



Alleviating Poverty Through Islamic Microfinance: Factors and Measures of Financial Performance, and Roles of Islamic Values and Financial Policies

Adhitya Ginanjar*

Department of Sharia Banking Syarif Hidayatullah State Islamic University, Indonesia

Salina Kassim

IUM Institute of Islamic Banking and Finance International Islamic University, Malaysia

Abstract

Indonesia has a strong presence of microfinance sector with the number of Islamic Microfinance Institutions (IMFIs) estimated to be around 5,000 currently. Microfinance is an effective tool in alleviating poverty in Indonesia due to the limited access to financial services by the poor who accounted for approximately 96 million Indonesians (or 37% of the total population), living on less than USD 1.90 a day. In the absence of collateral and steady income, the poor are considered too risky to be given credit facilities by the formal financial services providers and living in remote areas has also limited their access to formal financial services. This study aims to examine the poverty alleviation efforts from the perspective of the IMFIs in view of their direct involvement in the process and having rich information about financial issues facing the borrowers. The managers also understand about financial inclusion agenda as well as financial guidelines and regulations issued by the relevant authorities. A total of 34 managers of Baitulmaal Wa Tamwil (BMTs), which registered under the Sharia Cooperative Centre (INKOPSYAH) are taken as respondents from the Jakarta, Bogor, Depok, Tangerang and Bekasi (JABODETABEK) areas. The first instrument was a survey questionnaire, and the second one was an in-depth interview to outline data related to the model design. The findings of this research are expected to contribute to better decision-making for the BMTs to further enhance its role in alleviating poverty. The findings also elaborate several dimensions to improving financial inclusion among the poor including providing financial services, implementing Islamic principles, significant policies, community-based framework concept and training financial education. This research highlights the need for a variety of strategies to warrant success of poverty alleviation efforts by BMT.

Keywords: Islamic financial inclusion; Islamic microfinance institutions; Baitulmaal wa tamwil; Islamic finance.

JEL Classification: G21, G23, G28, G41, I32, I38.



CC BY: [Creative Commons Attribution License 4.0](https://creativecommons.org/licenses/by/4.0/)

1. Introduction

One of aims of the Sustainable Development Goals (SDGs) initiated by the United Nations (UN) in efforts to end the poverty is by improving financial inclusion (FI). In particular, the UN has listed 17 goals under the SDG which also include ending poverty and ensuring universal financial access to all through improving FI. Under the SDG, all the goals listed are expected to be achieved by 2030. The goal of increasing FI has resulted in rigorous efforts to achieve it, among others enhancing the role of Islamic Microfinance Institution (IMFI), particularly leveraging on its unique aspects such as the noble Islamic values and relating it to financial policies that could benefit the poor people.

The World Bank Global Findex database (2011), a cross-country database on use of financial services in 150 countries, found that a half of adults in the developing countries have no access to basic financial services as they are considered as un-bankable due to lack of collateral. Consequently, the World Bank through Global Findex has declared FI as a global agenda, especially in the developing countries. This agenda of universal financial access has highlighted the role of all types of financial institutions, particularly the MFIs in expanding their services, especially in rural area (Beck *et al.*, 2015; World Bank, 2014). Furthermore, according to Obaidullah and Shirazi (2014), microfinance could be the best way to alleviate extreme poverty effectively and offer positive welfare impact. Another purpose of microfinance is to ensure improvement in the long-term income. Several studies have shown that providing accessibility to credit for the microenterprises do not only provide effective solutions to poverty, but it also works well for clients, who are close to the poverty line since it will provide them with the chance to be economically independent and break the poverty trap.

It is important to realize that microfinance is a mechanism to develop good relationship between the MFIs and the clients based on trust and commitment. MFIs should be constructed using a community-based framework concept where it could help to alleviate poverty to a reasonable degree (Abdelbaki, 2013). Understanding the credibility of the customers would also help to reduce the occurrence of non-performing loans (Anayo *et al.*, 2011). Therefore, the MFIs should educate the poor people's awareness in order to reach them (Lønborg and Rasmussen, 2014). Several studies have assessed the relationship between microfinance and poverty alleviation, and most of them have found a positive relationship between the two (Lønborg and Rasmussen, 2014).

