Price rationing in Islamic Cooperatives Institutions (challenges and solutions to poverty reduction in Indonesia)

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Abstract. A primary focus of this study is to highlight the suggested solutions from Islamic cooperatives practitioners to overcome the challenges in the practice of price rationing assessment in three Bottom of the Economic Pyramid (BOP) regions, namely Daerah Istimewa (DI) Yogyakarta, Nusa Tenggara Barat (NTB) and Makassar, Indonesia. A total of 26 Islamic cooperatives Institutions (MFIs) in Indonesia were chosen based on purposive sampling methods. An in-depth interview was developed to profile the data related to the suggested solution. This study found evidence that Baitul Maal Wa Tamwil (BMT) has a higher margin than commercial and rural banks. The problem of higher margin is fixed through reducing margin (giving special margin for loyal consumers, seeking a channelling bank with lower margin, giving an option of margin negotiation and increasing financing distribution) and giving rationalization to customers of the benefit associated with a high margin (giving value to the product, increasing the level of sharia understanding and good communication of margin).

1. Introduction

The problem of credit not being sent to the specific segment of people, predominantly those at the bottom of the economic pyramid (BOP), is one of the important microfinance questions. The annoyance of interest rates which is high creates price rationing for the unfortunate in getting into microfinance either from Islamic or conventional cooperatives institutions (MFIs).

Price constraint or price rationing occurs when somebody cannot yield the credit or financing since the high-interest rate enforced on the credit [1]. This situation rises the cost of gaining credit because of asymmetric information [2, 3]. Asymmetric information amongst lenders and borrowers in the financial market has been recognized as the main cause of adverse selection by creditors and moral hazard by debtors, especially in the rural credit market [3]. Due to asymmetric information, creditors face technical hitches differentiating between bad and good debtors when deciding which loan submissions should be approved and, thus, increase the price of borrowing as a risk-mitigating struggle [4].

In practice, there is a cheap credit policy from the Government. However, governments' cheap financing strategy in many developing countries is usually not significant [5]. The negotiation rate on margin disappoints savings, distorts factor prices, fails in the proper substitution of labour for land and investment, paralyzes formal creditors, and eliminates those at the BOP, particularly the poor.

The term "people at the BOP" initially originated from Prahalad and Hart [6], who described that the world's people in tier 4 of the economic pyramid is controlled by those who have a per capita
income less than $2 per day. The people at the BOP's characteristics are that they could not contribute in the worldwide market economy and living in rural villages or urban shantytowns and slum areas. Moreover, they have no lawful title of their properties, no formal schooling, and face problems gaining credit. Bharti [7] adds several features of people at the BOP, such as illiteracy, poor health, and unemployment. More alarmingly, people at the BOP are dominated by Muslims who live under the poverty level. Half of the global poverty resides in the Muslim world, with the Muslim population constituting 24% of the total world population [8].

Whereas Islamic cooperative is a focussed product that provides to the essentials needs of the Muslims at BOP, it looks some credit rationing problems. Islamic cooperative faces the problems of supply-side constraint in the form of mission drift, commercialization, and funding constraints. The point of mission drift can be defined as unplanned or hidden changes in the MFI's mission in given that financing, such as changing their financings from un-bankable persons to moderately wealthier persons since the MFIs find it more profitable to finance the more affluent segment of society compared with the people at BOP [9, 10].

This study uses BMT since BMT provides funding and training to the poor. In this regard, the MFIs have floated from their missions of providing financial facilities to the BOP people to accommodate the wealthier borrowers because those at the BOP are not attractive sufficient due to high clerical costs and low revenues, and lack of credits and collateral. This paper aims to analyse factors to overcome the challenges in practicing price rationing assessment to enhance the accessibility of the Muslims at the BOP.

1.1. Price rationing: at glance introduction

The thought of credit rationing has been established by Stiglitz [11], who stated that:

"Why is credit rationed? Perhaps the most basic tenet of economics is that market equilibrium entails supply equalling demand; if demand exceeds supply, the price will rise, decreasing demand and/or increasing supply until demand and supply are equated at the new equilibrium price. So, if prices do their job, rationing should not exist."

