IES 30,1

42

Received 15 April 2022 Revised 18 July 2022 Accepted 2 October 2022

Collateral imposition and financial inclusion: a case study among Islamic banks and MSMEs in Indonesia

Adi Saifurrahman and Salina Kassim

Institute of Islamic Banking and Finance, International Islamic University Malaysia, Kuala Lumpur, Malaysia

Abstract

Purpose – The primary objective of this paper is to identify and compare the collateral imposition practices among Islamic banks in Indonesia to serve micro, small and medium-sized enterprise (MSME) clients and explore the experiences and perceptions of MSME entrepreneurs pertaining to collateralisation in MSME financing.

Design/methodology/approach – This study was carried out by implementing a case study research strategy. The data was gathered primarily through the interview by utilising purposive uncontrolled quota sampling. The interview was conducted using semi-structured interview questions by targeting the two sides of Islamic financial inclusion: the Islamic banking industry (supply-side) and the MSME segment (demand-side).

Findings – This paper implies that the collateral provision is indeed an obligatory requirement for MSME to access regular financing in an Islamic bank, preferably the immovable type that consists of land and property. Subsequently, although the Islamic banks offer non-collateralised financing, their disbursement is still relatively scant and limited. Furthermore, despite the collateral issues, most MSME entrepreneurs positively perceive the bank's collateralisation practice, indicating their awareness and understanding of the collateral purpose and function to access the financing facility.

Research limitations/implications – This paper merely observed six Islamic bank institutions and 22 MSME units in urban and rural areas in Indonesia using a case study approach. Therefore, the empirical findings and case discussions were limited to those around the corresponding Islamic banks and MSME participants.

Practical implications – By referring to the several disclosed issues associated with the collateral imposition practices, this paper presents several recommendations that might be considered by the policymakers and the Islamic banking industry to enhance the realisation of MSME Islamic financial inclusion from the collateral implementation aspect, and thereby, facilitating more inclusive growth for the MSME industry.

Originality/value – This paper is unique since the paper attempts to analyse and compare the collateral imposition practices and its perception from the two distinct sides of Islamic financial inclusion that were represented by Islamic banks and MSMEs in Indonesia by including different types of Islamic banks and different segments of MSME in their diverse business sector within the urban and rural locations.

Keywords Collateral, Financial inclusion, Indonesia, Islamic banks, MSME

Paper type Case study

JEL Classification — D10, G21, G40, O17. KAUJIE Classification — L2, L5, K13, I51

© Adi Saifurrahman and Salina Kassim. Published in *Islamic Economic Studies*. Published by Emerald Publishing Limited. This article is published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence may be seen at http://creativecommons.org/licences/by/4.0/legalcode

The previous version of this paper has been presented at the Ninth ASEAN Universities International Conference on Islamic Finance (AICIF) that was conducted in State Islamic University Sunan Kalijaga, Yogyakarta, Indonesia, on 17–19 November 2021. So far, to the authors' knowledge, there is no information from the conference organiser to publish their whole conference proceeding, and this paper has not been published in any journal and is not under consideration by any other publication.



Islamic Economic Studies Vol. 30 No. 1, 2022 pp. 42-63 Emerald Publishing Limited e-ISSN: 2411-3395 p-ISSN: 1319-1616 DOI 10.1108/IES-04-2022-0023

Collateral

imposition

among Islamic

1. Introduction

Many transition countries grow at a faster rate; nevertheless, in order to reach and draw a level with advanced market economies in the foreseeable future, these countries should record even higher growth rates. One of the critical problems for the firms in many transition economies is access to finance (European Bank for Reconstruction and Development [EBRD], 2005), and this problem is even more excruciating for micro, small and medium-sized enterprises (MSMEs) compared to the large firms (Beck *et al.*, 2005, 2006; Duarte *et al.*, 2017; International Finance Corporation [IFC], 2016; International Labour Organization [ILO], 2019). Both issues of high transaction cost related to the relationship lending and the high-risk intrinsic of MSME financing explain the unwillingness of financial service providers (FSPs) to cater for the needs of the MSME segment (Beck and De La Torre, 2007; Rahman *et al.*, 2016; Rahman *et al.*, 2017).

Therefore, in this concern, collateralisation appears to be an essential component for the enterprises to access external financing, especially in developing countries where the financial market environment commonly consists of opaque information and inadequate enforcement (Hainz, 2003; Menkhoff *et al.*, 2006; Duarte *et al.*, 2017). This condition is similarly happening in Indonesia, and several studies and surveys disclose that collateral is one of the critical factors causing the financial exclusion problem in the MSME industry since this segment has no or limited assets to be collateralised in order to access external financing, either from the banks or other financial institutions (Irjayanti and Aziz, 2012; IFC, 2016; ILO, 2019; Rokhlinasari and Widagdo, 2019; Wardhono *et al.*, 2020; Masripah *et al.*, 2021).

Previous studies suggest that the provision of collateral could minimise the issue of credit rationing that was faced by the firms, particularly for the MSME segment (Berger and Udell, 1998), through several aspects: The provision of collateral could reduce the lender's risk in the event of customer's default, might remedy the market imperfection issues that was caused by the adverse selection and would be able to reduce the cost of monitoring during the credit relationship contract between lenders and borrowers (Coco, 2000; Cowling and Mitchell, 2003; Deelen and Molenaar, 2004; Rahman *et al.*, 2017).

Therefore, concerning the abovementioned issues, the primary objective of this paper is to identify and compare the collateral imposition practices among Islamic banks in Indonesia to serve MSME clients and explore the experiences and perceptions of MSME entrepreneurs pertaining to collateralisation in MSME financing. Furthermore, this study investigates the issues and problems involving different types of Islamic banks in Indonesia regarding collateral implementation and presents several suggestions and recommendations to reinforce the achievement of MSME Islamic financial inclusion from the collateralisation aspect.

2. Literature review

2.1 Banking and collateralisation in credit contract: an overview

The utilisation of collateral is a common and typical feature of credit contracts between lenders and firms. The questions about collateral use are so widespread and have been the subjects of several theoretical studies and contributions. Generally, the contractual relationship between lenders and borrowers may be hindered by the existence of information asymmetry that consists of adverse selection and moral hazard; and as a consequence, this problem might usually lead to credit rationing by the lenders (Huang *et al.*, 2014). To overcome this particular issue, the lender tends to require the borrower to provide collateral to reduce the risk of lending and minimise the presence of asymmetric information in their credit relationship (Voordeckers and Steijvers, 2006). Previous studies suggest that the use of collateral might play a role as a signalling device to assess the borrower quality (Chan and Kanatas, 1985; Besanko and Thakor, 1987; Boot *et al.*, 1991), could minimise the

agency costs of debt by preventing the problem of asset substitution (Jensen and Meckling, 1976) and subsequently reducing the underinvestment problem that presents in a specific project (Myers, 1977; Stulz and Johnson, 1985). For the most part, when moral hazard issues arise in the credit contract, collateralisation could play an essential role as a disciplinary measure to prevent negative behaviour from the borrower. Accordingly, this more robust credit protection will lead to better credit terms or even the approval of loan services that otherwise would not be accepted and granted (Voordeckers and Steijvers, 2006). Mann (1997) stated that secured credit could limit the enterprise's ability to get future loans from other lenders or mitigate the risk of excessive future borrowing.

Interestingly, Manove *et al.* (2001) criticised the unrestricted reliance on collateral, and they argued that this could have a negative effect on credit-market efficiency. According to Manove *et al.* (2001), the banks are in a good position to assess and evaluate the future potential and prospects of new investment projects. Hence, the unrestricted reliance on the collateral will relatively weaken the bank's motivation to do so, and the bank will rely excessively on collateral and conduct minimal screening, particularly for small enterprises. From the banks' perspective, collateral and screening could be considered as a substitute rather than a complementary course of action. However, their assumptions were not supported by the empirical result conducted by Voordeckers and Steijvers (2006), disclosing that the pledging of collateral does not seem to substitute for the screening efforts made by the bank as measured by the time needed to approve the credit application.

Furthermore, Chan and Kanatas (1985) assume that the personal and business collaterals are quite similar; however, Mann (1997) argues that personal collateral is more effective in preventing and limiting the borrower's risky behaviour by inflicting the likelihood that the borrower will feel any losses personally if he/she defaulted in their credit contract.

2.2 Why do the banks need collateral in MSME lending?

The provision of collateral could relieve the credit rationing condition that was faced by the firms, particularly for the MSME segment (Berger and Udell, 1998). These could emerge from several aspects: the collateralisation might decrease the lender's risk in the event of a customer's default (Coco, 2000), the provision of collateral could rectify the market imperfections caused by the adverse selection problems (Deelen and Molenaar, 2004) and might decrease the cost of monitoring during the credit relationship between lenders and borrowers (Cowling and Mitchell, 2003). This condition occurs since the financial environment in less-developed countries commonly involves more opaque information and weak enforcement (Hainz, 2003; Menkhoff *et al.*, 2006). As the previous studies suggest, firms in these countries are more likely to confront difficulties and challenges in getting access to external financing due to the lack of collateralisable assets (Menkhoff *et al.*, 2012; Duarte *et al.*, 2017; Rahman *et al.*, 2016).