*Corresponding Author

In case of Indonesia, the Islamic Microfinance Institution (IMFI) has contributed to alleviate poverty since 2000 by expanding financial access to the poor. One of the IMFIs in Indonesia is the Baitulmaal Wa Tamwil (BMT), which is well-known for its role in conducting and delivering their businesses with the principles of Islamic *muamalat*. Operating based on a cooperative model, BMT has two functions, namely social function (*Baitulmaal*) and business function (*Baituttamwil*), simultaneously. According to the Indonesian Ministry of Cooperative and Micro, Small and Medium Enterprises (2017), there are currently more than 5.000 BMTs around Indonesia, and this MFI has contributed significantly to the income of the poor, helping them to graduate from poverty and creating wealth (Santoso and Ahmad, 2016). It is estimated that cooperative, in general, has contributed around 4% to the Indonesian gross domestic product (GDP).

The IMFIs in general, and the BMT in particular, help in alleviating poverty by providing financial services to the poor in the informal sector of the economy, and are usually funded using Islamic social fund such as *Zakat*, *Infaq*, *Shadaqah* and *Waqf*. Islamic microfinance is basically interest-free microfinance as it delivers funding without the interest so as to comply with the Islamic financing principles (Dhumale and Sapcanin, 1998; Kassim, 2016). This paper attempts to explore the determinants, measures IMFIs performance, roles of Islamic values and financial policies of the IMFIs in alleviating poverty, based on the experience of BMT in Indonesia.

2. Literature Review

In accordance with goal of financial inclusion which is alleviating poverty, IMFIs need to know what are the dominant factors, policies and Islamic financial compliance which influence their role in the efforts to achieve the goal. Alleviating poverty through Islamic microfinance needs to be related to the existence of the IMFIs. In this regard, the informal credit market theory is highly relevant. It stated that informal finance can influence development economy by empowering the incapable or un-bankable low-income people and it works directly in the community by easing access to micro-credit to the poor (Bose, 1998).

2.1. The Theory of Informal Credit Market

The informal credit market is an important part of the financial system of the developing countries. They play a decisive role in channeling credit to small and poor borrowers in both urban and rural areas. They also constitute an important source of working capital of all sizes and serve generally to ameliorate inefficiencies in the allocation of formal sector credit (Kramer *et al.*, 2009).

There are two views concerning the importance of the informal credit markets, namely the traditional view and the modern view. The traditional view is quite skeptical about the usefulness of the informal credit market in financial intermediation, saving mobilization, efficient and equitable use of funds in less developed countries (LDCs). Informal finance was often thought to be anti-developmental, exploitative, and prone to consumption rather than investment behavior and incapable of expanding to provide an appropriate volume and range of financial services (Kramer *et al.*, 2009).

United Nation for Development Program (UNDP) mentioned that it is clear that informal credit market works directly in the community and had simplified application procedures, quickness in extending credit, focus on the local market, providing larger loans based on successful repayments, charge high rate of interest, addressing the need of the poor clients and consider reputation in the community as more important than collateral (Haugen, 2006).

2.2. Financial Inclusion and Alleviation of Poverty Issues

The conception of poverty that is employed here draws on Simmel's *The Poor*, which analyzes the relationship between poor people and the society. Simmel (1965), explains that poverty alleviation is part of "the role that each concrete individual member of society performs". Therefore, "[t]he poor, as a sociological category, are not those who suffer specific deficiencies and deprivations, but those who receive assistance or should receive it according to social norms" (Simmel, 1965).

Following Simmel (1965), poverty means being in need relative to others in the same society, and relative to its expectations and norms. Post-development theorist Yapa (1997), conceptualizes poverty as consisting in global social relations, arguing that no conception of "poor" could exist without corresponding conceptions of "non-poor". Mediated through the production sphere, discourses of poverty and non-poverty generate recognition and acceptance of the material symptoms while simultaneously hiding the causes of the concrete phenomena, which are lumped together as "poverty" (Yapa, 1997).

According to the UN, through the Sustainable Development Goals (SDGs), every country will eradicate extreme poverty for all people everywhere in 2030, it is currently measured as people living on less than \$1.25 a day. Moreover, the authorities strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all. Likewise, according to Kassim (2016), IMFIs provides financial services not only for the poor but also for the poorest in the informal sector of the economy, which are usually being funded using external sources such as *Zakat*, *Infaq* and *Shadaqah*. Furthermore, another study finds that there are some opportunities capable of improving the economic condition of the poor Muslim communities through IMFIs, based on the Islamic principle (Hassan *et al.*, 2015).