This means that credit rationing originally occurs when the demand for funding is greater than the supply. Stiglitz [11] also stated that potential borrowers rejected by a bank tend not to get financing even if they indicate that they want to pay more or possess high-value collateral, which could be due to increased risk of the bank’s loan portfolio. Under this condition, the equalling of supply and demand for loanable funds will not be achieved, and credit restriction and rationing will occur.

Price rationing or price constraint is a condition when financial institutions set a high-interest rate or margin on financing such that borrowers at the BOP cannot afford to pay because of the high borrowing cost [12]. There are two types of price rationing, namely external and internal price rationing. External price rationing occurs when lenders raise the cost of interest and transactions. At the same time, internal price rationing occurs when borrowers prefer not to borrow at fair market rates and transaction costs because they cannot afford the nominal offer [12].

Also, a price rationed individual is a person who suffers a price rationing problem and prefers not to borrow because he does not want funding at a high cost of capital [13]. He cannot afford to pay the high margin imposed by the lender. This condition occurred because MFIs are small scale financing institutions with high transaction and information costs. A considerable number of microfinance programs depend on donor subsidies to cover high operational costs [14]. When contributions are not sufficient, they transfer fees to the borrowers, resulting in many borrowers facing this type of credit rationing.

2. Method

The methodology starts with finding BMT that provides funding for the poor then continues with the interview and conducting the qualitative content analysis. The population for the qualitative approach in this study is BMT in Nusa Tenggara Barat, Daerah Istimewa Yogyakarta, and Sulawesi Selatan. For qualitative research, this study uses a purposive sampling method (a type of non-probability sampling)
to choose samples to find out the suggested solutions to credit rationing problems that would enhance Muslims' accessibility to the BOP to Islamic cooperative. This sampling method is conducted by eliciting people's views with specific expertise and providing evidence for the validity of research outcomes [15]. The sample chosen for qualitative analysis is based on the three highest numbers of poor people and the region with the lowest poverty line level to continue from the quantitative stage. Table 1 below shows the branches of BMT chosen as a sample in this study:

| Region(s)          | BMT Sample(s)                                                                 |
|--------------------|-------------------------------------------------------------------------------|
| DI Yogyakarta      | BMT Bringharjo Kauman                                                        |
|                    | BMT Bina Ihsanul Fikri                                                        |
|                    | BMT An Nimah                                                                 |
|                    | BTM Surya Umbulharjo                                                          |
|                    | BMT Hidayah Ummat                                                            |
|                    | BMT Bringharjo Malioboro                                                      |
|                    | BMT Bumi Mizan Sejahtera                                                      |
|                    | BTM Kotagede                                                                 |
|                    | BMT Bringharjo Pabringan                                                      |
|                    | Puskopsyah BMT Yogyakarta                                                    |
| Sulawesi Selatan   | BMT Al Hasan                                                                 |
|                    | BMT Saadatul Al Birry                                                        |
|                    | BMT At Taqwa                                                                  |
|                    | BMT Kube 033                                                                  |
|                    | BMT Sinar Surya Abadi                                                        |
|                    | BMT Fastabiqul Khaerat                                                       |
|                    | BMT Al Amin                                                                   |
|                    | BMT Sinergi Karya                                                            |
|                    | BMT Kube 034                                                                  |
|                    | Puskopsyah BMT Inti                                                           |
| Nusa Tenggara Barat| BMT Al Iqtishady                                                              |
|                    | BMT Ar Rasyada                                                                |
|                    | BMT Gumarang Akbar Syariah                                                    |
|                    | BMT Permata Hidayatullah                                                      |
|                    | BMT Daruzzakah Mandiri                                                        |
|                    | BMT Al Hidayah                                                                |

The sample requirements for qualitative study are:

i. Smallest level is BMT executive with more than two-year experience

ii. Have a product of BOP credit

iii. Handling credit for people at the BOP

In the survey case, the first question is whether Islamic MFIs have a funding program for the people at the BOP. After that, an in-depth interview will be conducted in every BMT.
2.1. Qualitative content analysis

Content analysis is a research technique to replicate and validate inferences from texts [16]. Qualitative content analysis can also be defined as methodologically controlled analysis or an empirical of books within the context of statement [17]. This method highlights the context and subject, similarities, and differences within themes and sub-themes [18]. The interview content was read to get an overall perception of the data and produce ideas for the next analysis [18].

