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Microfinance Repayment Performance of SMEs in Indonesia: Examining the Roles of Social Capital and Loan Credit Terms

Saparila Worokinasih[1] and Wisanupong Potipiroon[2]

Researchers and practitioners have been interested in exploring factors that promote loan repayment. This study examines the influence of social capital (i.e., the ties between lenders and borrowers) and the loan credit terms (i.e., interest rates, loan size and repayment time) on Microfinance repayment performance of small and medium enterprises (SMEs) in Indonesia. The study also tests whether business performance serves as a mediating variable of the relationships between social capital, loan credit term and repayment performance. Based on the data collected from 215 SME owners in East Java, the results showed that social capital had a direct effect on performance ($\beta = 0.23$, $p < .01$) on SMEs' repayment performance, whereas favorable loan credit terms had an indirect effect on repayment performance through an improvement in business performance (95% CI [0.17, 0.43]). These findings suggest that social capital could serve to establish mutual trust between the lenders and borrowers, which could help reduce loan delinquency. Along with this, the flexibility in obtaining financial capital could indirectly affect loan repayment by improving the borrowers' financial performance.

Keywords: repayment performance, social capital, loan credit terms, microfinance institutions, small and medium enterprises

Small and medium enterprises (SMEs) play a significant role in the economic growth and social development of developing countries in terms of promoting entrepreneurship, generating employment, and reducing poverty (Mead & Liedholm, 1998). In Indonesia, SMEs account for 99% of all business activities and 97% of the total workforce while also contributing to 57% of the GDP (Ministry of Cooperative and SMEs Republic of Indonesia, 2018). However, most SME owners tend to lack access to external capital in order to run their business effectively. In fact, access to bank financing is the single most important obstacle in the development and growth of the SME sector. The inherent challenges facing SMEs could be traced back to their small economies of scale, poor planning, poor location, and lack of business, managerial, and technical expertise (Okpara & Kabongo, 2009; Tambunan, 2011). Not surprisingly, a majority of SMEs have resorted to personal financing to manufacture low value-added products which are doomed to fail (Afaqi, Seth, & Saeed, 2009; Rabbani & Moossa, 2014).

Fortunately, the inability to access formal financing could be mitigated with the help of Microfinance Institutions (MFIs), which are designed as an economic development tool to provide financial services to small businesses that are unable to meet the formal requirements for obtaining loans from financial institutions. Specifically, MFIs help to serve the financial needs of the 'un-served' or 'underserved' markets and to reduce poverty by empowering women entrepreneurs and disadvantaged groups, generating employment, boosting business growth and promoting new startups (Ledgerwood, 1998). MFIs also play a significant role in building networks among important stakeholders including government agencies, consumers, suppliers, and NGOs, which in turn lead to the improvement of SMEs' economic welfare and their social capital (Acquaah, 2008).

[1] PhD Candidate at Faculty of Management Sciences, Prince of Songkla University, Hat Yai, Thailand. Lecturer at Brawijaya University, Indonesia. E-mail: saparila75@gmail.com
[2] Assistant Professor at Director of PhD Program in Management, Faculty of Management Sciences, Prince of Songkla University, Hat Yai, Thailand.

However, repayment performance of SMEs could pose a critical challenge for MFIs in the long run. Arguably, the repayment performance of borrowers is a primary indicator of MFIs' success as a self-sustainable institutions (Yaron, 1994), which is determined by the level of non-performing loans (NPLs) generated by SMEs. When borrowers default or are unable to repay on time, it directly affects the liquidity of MFIs, in turn interrupting the flow of funds between MFIs and other borrowers. It has been shown that problems of repayment in financial institutions account for about 54% in the total credit risk (Musyoki & Kadubo, 2012). In fact, high loan default rates are the main cause of MFIs' failure (Marr, 2002). There are currently 151,867 MFIs operating in Indonesia, covering 37 million clients and totaling more than 230 billion rupiah (Indonesia currency) in assets. However, the rate of NPLs currently stands at 6.04%, three times higher than that incurred by conventional banks. Such high NPLs have disrupted cash turnover and reduced the MFIs' profitability e.g., their returns on assets have dropped from 3.46% to 2.74% in the last three years (Financial Services Authority, 2018).

The goal of this present study was to examine the factors that affect SMEs' microcredit repayment performance in Indonesia. Broadly speaking, when a loan is not repaid, it could be a function of several personal and external factors including, (1) the borrower's personal characteristics, (2) the firm's characteristics, (3) loan characteristics (or 'credit terms') and (4) the institutional or lender's characteristics (Nawai & Shariff, 2013). Rather than focusing on 'who' or 'which business' is the likely target of loan defaults, which tend to vary according to socio-economic contexts (Ssekiziyivu, Nabeta, & Tumwebaze, 2018), the primary focus of this present research is on the role of social capital (i.e., the ties between lenders and borrowers) and loan credit terms (e.g., interest rates, loan size and repayment time) as perceived by the borrowers, which are believed to be within the direct control of MFIs. Our study was among this first to examine these important variables together in single study.