Furthermore, the existing theoretical literature discloses at least three critical reasons why the banks need collateral in providing access to credit for MSME. First, a bank was inclined to oblige collateral since this approach reduces loan losses in the event of default (Blazy and Weill, 2013). According to Blazy and Weill (2013), inside collateral is useful for the bank since it will increase the bank's priority if the firm defaults, while outside collateral will give the bank property on an asset outside the firm [1]. Second, collateral might solve the issue of adverse selection. Because without the provision of collateral, the borrowers would have better information regarding themselves compared to the bank before the lending decision was approved. Therefore, this private information could lead to credit rationing due to the inability of the bank to price the loan following the borrower's quality (Stiglitz and Weiss, 1981). High-quality borrowers tend to show their quality using a credible signal that low-quality borrowers cannot provide. Therefore, collateral is such a signal to show the

Collateral

imposition

among Islamic

borrower's quality since it is relatively more costly for low-quality borrowers because they have a higher chance of defaulting and thus, losing the collateral they owned (Bester, 1985; Chan and Kanatas, 1985; Besanko and Thakor, 1987; Gama and Duarte, 2015; Rahman *et al.*, 2017). Accordingly, since collateral serves as a signalling device, it provides valuable information on the borrower to the bank, which could then screen the borrowers by offering the option between a secured loan with a low-interest rate and an unsecured loan with a high-interest rate. In this case, a high-quality borrower will prefer to choose a loan with collateral as it has a lower risk and low probability of default, and consequently, a low possibility of losing collateral. This occurs since low-interest rates mean a high probability to repay the loan (Blazy and Weill, 2013). Third, collateral could minimise the problem of moral hazard after the borrower has obtained the loan by reducing his/her motivation to invest in riskier projects or to minimise the effort to ensure the success of the project in which the loan was granted (Boot *et al.*, 1991; Hainz, 2003).

Moreover, despite the considerable amount of empirical literature dedicated to the banking issues and accounting studies related to MSME lending, the empirical discussions on the use of collateral in MSME lending are relatively scant. The analysis of empirical literature leads to two important conclusions. First, empirical evidence is rather supporting the observed-risk hypothesis in which the riskier borrowers are more often need to provide collateral, and this evidence was in line with the common opinion of the bankers. This empirical evidence seems to reject the theoretical arguments pertaining to the asymmetric information issues on the collateral use in MSME lending, in which the riskier borrower will opt for an unsecured loan with a high-interest rate. Second, the value and the type of collateral play a critical role in the motives of the collateral utilisation by the banks. Nonetheless, it has been discussed only in a limited way in the literature (Berger and Udell, 1990; Jimenez and Saurina, 2004; Jimenez et al., 2006; Voordeckers and Steijvers, 2006; Steijvers et al., 2010; Liberti and Mian, 2010; Berger et al., 2011a, 2011b, 2012; Blazy and Weill, 2013).

2.3 Determinants of collateral in MSME financing

Based on the broad literature discussion on business and personal collateral, there are several determinants of collateral in MSME financing, and this paper will discuss this aspect briefly. These determinants include firm, loan, lender market and credit environment characteristics.

2.3.1 Firm characteristic. Previous studies extensively utilise the firm size and age as proxies to evaluate the information cost in the financing process. The experience of the owner or manager would influence the firm's credibility and viability (Hanley, 2002; Voordeckers and Steijvers, 2006, Duarte et al., 2017). Older and larger firms and more experienced owners or managers will likely have a longer track record and better relationships with the lender (Berger and Udell, 1995). Therefore, these firms will have an easier screening process, which reduces the imposition of collateral in their financing (Smith and Warner, 1979; Chan and Kanatas, 1985; Leeth and Scott, 1989). Furthermore, if the lender requires collateral, older and larger enterprises with a more established owner or manager might use the business as collateral rather than personal assets (Steijvers and Voordeckers, 2009; Hernandez-Canovas and Martinez-Solano, 2010), since they have developed more credibility and are less assets-constrained compared to the smaller and younger enterprises.

2.3.2 Loan characteristic. The maturity and size of a loan are the broad determinants of the degree and imposition of collateralisation on a particular firm. Theoretical and empirical studies argue that loan maturity positively correlates with collateral requirements (Leeth and Scott, 1989; Boot et al., 1991; Harhoff and Korting, 1998; Degryse and Van Cayseele, 2000). This condition happens since the long-term credit contract could grant the borrower enough opportunity to change the project in subtle ways or even alter the project from a low-risk to a high-risk profile (Jensen and Meckling, 1976). Moreover, the likelihood of an adverse event

becomes more significant when the financing duration is longer. In this case, collateral has the power to reduce the *ex ante* risk assessment of the loan (Voordeckers and Steijvers, 2006). Furthermore, the provision of pledges, particularly personal collateral, could serve as an effective measure for the lender to get a specific value in the future. Mann (1997) stated that the company may not retain its value, but its collateral likely does. Subsequently, Stulz and Johnson (1985) predict that the long-term credit contract relies less on collateral.

From the aspect of the loan size, an enterprise obtaining more debt and attaining a higher level of leverage will have a higher risk of not repaying its loan (Leeth and Scott, 1989; Avery et al., 1998). Hence, to minimise this problem, the bank will tend to ask for more protection in the form of collateral (Degryse and Van Cayseele, 2000). Since imposing collateral involves costs that could be recovered fully only with large-size loans, the likelihood of imposing collateral is higher for larger loan sizes compared to smaller loans (Jackson and Kronman, 1979).

2.3.3 Lender market characteristic. Previous literature suggests that as the bank competition increases, the bank's incentive to invest in information collection might decrease since the borrowers may attempt to switch to other banks. Hence, in an increasingly competitive environment, the bank's power to extract rents reduces, and thus, improves the bank's tendency to rely on collateral (Besanko and Thakor, 1987; Petersen and Rajan, 1995). Subsequently, another theoretical argument perceives that competition might prompt the banks to invest even more in relationship lending (Boot and Thakor, 2000) because client-driven lending assists the bank to distinguish itself from the competitors, and then, the lender would be more likely to lessen and relax contractual terms (Berlin and Butler, 2002; Gama and Duarte, 2015).

Furthermore, the distance between the bank branches and clients' locations is relevant for collateral determinants (Jimenez *et al.*, 2009). The clients' transportation costs create spatial differentiation of banks, and hence, decrease competition. Banks' costs of collecting and processing site-specific information about potential borrowers will increase with distance; thus, more distant banks will have less information regarding the local credit market conditions (Petersen and Rajan, 2002). According to Hainz *et al.* (2013), the enterprises located close to the bank are best financed through screening contracts, whereas more distant enterprises are required to provide collateral. Intriguingly, a study conducted by Jimenez *et al.* (2009) shows the likelihood of collateral is lower for loans granted by distant lenders than by local lenders, which might suggest that the local lenders utilise collateral to profit from its local borrowers since these lenders have superior information advantages about the borrowers' credit risk.

2.3.4 Credit environment characteristic. When the bank assesses an application for a loan, the bank could collect information about the applicant first-hand or acquire this information from other banks. Information exchanges among banks could happen voluntarily via private credit bureaus or could be enforced by regulation through public credit registries. Sharing information enables banks to receive information about the borrowers, their repayment histories, and recent debt exposure. In countries with weaker information-exchange instruments, the banks may experience challenges and difficulties in assessing the credit risk, especially if they are unfamiliar with the loan applicant (Duarte et al., 2017). Consequently, information exchange and sharing could decrease asymmetrical information and eventually reduce adverse selection problems, making access to finance easier, particularly for the MSME sector (Djankov et al., 2007; Hanedar et al., 2014).

Moreover, the legal framework of the lender rights could also potentially affect the value of the collateral. As disclosed by Doing Business Report (DBR) (2010), economies that rank high on the easiness of getting credit typically have a legal system that promotes financial institution lending to the private sector. Gani and Clemes (2016) mentioned that the strength of the legal system is essential for the sound governance of the financial service sector.

Collateral

imposition

among Islamic

Furthermore, several empirical studies also suggest that robust conditions of lender protection regarding the collateral could expand the availability of favourable-term loans (Djankov et al., 2007; Qian and Strahan, 2006), especially within a situation involving acute adverse selection problems in the financial markets and, thereby, promoting more development in the financial sector (Pagano and Jappelli, 1993; Claessens and Yurtoglu, 2013).