Furthermore, according to Obaidullah and Shirazi (2014), microfinance could be the effective way to alleviate poverty effectively and deal with positive welfare impact. Another determination of microfinance is to confirm improvement in the long-term income. Several studies have shown that MSMEs finance credit does not only provide effective solutions to poverty, but it also works well for people close to the poverty line (Shaw, 2004).

Retrieving microfinance, poverty can be reduced by providing credit to the poor or by permitting them an access to credit. It is important to realize that microfinance is a mechanism to improve good relationship between the microfinance institutions (MFIs), and the borrowers based on trust and commitment. MFIs should be created using a community-based framework concept where it could help to alleviate poverty to a practical degree (Abdelbaki, 2013), Accepting the credibility of the borrowers would also help to reduce the happening of non-performing loans (Anayo *et al.*, 2011), Therefore, MFIs should train the poor people's awareness in order to reach them (Lønborg and Rasmussen, 2014).

2.3. Roles of BMT in Indonesia

In the case of Indonesia, BMT has grown significantly over the last 20 years and it continues to improve the wealth and alleviate poverty among the poor in the country. According to Santoso and Ahmad (2016), it can be seen that BMT has succeeded in assisting the poor and developing economic growth with conditions such as commitment, consistency of stakeholders of BMT. Therefore, the management of BMT should understand the background, vision, mission and *shari'ah* principles of operating BMT. As such, a comprehensive education for practitioners of BMT is very important in improving financial inclusion in Indonesia.

Ismail (2014), stated that BMT is capable in collecting and developing social funds such as zakat and corporate social responsibility (CSR), while simultaneously could help to increase members' awareness to increase zakat and CSR fund for financing people and increasing wealth. Furthermore, *musharakah* funding has become a real transaction based on Islamic profit and lost sharing compared to conventional institutions such as risk sharing, *ukhuwah* (brotherhood), and *ta'awun* (helping each other). Hence, BMT has dual functions comprising social function and profit function in improving financial inclusion in Indonesia Ismail (2014), According to Ministry of Cooperative and Micro, Small, Medium Enterprise, there are 152.714 cooperatives in Indonesia. It can be seen on following table 1.

Table-1. Cooperative in Indonesia

No	Categories	Unit	Percentage (%)
1.	IMFI/Islamic Cooperative	5.648	23.98
2.	MFI/Conventional Cooperative	17.903	76.90
	Total Microfinance Institution	23.551	15.58
3.	Producing Cooperative	27.179	17.98
4.	Marketing Cooperative	3.091	2.04
5.	Consumer Cooperative	94.332	62.40
6.	Services Cooperative	3.025	2.00
	Total Non-Microfinance Institutions	127.627	84.42
	Total Cooperatives in Indonesia	152.714	100

Source: Ministry of Cooperative and Micro, Small, Medium Enterprises (2017).

3. Methodology

3.1. Data

As the research covers different areas in Jakarta, Bogor, Depok, Tangerang and Bekasi (JABODETABEK), in total thirty-four (34) managers of BMTs throughout the areas were selected as respondents. They were selected as respondents because they know the financial inclusion regulation, understand the goals of institutions and adapt the change of business environment. Data collection process lasted for about four months from June to September 2018. A total of 50 questionnaires were distributed equally to JABOTABEK areas, at the end, from data collection process, 34 questionnaires were suitably completed and judged useful for this research.

Before getting on further survey, questionnaire was tested for validity and reliability test. Cronbach's alpha test showed an adequate number for the questionnaire to be proceeded with a reliability value of 0.848. Meanwhile, validity test for each question was done by looking at whether corrected item total correlation value exceeded r-table for 81 (83-2) which was 0.18. The result obtained shows that all questions in the questionnaire had more than 0.18 in their corrected item-total correlation, thus were valid.

3.2. Method

The Partial Least Square (PLS) is used to analyze the data collected in this study. The PLS is a part or an alternative of structural equation modeling. According to Sanchez (2013) specified that PLS is a set of methods for analyzing multiple relationship between various blocks of variables. According to Henseler *et al.* (2009), and Hair *et al.* (2014), PLS-SEM is an analysis a variance-based of structural equation modeling. It is different from the first generation of structural equation modeling (SEM) as a covariance-based model. The PLS-SEM can run with a small-sized sample (Henseler *et al.*, 2009).