Furthermore, this present study contributes to the current literature by proposing that social capital and credit terms could indirectly affect loan repayment performance through an improvement in business performance. Although past reseach has shown that social capital and credit terms are related to both financial and repayment performance (e.g., Oke, Adeyemo, & Agbonlahor, 2007; Ssekiziyivu et al., 2018), none has examined the possibility that these variables could be sequentially related. This paper argues that loan repayment performance is preceded by the extent to which firms are doing well financially. In formulating these hypotheses, it draws upon Principal-Agent Theory to propose that agency problems (i.e., moral hazard and adverse selection) in which there is information asymmetry between the principal (the lender) and the agent (the borrower) could be mitigated through a formation of social ties and favorable (or less stringent) loan credit features.

The data used in this present research were collected from SME owners in 5 MFIs located in East Java Province, Indonesia. As a region that covers a large number of both SMEs (22%) and MFIs (18%) in the country, East Java Province contributes to 17.5% of Indonesia's GDP. Ironically, although MFIs are founded on the concept of providing financial assistance to small, struggling businesses, it has been reported that their loan credit terms are not as attractive as those issued by commercial banks (Financial Services Authority, 2018). Thus, it is crucial for MFIs to understand how these factors play a role in promoting or suppressing repayment behavior of their borrowers. The hypothesized conceptual model is illustrated in Figure 1.

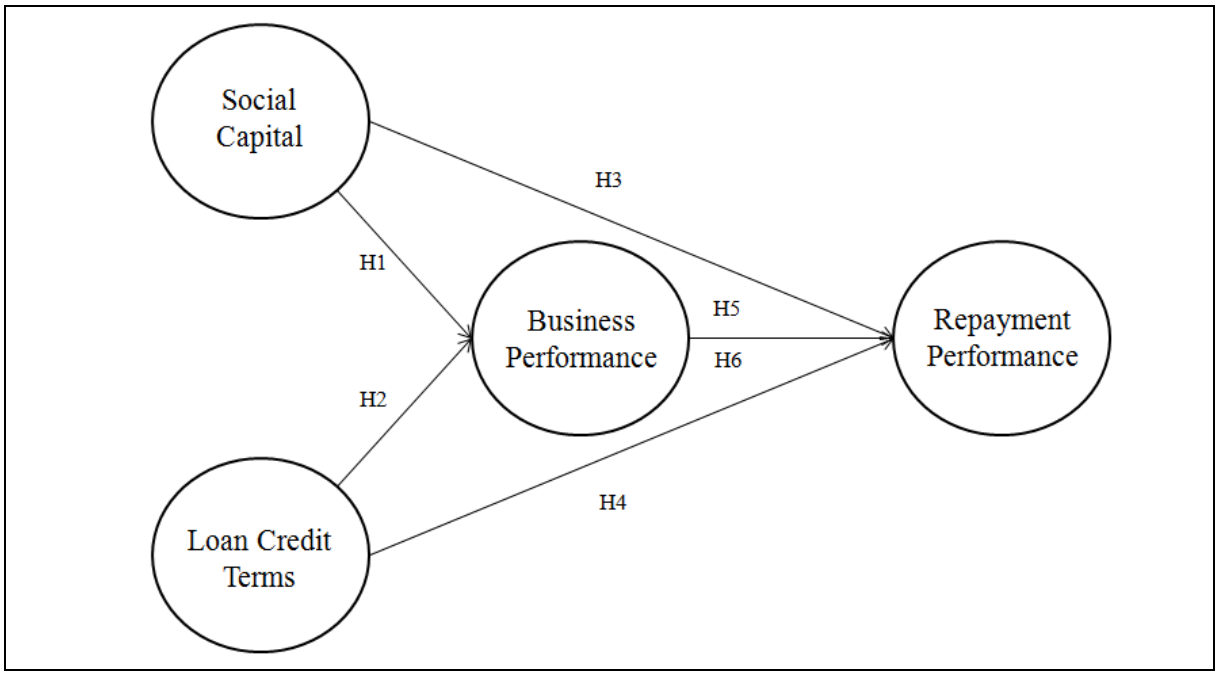

Figure 1. The Hypothesized Theoretical Model

Literature Review and Hypotheses

Loan Repayment Behavior

The problems of loan default behavior and NPLs are related to several internal and external factors confronting the borrowers. From a behavioral perspective, loan default is directly a function of borrowers' unwillingness to repay (Nawai & Sharif, 2013). In this respect, Theory of Reasoned Actions (TRA) suggests that individuals' intention to repay loans depends on their own attitudes (e.g., the extent to which one believes that loan repayment is important) and subjective norms (e.g., the extent to which one believes that significant others want them to engage in the behavior) (Azjen & Fishbien, 1980; see also Makorere, 2014). Other studies have focused on demographic factors in relations to payment including age, gender, education, marital status and experience (see Ssekiziyivu et al, 2018 for a detailed review). For example, Bhatt and Tang (2011) found that higher education was positively related to better repayment performance, whereas for female borrowers, level of household income, type of business and borrower's experience had no significant effect on repayment performance. However, Roslan and Karim (2009) found that male borrowers who had a longer duration for repayments tended to default, whereas Awunyo-Vitor (2012) indicated that males are more likely to repay their loans than females. Thus, while it is important for the lending institutions to understand the characteristics of borrowers, existing research tends to yield conflicting results regarding these demographic variables (Ssekiziyivu et al., 2018).