It is useful to understand social reality in a subjective but scientific manner [19]. Moreover, this method assumes the thoughtfulness to the usage of words and context in which this is used within a board dissertation analytic methodology in the analysis of common actuality [19].

3. Results and discussion

The BMT varies in size, but they had all operated for a minimum of 2 years before 2015. The financing range also changed from Rp 300,000 to Rp 600,000,000, but on average, financing is under Rp 10,000,000. The sources of funding come from savings, own assets/or borrowing from other BMTs. Several BMTs have additional financing sources, namely from NGO grants, social ministry grants, channeling with big BMT and government agencies.

According to the interviewees, borrowers' characteristics are dominated by having micro-businesses, which range from traditional market stalls to fishers. Most of the BMT borrowers are un-bankable. One of the reasons is that they feel more comfortable by having a financial instrument in BMT, a semi-formal financial institution rather than a bank.

BMT in distributing and collecting money is not the same as commercial banks. Since they are semi-formal and operate without central bank supervision, they do not have big customers like commercial banks, so they use them with low efficiency. A problem that sometimes occurs is price rationing, in which BMT has a higher financing price than others. This theme is summarized from interview questions:

(i) What are the current determinants of socio-demographic and financial service consumption used in your BMT?
(ii) In using those determinants, what are the previous problems of price rationing faced by your BMT?
(iii) What are the solutions that have been conducted by your BMT?
(iv) What are your dream solutions that have not yet been conducted by your BMT?

The definitions of coding that are used for the interview data collection are presented in Table 2.

| Descriptive code                              | 1st level codes      | Pattern code                                                       |
|-----------------------------------------------|----------------------|-------------------------------------------------------------------|
| Quantity rationing                            |                      |                                                                  |
| The problems of price rationing               | Problems-explain     | PRP1- Probs-of-price-rationing-in BMT                             |
| Reduce high margin                            | Solutions-explain    | PRS1- Sol-reduce-high-margin                                      |
| Give rationalization to customer the benefit of high margin | Solutions-explain    | PRS2-Sol-Giving-rationalization-to customer-the-benefit-of-high-margin |

This section analyzes the price rationing problems and their possible solutions from BMT practitioners in Indonesia. The responses are classified into two focus-coding groups, which are: issues and solutions. Table 3 presents the summary of coding analysis for price rationing possible solutions:
Table 3. Data Analysis for Price Rationing Possible Solutions.

| Questions | Remarks |
|-----------|---------|
| (i)       | What are the current determinants of socio-demographic and financial service consumption used in your BMT? |
| (ii)      | In using those determinants, what are the previous problems of price rationing faced by your BMT? |
| (iii)     | What are the solutions that have been conducted by your BMT? |
| (iv)      | What are your dream solutions that have not yet conducted by your BMT |

**Focused Coding**

| Remarks                        |
|--------------------------------|
| Higher margin than commercial or rural bank |

**1st Level Coding**

| Remarks                        |
|--------------------------------|
| Higher margin than commercial or rural bank is the problem faced in BMT which causes price rationing |

| Remarks                        |
|--------------------------------|
| Increasing financing distribution is the most desirable solution given by BMT practitioners for reducing high margin. |

| Remarks                        |
|--------------------------------|
| Seeking channeling bank with lower margin is another solution from BMT practitioners |

| Remarks                        |
|--------------------------------|
| The rest of the respondents also suggest giving a special margin for loyal consumers and an option of margin negotiation to solve the problems of price rationing |

| Remarks                        |
|--------------------------------|
| Increasing the level of *sharia* understanding is the most desirable solution from BMT practitioners to give rationalization to customer of the benefit of high margin. |

| Remarks                        |
|--------------------------------|
| Good communication of margin is also another solution from BMT practitioners. |

| Remarks                        |
|--------------------------------|
| Last, a few respondents agreed that giving value to the product is the solution to the problems of price rationing. |