The rational of using PLS in this study are based on the following reasons. Firstly, the use of PLS-SEM for the present study is based on the nature of the study. The objective of this study is to explore the structural model of the roles of IMFIs by examining alleviation of poverty. Furthermore, PLS-SEM is the best appropriate for data analysis because the objective model is to measure the extension of model prediction. Hair *et al.* (2014), mentioned that the

PLS-SEM is applied while the research is to explore or to extend an existing structural theory. PLS-SEM aims to measure the extent to which a construct in the research model predicts values in other construct of the research model (Hair *et al.*, 2014).

Secondly, the reason for carrying out of PLS-SEM is based on characteristics and advantages for data analysis. PLS-SEM can explain model complexity with a small-sample size. It differs from the previous SEM that requires to adequate sample or a large number. On the other hand, PLS-SEM can obtain a high level of statistical power although the sample size is relatively small (Reinartz *et al.*, 2009). Moreover, the other characteristic of PLS-SEM are related data properties. Different from covariance-based SEM (CB-SEM) that needs a multivariate normal data distribution from the sample data, PLS-SEM is still powerful even if the data is not normally distributed. PLS-SEM is less strict with the requirement of a multivariate normal data distribution (Peng and Lai, 2012).

According to Leardi *et al.* (2002), PLS-SEM practices calibration mechanism that transforms non-normal data distribution into data that adheres to the central limit theorem. Data normality is not crucial or demanded factor in PLS-SEM. Convenient statistical program used in this research for the performing PLS is SmartPLS 3.0. another software used is SPSS 22.0, especially for descriptive analysis. Therefore, to minimize measurement error where imposing too many scale while respondents only accurately respond to a few, this research used the five-point Likert scale (Leardi *et al.*, 2002).

3.3. Empirical Model

The effect of role of IMFIs towards alleviating poverty is elaborated through a model consist five latent variables. Those are Latent Exogenous Role of IMFIs towards Community Development (CD), Role of IMFI towards Financial Education (FE), Role of IMFI towards Islamic Values (IV) and Role of IMFI towards Financial Policies (PL). Likewise, Latent Endogenous Poverty Alleviation comprises Poverty Reduction (FI). The rest of 5 variables are dependent latent variables. All variables have been significantly proven in building construct.

Originally developed by Wold (1984), PLS is an SEM technique based on an iterative approach that maximizes the explained variance of endogenous constructs Bookstein and Fornell (1982). Unlike CB-SEM, which aims to confirm theories by determining how well a model can estimate a covariance matrix for the sample data, PLS-SEM operates much like a multiple regression analysis (Hair *et al.*, 2014). This characteristic makes PLS-SEM particularly valuable for exploratory research purposes. The PLS method gives a solution to the multiple regression problem which is stabilized in comparison with the OLS solution and which has, at least in the examples investigated, a comparable prediction error to multiple regression. Meanwhile. The structural model indicates the relationship among latest variables. in notation, they can be described in following equations (Wold, 1984),

$$\eta = \beta\eta + \Gamma\xi + \varsigma \quad (1)$$

Equation 1 shows relationship among latent variables, where;

η (Eta) indicates endogenous latent variable that contains Poverty reduction (FI).

ξ (Ksi) indicates exogenous latent variables. Such as Role of IMFI towards Community Development (CD), Role of IMFI towards Financial Education (FE), Role of IMFI towards Islamic Values (IV) and Role of IMFI towards Financial Policies (PL).

β (Beta) indicates structural coefficient from endogenous latent variable to another endogenous latent variable.

γ (Gamma) indicates structural coefficient from exogenous latent variable to endogenous latent variable.

ς (Zeta) indicates structural error terms.

$$x = \Lambda x\xi + \delta \quad (2)$$

$$y = \Lambda y\eta + \varepsilon \quad (3)$$

Equation 2 and 3 show relationship between manifest and its latent variable (x for exogenous, y for endogenous), where;

λ (Lambda) indicates loading between latent variable and its manifest variables

(λX for exogenous, λY for endogenous)

