversification.

The last matrix we used is TOWS matrix. Both TOWS and IE matrixes are used IFE and EFE but in the TOWS has different analysis model. It combines the IFE and EFE factors according to their strength, weakness, opportunity and threat. It builds strategies in each of combination (SO, WO, ST, and WT). The combination chose in this paper use model developed by Vaněk et al. (2012) that chose the highest shows that the S-O strategy is the most feasible to adopt by Bank NTB (see Table 4). This S-O strategy is conduct market penetration on sharia market to exploit the opportunity of political, economy, social , and technological sharia supporting situation in Indonesia especially in NTB province that scores 23.

Table 3. TOWS Matrix

| Factors | | Opportunity | | | | Threat | | | |
|-----------------|--------------------|--|------------|---------------|-------------|--------------------|------------|---------------|-------------|
| | | Politic-Law | Eco | Social | Tech | Politic-Law | Eco | Social | Tech |
| Strength | Operational | 2* | 2* | 2* | 1 | -2 | -1 | -1 | -1 |
| | Marketing | 2* | 2* | 1 | 0 | -2 | -1 | -1 | 0 |
| | HRM | 1 | 1 | 2* | 0 | -2 | -1 | -1 | 0 |
| | Finance | 2* | 2* | 1 | 0 | -2 | -2 | -2 | -1 |
| | Technology | 0 | 0 | 0 | 2* | -1 | 0 | 0 | 0 |
| | | S-O 23 (strategy choice) -> | | | | | | | |
| Total | | market penetration on Sharia market | | | | -21 | | | |
| Weakness | Operational | -2 | -2 | -2 | 0 | -1 | -1 | -2 | -1 |
| | Marketing | -1 | -1 | -1 | 0 | -2 | 0 | -1 | -1 |
| | HRM | 0 | 0 | -2 | 0 | -1 | 0 | 0 | 0 |
| | Finance | -2 | -2 | - | 0 | -2 | -1 | -1 | -1 |
| | Technology | -1 | 1 | 0 | -1 | -1 | 0 | -1 | -2 |
| Total | | -18 | | | | -19 | | | |

According to all the matching matrixes, the three Matrix suggest the same/related alternative, the strategies formulated for Bank NTB are (1) market penetration with existing product (conventional which open sharia business window/unit) or (2) market penetration with conversion and focus only in sharia banking.

To decide the appropriate alternative for Bank NTB, the QSP Matrix was conducted with two alternative strategies in Table 5. According to the result, the second strategy (conversion) almost generates the same value to the first one (conventional). It caused by the sharia banking that externally more attractive than the existing market but has more weaknesses to reach the opportunities. The conversion strategy scores at 5.45 while the other strategy scores at 5.4. The scores convey that Bank NTB may execute conversion strategy by strengthen the business function of sharia banking especially in Marketing and Human Resources Development.

Table 5. Quantitative Strategic Planning Matrix (QSPM)

