

Islamic Microfinance Institutions in Indonesia and the Challenges in the Supply Chain Perspectives

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Abstract— The Indonesian economy has recently been discouraging. There are more than forty millions Indonesian people living under the poverty line. With supply chains extending throughout microfinance institution, it can be expected to be one of the solution. Though microfinance institutions (MFIs) have different organizational formats, they have to deal with daily management issues. In order to understand the operational structure of different MFIs, this paper assesses their performance by using the Balanced Scorecard (BSC) from four different perspectives. The BSC provides the “balanced” and “integrative” financial and non-financial perspectives of a MFI such as internal business processes, growth and learning, financial and customer perspectives that are extremely important to create a sustainable MFI. This paper reports the results from in-depth interviews with 18 MFI managers in Bandung, Indonesia. The Key Performance Indicators (KPI) of a MFI from four perspectives is identified and the relationships between the different components of BSC are also learned. Overall scores of the BSC reveals BRI to be the best MFI, BPRS as the second, followed by BPR and BMT in the third and fourth place respectively. The advantage of BRI is partly due to robust government support that makes it difficult for other smaller MFIs to compete. In contrast, BMT showed a weak institutional structure in terms of BSC’s elements. It seems that BMT is not well managed according to BSC’s key performance indicators. The results indicate that clients, mostly Muslim, had chose the MFI based on the best performance in daily operations and also those affordable instead of choosing a religious/Shari’ah compliant one.

Keywords—*The Balanced Scorecard, Islamic MFIs, Conventional MFIs*

1. Introduction

Using supply chains networks of microfinance

institutions seemed to be an ideal solution to the problem of high unemployment and poverty ([1]; [2];[3];[4];[5];[6];[7];[8];[9];[10],[11]) in Indonesia but to make it happens, much work needs to be done. It should be noted that unemployment rate in Indonesia according to IMF Report in 2013 was 5.8% in 2013. A number of issues keep arising particularly to bring the poor and needy people to levels of non-poor.

Indonesia is the fourth largest country in the world in terms of population with 237. 5 million people whereas 88% of them are Muslims. It makes Indonesia as the largest Muslim population country but in the reality, the growth of Islamic MFIs has been sluggish and far behind the conventional MFIs. Micro-businesses themselves dominates 98.85% of total business with absorb 90.98% of the total labor force and their contribution to GDP was 57.12% in 2013 [12]. In August 2013, there were 11 Islamic commercial banks with 1920 number of offices, 24 Islamic business unit with 554 number of offices and 160 Islamic rural banks with 398 numbers of offices. Indonesia has a diversity of both conventional and Islamic MFIs and became a big laboratory of microfinance models in the world.

The aim of this research is to explore and examine the different structure of microfinance institution related to management and structure of Islamic and conventional MFIs.

The following research questions need to be addressed:

- I. What are the important factors in managing Islamic MFIs institutions?
- II. What are the differences management styles between conventional and Islamic MFIs?
- III. How do Islamic MFIs compete with their conventional counterparts?
- IV. Why do Islamic MFIs grow slowly in Indonesia compared to conventional MFIs?

Islamic MFI is not solely for profit creation but it should be in line with the Maqasid al-Shari’ah. Debt is a last resort to fulfill an individual’s need for either capital or consumption. Giving credit to a

productive man is better than giving sadaqah/charity. Though, “it is not surprising that in religious matters people tend to form attitudes that correlate to their religious convictions without possessing the theoretical and/or practical knowledge to justify their attitudes”[13].

2. Research Methodology

In this research, both inductive and deductive research approaches are inevitably combined in order to answer the research questions. The inductive elements including data gathering was drawn from observation of MFI manager questionnaires and semi-structured interviews. The deductive elements included variables derived from previous research, study literature and particular theories such as the Balanced Scorecard. The subjects of this study were MFIs in Bandung, Indonesia, which gave small fund to micro and SME entrepreneur.

2.1 Supply Chain and The Balanced Scorecard

Maintain and monitor too many KPIs are common performance management mistakes made by supply chain operators. Most of them just starting out with the implementation of KPIs that can easily lead to the condition known as analysis paralysis. Hence, supply they might consider utilizing the “balanced scorecard” methodology, developed in the 1990s by Robert Kaplan and David Norton [14]. The BSC was not specifically intended for use in supply chain. However, this model of performance measurement has proven to be of value in many industry.