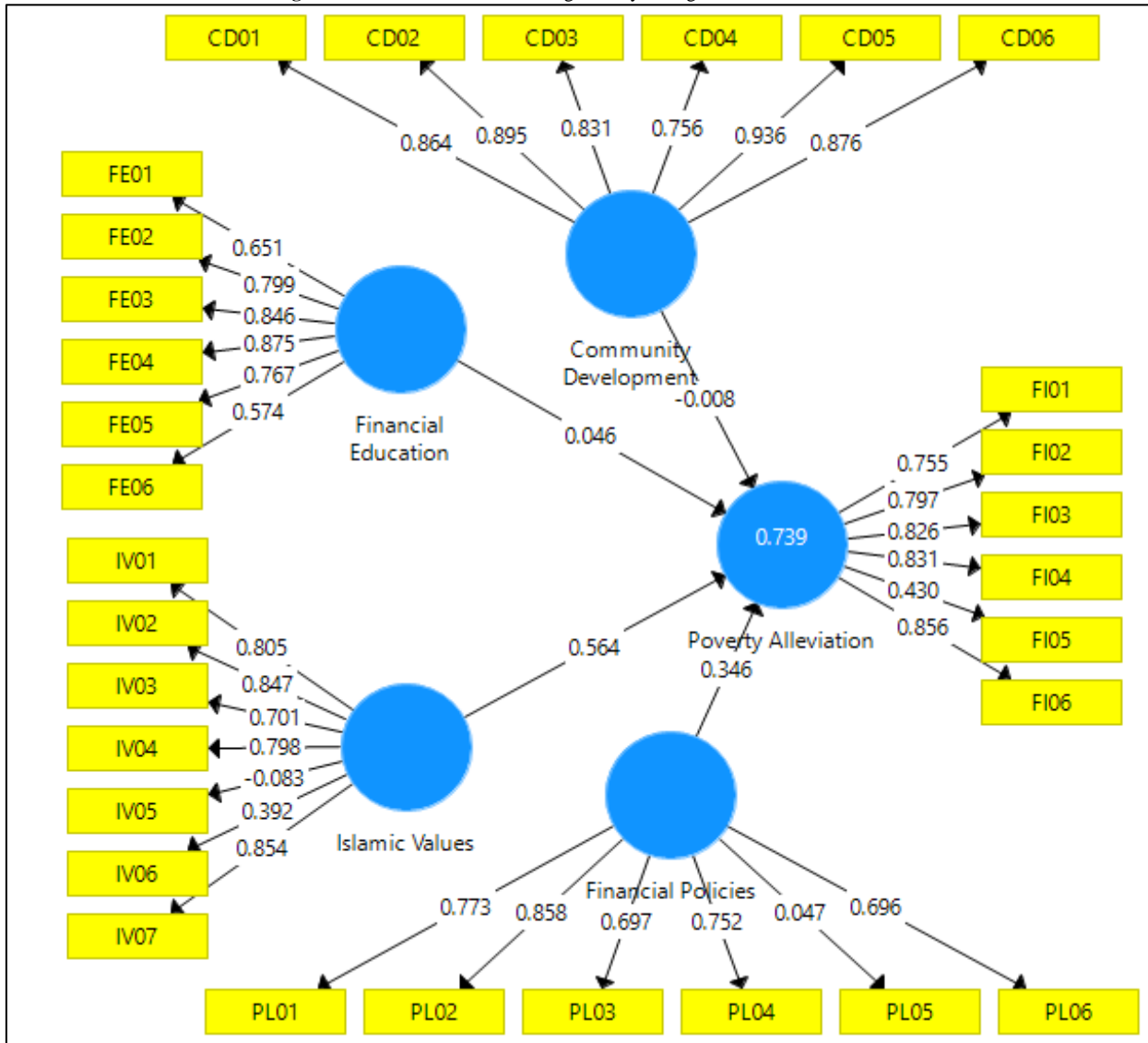
δ (Delta) indicates measurement error for exogenous variable

ε (Epsilon) indicates measurement error for endogenous variable

By using SmartPLS 3.0, according to validity and reliability tests, significant constructs are Community Development (CD), Financial Education (FE), Islamic Values (IV) and Financial Policies (PL). Likewise, latent endogenous towards construct Poverty Alleviation (FI).

The early model of this study searches 31 parameters with 5 latent variables. Thus, the model is identified where data is smaller than predicted data which gives information minimum data is suitable for 30 samples in PLS model. It makes the degree of freedom become positive (predicted data-estimated parameters > 0). Details of the model are shown in Figure 1.