2.4 Collateral imposition and MSME financial inclusion in Indonesia

preparations and other elements.

MSMEs report more significant financing constraints than large enterprises, and the effect of these obstacles is more pronounced for MSMEs compared to large firms (Beck et al., 2005, 2006; Duarte et al., 2017; Rahman et al., 2017). Both the high transaction costs on relationship lending and the high-risk intrinsic of MSME lending explain the reluctance of FSPs to reach out and serve the needs of the MSME segment (Beck and De La Torre, 2007; Rahman et al., 2016; Rahman et al., 2017). Hence, in this regard, collateralisation seems to be a critical component for enterprises to access external financing, especially in developing countries where the financial market environment commonly consists of opaque information and poor enforcement (Hainz, 2003; Menkhoff et al., 2006; Duarte et al., 2017). This condition similarly occurs in Indonesia, and several studies and surveys describe that collateral is one of the critical factors causing the financial exclusion problem among the MSME industry since MSMEs have limited or no assets to begin with to be collateralised to access external financing, either from the banks or other financial institutions (Irjayanti and Azis, 2012; IFC, 2014; IFC, 2016; ILO, 2019; Rokhlinasari and Widagdo, 2019; Wardhono et al., 2020; Masripah et al., 2021). Subsequently, Rahman and Rochmanika (2012) elaborate on four primary problems faced by MSMEs in Indonesia and affect their inclusion into financial services. These problems are: limited access to information related to banking and financial services; complicated terms, procedures and collateral imposition that does not match the business feasibility; high-interest rate charge and lack of guidance, particularly in respect to the financial planning, such as proposal

Furthermore, regarding the collateral imposition practices, a survey conducted by IFC (2016) disclosed that collateral is mandatory for MSMEs to access loan services. The survey further reported that only 1% of loans were obtained without any collateral. The preferred type of collateral is property, particularly property in a good location. Banks in Indonesia are also highly selective regarding the land certificate or title of the property; the most preferred one is called Sertifikat Hak Milik (SHM) or Freehold Title. Certificate issued by village chief is still common in many parts of Indonesia, but are usually not accepted for collateral. In total, 65% of MSME loans were backed up with immovable collateral, and it could be the private house of the business owner or business premises (see Figure 1).

Although the process is easier with the implementation of the Fiducia Act [2] for registering movable collateral, banks are still hesitant to accept movable collateral for obtaining a loan for the following reasons:

- 1. Marketability and liquidation: Movable collateral such as inventory or machinery is more difficult to liquidate in the event of default compared to the land or building. For example, machinery in a specific industry is likely to find buyers only that operate in a similar industry.
- 2. Depreciation: Movable collateral such as machinery, vehicle and inventories are depreciated as opposed to property or land.
- 3. Possibility of the double pledge: Banks still face some cases where one object was pledged more than once to different banks. The condition is less likely to occur in immovable collateral.

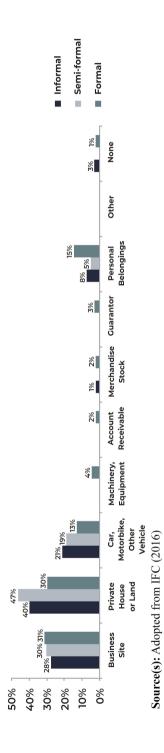


Figure 1. Collateral provided according to the MSME legality status

Collateral

imposition

among Islamic

4. *Higher perceived risk*: Banks consider movable collateral to be riskier than immovable ones. There are cases where the borrowers sold their inventory or the factory workers stole the machinery when the borrower defaulted.

Despite the aforementioned risks, according to the IFC survey (2016), 16% of loans were secured with vehicles. Also, it is common to collateralise personal belongings such as gold or jewellery for obtaining a loan (18%). Banks rarely accept other types of collateral such as stock merchandise, machinery or account receivable. Generally, banks are more cautious when providing loans to informal enterprises and insist on immovable collateral (IFC, 2016). From the aspect of Islamic banks' practices, the previous case study on several Islamic banks in Indonesia shows that the Islamic banks impose collateral both on the *Murabahah* (debtbased) and *Mudharabah* (equity-based) financing, and the collateral imposition is aimed to indemnify the bank's losses in the event of default rather than to extort and oppress the customers. Beside the collateral requirement, the banks also need to consider the customers' conditions and situations by assessing and analysing their risk profile, supporting documents and creditworthiness before the financing facility is given (Irawati, 2007; Pohan, 2017; Jamhur and Trihantana, 2017).

Eventually, the aforementioned discussion on literature pertaining to the collateral imposition practices in the Indonesian banking industry reveals that collateral provision plays an essential role in improving MSME financial inclusion in Indonesia and consequently increasing their chance to expand their business through financial support from the banks. This has occurred since the banks (both Islamic and conventional) still insist on collateral to secure their loan/financing facility, and only extremely small fraction of it were disbursed with no collateral. Nevertheless, the inability of most MSME industries to provide collateral and their high-risk perception exacerbate the problem of financial exclusion for the MSME sector, which further aggravates the MSMEs' vulnerable positions and hinders their growth potential (IFC, 2014; IFC, 2016; ILO, 2019).

3. Methodology

This study was conducted by implementing a qualitative method and adopting a case study research strategy. The data was gathered primarily through interview events by utilising purposive uncontrolled quota sampling. The interview was conducted using semi-structured interview questions by targeting the two sides of financial inclusion: supply-side and demand-side. The supply-side of financial inclusion was represented by the two segments of the Islamic bank industry in Indonesia that consists of Islamic commercial banks and Islamic rural banks by interviewing the heads of the MSME division, experts and directors of corresponding Islamic banks in their respective headquarters that were located in Jakarta, Tangerang, Bogor and Jombang. On the other hand, the demand-side of financial inclusion was represented by the two orientations of MSME industries that were located in the urban (which covers Jakarta and its surrounding suburban regions) and rural areas (which covers several rural locations in West Java and remote north coastal areas in East Java) by interviewing the owners and the managers of the MSME units. Subsequently, this study adopted discourse and narrative analysis to address and evaluate the research findings, and the analysis was assisted using Atlas.ti 8.0 for data codification and categorisation.

Furthermore, this study aims to identify and compare the collateral implementation practices among Islamic banks in Indonesia and explore the experiences and perceptions of MSME entrepreneurs related to the collateral imposition in accessing financing facilities for their respective businesses, and eventually affecting their decision and inclusion into the Islamic financial services. After the issues and problem has been identified and addressed, this paper will attempt to present several suggestions and recommendations to enhance the

50

collateral implementation by the Islamic banks to serve the MSME segment better and to lessen the burden of collateralisation for unbanked and underfunded MSME industry to boost the achievement of financial inclusion agenda.

It is essential to highlight that this study uses an anonymised code to safeguard the privacy of respondents that contribute to the substantial data and extensive information gathered for this research and to simplify the mention of the respondents, both from Islamic banks and MSME participants. The lists of the respondents' data and codes are listed in Tables 1 and 2 below.

The primary reason for this kind of respondent selection is to uncover the new and unique approaches and phenomena involving different types of Indonesian Islamic banks and MSME industry in the urban and rural orientation, particularly in the aspect of collateral implementation practices, experiences and perceptions.

4. Findings and analysis

4.1 Collateralisation practice in Islamic banks to cater for the MSME segment

Regarding the collateral implementation practices, the surveyed Islamic banks stated that their bank requires collateral for accessing regular financing services. The studied Islamic banks could accept immovable collateral in the form of land or building and movable collateral in the form of vehicles or machinery. Some of the Islamic bank respondents also disclosed that their bank might receive other types of collateral such as gold, deposit, cash or saving collateral. Intriguingly, concerning the collateral preferences, all observed Islamic banks disclosed that they prefer immovable collateral with solid legalities, such as SHM, either in the form of land or building; this type of collateral is preferably required by the surveyed Islamic banks to access large-sized financing. On the other hand, the movable collateral is often imposed by the surveyed Islamic banks to access small-sized financing. Moreover, some Islamic banks also disclosed that they implement stricter collateral imposition and more stringent requirements for high-risk MSME clients to minimise the banks' risk exposure due to the high-risk profile of respective MSME customers (see Figure 2).