Apart from examining these personal factors and individual characteristics, other researchers suggest that inability to repay is influenced by external factors, such as business characteristics, loan characteristics and institutional/lender characteristics (Derban et al., 2005; Nawai & Sharif, 2013; Roslan & Karim, 2009; Ssekiziyivu et al., 2018). For example, Eze and Ibekwe (2007) also found that borrowers in the farming business with larger amounts of loans and longer loan durations are more likely to default. Furthermore, Oke et al. (2007) found that

distance between dwelling place and MFIs is negatively related to loan repayment, whereas amount of business investment, amount of loan borrowed and a lack of access to business information are positively related to loan repayment. As will be discussed further below through the principal-agent lens, the focus of this present research is on two important factors, namely, the social ties between borrowers and lenders and loan characteristics, which fall under the discretion and direct control of MFIs to some degree.

Principal-Agent Theory

The present study draws upon Principal-Agent Theory as a central framework for proposing the hypotheses. Indeed, principal-agent problems often exist in the financial agreement between lenders (i.e., principals) and borrowers (i.e., agents) (Mensah, 2004). The theory posits that the principals tend to lack the information and knowledge about the agent's actions, whereas the agents have the incentives to hide critical information that could undermine their own trustworthiness. Hence, in order to create a mutually beneficial relationship between the principals (the suppliers of funds) and the agent (the user of funds), the financial agreement should consider the best interests and motives of both parties.

However, an ideal contract is hard to maintain due to the moral hazard and adverse selection problems (Mensah, 2004). In the context of credit markets, a moral hazard problem occurs when the borrower takes actions that are not in favor of the lender, such as using the funds for other unintended purposes. The risk of a moral hazard is high when a monitoring system is not established. In terms of adverse selection, the lender may be unable to make a sound lending decision because they lack the information about the borrower's financial situations, their assets and liabilities, and character indicators that would give the lender the confidence that the loan would be repaid. Indeed, rural credit markets tend to suffer from screening, monitoring and enforcing problems, whereby lenders discriminate against small borrowers because of the costly information acquisition and weak enforcement capacity (Wenner, 1995). The sections below discuss how social capital and favorable loan credit terms could help to attenuate these agency issues.

Social Capital and Repayment Performance

Social capital is defined as a valuable asset that results from access to resources made available through social relationships (Coleman, 1998). Researchers have categorized social capital into three specific dimensions, namely, cognitive, relational, and structural (Nahaphiet & Ghoshal, 1998; Villena, Revilla & Choi, 2011). The cognitive dimension represents shared meaning (rules, norms and goals) and understanding between actors (Inkpen & Tsang, 2005). Specifically, this refers to the shared rules, norms and goals that underlie social relationships among actors that allow the interests of different parties to converge (Coleman, 1988) and suppress the possibility of opportunistic behaviors (Inkpen & Tsang, 2005), which in turn leads to lower monitoring costs and higher commitment. The relational dimension refers to trust, friendship, respect, and reciprocity developed through a history of interactions. This indicates the strength of relationships among actors over time. When trust occurs as a result of these interactions, actors are more willing to engage in open discussion and show more transparency in their transactions. Furthermore, actors will try to preserve their own reputation by assuring that they will not undermine the mutual trust by exploiting the other party's vulnerability even when they have the opportunity to do so. This process encourages each actor to voluntarily share the resources that they have without fear of opportunistic behavior from the other

(Nahapiet & Ghoshal, 1998). Finally, the structural dimension is related to the impersonal relationships in the social networks (Nahapiet & Ghoshal, 1998). The involves patterns of relationships between actors characterized by high frequency of interactions among actors, which in turn facilitates access to information and the validation of exchanged information.

Although several previous studies have examined the role of social capital on repayment performance (e.g., Al-Azzam, Hill, & Sarangi, 2012; Bastelaer & Leathers, 2006; Cassar, Crowley, & Wydick, 2007; Dufhues, Buchenrieder, Quoc, & Munkung, 2011), they focused on social capital that results from 'group lending' (i.e., using 'joint' liability among group members as a form of social collateral to prevent defaults) (see also Besley, 1995 for a detailed discussion). The focus of this study however is on the role of social capitaal conceptualized as social ties between the lender and the borrower (Nahaphiet & Ghoshal, 1998; Roslan, Faudziah, Mohd, Saifoul, & Rahimah 2007; Villena et al., 2011).

In this respect, it is argued that MFIs could create conditions conducive to preventing loan defaults by promoting favorable relationships between them and their clients (Dixon, Ritchie, & Siwale, 2007). Specifically, MFIs rely on their field workers or loan officers to implement their policies in ways that promote the understanding of borrowers and increase empathy of successful lending. Dixon et al. (2007) indicated that loan officers' job is to explain MFIs' lending policies, facilitate group formation, train borrowers on MFIs' policies, provide suggestions about preparing successful business plan, facilitate timely loan disbursements, monitor the use of loans and make follow-up with borrowers to ensure timely repayment, engage in delinquency management with those who are failing to make timely repayment and also to implement 'transformational activities' aimed at empowering their clients (see also Siwale & Ritchie, 2011).