Figure-1. Initial Model of Alleviating Poverty through Islamic Microfinance



4. Results and Findings

4.1. Characteristic of Respondents

Table 2 depicts the characteristics of respondents from survey questionnaire.

Table-2. Characteristics of Respondents

Variable	Cluster	Frequency	Valid Percent
Gender	Male	34	100.0
	Female	-	-
	Total	34	100.0
Age (Years old)	29-39	14	41.2
	≥ 40	20	58.8
	Total	100	100.0
Income (Rp)	1 – 3 Juta	5	14.7
	3.1 – 5 Juta	8	23.5
	5.1 – 10 Juta	10	29.4
	≥ 10 Juta	11	32.4
	Total	34	100.0
Length of Time Working (Years)	1 – 3 Years	1	2.9
	3 - 5 Years	1	2.9
	≥ 5 Years	32	94.1
	Total	34	100.0

By analyzing data, this study uses software SmartPLS 3.0 to examine latent variables and construct model role of IMFI towards alleviating poverty. Loading factor more understand to be interpreted than loading weight value. This can be seen on following table. The outer loading highlights how latent exogenous variables influence its manifests/indicators. (eq; Community development variable influences its indicator (CD01) is 0.864)

Table-3. Outer Loading

Variable	Sub variable	Entire sample estimate	Mean of sub-sample	Standard Deviation	T-Statistic
Community Development (CD)	CD01	0.864	0.845	0.127	6.789
	CD02	0.895	0.873	0.137	6.556
	CD03	0.831	0.828	0.091	9.081
	CD04	0.756	0.749	0.125	6.055
	CD05	0.936	0.914	0.131	7.161
	CD06	0.876	0.846	0.161	5.442
Financial Education (FE)	FE01	0.617	0.595	0.216	3.013
	FE02	0.454	0.735	0.220	3.641
	FE03	0.349	0.813	0.152	5.568
	FE04	0.461	0.833	0.186	4.701
	FE05	0.522	0.744	0.140	5.467
	FE06	0.839	0.542	0.223	2.576
Islamic Values (IV)	IV01	0.447	0.782	0.099	8.103
	IV02	0.466	0.855	0.062	13.652
	IV03	0.322	0.644	0.205	3.410
	IV04	0.336	0.797	0.072	11.015
	IV05	-0.086	-0.069	0.318	0.262
	IV06	0.147	0.368	0.221	1.772
	IV07	0.509	0.862	0.044	19.512
Financial Policies (PL)	PL01	0.228	0.769	0.103	7.521
	PL02	0.481	0.852	0.086	10.037
	PL03	0.276	0.687	0.145	4.810
	PL04	0.669	0.726	0.101	7.449
	PL05	-0.060	0.062	0.335	0.141
	PL06	0.532	0.691	0.113	6.164
Poverty Alleviation (FI)	FI01	0.134	0.732	0.151	5.009
	FI02	0.385	0.796	0.079	10.061
	FI03	0.522	0.842	0.060	13.661
	FI04	0.596	0.819	0.061	13.627
	FI05	0.367	0.442	0.280	1.535
	FI06	0.335	0.857	0.041	21.119

Table 4 shows that path coefficient value of latent exogenous variables affects latent endogenous variable. Value path coefficient Community Development (CD) negative means latent exogenous CD has negative impact towards latent endogenous poverty alleviation. Whilst, another latent exogenous variable such as Financial Education, Islamic Values and Financial Policies were positive. It means those latent exogenous variables have positive impact with Financial Education 0.046, Islamic Values 0.564 and Financial Policies 0.348.

On the other hand, R-Square illustrates that latent exogenous variables simultaneously affect latent endogenous variable 0.739 or this relationship can be explained that latent endogenous variable has been affected latent exogenous variables 73.9%.

Table-4. Path Coefficient and R-Square

Structural Equation		Path coefficient	R ²
Latent endogenous variable	Latent exogenous variable		
Poverty Alleviation (FI)	Community Development (CD)	-0.008	0.739
	Financial Education (FE)	0.046	
	Islamic Values (IV)	0.564	
	Financial Policies (PL)	0.346	

Table 5 exemplified that composite reliability all of constructs more than p-standard 0.6. it means that internal consistency measurement both of those latent variables were reliable. Likewise, Average Variance Extracted (AVE) all constructs show values more than 0.5 except Islamic Values (0.483) and Financial Policies (0.479). it means convergent validity measurement both of construct were less-represented indicators in its variable. Therefore, Cronbach Alpha shows that to measure ideal reliability all latent variables need to achieve value more than p-standard 0.6. All measurement shows that all value more than 5. It means all latent variables have ideal reliability.