Furthermore, the majority of the studied Islamic banks reported that they implement financing to value (FTV) ratio that ties to the collateral valuation and determines the maximum financing facility that the MSME clients could obtain in relation to the collateral provided. In conventional banking, this system is equal to loan to financing (LTV) ratio. LTV ratio was described as an assessment of lending risk that financial institutions and other

| Islamic bank (IB) participants | Segment | Code | Respondent's position | Experience (years) |
|--------------------------------|-------------------|------|--|--------------------|
| IB participant 1 | Commercial bank | IB01 | Head of SME Banking Division | 18 |
| IB participant 2 | Commercial bank | IB02 | Manager of Micro Banking Division | 9 |
| IB participant 3 | Commercial bank | IB03 | Head of Retail Banking Business | 6 |
| rr | (Islamic Window) | | Head of Sharī'ah Business Operation Risk | 14 |
| | | | Head of Sharī'ah Governance and Business Operational Risk Manager | 15 |
| IB participant 4 | Rural bank | IB04 | Executive Director | 18 |
| IB participant 5 | Rural bank | IB05 | Executive Director | 7 |
| 1 1 | | | Operations Director | 15 |
| IB participant 6 | Rural bank | IB06 | Executive Director | 17 |
| Total participants fr | rom Islamic banks | | | 6 |

Table 1. List of respondents' code and data from Islamic banking segment

| MSME participants | Location | Size | Sector | Code | Respondent's position | Experience (years) | Collateral imposition |
|-------------------|--------------|--------|---------------------|------|-----------------------|--------------------|-----------------------|
| MSME 01 | Urban | Medium | Service | S01 | Owner | 40 | among Islamic |
| MSME 02 | Urban | Medium | Service | S02 | Owner | 20 | banks |
| MSME 03 | Rural | Small | Animal husbandry | S03 | Manager | 10 | |
| MSME 04 | Urban | Small | Trading | S04 | Owner | 20 | 51 |
| MSME 05 | Urban | Small | Trading | S05 | Owner | 18 | |
| MSME 06 | Urban | Micro | Food industry | S06 | Owner | 10 | |
| MSME 07 | Urban | Micro | Food industry | S07 | Owner | 10 | |
| MSME 08 | Urban | Medium | Service | S08 | Owner | 24 | |
| MSME 09 | Urban | Micro | Service | S09 | Owner | 11 | |
| MSME 10 | Urban | Micro | Street vendor | S10 | Owner | 13 | |
| MSME 11 | Urban | Small | Trading | S11 | Manager | 9 | |
| MSME 12 | Urban | Micro | Trading | S12 | Owner | 1 | |
| MSME 13 | Rural | Micro | Food industry | S13 | Owner | 6 | |
| MSME 14 | Rural | Small | Trading | S14 | Owner | 3 | |
| MSME 15 | Rural | Micro | Agriculture | S15 | Owner | 30 | |
| MSME 16 | Rural | Small | Street vendor | S16 | Owner | 15 | |
| MSME 17 | Rural | Medium | Construction | S17 | Manager | 3 | |
| MSME 18 | Rural | Micro | Fishery | S18 | Owner | 17 | |
| MSME 19 | Rural | Medium | Mining | S19 | Manager | 7 | |
| MSME 20 | Rural | Micro | Animal | S20 | Owner | 2 | |
| 1 f01 ff1 o4 | | 3.61 | husbandry | 004 | | | Table 2. |
| MSME 21 | Rural | Micro | Manufacturing | S21 | Owner | 3 | List of respondents' |
| MSME 22 | Rural | Medium | Trading | S22 | Owner | 7 | code and data from |
| Total participan | its from MSM | E. | | | | 22 | MSME segment |



Figure 2.
Word cloud trend of collateral types' preference among studied Islamic banks

lenders examine before approving a mortgage or lending facility (Hayes, 2020). In this respect, the studied Islamic banks disclosed that they incorporate around a "70–80%" FTV ratio that is attached to the collateral valuation provided by the customers. In other words, if the MSME entrepreneur provides property as collateral and it was valued at Indonesian Rupiah (IDR) 1bn, by implementing this system, the entrepreneur will merely receive around IDR700–800m financing amount. One of the Islamic bank respondents revealed that the reason why the Islamic banks incorporate this FTV ratio system in their financing facility is because of the regulatory requirement and the risk associated with the collateral provided. As the respondent elaborated, in case of customer default, it is quite challenging for the bank to sell the customers' collateral at their original valuation to cover the remaining financing amount, and the bank will sell it quicker if the property or collateral was sold below its market valuation at 70–80%. Another reason is that sometimes the collateralised property is not well maintained by the owner and inevitably will lower its market valuation.

Regarding the financing facility with no collateral requirement for the MSME segment, all surveyed Islamic banks reported that they had some sort of that facility. However, this noncollateralised financing facility was offered differently by the observed Islamic banks, and they have their own method of disbursing this kind of facility. From the commercial bank side, it was explained by the IB01 bank respondent that their bank offers non-collateralised financing facilities aimed at micro-segment enterprises, such as Islamic KUR (Kredit Usaha Rakyat or "People Business Kredit"), that will be disbursed by the bank in 2021. KUR is a credit guarantee scheme subsidised by the Indonesian government to target the underbanked MSME with no collateral requirement and easy application. Nevertheless, for non-KUR financing that requires no collateral imposition, the respondent stated that the bank might implement more rigorous investigation and strict requirements to ensure the creditworthiness and accountability of MSME customers due to the absence of collateral. As for IB02 bank, the respondent pointed out that the bank could facilitate non-collateralised financing by utilising the Islamic KUR programme; at the moment, the bank is merely able to provide non-collateralised financing to the ultra-micro and micro-segment enterprises by using the subsidised Islamic KUR programme. IB03 bank also reported that they have a noncollateralised financing facility called KTA (Kredit Tanpa Agunan or "Credit with No Collateral"); however, as the respondent elaborated, the bank is highly selective to give this kind of facility to their customers and implements extensive and rigorous analysis to ensure the customer's eligibility and trustworthiness.

From the Islamic rural bank side, the IB04 respondent mentioned that their bank does not provide non-collateralised financing for common business financing; nonetheless, the respondent revealed that the bank might give this type of facility to the customers within a specific institution that has partnered with the bank, such as a staff of a university or particular institution that has a contract with IB04 bank. As for IB05 bank, the respondent elaborated that their bank also provides this non-collateralised financing only for the customers that have relation to the educational institutions that has collaborated with the bank, such as Pesantren or school institution. Furthermore, regarding the IB06 bank, the respondent pointed out that their bank provides this non-collateralised financing using the channelling method, in which the bank will disburse their financing to other Islamic financial institutions such as BMT (Baitul Maal wat Tamwil) or Islamic cooperatives, and later on, they will disburse this channelled financing with no collateral to the endusers, such as MSME entrepreneurs. However, concerning the Islamic KUR facility disbursement from the rural banking participants, one of the respondents from the rural bank mentioned the issues of KUR participation for the rural bank segment. As the respondent stated, currently, there is no Islamic rural bank that participates in the Islamic KUR programme for the MSME segment due to the cost of funds reason. As the respondent argued, although this Islamic KUR will be cheaper to the end-users (clients), the bank needs to disburse this facility initially using the bank's money and not the government's money, and the government merely provides a limited amount of subsidy for this specific programme. The problem arises since this scheme is not profitable for the rural bank due to the tight cost of funds reason and the limited amount of subsidy from the government; whereas for the commercial bank, since the bank has a lower cost of the funds compared to the rural bank industry, the bank is still able to cover the losses resulting from the Islamic KUR disbursement. Additionally, besides the cost of funds issue, the respondent further disclosed that participation in this programme would expose the bank to legal risk due to the complex administrative procedures associated with the KUR participation.

^{4.2} Experience and perception of MSME entrepreneurs on collateralisation in MSME financing

^{4.2.1} Collateral imposition to obtain financing facility. Of 22 MSME participants, only ten reported using some type of financing facility from financial institutions, and all of them

Collateral

agreed that collateral is obligatory and required to access financing facilities from FSPs. Out of these ten MSME respondents, six of them (S01, S02, S04, S06, S18 and S19) disclosed that the FSP requires them to provide immovable collateral to access financing facility in the form of land or building, while three of them (S08, S16 and S20) revealed that they merely provide movable collateral in the form of motorcycle since they used KUR facility that the government subsidised. Subsequently, the S03 respondent mentioned that he was using the KUR facility as well, and no specific collateral is required from the bank; nonetheless, the respondent regards that the bank makes his business as a form of collateral to access the KUR service.

Furthermore, of the six MSME respondents collateralising immovable assets for financing, two of them (S02 and S06) elaborated that the FSP requires them to provide collateral that was relatively higher than the financing amount. Interestingly, the S09 respondent also explained that although he never uses a financing service, the respondent revealed that he ever attempted to apply for one, and he was reluctant to apply since the collateral worth is higher than the provided financing amount. Additionally, the S09 respondent further elaborated since the bank merely provided him with part of the financing amount that he initially needed, this issue became another factor for his hesitation to apply for financing in the bank (see Figure 3).