3. The Balanced Scorecard and Relationships among Perspectives of BSC

There are several ways or tools to measure the institution/firm’s performance one of which is the Balanced Scorecard (BSC) developed by Kaplan and Norton. The BSC is a part of corporate strategy, which was initially proposed in the late 1980s and early 1990s and then developed to be modern performance management tools. The specific characteristics of the BSC include a mixture of non-financial and financial measures (see Figure 1). Generally, there is a causal-effect chain that leads from the capability of internal business processes through learning and growth to customer perspectives, which affect the final financial performance.

Keeping a balance between the financial and non-financial elements in the business entity is very

important. Therefore, the hypotheses for the BSC’s model are as follows:

- H1: Internal Process’ Perspectives are positively related to Customers’ Perspectives
- H2: Internal Process’ Perspectives are positively related to Financial Perspectives
- H3: Learning & Growth Perspectives are positively related to Customers’ Perspectives
- H4: Learning & Growth Perspectives are positively related to Internal Process Perspectives
- H5: Financial Perspectives are positively related to Customers’ perspectives
- H6: Financial Perspectives are positively related to Learning & Growth Perspectives

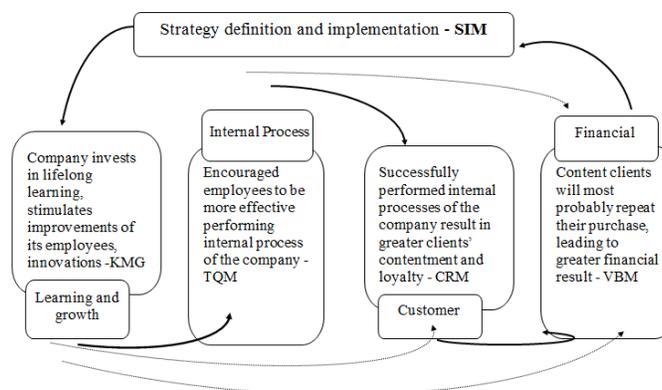


Figure 1. Cause-Effect Interactions between Perspectives of the BSC model [15].

4. Islamic and Conventional MFIs in Indonesia

Not all these people (i.e low income earners, micro entrepreneurs and poor inhabitants) can be served as bankable clients in Indonesia. MFIs mostly serve the first two groups of people and it is rare to serve the extreme poor because Indonesia’s larger ‘financial system’ approach are motivated by profit rather than social amelioration. The Indonesian microfinance market is diverse and incorporates but in this research only investigated the four biggest types of microfinance institutions; BRI, BPR, BPRS and BMT.

1.1. Conventional Microfinance Institutions BRI (Bank Rakyat Indonesia) Microbanking

BRI, one the best known institutions and the largest MFI in the world, is a state bank and since 2008 has been the best bank based on credit rating. BRI

can be categorized as a commercial bank operates in the market with a small amount of money per transaction but has a large volume with one hundred million Indonesian people living in rural areas. BRI is also based on individual-liability loans that can be explained with high repayment performance than social networks among borrowers. A pre-existing relationship within communities and the use of testimony from respected community figure as social collateral on the borrower's loan are some of BRI's success ingredients [11].

BPR (Badan Perkreditan Rakyat)/ Rural Credit Banks

During the nineteenth century and Dutch colonies in Indonesia, rural credit banks were established, namely Lumbung Desa/Bank Desa, The main objective of these banks was to help workers not to fall into the trap of high interest rates from moneylenders. The target markets of BPR are mostly rural and suburban people who are not served by big commercial banks. BPR is characterized by easy access and simple administrative procedure for simple villagers.

4.2 Islamic Microfinance Institutions

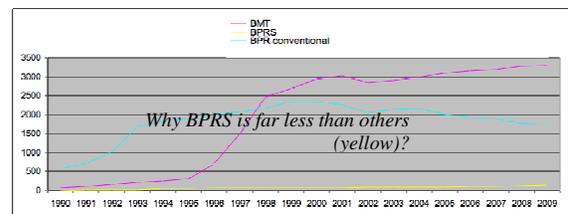
BPRS (Bank Pembiayaan Rakyat Syariah) /Islamic Rural Bank

BPRS is regulated by National Act No.7/1992, amended into National Act No.10/1998. Islamic rural banks (BPRS) established in order to response the need of Muslim for Islamic microfinance and these are supervised by the central bank.

BMT (Baitul Maal wa Tamwil)

BMT is a fast growing microfinance cooperative reaching more than 5,000 units that gains support politically and is socio-religiously accepted. BMT serves the Muslim-grassroots segment by implementing Sharia'h compliant financing.

Islamic microfinance cooperatives suffer from the supervisory neglect by the Ministry of Cooperatives and in the practice they are not much difference than the conventional one. "At most one-fifth of Islamic cooperatives are in reasonably good health. The majority is dormant or non-performing; most of the remaining ones exist for the purpose of receiving funds from the government" [16]. Based on Seibel's findings below, the gap in Figure 2 highlights the cause of problems. BRI is excluded in the graph below because the size incomparably high.