Table-5. Construct Reliability and Validity

Construct	Composite Reliability	AVE	Cronbach Alpha	Fit/Un-fit
Community Development (CD)	0.945	0.742	0.930	Fit
Financial Education (FE)	0.889	0.577	0.854	Fit
Islamic Values (IV)	0.837	0.483	0.752	Fit
Financial Policies (PL)	0.824	0.479	0.749	Fit
Poverty Alleviation (FI)	0.890	0.583	0.848	Fit

To measure structural model, it can be seen that following Q^2 value:

$$Q^2 = 1 - (1 - R^2) \\ = 1 - (1 - 0.739) = 0.739$$

It means the structural model is fit with data due to Q^2 value towards point 1 which represent the structural model is valid and reliable. This result shows all indicators were valid and reliable that reflect all latent variables with structural model test was fit. All latent exogenous variables simultaneously significant affect latent exogenous variable.

5. Conclusion

With the aim of assessing the efforts of alleviating poverty through IMFIs, this study has conducted a survey questionnaire among 34 managers of BMTs in efforts to get their feedback on role of IMFIs in alleviating poverty with its latent exogenous variables, namely community development, financial education, Islamic values and financial policies. Several interesting findings emerge from this study. Firstly, theory of informal credit in this context cannot be confirmed for community development variable because its path coefficient was negative that reflected its construct has negative impact towards latent endogenous poverty alleviation. Nevertheless, literatures show that informal credit market works straight in the community in Indonesia.

Community development variable in this study has been proven negatively affecting poverty alleviation. However, financial education has been proven to have relationship in alleviating poverty. Likewise, Islamic values and financial policies also have been significantly proven to alleviate poverty. It ultimately affects the outcome indicators that is represented by whole model in poverty alleviation

As this study recommends that improving financial education as a major effort to increase financial inclusion especially on ways in accessing financial services would be significant if IMFIs stakeholders routinely provide training or financial learning to their client. At the same time, strengthen intensive Islamic values could be delivered in small-group economic empowerment. This could also avoid the poor from involving in interest-based conventional micro-credit, which is prohibited in Islam. Last but not least, socialization of financial policy including financial inclusion simultaneously has to be carried into their client due to change of regulation. Academicians and practitioners should endorse Islamic principles related to microfinance industry actively, not only financial matters, but regularly also about social knowledge and behavioral matters. Since the result of this study shows that community development gives negative relationship, yet the others are positive. Therefore, psychological and socio-economy aspects should be included in their education

References

- Abdelbaki, H. H. (2013). The impact of zakat on poverty and income inequality in Bahrain. *Review of Integrative Business and Economics Research*, 2(1): 133–54.
- Anayo, D., Nkamnebe, E. and Idemobi, I. (2011). Article information *International Journal for Researcher Development*, 7(1): 63–83. Available: <https://doi.org/http://dx.doi.org/10.1108/MRR-09-2015-0216>
- Beck, T., Senbet, L. and Simbanegavi, W. (2015). Financial inclusion and innovation in Africa: An overview. *Journal of African Economies*, 24: Available: <https://doi.org/10.1093/jae/eju031>
- Bookstein, F. L. L. and Fornell, C. (1982). Structural to Consumer. *Journal of Marketing*, 19(4): 440–52.
- Bose, P. (1998). Formal-informal sector interaction in rural credit markets. *Journal of Development Economics*, 56(2): 265–80. Available: [https://doi.org/10.1016/S0304-3878\(98\)00066-2](https://doi.org/10.1016/S0304-3878(98)00066-2)
- Dhumale, R. and Sapcanin, A., 1998. "An application of islamic banking principles to microfinance." In *Study by the Regional Bureau for Arab States, United Nations Development Programme, in Cooperation with the Middle East and North Africa Region*. pp. 1–14.
- Hair, F. J. J., Sarstedt, M., Hopkins, L. and Kuppelwieser, G. V. (2014). Partial least squares structural equation modeling (PLS-SEM). *European Business Review*, 26(2): 106–21. Available: <https://doi.org/10.1108/EBR-10-2013-0128>
- Hassan, A., Kumar, N. and Sinclair, S. (2015). Humanomics financial inclusion of the poor: From microcredit to Islamic microfinancial services financial inclusion of the poor: From microcredit to Islamic microfinancial services. *Humanomics Journal of Financial Economic Policy Iss Humanomics Iss International Journal of Sociology and Social Policy*, 3112(11): 354–71. Available: <https://doi.org/10.1108/H-07-2014-0051>
- Haugen, N. (2006). The informal credit market: A study of default and informal lending in Nepal. (February): 1–80. Available: <http://www.cmi.no/publications/file/1937-the-informal-credit-market.pdf>