Moreover, the three MSME respondents collateralising movable assets mentioned that their collateral worth is lower than the provided financing amount since they utilise the KUR facility. Subsequently, besides of earlier advantage, the bank also does not rigorously inspect the detailed collateral information, such as the vehicle's manufacturing year, condition and ownership. In addition, the S18 respondent reported that the BMT also requires him to

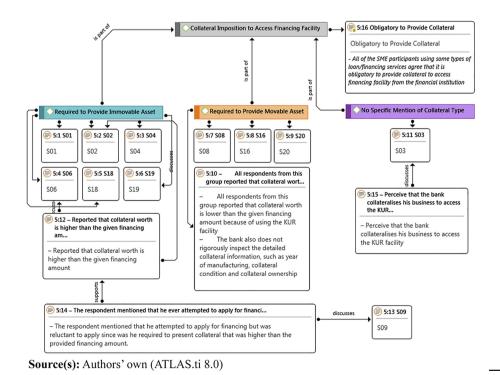


Figure 3.
MSME collateral imposition to obtain financing facility

provide collateral when accessing their financing facility, and they might accept all types of collateral in the form of immovable and movable assets. The S18 respondent explained that the BMT's procedure in terms of collateral is easier than the banking procedure since BMT merely inspects the collateral asset in general and is not as scrupulous as banking inspection; however, as the respondent further mentioned, the BMT's financing price is significantly higher compared to the bank financing.

Nevertheless, several issues need to be highlighted in the implementation of the KUR facility based on the MSME participants' experiences. One of the respondents (S18) reported that only the special person and the particular group could get access to the KUR facility offered by the bank since this programme has a limited quota and it was offered within a specific period, particularly for the rural region. Moreover, the S20 respondent also mentioned the KUR facility rationing problem, and not all MSMEs could get access to this programme unless the entrepreneur had information about it and when to obtain it. Moreover, the S20 respondent further discloses that the KUR disbursement incorporates a "first come, first serve" system; therefore, the late application will have a slight chance of approval, or in the worst-case scenario, the application will be dismissed. Additionally, four MSME participants using the KUR facility (S03, S08, S16 and S20) revealed that they use the KUR facility multiple times and it varies depending on the respective participants. Some of them utilised it two times, and others utilised it more than five times.

4.2.2 MSME participants' perception of collateral requirement to access financing. As reported earlier, since collateral is required to access loan/financing services, it is imperative to understand the perception of MSME entrepreneurs towards the collateral requirement imposed by the bank. Based on the interview data, most MSME respondents have a positive perception regarding collateral and consider this requirement as rational. Their reason for this perception is because collateral acts as a safety net to the banking financing facility (S01, S05, S13, S17, S19, S20 and S22) and provides the commitment basis for MSME to repay their financing and trust to the bank (S03, S09, S14, S16, S18 and S21), and it is a mandatory requirement imposed by the bank (S07, S08, S10, S15). However, the S08 respondent regards this collateral requirement as rational, provided the collateral is not too expensive and easy to be collateralised. Subsequently, the S09 participant also revealed that despite his positive view regarding collateral imposition, he regards this requirement as burdensome if the bank imposes relatively higher collateral worth than the financing amount provided by the bank (see Figure 4).

Other MSME respondents (S02, S10, S11 and S12) consider this collateral imposition as burdensome and perceive it negatively. Their reason for this negative perception is because the collateral value is significantly higher than the financing amount (S02), the bank often does not accept low-value movable assets, such as a motorcycle (S10); the bank also may require high-value collateral, such as land or building (S11), and because of lack of collateralised asset and minimum capital, particularly for micro-business (S12).

Intriguingly, the S04 respondent elaborated that this collateral could become rational and burdensome at the same time from the two sides; it was rational from the aspect of the bank since this collateral is utilised as the fail-safe mechanism if the customer is defaulted or failed to repay their obligation, and it was burdensome from the aspect of the customer since the customer is the defeated party if they failed to meet their obligation and hence, may result in selling his valuable asset to satisfy and repay those obligations. Furthermore, the S05 participant stated that although he has a positive view of collateral requirements, he suggested that the bank should investigate the business in detail, particularly for the credibility and accountability of the business owner, rather than relying more on collateral; this procedure will consequently influence the bank position towards the collateral imposition, and the financing application might be accepted with less or no collateral whatsoever.

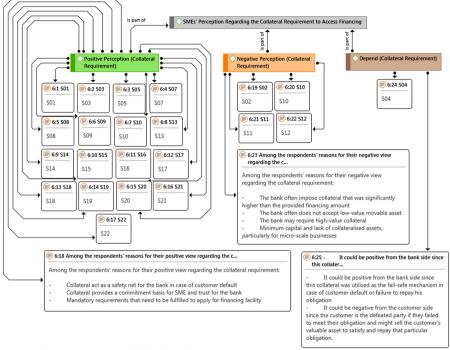


Figure 4.
MSMEs' perception
regarding the collateral
requirement to access
financing from FSP

Source(s): Authors' own (ATLAS.ti 8.0)

4.3 Analysis and discussion

4.3.1 Analysis and discussion from the aspect of Islamic Banks' practices on collateralisation. From the previous findings and results regarding the Islamic banking practices on collateralisation, we could observe that all of them agree that collateral is an obligatory requirement to access regular financing services from the bank, Subsequently, all Islamic bank participants agree that they prefer immovable collateral, especially with strong legality such as SHM. These findings confirm what has been reported by the IFC survey (2016); the study stated that collateral provision is mandatory to access loan services, and only around 1% of loans were given without any collateral. The survey also disclosed that the preferred type of collateral is property, especially the one that was located in a good location and has strong legality, such as SHM (IFC, 2016). This condition occurs since immovable collateral provides better and stronger protection for the financier compared to movable collateral due to the abovementioned reasons of marketability and liquidation, depreciation, the possibility of double pledges and higher perceived risk. This phenomenon also explains the previous empirical studies stating that collateral types play a significant role in the motives of the collateral utilisation by the banks, in which the immovable collateral is typically used to secure large-sized financing, whereas the movable collateral is commonly utilised to access small-sized financing facilities. Additionally, some Islamic banks reported that they implement stricter collateralisation measures for high-risk MSME; this circumstance also confirms what has been elaborated by the former empirical evidence pertaining to the observed-risk hypothesis in which the riskier borrowers are more often need to provide collateral.

Furthermore, the FTV mechanism was implemented by the majority of studied Islamic banks in which the clients could merely obtain around 70–80% of the financing amount in relation to the collateral provided. This mechanism was applied due to the regulatory requirement and to reduce the risk of marketability and liquidity in case of customer default. Additionally, this FTV mechanism application in collateral might justify the "credit environment characteristic" determinant in collateralisation, in which the legal framework of the lender's right could potentially affect the value of collateral, and stronger regulatory protection could expand the availability of favourable-term loans, particularly within a condition involving severe adverse selection in the financial market (Pagano and Jappelli, 1993; Djankov *et al.*, 2007; Qian and Strahan, 2006; Claessens and Yurtoglu, 2013). However, this FTV implementation might render the MSME with the limited asset at a disadvantage position; besides the requirement of collateral, they merely receive around 70–80% of the collateral worth.

Moreover, the aforementioned findings also disclosed the limited amount of non-collateralised financing disbursed by the Islamic banks, supporting the IFC survey report (2016) stating that only around 1% of loan facility was given without any collateral. Subsequently, only two commercial Islamic banks disclosed that they offer subsidised Islamic KUR facilities to cater for the needs of the unbanked and underfunded MSME segment with no collateral requirement, while the remaining four Islamic banks elaborated that they do not offer Islamic KUR facility and non-collateralised financing facility merely given in a limited way or with stricter requirements and more rigorous process. Furthermore, the previous findings also reveal the issues of KUR facility implementation from the Islamic rural bank segment from three critical aspects, which consist of the cost of funds, the limited amount of subsidy from the government and legal risk exposure due to the complex administrative procedure associated with the KUR participation. These issues and challenges explain why no Islamic rural banks in Indonesia up to this moment offer this type of facility to the MSME segment.

The preference of Islamic banks in imposing immovable collateral and implementing stricter collateral requirements for high-risk MSMEs presents a financial inclusion challenge for the lower segment of MSMEs, especially the micro and small industries that often lack collateralisable assets in order to gain access to finance. These issues also pose a dilemma to the banking industry since they need to adhere to the regulatory standard of achieving a 20% minimum credit ratio for MSMEs (Bank Indonesia, 2012), and on the other hand, they need to keep the banking prudence and accountability in check. Hence, the practice of imposing collateral is understandable from the banking prudential perspective to reduce the asymmetric information during the financing relationship with the MSMEs, especially with the higher-risk industry. Furthermore, the limitation of the KUR programme disbursed by the Islamic banking industry inflicts another challenge to the MSME financial inclusion agenda since only a tiny fraction of MSMEs could receive this subsidised facility while other MSME units were ignored.