Sources: Author's modification from Seibel & Agung data (2005)

Figure 2. The Growth of BPR, BPRS and Baitul Maal wa Tamwil (BMT)

5. Findings

The linkages between the four perspectives create a well-designed and balanced strategy to improve a MFI's performance. The results of empirical findings on 18 MFIs based on the concept of the BSC are the following unique elements;

1. Twelve elements of internal process: (1) Human Resources, (2) Structure Organization, (3) MFI's Vision Determiner, (4) Daily operation controller, (5) Staff' Compensation, (6) Loan Officer's Compensation, (7) Comparison of salary, (8) Staff' Turn Over, (9) Line of Authority, (10) Work's Duplication, (11) Performance evaluation, (12) Transparency and Accountability.
2. Eight elements of learning and growth: (1) HR Department, (2) Clear policies, (3) Advertised Job opportunity, (4) Minimum Staff Criteria, (5) Min Staff experiences, (6) Training for Staff, (7) Annual Training Budgets and (8) Average NPL.
3. Ten elements of customer's factors in choosing a MFI: (1) Sharia'h Compliance, (2) Easiness, (3) Application Process, (4) Low interest/cost of capital, (5) Speed/Fast, (6) Low Collateral, (7) Payment Methods, (8) Loan's Officers, (9) Preference and (10) Overall performance.
4. Six elements of financial performance: (1) ROA, (2) ROE, (3) OSS, (4) Outreach-Breadth, (5) Outreach-Worth to clients and (6) Outreach-Depth.

5.1 The BSC Measurement

1.1.1. *Internal Process Perspectives*

There are at least three dimensions inside a MFI: a vertical dimension between owners and management, a horizontal dimension between the MFI and its customers, and an external governance dimension [17]. In this study, three dimensions were included in MFI daily operations. The internal process perspectives for microfinance institutions related to variables are contained in table 1 below.

Table 1. Internal Process Perspectives Average Scores

Internal Process (IP)	BPRS	BPR	BMT	BRI
(IP1) Total Human Resources	0.39	0.4	0.17	0.33
(IP2) Structure Organization	1	1	1	1
(IP3) MFI's Vision Determiner	1	1	1	1
(IP4) Daily operation controller	1	1	1	1
(IP5) Staff's Compensation	0.83	0.8	0.67	1
(IP6) LO's Compensation	0.83	0.8	0.67	1
(IP7) Comparison of Salary	1	0.8	0.58	1
(IP8) Staff's Turn Over	1	1	1	1
(IP9) Clear of Line of Authority	1	1	1	1
(IP10) Work's Duplication	0.67	0.2	0	1
(IP11) Performance Evaluations	1	1	1	1
(IP12) Transparency & Accountability	1	1	1	1
Score	10.72	10	9.083	11.33

For human resources, BPR is better than the others followed by BPRS, BRI and BMT respectively. In terms of structure organization, interviewer found that all MFIs have a clear organizational structure, a picture of which was hung on every MFI headquarters' wall. Score 1 for an MFI with a clear structure organization and score 0 for the opposite. Every MFI also has a stated vision for its institution therefore all were scored 1. All MFIs were directed and controlled by a Directors or CEO as a professional institution. The rate of compensation for staffs and loan officers shows that BRI gives more than the others. On the subject of salary, we compared MFI's salary to other banking and business sectors with the same level. The findings of the comparison show that BPRSs and BRI employee' salaries were approximately higher than the average similar industry while BPR and BMT were approximately equal to the average salary in the same level of industry. Managers said that MFI give monthly salary, incentives and allowances. These three components were added together as a take home paid income per month.

All managers stated that staff/officer turnover rate is low and almost zero. All managers stated and

also demonstrated a clear line of authority. Managers were asked to explain whether there were some work duplications in their office. They confessed that sometimes there were overlapping and duplicating tasks due to a lack of human resources and tight deadlines. During the in-depth interviews, the interviewer received very similar responses from all managers that the performance of administration staff, loan officers and managers were routinely evaluated. On the topic of transparency and accountability, all MFIs had their own internal audit and published a financial report quarterly for the public. Having an external auditor is a prerequisite of running the business based on Bank Indonesia regulation for BPR and BPRS. Additionally, all MFIs used a particular management information systems software for operating daily transactions.

Overall score for Internal Process Perspectives is 11.33 out of a maximum of 12 for BRI (the best), followed by BPRS with 10.72, BPR with 10 and BMT (the worst) with 9.083, respectively.