For example, loan officers could establish frequent and intensive communication with borrowers through social events or workshops. Frequent participation in these informal events could allow borrowers to establish personal connections with loan officials and also with other borrowers in the network, and to obtain technical support and useful information about how to manage loan funds and repayment. Roslan et al. (2007) concluded that close and informal relationship between MFIs and borrowers may help in monitoring and early detection of problems that may arise in non-repayment of loans. Interestingly, Roslan and Karim (2009) showed that borrowers who did not have any training from MFIs had a higher rate of loan defaults. Onyeagocha et al. (2012) also showed that the more experience credit officers have, the higher the possibility of recovering greater amount of loan. Given their personal ties with borrowers, it is expected that experienced loan officers know when, how and where to put pressure on clients to effect payments. Based on the above reasoning and past empirical evidence, the present study hypothesizes that;

Hyphothesis 1: Social capital has a postive effect on SMEs' repayment performance.

Loan Credit Terms and Repayment Performance

The current literature indicates that three categories of loan design features play an important role in determining loan repayment performance (Mosley & Hulme, 1998). The first is an 'access' requirements which include maximum loan ceiling (loan size), interest rates, size of collateral and repayment schedules. The second is 'screening' that is used for determining borrowers' qualifications and merits. The third includes 'incentives' provided to borrowers

such as interest discounts given to those who can make loan repayments before due dates (Derban, Binner, & Mullineux, 2005).

As discussed earlier, lenders tend to mistrust their borrowers due to the lack of information that can be used to monitor the latter's repayment performance (Wenner, 1995). This information asymmetry can have an adverse spiral effect as leaders are more likely to impose stringent criteria on the borrower. For example, Safavian, Fleisig, and Steinbuks (2006) observed that commercial banks usually provide larger loans, longer repayment periods, and lower interest rates when borrowers offer sizable collateral as security. However, unfavorable loan requirements can have unintended consequences in two distinct ways. First, it discourages small businesses from applying for credits. Secondly, it can directly affect their ability to repay at a later time.

A study by Nannyonga (2010) for example found that delinquency credit repayments are caused by the disproportionate ratio of loan amounts to the size of collateral and infrequent repayment schedules. Kakuru (2008) also found that when repayment periods are perceived as 'inflexible', SMEs will not apply for loans, whereas Mutesasira, Osinde and Mule (2001) found that shorter periods of repayment do not meet SMEs' long term credit needs. Furthermore, Anderson (2002) indicated that interest rates are negatively related to the likelihood that borrowers will take actions that are conducive to repayment, whereas Amonoo, Acquah and Asmah (2003) reported negative effects of interest rates on the demand for credit and also loan repayment. Similarly, Papias and Ganesan (2009) found that interest rate charges increase the likelihood of loan repayment defaults. Thus, these authors have argued for a fiscal policy that promotes lower interest rates for loans provided to SMEs. More recently, Onyeagocha et al. (2012) also showed that the higher the size of the loan given to clients, the higher the repayment rates. Although loan size and interest rates are still debatable issues, Ojiako, Idowu and Ogbukwa (2014) showed that borrowers who received lower amounts of loans paid higher proportion compared with those who received larger amounts; 'reasonable' loan size and interest rates as perceived by borrowers were likely to induce larger investments with potentially higher absolute returns. Overall, these studies suggest that favorable loan design features will give small businesses more access to credits while also motivating them to adhere to the repayment schedules. Based on the above empirical evidence, it is hypothesized that:

> *Hypothesis 2:* Favorable loan credit terms have a positive effect on SMEs' repayment performance.

The Mediating Role of Business Performance

Thus far, it has been argued that social capital and flexible loan requirements will facilitate repayment performance. It is argued further that these variables will affect business performnace. Business performance can consist of several indicators including profits, return on investment (ROI) and employee well-being (Fatoki, 2011; Ganotakis, 2012; Mamun, Wahab, Malarvizhi, & Mariapun, 2011). Indeed, borrowers generally fail to repay their loans when the profits of their business are too small to cover the scheduled payments. Thus, when firms are characterized by high financial performance, it is reasanble to assume that they will be more likely to repay their loans.

It is proposed further that the effects of social capital and loan credit terms on loan repayment will occur through an improvement in business performance. For example, it was found that being member of a business network of group lenders characterized by high levels of relational reciprocity and trust can have a positive effect on successful entrepreneurship (Davidsson & Honig, 2003). Also, as loan officers are encouraged to engage in client outreach and to consistently monitor the usage of loan funds (Dixon, et al., 2007), it is likely that borrowers will feel compelled to put their funds to good use, in turn, resulting in better profits. With respect to lending terms, Ojiako et al. (2014) reported that the inability to provide collateral, untimely approval and disbursement, and high interest charges by financial institutions are primary reasons for why small business are enable to gain access to the needed loans, which in turn affects their business performance. Lastly, Ssekiziyivu et al. (2018) found that when interest rates are adjusted frequently and when collateral is reasonable with the loan size, it could help business generate enough cash flows to repay loans. Hence, it is hypothesized that:

Hypothesis 3: Social capital is positively related to business performance.
Hypothesis 4: Favorable loan credit terms are positively related to business performance.
Hypothesis 5: Business performance mediates the relationship between social capital and repayment performance.
Hypothesis 6: Business performance mediates the relationship between favorable loan credit terms and repayment performance.