**Conclusion for sub-theme 2**

To solve the problem of price rationing, there are two approaches, which are: reducing high margins and giving rationalization to the customer of the benefit of a high margin. Increasing financing distribution is the most desirable solution as given by BMT practitioners to reduce high margins. Seeking a channeling bank with a lower margin is another solution from BMT practitioners. The rest of the respondents also suggest giving a special margin for loyal consumers and the option of margin negotiation to solve the problems of price rationing. In giving a rationalization to customer of the benefit of a high margin, increasing the level of *sharia* understanding is the most desirable solution suggested by BMT practitioners. Good communication concerning margins is also another solution from BMT practitioners. Last, a few respondents agreed that giving value to the product is the solution to the problems of price rationing.
3.1. Sub-Theme 1: The problems of price rationing in BMT Result

Table 4. Summary of the Problems of Price Rationing in BMT.

| Sub-Theme | Explanation | BMT |
|-----------|-------------|-----|
|           | Freq.       | Percent |
| The problems of price rationing in BMT | Higher margin than commercial or rural bank | 21 | 100% |
|           | Total       | 21 |
|           | Respondents who answered | 21 |

There is only one problem in price rationing: the margin is higher for BMT than commercial banks or rural banks. Table 4 shows that there is only one reason for price rationing in BMT, which is that BMT has a higher margin than commercial or rural banks. Since affordability is quantified by higher margin in the financing, high transaction costs and lower repayment, a higher margin in BMT compared with commercial or rural banks support the previous findings of credit rationing in which it is found to be a source of the credit rationing problem.

... Our customer proposes a lower margin; honestly, we want to give it because big commercial banks give lower margins and have entered micro-financing. When we calculated, if we implemented, we will lose (Y01). BMT margin is more significant compare to commercial banks (Y09). We said that our margin is lower when comparing with conventional cooperatives or money shark. But when we compare with a commercial bank, we are high. Fortunately, our customers are un-bankable. We give a low margin for initial financing (S05)...

A high margin is a result of increased operating costs [20]. In the BMT case, BMT only provides financing on a small scale to people. Therefore, operating costs are higher. Because of higher operating costs, BMT must pass on a high margin to customers to cover the expenses. In practice, a BMT with a high margin is more independent. A study by [21] stated that BMT with higher margins is not interested in cooperating with banks for an extended period. Customers will choose other financial institution alternatives if the problem of higher margins is not solved.

3.2. Sub-Theme 2: The Solutions to the Problems of Price Rationing in BMT

There are several solutions to the problems of price rationing, which divided into two, namely, solutions to reduce high margins (outstanding margin for loyal consumers, channeling to banks with a lower margin, margin negotiation, and increasing financing distribution to reduce margins), and providing a rationalization to the customer of the benefit of a high margin (giving more value, sharia understanding, and good communication about margin).

3.3. Reduce high margin

Giving an impressive margin for loyal consumers, seeking a channeling bank with a lower margin, offering margin negotiation, and increasing financing distribution are effective ways to reduce high margins in BMT. A summary of the ways to reduce high margins in BMT is shown in Table 5.

Table 5. Summary of how to reduce high margin.

| Sub-Theme | Explanation | BMT |
|-----------|-------------|-----|
|           | Freq.       | Percent |
| Reduce high margin | Giving special margin for loyal consumer | 13 | 23.64% |
|           | Seeking channeling bank with lower margin | 15 | 27.27% |
Table 5 can be concluded that increasing financing distribution is the most desirable solution according to BMT practitioners to reduce high margins. Seeking a channeling bank with a lower margin is another solution for BMT practitioners. The rest of the respondents also suggest giving an impressive margin for loyal consumers and margin negotiation to solve price rationing problems. These findings can also be used as solutions to BOP borrowers’ affordability problems.