4.3.2 Analysis and discussion from the aspect of MSMEs' experience and perception on collateralisation. Concerning the MSME participants' experience in regard to the collateralisation in financing facilities, nearly all of the MSME participants using some type of regular financing facility are required by the bank to provide immovable collateral, either in the form of land or building. This condition validates what has been stated previously by the observed Islamic banks regarding their preference to impose immovable collateral in the form of property with solid legalities, such as SHM. Subsequently, for the participants using the KUR facility, the bank only requires them to provide movable collateral without detailed inspection of the assets' ownership, condition and manufacturing year. However, as disclosed by several surveys (IFC, 2016; ILO, 2019), supposedly, there is no collateral imposition for the MSME participating in the KUR facility, particularly for the

Collateral

imposition

among Islamic

micro KUR (KUR Mikro), since this programme was subsidised by the government and the government become a guarantor in case of MSME default. Nevertheless, in practice, many banks still oblige collateral from the MSME clients using the KUR facility since this facility is purely financed by banks, and they need to follow standard banking procedures of collateral imposition (ILO, 2019). Moreover, the findings from the MSME participants also unveil the issues in getting the KUR programme since this subsidised facility is often offered at a limited quota and in a limited amount of period.

Furthermore, regarding the MSMEs' perception of the collateral imposition when accessing a financing facility, most of the respondents have a positive opinion regarding this collateral requirement. They regard this procedure as mandatory in the banking system and transactions. Their reason is that since the borrower takes something from the lender in the form of money, the lender should also take something as a token of trust and commitment from the borrower to repay their obligation. This positive perception of most MSME participants signifies that most MSME entrepreneurs are aware and understand that the collateral was imposed to inflict disciplinary measures to prevent negative behaviour from the entrepreneur and reduce the asymmetric information problem for the bank. Nevertheless, some MSME participants perceive this collateralisation as negative since collateral is often imposed with a value that is relatively higher than the financing amount, and most of the MSME industry has no or limited assets to be collateralised, and consequently limiting their access to the external financing and will further aggravate the problem of financial exclusion.

The earlier discussion on MSMEs' experiences in accessing regular financing services from the banking industry reveals that immovable collateral is mandatory in order to gain access to finance, and the KUR facility is still disbursed by imposing collateral with lesser requirements. This situation, in fact, reduced the chance for a vulnerable segment of MSMEs, particularly the unbanked and start-up industry, to be financially inclusive and utilise formal financial services due to the absence of collateral. Even more severe, the subsidised KUR facilities were offered at limited quotas and periods, especially in the rural regions where the rural MSMEs need assistance the most compared to the urban regions with better infrastructures and facilities.

5. Conclusion and recommendation

Based on the abovementioned findings and discussion, we may conclude that in regard to the collateral implementation practice, as depicted by the six Islamic bank participants, all of them have a consensus that the collateral provision is an obligatory mechanism for the MSME industry to access regular financing services. Subsequently, despite all banks reported accepting movable, immovable and other types of collateral, in practice, all observed Islamic banks still prefer immovable collateral in the form of land or property to secure the MSME financing contract. Besides, the Islamic banks still offer limited numbers of non-collateralised financing aimed at the unbanked and underbanked MSMEs, which have no or limited assets to begin with to access external financing.

Concerning the MSME participants, the analysis of the findings concluded that the bank indeed still insisted on immovable collateral for accessing regular financing, and only subsidised facilities, such as KUR, were secured with movable collateral, although supposedly, no collateral is required in the KUR facility. Furthermore, despite the collateralisation requirement to access financing, most MSME entrepreneurs have a positive perception regarding the collateral imposition, denoting the entrepreneurs' understanding and awareness pertaining to the collateral function, since collateral was imposed to enforce commitment and inflict disciplinary measures to prevent negative behaviour during the financing contract and reduce the asymmetric information for the financier.

Therefore, with reference to the previous disclosed issues and challenges, there are several suggestions and recommendations that could be implemented and adapted to enhance the inclusion of the MSME sector into the Islamic financing services from the aspect of collateralisation and reinforce the collateral implementation of the Islamic banking industry to serve the MSME segment better, particularly for unbanked and underfunded MSME, among others:

- (1) The policymakers should consider enhancing the Fiduciary act legislation and strengthening its role to cater for the needs of the MSME segment. This aspect is to expand the utilisation of movable collateral and increase the confidence of FSP to accept movable collateral. The Fiduciary act enhancement will possibly help the MSME industry to get better access to financing services, particularly the Islamic one, since many MSMEs have no or limited collateralisable assets, especially the immovable assets that consist of land and property.
- (2) Since there is no specific guidance to assess MSME credit risk (ILO, 2019), which in turn prompts the bank to impose more collateral on riskier MSMEs; therefore, in this concern, the regulator should consider developing and establishing comprehensive guidance on assessing the credit risk for the MSME segment, especially for the highrisk industry. This assessment guidance will hopefully reduce the burden of the highrisk MSME segment to provide more collateral due to higher perceived risk by the FSPs.
- (3) Subsequently, the government of Indonesia could also increase the credit guarantee scheme disbursement through Islamic financial service industry, such as Islamic KUR, and therefore, will improve the confidence of Islamic FSPs in disbursing the financing to the MSME sector and eliminate the collateral requirement, particularly for the unbanked and start-up MSMEs, since these sectors are deemed high-risk but have a potential to grow in the long-term. The credit guarantee scheme could reduce the bank's reluctance to lend to MSMEs. Because, in case of MSME defaulting, the credit guarantee corporation or the government could cover a certain percentage of the lenders' losses (Yoshino and Hesary, 2018).
- (4) The government should consider disbursing Islamic KUR with its special rate for the Islamic rural segment to enhance the achievement of Islamic financial inclusion programmes for the MSME in the rural regions. This aspect is essential to contemplate since the rural bank has a relatively higher cost of funds than the commercial banking segment, and giving them an identical rate to the commercial banking segment will put the rural bank in an unfavourable position.
- (5) To augment the effectiveness of the KUR facility disbursement via the Islamic banking institution, the Islamic bank should prioritise this subsidised product for the applicants coming from the unbanked and start-up MSME segment, and later the KUR programme could be allocated for the former KUR applicants if the prioritised segment have been addressed and included within the KUR participation.

Hopefully, by addressing the abovementioned policy recommendations and suggestions associated with the collateral impositions and practices, these mechanisms and procedures are expected to improve the Islamic financial inclusion for the MSME sector in Indonesia through the collateralisation aspect without lowering the Islamic banking prudential in reducing the asymmetric information during the financing contract to minimise the losses and default incident; this, in turn, might promote sustainable economic development and foster financial stability within the country due to the immense concentration of MSMEs in Indonesia.

Collateral

This paper only studied six Islamic bank participants and 22 MSME units in urban and rural locations using a case study approach; therefore, the empirical findings and case discussions were merely limited to those corresponding Islamic banks and MSME respondents. Hence, due to this limitation, this paper recommends that future studies should conduct multiple cross-country comparisons and increase the number of participants to uncover numerous distinctive issues and phenomena involving different countries and participants pertaining to the collateralisation practice in the Islamic banking industry.

Notes

- Inside collateral is the collateral taken from the firm's assets to access the financing from the bank. In contrast, the outside collateral is the collateral taken from the firm owner/manager (which is privately owned) to impose more disciplinary measures to reduce moral hazard issues (see Hainz and Teksöz, 2006).
- 2. The Fiducia Act (No. 42/1999) covers movable assets that are tangible and intangible. The act stipulates that the object ownership can be transferred to the creditor with the control of the object remaining with the debtor. With this, registration of the movable collateral is done through an online system that can be accessed through a notary public, eliminating the need to visit the Fiducia registration office. Through this online system, the certificate of Fiducia is also issued by the notary public (IFC, 2016).