1.1.2. *Learning and Growth Perspectives*

Learning and growth perspectives variables in a MFI concern the availability of human resources of a department, clarity of policies, professional systems of recruitment, minimum criteria for staff, sufficient budgets for training and staff development and the awareness of staff performance towards non-performance loans (NPL)

Table 2. Learning Growth Perspectives Average Scores

Learning & Growth (LG)	BPRS	BPR	BMT	BRI
(LG1) H&R Department	0.67	0.8	0.5	1
(LG2) Clear policies	1	1	0.83	1
(LG3) Advertised Job opportunity	0.5	0.5	0.5	1
(LG4) Minimum Staff Criteria	0.5	0.25	0.42	1
(LG5) Min Staff experiences	0.5	0.3	0.25	1
(LG6) Training for Staff	0.56	0.4	0.55	1
(LG7) Annual Training Budgets	0.72	0.47	0.2	1
(LG8) Average NPL	0.67	0.53	0.67	0.67
Score	5.12	4.25	3.94	7.67

BRI has a human resources department but not all branches of BPR, BPRS and BMT have it. In fact, 20% of BPR, 50% of BMT and 1/3 of BPRS did not have special human resources department. In term of policy, all MFIs have a clear policy which is set out in written personnel manuals except for one out of 6 BMTs. As a big commercial bank, BRI always advertises job vacancies in the mass media whether local or national. Only 50% of BPRS and BMTs and 40% of BPR did it regularly. Some MFIs state senior high school graduation as minimum criteria, whereas other MFIs require a Diploma or Bachelors degree as a prerequisite to apply for the position.

Not all MFIs predetermined a minimum of years of experiences to apply for a position. Some MFIs put zero years experience as minimum criteria, whereas the other MFIs put one year or two-years experience as a prerequisite. All MFIs but BMT were legally obliged by the central bank, Bank Indonesia, to send their employees to attend training sessions throughout the year. The minimum yearly budget for training is 5% of a MFI's yearly personnel budget. As BMT is not under Bank Indonesia's supervision but under that of the Ministry of Cooperatives, it does not have to meet this compulsory 5% and can freely manage budgets for training in proportion to their needs and targets. In some MFIs, the director or committee sets the target per group of loan officers and not per individual. In an interview, there was a group of loan officers with a yearly target of 1000 clients. It looked like a big number, but in Bandung with average density 13.345/km² people per square kilometer this is a reasonable target.

The overall score for Learning and Growth Perspectives is 7.67 out of a maximum of 8 for BRI (the best) followed by BPRS with a score of 5.12, BPR with a score of 4.25 and BMT with a score of 3.94 (the worst) respectively.

1.1.3. *Customer Perspectives*

It was important to learn customer/clients perspectives, and the qualitative research stage provided such an opportunity. In addition to using quantitative methods to get empirical data, an in-depth face-to-face interview technique was used to explore the emotional dimensions of customer's opinions.

Table 3. Customer/MFI Clients' Perspectives

Customer/Clients Perspectives (CP)	BPRS	BPR	BMT	BRI
(CP1) Sharia'h Compliance	0.75	0.25	1	0.5
(CP2) Easiness	0.5	0.75	0.25	1
(CP3) Application Process	0.75	0.25	0.5	1
(CP4) Low Interest/Cost of Capital	0.75	0.5	0.25	1
(CP5) Speed/fastness	0.75	1	0.5	0.25
(CP6) Low Collateral	0.75	0.25	0.5	1
(CP7) Payment Methods	0.75	0.5	0.25	1
(CP8) Loan Officers Profile	0.75	0.5	0.25	1
(CP9) Preference	0.75	0.5	0.25	1
(CP10) Overall Performance	0.75	0.5	0.25	1
Score	7.25	5	4	8.75

Every respondent scored in the following manner: the best 1, good 0.75, average 0.5 and the worst 0.25. According to customer perspectives, BMT is the best MFI for sharia'h compliance followed by BPRS, BRI and BPR respectively. Regarding the most available and relatively easy to find criteria, BRI was scored highest followed by BPR, BPRS and BMT in that order. Correspondingly, for credit application process, BRI received the highest followed by BPRS, BMT and BPR. As a state commercial bank fully supported by the Indonesian government with many cross subsidies for micro-credit, inevitably, BRI is still the cheapest in terms of credit interest rate. Overall score for Customer Perspectives is 8.75 out of a maximum of 10 for BRI (the best) followed by BPRS with a score of 7.25, BPR scored 5 and BMT received the lowest score 4.