Methodology

Sample and Data Collection

This present research was conducted in East Java Province in Indonesia. As discussed earlier, loan default problems are critical in Indonesia's MFIs and thus deserve more attention from scholars. MFIs in Indonesia can be divided into two specific categories, namely, bank MFIs and non-bank MFIs. Non-banks account for about 90% of all MFIs. The focus of this present research is on the non-bank MFIs, especially those in the form of cooperatives. The sample for this present study was drawn from the owners of SMEs who have borrowed loans from 5 MFIs located in this region. The criteria for selecting the respondents were based on Law of the Republic of Indonesia No. 20/2008, which include being (1) an active member and (2) a current debtor of MFIs. The lead author contacted the managers of the 5 MFIs and received permission to conduct the research. During the period of January-March 2016, the lead author sent out 240 survey questionnaires to SME owners and 215 completed surveys were returned, resulting in a response rate of 89.5 percent. Note that the lead author had received an approval from the Indonesian government prior to the data collection. As shown in Table 1, the majority of the respondents were female (68.4%), married (79.1%), aged around 32 to 47 years (50.7%) and most of them had a high school education (56.3%). Also, most SMEs are in the agriculture and retail sectors (65.2%) and their owners identified themselves as micro-entrepreneurs (69.8%). About 41% of the SMEs had a survival rate of 1-5 years. Most of respondents had been members of MFIs between 1-10 years (73%) and lived within 10 kilometers from their offices (76.4%).

Table 1

Characteristics of SME owners and their Business

Characteristics	Frequency	Percent (%)
Marital status		
Married	170	79.1
Not married	45	20.9
Education		
Below Bachelors	22	11.22
Bachelors	96	48.97
Masters	75	38.26
Gender		
Male	77	40.20
Female	119	59.80
Age (in years)		
30 or less	40	18.6
31-47	109	50.7
More than 48	66	30.7
Type of Business		
Agriculture	70	32.6
Retail	70	32.6
Service (salon, hotel, etc.)	29	13.4
Restaurant	46	21.4
Type of Entrepreneurship		
Proprietorship	151	70.3
Firms (Fa.)	11	5.1
Business Partnership (CV)	14	6.5
Limited Liability Company (Ltd.)	39	18.1
Length of MFI Membership (in years)		
Less than 1	17	7.9
1-5	86	40.0
5-10	71	33.0
More than 10	41	19.1
Rate of Survival (in years)		
Less than 1	48	22.4
1-5	84	40.9
5-10	58	20.9
More than 10	34	15.8
Distance from MFI Offices (in kilometres)		
Less than 1	24	11.2
1-5	78	36.4
5-10	86	40.0
More than 10	27	12.4
Total	215	100.0

Measurements

Most of the items used in the survey were developed in English and then back-translated into the Indonesia language. Some of the measurement items were developed by the authors based on an extensive literature review. All the measures were rated based on a five-point Likert scale.

Social capital measures perceptions of SME owners regarding their relationships with the lenders (MFIs) and used 6 items that were adapted from Villena et al.(2011). Items 1-3 measure structural capital; item 4-5 measures relational capital; and item 6 measures cognitive capital.

Loan credit terms measure perceptions of SME owners regarding the favorability of loan characteristics. This measure was based on 5 items adapted from Ferdausi, Sarker and Rahman (2014), Eze and Ibekwe (2007), Papias and Ganesan (2009), and Roslan and Karim (2009).

Business performance captures organizational performance of SMEs as perceived by the owners. This measure was based on 5 items adapted from Fatoki (2011), Ganotakis (2012) and Mamun et al. (2011).

Repayment performance measures the extent to which SME owners repay their loans regularly and whether their repayment is getting better. This measure was based on two items adapted from Sanrego & Antonio (2013) and Godquin (2004).

Since the measurement items were drawn from previous studies and also self-developed by the authors, the previous scale reliabilties are not reported here. All the measurement items are shown in Table 4.

Data Analysis

All the analyses that follow were conducted using Structural Equation Modeling (SEM) with AMOS Software Version 24 (Maximum Likelihood Estimation). SEM is a multivariate statistical approach that allows researchers to concurrently examine both the measurement and structural components of a model by testing the relationships among multiple independent and dependent constructs. Our approach is based on a two-step procedure recommended by Anderson and Gerbing (1988). First, the validity and reliability of the study variables were examined via confirmatory factor analyses (CFAs). Second, the hypotheses were examined via a structural equation model. Several indices were used to assess the model fits, including the overall model's chi-square, the comparative fit index (CFI), the Tucker-Lewis Index (TLI), and the root mean square error of approximation (RMSEA). To indicate a good fit, CFI and TLI should be above 0.90 (Hu & Bentler, 1999); and RMSEA should be between 0.05 and 0.08 (MacCallum, Browne, & Sugawara, 1996).