References

- Avery, R.B., Bostic, R.W. and Samolyk, K.A. (1998), "The role of personal wealth in small business finance", Journal of Banking and Finance, Vol. 22 Nos 6-8, pp. 1019-1061, doi: 10.1016/S0378-4266(98)00016-8.
- Bank Indonesia (2012), "Regulation No. 14/22/PBI/2012", available at: https://www.bi.go.id/id/peraturan/perbankan/Documents/ce573697043f40f4803cb8552c6db8a1pbi_142212merge.PDF
- Beck, T. and De La Torre, A. (2007), "The basic analytics of access to financial services", *Financial Markets, Institutions and Instruments*, Vol. 16 No. 2, pp. 79-117, doi: 10.1111/j.1468-0416.2007. 00120.x.
- Beck, T., Demirguc-Kunt, A. and Levine, R. (2005), "SMEs, growth, and poverty: cross-country evidence", *Journal of Economic Growth*, Vol. 10 No. 3, pp. 199-229, doi: 10.1007/s10887-005-3533-5.
- Beck, T., Demirgüç-Kunt, A., Laeven, L. and Maksimovic, V. (2006), "The determinants of financing obstacles", *Journal of International Money and Finance*, Vol. 25 No. 6, pp. 932-952, doi: 10.1016/j. jimonfin.2006.07.005.
- Berger, A.N. and Udell, G.F. (1990), "Collateral, loan quality and bank risk", *Journal of Monetary Economics*, Vol. 25 No. 1, pp. 21-42, doi: 10.1016/0304-3932(90)90042-3.
- Berger, A.N. and Udell, G.F. (1995), "Relationship lending and lines of credit in small firm finance", Journal of Business, pp. 351-381, available at: https://www.jstor.org/stable/2353332
- Berger, A.N. and Udell, G.F. (1998), "The economics of small business finance: the roles of private equity and debt markets in the financial growth cycle", *Journal of Banking and Finance*, Vol. 22 Nos 6-8, pp. 613-673, doi: 10.1016/S0378-4266(98)00038-7.
- Berger, A.N., Espinosa-Vega, M.A., Frame, W.S. and Miller, N.H. (2011a), "Why do borrowers pledge collateral? New empirical evidence on the role of asymmetric information", *Journal of Financial Intermediation*, Vol. 20 No. 1, pp. 55-70, doi: 10.1016/j.jfi.2010.01.001.
- Berger, A.N., Frame, W.S. and Ioannidou, V. (2011b), "Tests of ex ante versus ex post theories of collateral using private and public information", *Journal of Financial Economics*, Vol. 100 No. 1, pp. 85-97, doi: 10.1016/j.jfineco.2010.10.014.

- Berger, A.N., Frame, W.S. and Ioannidou, V. (2012), "Reexamining the empirical relation between loan risk and collateral: the role of the economic characteristics of collateral", European Banking Center Discussion Paper, (2012-020), doi: 10.2139/ssrn.2151212.
- Berlin, M. and Butler, A.W. (2002), "Collateral and competition", (No. 02-22), Federal Reserve Bank of Philadelphia, available at: https://www.philadelphiafed.org/-/media/frbp/assets/working-papers/2002/wp02-22.pdf
- Besanko, D. and Thakor, A.V. (1987), "Collateral and rationing: sorting equilibria in monopolistic and competitive credit markets", *International Economic Review*, pp. 671-689, doi: 10.2307/2526573.
- Bester, H. (1985), "Screening vs. rationing in credit markets with imperfect information", *The American Economic Review*, Vol. 75 No. 4, pp. 850-855, available at: https://www.jstor.org/stable/1821362
- Blazy, R. and Weill, L. (2013), "Why do banks ask for collateral in SME lending?", *Applied Financial Economics*, Vol. 23 No. 13, pp. 1109-1122, doi: 10.1080/09603107.2013.795272.
- Boot, A.W. and Thakor, A.V. (2000), "Can relationship banking survive competition?", *The Journal of Finance*, Vol. 55 No. 2, pp. 679-713, doi: 10.1111/0022-1082.00223.
- Boot, A.W., Thakor, A.V. and Udell, G.F. (1991), "Secured lending and default risk: equilibrium analysis, policy implications", *The Economic Journal*, Vol. 101 No. 406, pp. 458-472, doi: 10.2307/2233552.
- Chan, Y.S. and Kanatas, G. (1985), "Asymmetric valuations and the role of collateral in loan agreements", *Journal of Money, Credit and Banking*, Vol. 17 No. 1, pp. 84-95, doi: 10.2307/ 1992508.
- Claessens, S. and Yurtoglu, B.B. (2013), "Corporate governance in emerging markets: a survey", Emerging Markets Review, Vol. 15, pp. 1-33, doi: 10.1016/j.ememar.2012.03.002.
- Coco, G. (2000), "On the use of collateral", Journal of Economic Surveys, Vol. 14 No. 2, pp. 191-214, doi: 10.1111/1467-6419.00109.
- Cowling, M. and Mitchell, P. (2003), "Is the small firms loan guarantee scheme hazardous for banks or helpful to small business?", Small Business Economics, Vol. 21 No. 1, pp. 63-71, doi: 10.1023/A: 1024408932156.
- DBR (2010), Reforming through Difficult Times, The World Bank, doi: 10.1596/978-0-8213-7961-5.
- Deelen, L. and Molenaar, K. (2004), Guarantee Funds for Small Enterprises: A Manual for Guarantee Fund Managers, International Labour Organization, available at: http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.624.3615
- Degryse, H. and Van Cayseele, P. (2000), "Relationship lending within a bank-based system: evidence from European small business data", *Journal of Financial Intermediation*, Vol. 9 No. 1, pp. 90-109, doi: 10.1006/jfin.1999.0278.
- Djankov, S., McLiesh, C. and Shleifer, A. (2007), "Private credit in 129 countries", *Journal of Financial Economics*, Vol. 84 No. 2, pp. 299-329, doi: 10.1016/j.jfineco.2006.03.004.
- Duarte, F.D., Gama, A.P.M. and Esperança, J.P. (2017), "Collateral-based in SME lending: the role of business collateral and personal collateral in less-developed countries", *Research in International Business and Finance*, Vol. 39, pp. 406-422, doi: 10.1016/j.ribaf.2016. 07.005.
- EBRD (2005), "Transition report 2005: business in transition", European Bank for Reconstruction and Development, available at: https://www.ebrd.com/downloads/research/transition/TR05.pdf
- Gama, A.P.M. and Duarte, F.D. (2015), "Collateral and relationship lending in loan pricing: evidence from UK SMEs", WSEAS Transactions on Business and Economics, Vol. 12, pp. 21-35, available at: https://wseas.com/journals/articles.php?id=4249
- Gani, A. and Clemes, M.D. (2016), "Does the strength of the legal systems matter for trade in insurance and financial services?", Research in International Business and Finance, Vol. 36, pp. 511-519, doi: 10.1016/j.ribaf.2015.10.008.

Collateral

imposition

among Islamic

- Hainz, C. (2003), "Bank competition and credit markets in transition economies", *Journal of Comparative Economics*, Vol. 31 No. 2, pp. 223-245, doi: 10.1016/S0147-5967(03)00021-0.
- Hainz, C. and Teksöz, U. (2006), "Access to finance: the role of inside versus outside collateral in transition economies", available at: https://www.bayes.city.ac.uk/__data/assets/pdf_file/0019/ 79030/Hainz20Teksoz202006 preliminary20draft.pdf
- Hainz, C., Weill, L. and Godlewski, C.J. (2013), "Bank competition and collateral: theory and evidence", Journal of Financial Services Research, Vol. 44 No. 2, pp. 131-148, doi: 10.1007/s10693-012-0141-3.
- Hanedar, E.Y., Broccardo, E. and Bazzana, F. (2014), "Collateral requirements of SMEs: the evidence from less-developed countries", *Journal of Banking and Finance*, Vol. 38, pp. 106-121, doi: 10. 1016/j.jbankfin.2013.09.019.
- Hanley, A. (2002), "Do binary collateral outcome variables proxy collateral levels? The case of collateral from start-ups and existing SMEs", Small Business Economics, Vol. 18 No. 4, pp. 315-329, doi: 10.1023/A:1015263516448.
- Harhoff, D. and Korting, T. (1998), "Lending relationships in Germany–Empirical evidence from survey data", *Journal of Banking and Finance*, Vol. 22 Nos 10-11, pp. 1317-1353, doi: 10.1016/ S0378-4266(98)00061-2.
- Hayes, A. (2020), "Loan-to-value (LTV) ratio", *Investopedia*, available at: https://www.investopedia.com/terms/l/loantovalue.asp (accessed 10 June 2021).
- Hernandez-Canovas, G. and Martinez-Solano, P. (2010), "Relationship lending and SME financing in the continental European bank-based system", *Small Business Economics*, Vol. 34 No. 4, pp. 465-482, doi: 10.1007/s11187-008-9129-7.
- Huang, C., When, Y. and Liu, Z. (2014), "Analysis on financing difficulties for SMEs due to asymmetric information", Global Disclosure of Economics and Business, Vol. 3 No. 1, pp. 77-80, doi: 10.18034/ gdeb.v3i1.174.
- IFC (2014), "Indonesia market study: movable assets-based financing to micro, small, and medium enterprises", International Finance Corporation World Bank Group, available at: https://openknowledge.worldbank.org/handle/10986/25415
- IFC (2016), "Women-owned SMEs in Indonesia: a golden opportunity for local financial institutions", International Finance Corporation - World Bank Group, in partnership with USAID, available at: www.ifc.orghttp://documents.worldbank.org/curated/en/691661477568338609/pdf/109534-WP-ENGLISH-SME-Indonesia-Final-Eng-PUBLIC.pdf
- ILO (2019), "Financing small businesses in Indonesia: challenges and opportunities", International Labour Organization, Jakarta, ISBN 978-92-2-132842-1, available at: https://www.ilo.org/jakarta/whatwedo/publications/WCMS_695134/lang_en/index.htm
- Irawati (2007), "Aplikasi agunan dalam pembiayaan mudharabah dan murabahah (studi kasus PT, bank muamalat Indonesia, Tbk.)", available at: https://repository.uinjkt.ac.id/dspace/handle/123456789/19008
- Irjayanti, M. and Azis, A.M. (2012), "Barrier factors and potential solutions for Indonesian SMEs", Procedia Economics and Finance, Vol. 4, pp. 3-12, doi: 10.1016/S2212-5671(12) 00315-2.
- Jackson, T.H. and Kronman, A.T. (1979), "Secured financing and priorities among creditors", Yale Law Journal, Vol. 88, p. 1143, available at: http://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=11621&context=journal_articles
- Jamhur, M. and Trihantana, R. (2017), "Penyelesaian sengketa pengikatan agunan pada pembiayaan Murabahah di bank syariah", Nisbah: Jurnal Perbankan Syariah, Vol. 3 No. 1, pp. 315-325, doi: 10.30997/jn.v3i1.781.
- Jensen, M.C. and Meckling, W.H. (1976), "Theory of the firm: managerial behavior, agency costs and ownership structure", *Journal of Financial Economics*, Vol. 3 No. 4, pp. 305-360, doi: 10.1016/ 0304-405X(76)90026-X.