1.1.4. *Financial Perspectives*

Some of the more popular sustainability indicators for microfinance institutions include: financial sustainability (return on assets (ROA), return on equity (ROE), operational self-sufficient (OSS)), outreach (breadth, depth and worth to clients),

efficiency and loan repayment [18]. Based on the availability of data, in this study, ROA, ROE, OSS were used as financial ratios and the outreach of MFIs, breadth, willingness to pay, depth as the other indicators.

Financial reports of BRI, BPR and BPRS are easily found at the central bank's website because they are under Bank Indonesia's supervision. It was not the case for BMTs which are not under the central bank's supervision. The Ministry of Cooperatives is supposed to oversee cooperatives including BMTs did not supervise them regularly and appropriately so that it was hard to acquire information concerning financial performance and other management issues. But to make a BMT reliable and credible in front of shareholders, customers and stakeholders, Dinas Koperasi (Cooperative Division) in each province in Indonesia regularly collects and publishes their financial reports as a form of responsibility to the public.

Table 4. Financial Perspectives

Financial Perspectives (FP)	BPRS	BPR	BMT	BRI
(FP1)ROA	0.54	0.5	0.42	0.75
(FP2) ROE	0.63	0.3	0.38	1
(FP3) OSS	0.5	0.45	0.42	0.5
Outreach				
(FP-O1) Breadth	0.42	0.4	0.5	0.5
(FP-O3) Depth	0.42	0.45	0.67	0.75
(FP-O2) Worth to clients	0.5	0.84	0.75	0.6
Score	3.01	2.94	3.14	4.10

The financial ratios are obtained from MFIs financial reports and outreach indicators were gathered from in-depth interviews with managers.

For measurement and scoring purposes in Table 4, the researcher put score 0 for ROA less than 0, score 1 for ROA's range between 0% and 2%, score 2 for ROA's range 2.01%-4%, score 3 for ROA's range between 4.01% and 6% and score 4 for a range of more than 6%. For ROE measurement, the researcher put score 0 for ROE less than 0, score 1 for a range between 0% and 10%, score 2 for a range between 10.01%-20%, score 3 for a range between 20.01% and 30% and 4 where ROE was more than 30%. Similar to ROA's

scoring method; ROE was also standardized and averaged before being utilized as a BSC score. Operational self-sufficient (OSS) ratio measures the adequacy of a MFI's revenue to cover its costs. The original ratio of OSS was taken and then standardized and averaged before putting those scores as BSC's score lists. BRI and BPRS had the same highest score, followed by BPR and BMT respectively.

Outreach indicators show MFI impact on society. Most MFI experts put them together with the financial indicators. In this section, there are three indicators of outreach presented; breadth, depth and worth to clients.

Breadth is the number of MFIs clients covered by the MFI. A MFI which has less than 500 clients was scored 0. Score 1 for a MFI with clients between 501 and 1500 clients, score 2 for a MFI with clients between 1501 and 3000, score 3 for a range of 3001 to 5000 and score 4 for an MFI which has more than 5000 clients. The outreach indicator **depth** is the average loan size per GNI per capita. As the GNI per capita for each respondent is the same, hence, it does not need to be taken into account for the scoring process. Similar to data for willingness to pay above, data on average loan size was collected in the survey of MFI managers' perceptions of clients' perceptions. There were five options of answers chosen by MFI managers to state the average loan size that their MFI gave to their clients. Those who answered option a (<2 millions IDR) received score 4, option b (2-5 millions IDR) received score 3, etc. This fact shows that BPRS managers gave bigger loans/client than other MFI managers did and BRI managers gave the smaller loan/clients than others did. The smaller loan/clients, the more poor clients are reached and the bigger outreach score.

Data for **worth to clients** (defined as willingness to pay) were captured in a survey of managers' perceptions of clients' perceptions. There were five answer options chosen by managers to predict the willingness of clients to pay a monthly interest rate. The average of interest rate was put as a score for example: Those who answered option c).1%-2% were scored 1.5 or d). 2%-3% were scored 2.5 and etc. This fact shows that BPR managers perceived more than other MFI's managers concerning the clients' capability or willingness to pay high interest rates.

The overall score for financial perspectives was 4.1 out of a maximum of 6 for BRI (the best) is followed by BMT with score 3.14, BPRS was scored 3.01 and BPR was scored lowest with 2.94.

1.1.5. Overall Performance of MFIs based on Balance Scorecard Perspectives

The overall scores of Balanced Scorecard from four perspectives for MFIs can be seen in Table 5 below. BRI received the highest score 31.85 out of a maximum of 36, BPRS was second with a score of 26.09, followed by BPR and BMT in the third (22.19) and fourth place (20.16) respectively.