... We have a special margin (lower financing margin), especially for the loyal consumer (Y01). We also seek a channeling bank with a low margin to give financing with a low margin (S03). If they feel the margin we provide is burdening them, we will offer negotiation options (S05). The solution is we will distribute funding as much as possible so the pricing will be reduced (Y08)... 

Islamic cooperative must be careful in determining to price for consumers. Developing a low-cost pricing strategy is essential for the BOP consumer [22]. The pricing strategy should be based on Prophet Muhammad’s SAW practice of selling a product with a price that can be absorbed by the market [23]. Giving an impressive margin to customers will satisfy the customer’s needs and positively impact BMT sustainability.

The Indonesian government has channeled its funding program to BMT through inkopsyah BMT (central BMT in Indonesia) to give people cheap funding at BOP [24]. This program is undertaken with BMT based on revenue sharing [25]. Moreover, this program aims to increase funding distribution to the poor people and reduce financing margin.

3.4. Give rationalization to customer about the benefit of high margin

Giving more value to the product, increasing the level of shariah understanding, and good communication about margin are the ways to provide rationalization to the customer about the benefit of a high margin. Table 6 summarizes the rationalizations given to customers about the service of high margins.

Table 6. Summary of giving rationalization to customer about the benefit of high margin.

| Sub-sub-theme                                      | BMT       |
|---------------------------------------------------|-----------|
|                                                   | Freq.     |
|                                                   | Percent   |
| Give rationalization to customer about the benefit of high margin |           |
| Giving value to the product                        | 8         |
| Increasing the level of shariah understanding      | 17        |
| Good communication of margin                        | 13        |
| Total                                              | 38        |
| Total respondents answered                         | 19        |

Table 6 can be inferred that increasing the level of sharia understanding is the most desirable solution, according to BMT practitioners, in giving a rationalization to customers about the benefit of a high margin. Good communication about margin is another solution for BMT practitioners. Last, a few respondents agreed that giving value to the product is a solution to solve price rationing problems.

... Our consumer did not want to move to another financial institution because we offer easier financing (Y05). BOP community around us did not care about high margin because they were already accustomed to money shark. Their principle is “quick financing.” They also have loans in the money shark (Y07). BMT margin is big, but we still found many people propose it. It is because
of the family approach in BMT. Sharia is not always cheap (Y09). Our customers want a quick process. Traditional market traders want fast financing because they want to repay a debt to others (S04)...

BMT has a unique characteristic in offering convenient and quick financial services, including “mobile services,” where the staff deliver all services door to door [24]. Besides that, BMT employees are required to work quickly [26]. This quick process is offered as another advantage to balance against the high margin. Delivering more value is another advantage that helps BMT to succeed.

Finally, the solutions related to price rationing are expected to achieve welfare, improving goals in poverty reduction. Giving rationalization to borrowers about the benefit of high margin will increase universal primary education especially related to borrowers’ knowledge. In contrast, the solutions of reducing high margin will eradicate extreme poverty and hunger because borrowers can get cheaper funding, so they have more affordability to repay.

4. Conclusion
This study provides the suggested solutions for price rationing because the margin of BMT is higher than banks. The proposed solutions are through two treatments, namely reducing price margin (giving outstanding margin to loyal borrowers since they are categorized as trustworthy borrowers, choosing a lower margin at a channeling bank, conducting margin negotiation, increasing financing distribution to reduce margins) and giving a rationalization to customers of the benefit of high margin (good communication of margin, sharia understanding and giving more value).

The Government should have an extra budget to support BMT to minimize price rationing. The Government must support BMT in several ways. First, the Government must have the grant to support BMT growth since BMT's purpose is reducing poverty. The Government must consider the condition of a lack of money to be distributed to people at BOP. Government intervention, especially in the rural credit market, is needed to provide access for the poor through leading credit institutions, producing financing programs, subsidizing margin, and several interventions. It is because eradicating poverty and hunger is under Government responsibility.

Acknowledgements
Special thanks to Asosiasi BMT Indonesia.

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