- Jiménez, G. and Saurina, J. (2004), "Collateral, type of lender and relationship banking as determinants of credit risk", *Journal of Banking and Finance*, Vol. 28 No. 9, pp. 2191-2212, doi: 10.1016/j. ibankfin.2003.09.002.
- Jiménez, G., Salas, V. and Saurina, J. (2009), "Organizational distance and use of collateral for business loans", *Journal of Banking and Finance*, Vol. 33 No. 2, pp. 234-243, doi: 10.1016/j.jbankfin.2008. 07.015
- Jimenez, G., Salas, V. and Saurina, J. (2006), "Determinants of collateral", Journal of Financial Economics, Vol. 81 No. 2, pp. 255-281, doi: 10.1016/j.jfineco.2005.06.003.
- Leeth, J.D. and Scott, J.A. (1989), "The incidence of secured debt: evidence from the small business community", *Journal of Financial and Quantitative Analysis*, Vol. 24 No. 3, pp. 379-394, doi: 10. 2307/2330818.
- Liberti, J.M. and Mian, A.R. (2010), "Collateral spread and financial development", The Journal of Finance, Vol. 65 No. 1, pp. 147-177, doi: 10.1111/j.1540-6261.2009.01526.x.
- Mann, R.J. (1997), "The role of secured credit in small-business lending", *The Georgetown Law Journal*, Vol. 86, p. 1, available at: https://scholarship.law.columbia.edu/cgi/viewcontent.cgi?article=1343&context=faculty_scholarship
- Manove, M., Padilla, A.J. and Pagano, M. (2001), "Collateral versus project screening: a model of lazy banks", Rand Journal of Economics, pp. 726-744, doi: 10.2307/2696390.
- Masripah, M., Yuniar, A. and Ardhana, P. (2021), "Rising star exchange: an alternative capital market for SME in Indonesia", JAAF (Journal of Applied Accounting and Finance), Vol. 5 No. 1, pp. 36-48, available at: http://e-journal.president.ac.id/presunivojs/index.php/JAAF/article/ view/1328
- Menkhoff, L., Neuberger, D. and Suwanaporn, C. (2006), "Collateral-based lending in emerging markets: evidence from Thailand", *Journal of Banking and Finance*, Vol. 30 No. 1, pp. 1-21, doi: 10.1016/j.jbankfin.2004.12.004.
- Menkhoff, L., Neuberger, D. and Rungruxsirivorn, O. (2012), "Collateral and its substitutes in emerging markets' lending", *Journal of Banking and Finance*, Vol. 36 No. 3, pp. 817-834, doi: 10. 1016/j.jbankfin.2011.09.010.
- Myers, S.C. (1977), "Determinants of corporate borrowing", Journal of Financial Economics, Vol. 5 No. 2, pp. 147-175, doi: 10.1016/0304-405X(77)90015-0.
- Pagano, M. and Jappelli, T. (1993), "Information sharing in credit markets", The Journal of Finance, Vol. 48 No. 5, pp. 1693-1718, doi: 10.1111/j.1540-6261.1993.tb05125.x.
- Petersen, M.A. and Rajan, R.G. (1995), "The effect of credit market competition on lending relationships", *The Quarterly Journal of Economics*, Vol. 110 No. 2, pp. 407-443, doi: 10.2307/2118445.
- Petersen, M.A. and Rajan, R.G. (2002), "The information revolution and small business lending: does distance still matter?", *Journal of Finance*, Vol. 57 No. 6, pp. 2533-2570, doi: 10.1111/1540-6261.00505.
- Pohan, S. (2017), "Peranan penggunaan agunan di bank islam hubungannya dengan sistem operasional perbankan syariah di medan", *Intiqad: Jurnal Agama Dan Pendidikan Islam*, Vol. 8 No. 2, pp. 120-146, doi: 10.30596/intiqad.v8i2.732.
- Qian, J. and Strahan, P. (2006), How Laws and Institutions Shape Financial Contracts, Wharton Financial Institutions Center, Philadelphia, doi: 10.1111/j.1540-6261.2007.01293.x.
- Rahman, A.F. and Rochmanika, R. (2012), "Pengaruh pembiayaan jual beli, pembiayaan bagi hasil, dan rasio non performing financing terhadap profitabilitas bank umum syariah di Indonesia", IQTISHODUNA, doi: 10.18860/iq.v0i0.1768.
- Rahman, A., Rahman, M.T. and Ključnikov, A. (2016), "Collateral and SME financing in Bangladesh: an analysis across bank size and bank ownership types", *Journal of International Studies*, doi: 10.14254/2071-8330.2016/9-2/8.

Collateral

imposition

among Islamic

- Rahman, A., Belas, J., Kliestik, T. and Tyll, L. (2017), "Collateral requirements for SME loans: empirical evidence from the Visegrad countries", *Journal of Business Economics and Management*, Vol. 18 No. 4, pp. 650-675, doi: 10.3846/16111699.2017.1357050.
- Rokhlinasari, S. and Widagdo, R. (2019), "Improving the welfare of SMEs through Islamic bank financing", Al-Amwal: Jurnal Ekonomi Dan Perbankan Syari'ah, Vol. 11 No. 2, pp. 139-154, available at: https://core.ac.uk/download/pdf/270192288.pdf
- Smith, C.W. Jr and Warner, J.B. (1979), "On financial contracting: an analysis of bond covenants", Journal of Financial Economics, Vol. 7 No. 2, pp. 117-161, doi: 10.1016/0304-405X(79)90011-4.
- Steijvers, T. and Voordeckers, W. (2009), "Private family ownership and the agency costs of debt", Family Business Review, Vol. 22 No. 4, pp. 333-346, doi: 10.1177/0894486509338291.
- Steijvers, T., Voordeckers, W. and Vanhoof, K. (2010), "Collateral, relationship lending and family firms", Small Business Economics, Vol. 34 No. 3, pp. 243-259, doi: 10.1007/s11187-008-9124-z.
- Stiglitz, J.E. and Weiss, A. (1981), "Credit rationing in markets with imperfect information", The American Economic Review, Vol. 71 No. 3, pp. 393-410, available at: https://academiccommons. columbia.edu/doi/10.7916/D8VX0SHB/download
- Stulz, R. and Johnson, H. (1985), "An analysis of secured debt", Journal of Financial Economics, Vol. 14 No. 4, pp. 501-521, doi: 10.1016/0304-405X(85)90024-8.
- Voordeckers, W. and Steijvers, T. (2006), "Business collateral and personal commitments in SME lending", Journal of Banking and Finance, Vol. 30 No. 11, pp. 3067-3086, doi: 10.1016/j.jbankfin. 2006.05.003.
- Wardhono, A., Modjo, M.I. and Utami, E.W. (2020), Role of Credit Guarantee for Financing MSMEs: Evidence from Rural and Urban Areas in Indonesia, Routledge, New York, available at: http://repository.unej.ac.id/handle/123456789/102767
- Yoshino, N. and Hesary, F.T. (2018), "The role of SMEs in Asia and their difficulties in accessing finance", ADBI Working Paper Series, 911, available at: https://think-asia.org/bitstream/handle/11540/9483/adbi-wp911.pdf?sequence=1

Corresponding author

Adi Saifurrahman is the corresponding author and can be contacted at: say4rm@gmail.com