Results

The Measurement Model

As shown in Table 2, the four-factor measurement model (i.e., social capital, loan credit terms, business performance and repayment performance) was first examined. The results

showed that this model had a good fit to the data (χ^2 = 310.18, *df* = 129, $p < .001$; CFI = .93; TLI = .94; RMSEA = .08, Model 1). When business and repayment performance were combined (a three-factor model), this procedure resulted in a significantly poorer fit ($\Delta\chi^2$ = 37.31, Δdf = 3, $p < .001$) suggesting that these two performance variables are empirically distinct. Finally, when all the indicators were loaded onto a single factor, (a one-factor model), this model resulted in a significantly poorer fit ($\Delta\chi^2$ = 1,089.98, Δdf = 6, $p < .001$), indicating that common method bias was not a duly problem. Thus, the four-factor model was accepted as the best fitting model. Consistent with the CFA results, it was found that the bivariate correlations among these key variables fall within an acceptable range ($r < .70$) (see Table 3).

Table 2

Comparison of Measurement Models

Model	χ^2	*df*	RMSEA	CFI	TLI	Model	$\Delta\chi^2/\Delta df$
Four-factor (Hypothesized)	310.18	129	.08	.93	94	-	
Three-factor (BP&RP merged)	347.49	132	.09	.92	.92	2 vs. 1	37.31/3**
One-factor (All merged)	1400.16	135	.21	.54	.59	3 vs. 1	1,089.98/6**

Note: N = 215; ** $p < 0.01$; BP = Business Performance; RP = Repayment Performance

Table 3

Means, Standard Deviations and Bivariate Correlations

Variables	*Mean*	*SD*	1	2	3	4
1. Social capital	4.00	.55	(.80)			
2. Loan Credit Terms	3.99	.68	0.56**	(.88)		
3. Business Performance	3.61	.71	0.28**	0.47**	(.75)	
4. Repayment Performance	3.93	.66	0.33*	0.39**	0.67**	(.78)

Note: N = 215; * $p < .05$; ** $p < .01$; numbers in the parentheses are square root of AVE

In assessing the convergent validity of the measurement items, the item loadings on their respective constructs were examined (Hulland, 1999; Tenenhaus et al., 2005). As shown in Table 4, all the factor loadings were above the recommended .50 value, ranging from .62 to .96. Furthermore, it was found that the average variance extracted (AVE) ranged from .57-.79, which exceeded the recommended value of .50 (Fornell & Larcker, 1981). Composite reliabilities (CR) of constructs also ranged from .86 to .97, exceeding the recommended value of .60 (Bagozzi & Yi, 1988). In addition, Cronbach's alphas showed satisfactory levels of internal consistency, ranging from .81 to .95 (Nunnally, 1978). The discriminant validity of the constructs was assessed using the square roots of the average variance extracted (AVE) (Fornell & Larcker, 1981). These values should exceed the correlations shared between the construct and other constructs in the model. As shown in Table 3, the square roots of the AVE are greater than the off-diagonal elements.

The Structural Model

As strong support was found for the validity and reliability of the measurement instruments, the hypothesized structural model was then examined. The error covariances of social capital and loan terms were allowed to correlate freely in the structural model. Standardized parameter estimates and explained variance (R^2) in all the analyses that follow are displayed in Figure 2.

As shown in Figure 2, three out of five paths were significant in the expected direction. Specifically, social capital had a direct positive relationship with repayment performance ($\beta = 0.23$, $p < .01$) but not with business performance ($\beta = 0.02$, *ns*), whereas loan credit terms did not have a direct relationship with repayment performance ($\beta = -0.07$, *ns*) but was significantly and positively related to business performance ($\beta = 0.47$, $p < .01$). These findings provide support for Hypotheses 2 and 3 but not for Hypotheses 1 and 4.

Table 4

Factor Loadings, AVE and CR

Factors	Measurement Items	Factor Loadings
Social capital	*To what extent do the following statements describe your relationship with your funding supplier (MFI)? AVE = 0.64 ; CR = .93; α = .87*	
	1. A frequent and intensive communication with the loan official	0.97
	2. A frequent participation on workshop organized by MFI	0.86
	3. A frequent interaction between borrowers and MFI	0.79
	4. Mutual respect between borrowers and MFI	0.80
	5. Borrowers and MFI are honest and truthful each other	0.62
	6. Borrowers and MFI are committed to making a business success	0.74
Loan Credit Terms	*To what extent do the following statements describe your loan credit terms of your funding supplier (MFI)? AVE = .79 ; CR = .97; α = .95*	
	1. The amount of loan is sufficient	0.94
	2. The rate of interest is reasonable	0.92
	3. The schedule for repayment is reasonable	0.89
	4. Requirements for collateral is reasonable	0.72
	5. General requirements for getting loan are easy	0.95
Business Performance	*To what extent are you satisfied with the following current business performance indicators? AVE = .57; CR = .92; α =.81*	
	1. Sales growth	0.69
	2. Profit growth	0.82
	3. Employee growth	0.67
	4. Business performance relative to competitors	0.68
	5. Overall business performance	0.89
Repayment Performance	*To what extent did the following statements describe your repayment performance? AVE = .61 ; CR = .86; α = .85*	
	1. My repayment getting better	0.78
	2. I repay my debt regularly	0.79