Table 5. Balanced Scorecard in MFIs

	BPRS	BPR	BMT	BRI
Internal Process (IP)	10.72	10	9.08	11.33
Learning & Growth (LG)	5.11	4.25	3.94	7.67
Customer Perspectives (CP)	7.25	5	4	8.75
Financial Perspectives (FP)	3.01	2.94	3.14	4.10
OVERALL SCORE	26.09	22.19	20.16	31.85

Cronbach's Alpha Test

According to Pallant and Vaus, it is deemed reliable if the result is at least 0.7 (highly internal consistency).

Table 6. Result of Reliability Test

Reliability Test for MFIs			
		N	%
Cases	Valid	18	94.7
	Excluded ^a	1	5.3
	Total	19	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.782	.844	25

The result of this study's interviews with MFI managers based on the Balanced Scorecard (BSC) showed a Cronbach's alpha coefficient of 0.844 (see the Table 6).

Cronbach's alpha coefficient indicator for all questions in this study was 0.844 after considering the 25 items that used the scale. The value of 0.844 is above Cronbach's alpha coefficient 0.7. Therefore, the scale used in this research has a good level of internal consistency and is also reliable

All indicators above are the Key Performance Indicators (KPI) for a MFI from four perspective based on this research. The BSC model postulates a causal-effect chain that leads from the capability of internal business process through learning and growth to customer perspectives and ultimately affects the financial performance. This structure is consistent with the Balanced Scorecard concept developed by Kaplan & Norton [19] & [15], who emphasize the importance of keeping a balance between the financial and non-financial elements in the business entity.

6. The Statistical Result of Correlation between BSC's Elements

The correlation between the four perspectives can be seen in Table 7. There are strong significant correlations between a) internal process and customer's perspectives (63.8%), b) customer's perspectives and learning-and-growth (58.1%) and c) learning-and-growth and financial performance (47.4%) (see figure 3).

Table 7. Correlations of Different BSC Perspectives

Spearman's rho		Av_I P	Av_C P	Av_LG	Av_FP	Av_Overall
Av_I P	Correlation Coefficient	1.000	.638**	.357	.283	.387
	Sig. (2-tailed)	.	.004	.146	.256	.113
	N	18	18	18	18	18
Av_C P	Correlation Coefficient	.638*	1.000	.581*	.354	-.042
	Sig. (2-tailed)	.004	.	.011	.150	.870
	N	18	18	18	18	18
Av_LG	Correlation Coefficient	.357	.581*	1.000	.474*	-.116
	Sig. (2-tailed)	.146	.011	.	.047	.646
	N	18	18	18	18	18

Spearman's rho		Av_I P	Av_C P	Av_ LG	Av_F P	Av_O utR
Av_I P	Correlation Coefficient	1.000	.638**	.357	.283	.387
	Sig. (2-tailed)	.	.004	.146	.256	.113
	N	18	18	18	18	18
Av_F P	Correlation Coefficient	.283	.354	.474*	1.000	.321
	Sig. (2-tailed)	.256	.150	0.47	.	.194
	N	18	18	18	18	18
Av_O ut R	Correlation Coefficient	.387	-.042	-.116	.321	1.000
	Sig. (2-tailed)	.113	.870	.646	.194	.
	N	18	18	18	18	18

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

From the 6 hypotheses were statistically tested, the empirical data showed only three hypotheses could be proved to be statistically significant:

- H₁: Internal Process' Perspectives are positively related to Customers' Perspectives
- H₃: Learning & Growth Perspectives are positively related to Customers' Perspectives
- H₆: Financial Perspectives are positively related to Learning & Growth Perspective

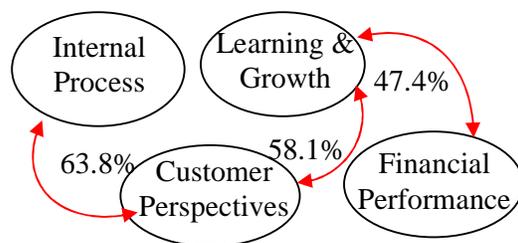


Figure 3. Structure of MFI's Performance based on BSC elements

The other hypotheses; H₂, H₄, H₅ were not proved to be statistically significant in this research. When the financial performance was combined with outreach and the empirical data run together with the other three perspectives, there was no correlation at all for financial performance and outreach with other perspectives. Similar results were found when using the outreach element itself. Therefore, after taking outreach from financial performance perspectives separately, the results turned out to be different. Therefore, it can be

concluded that outreach did not have correlation with BSC perspectives.