| QSPM Matrix | | | Market penetration with existing product and sharia business unit | | | Market penetration with conversion to sharia banking | | |
|--------------|-------------|--|---|-------------|-------------|--|-------|------|
| Factors | key | Weight | Score (1-4) | Total | Weight | Score (1-4) | Total | |
| Opportunity | Politic-Law | Increasing local Gov budget ,establishment of Board of haji financial agency (BPKH),National comitee of Sharia Finance(KNKS) | 20,0% | 4 | 0,8 | 20,0% | 4 | 0,8 |
| | Economy | NTB Eco. growth 5,82%, Halal Tourism,Nasional Tourism priority,growth sharia loans NTB 14,99% | 20,0% | 3 | 0,6 | 20,0% | 4 | 0,8 |
| | Social | 96% Muslim, Islamic school basis(NW), the figure of (the honored teacher)'Tuan Guru' | 20,0% | 3 | 0,6 | 20,0% | 4 | 0,8 |
| | Technology | EDC potential and sharia credit card | 5,0% | 3 | 0,15 | 5,0% | 3 | 0,15 |
| | Politic-Law | Gov. election 2018,Regulation of Local gov. money placement | 15,0% | 1 | 0,15 | 15,0% | 1 | 0,15 |
| Threat | Economy | BOPO of national sharia banking is inefficient, NPL of other sharia bank (BIB sharia) 17% (juni,16) | 5,0% | 2 | 0,1 | 5,0% | 1 | 0,05 |
| | Social | Inclusion rate (63,27%) < national ,financial literacy ranked at 35 on 36 province, poverty 16,07% | 10,0% | 1 | 0,1 | 10,0% | 1 | 0,1 |
| | Technology | Fin-tech as bank's competitor | 5,0% | 2 | 0,1 | 5,0% | 2 | 0,1 |
| | | | 100,0% | 2,60 | 100,0% | 2,95 | | |
| Strength | Operasional | local brand, market leader, TOP BPD and Sharia business unit (SBU) | 15,0% | 4 | 0,6 | 15,0% | 4 | 0,6 |
| | Marketing | conventional & SBU promo. budget, MDU with local Gov. | 5,0% | 4 | 0,2 | 5,0% | 3* | 0,15 |
| | HRM | TOP CEO & masters (governor) awards | 20,0% | 4 | 0,8 | 20,0% | 3* | 0,6 |
| | Finance | Local gov. money, low BOPO and NPL, high loan growth | 10,0% | 4 | 0,4 | 10,0% | 4 | 0,4 |
| | Technology | Mobile Banking | 5,0% | 3 | 0,15 | 5,0% | 3 | 0,15 |
| Weakness | Operasional | saving, deposit grow slowly, less variation product SBU | 10,0% | 1 | 0,1 | 10,0% | 2 | 0,2 |
| | Marketing | sharia promo.(low budget),limited Non local Gov. agency featured product | 10,0% | 2 | 0,2 | 10,0% | 1* | 0,1 |
| | HRM | SBU employee limited (not priority) | 5,0% | 2 | 0,1 | 5,0% | 1* | 0,05 |
| | Finance | To rely on local gov. money, low fee based income | 15,0% | 1 | 0,15 | 15,0% | 1 | 0,15 |
| | Technology | Limited office and ATM | 5,0% | 2 | 0,1 | 5,0% | 2 | 0,1 |
| | | | 100,0% | 2,80 | 100,0% | 2,50 | | |
| Total | | | | 5,40 | 5,41 | | | |

Business Conversion Valuation

The cash flows projections in this paper are based on assumption of Bank NTB Conventional and Sharia dividend growth elements as shown in Table 6 as follows:

Table 6. dividend growth elements

| <i>Indicator</i> | <i>Sharia</i> | <i>Conven</i> |
|--------------------|---------------|---------------|
| <i>St. dev ROA</i> | 0,71% | 0,44% |
| <i>ROA</i> | 3,53% | 3,60% |
| <i>EM</i> | 6,38 | 6,38 |
| <i>1-DPR</i> | 70,00% | 70,00% |
| <i>Growth</i> | 15,75% | 16,07% |

It showed that historically Bank NTB's ROA is greater than its Sharia Windows's ROA but has smaller standard deviation on it. Besides using Dividend discounted model (DDM), we also combined the DDM with Monte Carlo Simulation (MCS) both in calculation the first and second strategies. The model results the different business value as shown in Table 7 below:

Table 7. Calculation of Bank NTB business value with DDM (in millions)

| | Base | 2017 | 2018 | 2019 | 2020 | 2021 | TV |
|----------------------------|---------|-----------|---------|---------|---------|---------|-----------|
| Sharia | 132.835 | 153.768 | 178.000 | 206.050 | 238.521 | 276.109 | 319.620 |
| Conven | 132.835 | 154.183 | 178.962 | 207.724 | 241.107 | 279.856 | 324.832 |
| PV Sharia (K_e :17.65%) | | 130.700 | 128.598 | 126.531 | 124.497 | 122.495 | 1.403.955 |
| PV Conven(K_e :21.56%) | | 126.837 | 121.110 | 115.641 | 110.420 | 105.434 | 1.211.670 |
| Nilai Bisnis Sharia | | 2.036.779 | | | | | |
| Nilai Bisnis Conven | | 1.791.114 | | | | | |
| Nilai Conversion | | | | | | | 245.665 |

Using the same steps in calculation, DDM-MCS combination method provides better perspective as it can categorizes the business value into pessimistic, moderate, and optimistic scenarios in Table 8. The result revealed that in any scenario Bank NTB sharia performs better business value than the conventional. This potential success may be related to Bank NTB internal financial performance. In summary, the conversion value both in DDM and DDM-MCS Combined model are presented in Table 9.