Note: N = 215; All factor loadings are significant at $p < .001$ level

Mediation effects were then tested. Basic criteria for mediation suggest that social capital and loan credit terms should be significantly related to business performance (i.e., mediator), whereas business performance should be significantly related to repayment performance (Hayes, 2013). Contrary to the hypothesis, the results showed that social capital was not significantly related to business performance ($\beta = 0.02$, *ns*), thus failing to support Hypothesis 3. However, loan credit terms were found to have a positive relationship with business performance ($\beta = 0.47$, $p < .001$) and business performance in turn influenced

repayment performance in the predicted direction ($\beta = 0.77$, $p < .001$). These findings provide support for Hypothesis 6 but not for Hypothesis 5.

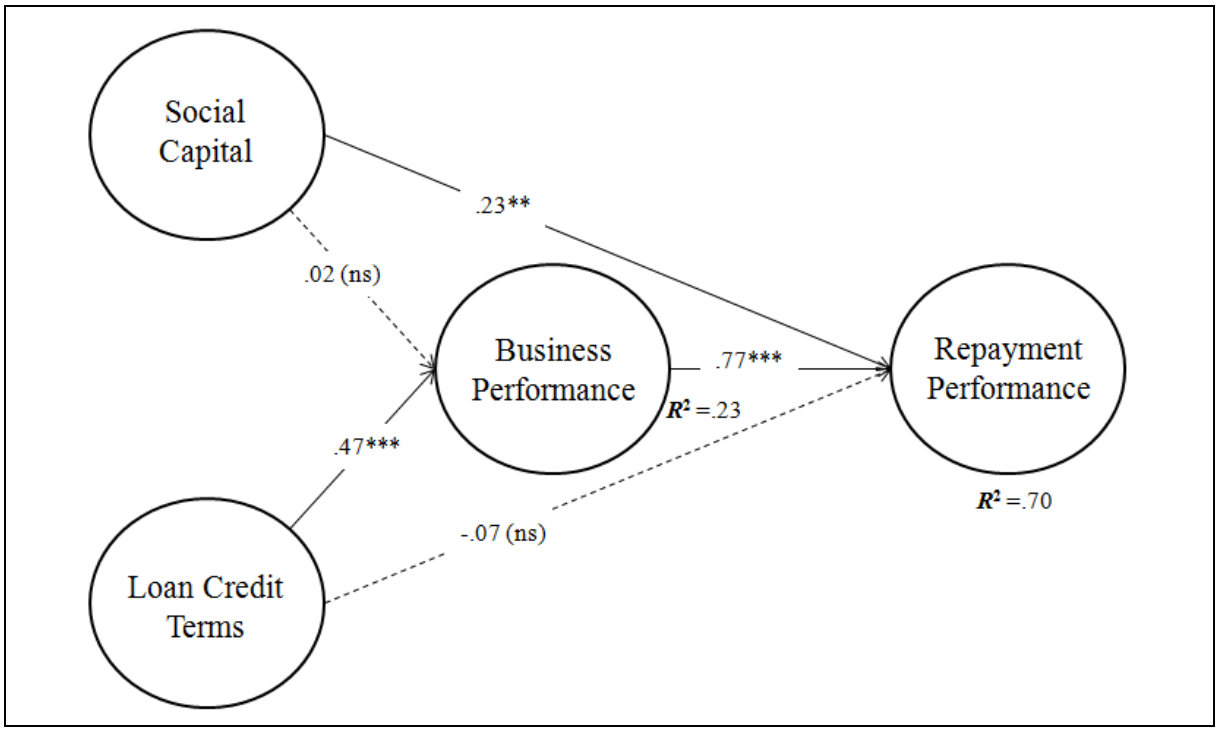

Figure 2. Structural Equation Model Results
Note: * $p < .05$; ** $p < .01$; *** $p < .001$

Finally, the significance of the indirect effect of loan credit terms on repayment performance was examined using a bootstrapping method with 10,000 resampling (Hayes, 2009; Preacher & Hayes, 2008). The result showed that the indirect effect of loan credit terms on repayment performance through business performance was statistically significant (.297; 95% Confidence Interval [.173; .436]). As mentioned above, since the direct relationship between loan credit terms and repayment performance was non-significant, this suggests a full mediation (Baron & Kenny, 1986). The results also revealed that about 70% of the variance in repayment performance and 23% of the variance in business performance could be explained by the presence of these proposed variables.

Discussion and Conclusion

Drawing from Principal-Agent Theory, the present research examined the factors that affect microcredit repayment performance among SMEs in East Java, Indonesia. The findings revealed that social capital directly affected loan repayment whereas loan credit terms positively affected loan repayment through improved business performance. Theoretical and practical implications as well as areas for future research are discussed below.