7. DISCUSSION OF 'THE BSC based MFIs' MODEL'

7.1 Internal Process of 'The BSC based MFIs' Model'

As suggested by Norton and Kaplan [14], internal business processes are something that the institution must excel at and BRI has excelled itself to the desire level. With low level of staff's turn over, clarity in the line of authority and very low duplication of works among the staffs, BRI can be an example for other MFIs for internal process perspectives. BRI's achievements have been written in many publications by Robinson [11];[20];[21] and other authors.

BPRS was scored the second highest with moderate number of human resources, clear structure organization, vision and daily operation. BPRS was slightly below BRI, meanwhile BPR almost has the same scores as BPRS except comparison of salary. The lowest score was BMT. BMTs need more clients and more human resources to scale up their business.

7.2 Learning and Growth Perspectives of 'The BSC based MFIs' Model'

BSC measures both inside and outside the institutions which are contributed to MFI's mission, learning and growth perspectives are one way to achieve the objectives and mission of a MFI [22]. The overall score for Learning and Growth Perspectives was highest for BRI, followed by BPRS, BPR and BMT. With routine and regular training for its staff, BRI created many innovative ways to achieve a desirable performance as highlighted by Kaplan and Norton [19].

7.3 Customer Perspectives of 'The BSC based MFIs' Model'

Identifying customer perspectives is important for setting any organization's policies [19]. Overall score for customer perspectives, BRI was the highest, followed by BPRS, BPR and BMT. The research conducted by Robinson [11]; [20], [21], [1] supported the findings above. Kaplan and Norton [14] also underlined the importance of customer satisfaction to boost the performance. Only for *Shari'ah* compliance and speed/promptness criteria, BRI got the lowest scores. BMT was scored the best MFI for *Shari'ah* compliance. Cost of financing (transaction costs, interest rates and other charges) is still an important factor for MFI clients [23]. Hence, it makes sense

that BRI became the most preferable MFI because of its interest rates.

7.4 Financial Perspectives of 'The BSC based MFIs' Model'

Based on financial performance, BRI got the highest score for ROA, ROE and OSS. As such BRI is good at utilizing its total assets to generate returns (ROA) and produce returns for the owner (ROE). OSS ratio as highlighted [24];[25] measures how well BRI is able to cover its total costs of operating.

In relation to breadth of outreach, BRI and BMT have the same score which cover a large number of client (breadth) but in term of average loan size (depth), BRI's score is slightly higher than BMT. Five indicators in measuring a MFI for CGAP, with this breadth score means BRI had served more clients and also more poor clients compared than BMT [18]. BPR and BPRS followed them. The smaller loan/clients, the more poor clients are reached and the greater depth of outreach [25]. Hatch & Frederick [26] and Dunford [27] found the opposite facts to Engels' argument; loan size is ineffective in selecting poor.

For 'worth to clients' indicator, BPR and BMT were better than BRI. Similar to BRI, BPRS got the second highest score for financial ratios (ROA, ROE and OSS) but for outreach indicators, BPRS got the lowest MFIs. Overall, BMT was the lowest for financial ratio but the highest for outreach. In general, BPRS' and BPR's positions for financial ratio and outreach were in between of BRI and BMT.

8. CONCLUSION

A balanced non-financial and financial performance is extremely important to create sustainability through supply chains microfinance institutions. In all perspectives BRI got the highest scores. BRI has proved that with four balanced perspectives created more positive results to overall performance. As Islamic microfinance, BPRS's performance is the second best. BPRS has the more capability and capacity than BPR and BMT with more balanced perspectives as a starting point. BMT needs to push almost every element simultaneously to create MFI sustainability in the future [23];[28];[18] and [25] for a healthy MFI. With the lowest score for internal process, learning-and-growth, customer satisfaction and financial ratios, BMT seemed that it is not well managed. If this condition continues, it will jeopardize institutions in the long run. The contribution of this study is to show how the four perspectives work together simultaneously leading to the balanced and sustainable performance of MFIs in the future.