- Henseler, J., Ringle, C. M. and Sinkovics, R. (2009). The use of partial least squares path modeling in international marketing. *Advances in International Marketing*, 20: 277–319. Available: [https://doi.org/10.1108/S1474-7979\(2009\)0000020014](https://doi.org/10.1108/S1474-7979(2009)0000020014)
- Ismail, W. b. M. C. H. A. G. B. (2014). Improving the effectiveness of Islamic micro-financing Learning from BMT experience. *Humanomics*, 26: Available: <https://doi.org/10.1108/08288661011025002>
- Kassim, W. (2016). Issues and challenges in financing the poor: case of baitul maal wa tamwil in Indonesia. *International Journal of Bank Marketing*, 34(1): 62–77. Available: <https://doi.org/10.1108/EUM0000000001122>
- Kramer, D. B., Urquhart, G. and Schmitt, K. (2009). Globalization and the connection of remote communities: A review of household effects and their biodiversity implications. *Ecological Economics*, 68(12): 2897–909.
- Learidi, R., Seasholtz, M. B. and Pell, R. J. (2002). Variable selection for multivariate calibration using a genetic algorithm: Prediction of additive concentrations in polymer films from Fourier transform-infrared spectral data. *Analytica Chimica Acta*, 461(2): 189–200. Available: [https://doi.org/10.1016/S0003-2670\(02\)00272-6](https://doi.org/10.1016/S0003-2670(02)00272-6)
- Lønborg, J. H. and Rasmussen, O. D. (2014). Can microfinance reach the poorest: Evidence from a community-managed microfinance intervention. *World Development*, 64: 460–72. Available: <https://doi.org/10.1016/j.worlddev.2014.06.021>
- Obaidullah, M. and Shirazi, N. S. (2014). Integrating philanthropy with microfinance: Models of community empowerment. *Social Impact Finance*: 75–96. Available: https://link.springer.com/chapter/10.1057%2F9781137372697_7
- Peng, D. X. and Lai, F. (2012). Using partial least squares in operations management research: A practical guideline and summary of past research. *Journal of Operations Management*, 30(6): 467–80. Available: <https://doi.org/10.1016/j.jom.2012.06.002>
- Reinartz, W., Haenlein, M. and Henseler, J. (2009). An empirical comparison of the efficacy of covariance-based and variance-based SEM. *International Journal of Research in Marketing*, 26(4): 332–44. Available: <https://doi.org/10.1016/j.ijresmar.2009.08.001>
- Sanchez, G. (2013). PLS path modeling with r. *Berkeley*: Available: <http://www.gastonsanchez.com/PLS>
- Santoso, B. and Ahmad, K. (2016). *Islamic microfinance branchless banking model in Indonesia*. Intellectual DIscourse, Special Issue Press 409–33.
- Shaw, J. (2004). Microenterprise occupation and poverty reduction in microfinance programs: Evidence from Sri Lanka. *World Development*, 32(7): 1247–64. Available: <https://doi.org/10.1016/j.worlddev.2004.01.009>
- Simmel, J. (1965). The poor author (S): Georg simmel and claire jacobson reviewed work (s): Published by : University of california press on behalf of the society for the study of social problems stable. *Social Problems*, 13(2): 118–40. Available: <http://www.jstor.org/stable/798898>
- Wold, S. (1984). The partial. *Society for Industrial and Applied Mathematics*, 5(3): 735–43.
- World Bank (2014). Financial Inclusion, Global Financial Development Report 2014 (Vol. xIIX). Washington DC, US. Available: <https://doi.org/10.1596/978-0-8213-9985-9>
- Yapa, L. (1997). On "What causes poverty? A postmodern view". *Main*, 87(4): 709–16.