This present research extends past research by showing that a positive 'lender-borrower' relationship is instrumental for effective loan repayment. This study is among the first to examine the effect of this specific construct on loan repayment performance. Although most MFIs are founded on the principle of 'group lending'— using collective actions of group

members for screening, monitoring and enforcing members' repayment, this present study shows that the direct vertical ties between MFIs and borrowers could also play a crucial role in reducing default risks (Dixon et al., 2007).

This finding suggests that the actions taken by MFIs and their field officers could directly affect their clients' ability to repay loans. In practice, this suggests lending institutions can engage in a variety of activities to 'prevent' loan defaults such as providing training and advices for improving financial control and accounting practices or perhaps to 'cope with' early signs of delinquency (Siwale & Ritchie, 2011). Apart from the benefits associated with an early detection of delinquency problems, it is plausible that the continuous interactions and mutual trust between the lender and borrower could make the latter more willing to honour their end of agreements by not defaulting. Such social ties between MFIs and their borrowers are likely rare, if not absent, in the formal transactions with financial banks. Hence, this gives MFIs an advantage in competing in the credit market. Looking forward, it would be fruitful for future research to examine qualitatively how loan officers actually recover loans from borrowers. Furthermore, although our findings point to the bright side of social capital, there could be a dark side to the role of field officers, should they decide to collude with borrowers in their network (Dixon et al., 2007).

It is interesting to observe that only loan credit terms, but not social capital, are positively related to business performance. This suggests loan features (e.g., the level of interest rates and loan size) play an important role in helping business generate enough cash flows to cover loan repayment (Ssekiziyivu et al., 2018). Thus, if the interest rates are substantially high, loan repayments are likely to be defaulted due to the compounding of interest. This could be one of the many steps that lending institutions can make toward designing more flexible loan products. As discussed, standard microcredit tends to be fairly rigid whereas loan terms tend to be applied to borrowers across the board in a one-size-fits-all fashion. Yet, borrowers generally have different preferences, depending on the purpose of borrowing. Although mixed results have been reported on the effects of loan characteristics, the current findings indicate that loans terms that are perceived as 'reasonable' can be conducive to repayment for SME owners. However, more work is still needed to understand specific types of loan products that will benefit both the lender and borrower. Future research should look into specific types of loans are perceived as most 'desirable' by borrowers in a specific microcredit context.

The finding that business performance mediates the relationship between credit terms and repayment performance also has implications for theory. Indeed, most researchers tends to focus only examining a direct relationship between loan characteristics and repayment performance (e.g., Kakuru, 2008; Mutesasira et al., 2001; Nannyonga, 2010), whereas other studied have lumped the two performance concepts together as a single construct (Ssekiziyivu et al., 2018), possibly masking their sequential relationship. The current finding indicates that the two constructs are empirically distinct and also helps shed light on the fact that favorable loan requirements could lead to fewer loan defaults through an improvement in business performance.

However, the finding that business performance did not mediate the relationship between social capital and repayment performance deserves attention. One possibility is that the emphasis of the Indonesian MFIs is primarily on the monitoring the use of loans and timely

repayment rather than on making suggestions on how to improve SMEs' business strategic and investment plans, thus making the effect of social capital less evident. Further research is needed to clarify this issue. Regardless of the null findings, these results lend preliminary support to the notion that loan repayment is a voluntary action that could be based on strong mutual trust among the parties involved. Future research should seek to examine the psychological processes underlying this finding. For example, 'perceived responsibility' (Paxton, 1996) may mediate the relationship between social capital and loan repayment performance. While economists have extensively examined the importance of screening, monitoring, and reputational considerations, little attention has been paid to the role of moral constraints in establishing a norm of debt repayment.

As with any study, there are some limitations with the present paper that should be acknowledged. First, the questionnaire was self-administered, which may raise concerns about the issue of common source bias (Podsakoff, MacKenzie, Jeong-Yeon, & Podsakoff, 2003). Although we showed that this was not a serious concern in our study, future research will benefit from collecting objective secondary data such as the actual firm performance. Furthermore, the present study is cross-sectional and it is possible that the views held by SMEs could change over time. Longitudinal design is thus recommended for future research. Finally, this study was conducted with SME firms registered and operating in East Java, Indonesia and thus the ability to generalize the findings could be limited. Indeed, the effect of social capital could be more pronounced in a collectivistic culture like Indonesia where harmony and cooperation are highly valued. Despite these limitations, we believe that this study has useful implications for policy makers dealing with microcredit markets and SME owners.

This study extends previous research about the factors that influence repayment performance of MFI's borrowers. The study findings provide support about the impact of social capital and favorable loan credit terms on repayment performance. Business performance also emerged as a significant mediating mechanism between loan characteristics and repayment performance. An important takeaway from this present research is that the social ties and trust generated by continuous interactions between the lenders and borrowers may impose moral constraints on the latter such that they feel personally responsible for their actions. The research findings also suggest that MFIs could consider providing more flexibility in loan product designs so that small business can achieve their financial viability. It is hoped that the study findings will stimulate further research in this important area.

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