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References

- [1] J. Armendáriz de Aghion, B., & Morduch, *The Economics of Microfinance*. Cambridge, Massachusetts., 2005.
- [2] H. Ahmed, "Waqf-based microfinance: Realizing the social role of Islamic finance.," 2007.
- [3] J. Armendáriz, B., & Morduch, "The economics of microfinance," 2010.
- [4] M. Asutay, "A Political Economy Approach to Islamic Economics: Systemic Undertanding for an Alternative Economic System.," *Kyoto Bull. Islam. Area Stud.*, vol. 1, no. 2, pp. 3-18, 2007.
- [5] M. U. Chapra, *The Future of Economics, An Islamic Perspectives: The Islamic Foundation*. Markfield, Leicester, United Kingdom, 2000.
- [6] M. U. Chapra, "The Islamic Vision of Development in the Light of Maqasid al-Shari'ah. London: The International Institute of Islamic Thought," London, 2008.
- [7] M. Kahf, "Toward the Revival of Awqaf: A Few Fiqhi Issues to Reconsider.," in *Paper presented at the The Harvard Forum on Islamic Finance and Economics, Cambridge, MA*, 1999.
- [8] D. Masyita, "Developing a Computer Simulation Based Approach to Simulate Potency of Islamic Voluntary Sector to Alleviate the Poverty in Indonesia Using System Dynamics Methodology.," in *Paper presented at the First International Conference on Inclusive Islamic Financial Sector Development; Enhancing Islamic Financial Services for Micro and Medium Sized Enterprises (MMEs)*, 2007.
- [9] A. S. Masyita, D., Tasrif, M., & Telaga, "A Dynamic Model for Cash Waqf Management as One of The Alternative Instruments for The Poverty Alleviation in Indonesia.," in *Paper presented at the The 23rd International Conference of The System Dynamics Society organized by Massachussets Institute of*

- Technology (MIT) System Dynamics Group*, 2005.
- [10] M. Obaidullah, *Introduction to Islamic Microfinance*, Internatio. New Delhi - India, 2008.
- [11] M. S. Robinson, *Supply and Demand in Microfinance*, Microfinan. London and New York: Routledge., 2009.
- [12] I. M. Fund, "STAFF REPORT FOR THE 2013 ARTICLE IV," no. 13, 2013.
- [13] R. Kayed, "Islamic Financing and the Saudi Entrepreneur: Readings from the Field.," in *Paper presented at the The First International Conference on Inclusive Islamic Financial Sector Development: Enhancing Islamic Financial Services for Micro and Medium Sized Enterprises (MMEs)*, 2007.
- [14] D. P. Kaplan, R. S., & Norton, *Translating Strategy into Action, The Balanced Scorecard*. Boston, Massachusetts: Harvard Business School Press., 1996.
- [15] D. P. Kaplan, R. S., & Norton, *The Strategy Focused Organization, How Balanced Scorecard Companies Thrive In The New Business Environment*. Boston, Massachusetts.: Harvard Business School Press, 2001.
- [16] H. D. Seibel, "Research Notes and Comments - Islamic Microfinance in Indonesia: The Challenge of Institutional Diversity Regulation, and Supervision," *SOJOURN J. Soc. Issues Southeast Asia*, vol. 23, no. 1, pp. 86–103, 2008.
- [17] R. Ø. Mersland, R., & Strøm, "Performance and governance in microfinance institutions," *J. Bank. Financ.*, vol. 33, no. 4, pp. 662–669, 2009.
- [18] R. Rosenberg, *Measuring Results of Microfinance Institutions; Minimum Indicators That Donors and Investors Should Track - A Technical Guide*. Washington, DC: Consultative Group to Assist the Poor (CGAP), 2009.
- [19] D. P. Kaplan, R. S., & Norton, "Linking the balanced scorecard to strategy," *Calif. Manage. Rev.*, vol. 39, no. 1, pp. 53–79, 1996.
- [20] J. Morduch, *The Microfinance Schism*, Microfinan. London and New York: Routledge., 2009.
- [21] T. Hulme, D., & Arun, *Introduction - Microfinance; A Reader*, In D. Hulm. 2009.
- [22] S. Tapanya, "Examining the Factors which influence Performance Measurement and Management in the Thai Banking Industry: An Application of the Balanced Scorecard Framework: Unpublished PhD," Murdoch University., 2004.
- [23] M. Schreiner, "Aspects of Outreach: A Framework for the Discussion of the Social Benefits of Microfinance," Washington DC, 1999.
- [24] M. Ahlin, C., Lin, J., & Maio, "Where does microfinance flourish? Microfinance institution performance in macroeconomic context.," *J. Dev. Econ.*, vol. 95, no. 2, pp. 105–120, 2011.
- [25] P. (Ed. . Engels, "MISSION DRIFT IN MICROFINANCE: The Influence of Institutional and Country Risk Indicators on the Trade-Off between the Financial and Social Performance of Microfinance Institutions," vol. 1, Stuttgart: The Deutsche Nationalbibliothek., 2010.
- [26] L. Hatch, J. K., & Frederick, "Poverty Assessment by Microfinance Institutions: A Review of Current Practice: U.S. Agency for International Development.," 1998.
- [27] C. Dunford, "What's wrong with loan size?," C. . F. F. H. Davis, Ed. 2002.
- [28] A. G. Vinelli, "The Management and Performance of Microfinance Organizations," Harvard University, Cambridge, Massachusetts, 2002.