Table 8. Calculation of Bank NTB business value with DDM-MCS combination

| Scenario | ROA range | | | | | | Probability | | Business Value | |
|-------------------|------------------|---------|--------------|---------|---------------|--------------|--------------------|--------------|-----------------------|--|
| | Sharia | | Conv. | | Sharia | Conv. | Sharia | Conv. | | |
| <i>Pessimist</i> | 1.00% | - 2.85% | 1.98% | - 3.18% | 15.20% | 17.70% | 1,581,023 | 1,515,166 | | |
| <i>Moderate</i> | 2.85% | 4.27% | 3.18% | - 4.06% | 72.00% | 68.40% | 2,044,099 | 1,791,221 | | |
| <i>Optimistic</i> | 4.27% | - 5.65% | 4.06% | - 5.01% | 12.80% | 13.90% | 2,610,975 | 212,387 | | |
| <i>Average</i> | | | | | 100% | 100% | 2,057,806 | 1,793,804 | | |

Table 9. Summary of Business Conversion Value

| <i>Valuation Models</i> | | | |
|-------------------------|------------|----------------|----------------|
| <i>Business type</i> | <i>DDM</i> | <i>DDM-MCS</i> | <i>Average</i> |
| <i>Sharia</i> | 2,036,779 | 2,057,805 | 2.321.419 |
| <i>Conventional</i> | 1,791,114 | 1,793,804 | 2.268.607 |
| <i>Conversion Value</i> | 245,664 | 202.800 | 52.812 |

CONCLUSION AND RECOMMENDATION

This Study concludes that the conversion of Bank NTB into sharia Banking considering the strategy formulation technique will maximize the equity value of shareholders. The result in this study also found that the business value of Bank NTB after conversion both based on DDM and combined DDM-MCS are greater than existing Bank NTB's business value under conventional banking system. It is caused by the return (ROA) of sharia banking are moving rapidly than the conventional although, the profit sharing equivalent rate and murabaha margin determined are below the interest margin set by the conventional bank. The positive conversion value is also determined by the lower cost of equity that related to the lower beta of comparative listing bank even though risk free rate in sharia banks (Islamic government bonds) are more than conventional bonds.

In order to exploits and penetrates the sharia market in NTB, Bank NTB should: (1) increasing the access of funds for the community either in the form of financing through massive marketing especially for the tourism since NTB is one of Indonesia national priorities as tourism destinations; (2) developing working capital and investment through mudharaba and musharaka mechanisms for business entities, especially for SMEs in NTB by rigorous selection and continuous monitoring and assistance to generate optimum return and profit sharing. (3) increasing the internal strengths especially the capability and core competence of sharia Human resources through recruit the best talent especially the resident of NTB, not only to who have match background and well knowledge of sharia but also possess business intuition that will be very useful in business analysis at mudharaba and musharaka product development that categorized as investment; (4) in collaboration with OJK to improve the financial and sharia literacy of NTB citizens that ranked at the bottom of national levels. Moreover, the sharia banking in NTB grew only three in ten regions (Mataram, Lombok Timur and Lombok Barat); (5) Increasing fee based income through internet and mobile banking facilities and also by debit and sharia credit cards (bithaqah al-l'timan) that accessible via smart phone. This is according to 33% of NTB citizen are between the ages of 15-34 years and are classified as millennial who habiting online transactions such as shopping, transfers, bill payments and other transaction

that considered as both time and cost efficient; (6) maximizing the potency of hajj funds management by Bank NTB sharia as a local government bank in Province NTB by investing in productive sectors that support the economic growth of NTB. This is important since the waiting list of hajj departures in NTB province reaches 21 years. (7) In collaboration with the housing ministry in the provision of public houses with direct sharia financing with ownership of public housing stock or provision of soft loans/funds. This is important because up to now the public houses funding are monopolized by conventional central government Bank (BTN).

This study has several limitations, one of them subjects in scoring and weighting on internal and external factors of the company. Further research can use questionnaire and FGD method with the management and stakeholders of the company in determining the weight and score of internal and external factors of the company to produce alternative strategies that more accurate and objective

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