CREDIT RISK MANAGEMENT BASED ON HARMONIOUS CULTURAL VALUES TO SUPPORT MICROFINANCE INSTITUTION PERFORMANCE IN INDONESIA

I Putu ASTAWA1*, Tjokorda Gde Raka SUKAWATI2, Christantius DWIATMADJA3

1Tourism Business Management, Satate Polytechnic of Bali, Bukit Jimbaran 80361, Bali, Indonesia
2Faculty of Economics and Business, Udayana University, Bukit Jimbaran 80362, Bali, Indonesia
3Faculty of Economics and Business, Kristen Satya Wacana University, Salatiga 50711, Indonesia

Received 09 April 2019; accepted 18 November 2019

Abstract. Credit risk is important in developing the performance of a microfinance institution. The aim of this research was to analyze credit risk through a harmonious cultural approach to improve financial performance. Qualitative approach was used to explore the practice of harmonious culture in managing credit risk. The result of the qualitative study would be utilized to design a questionnaire for quantitative test. Ninety-four (94) companies were selected as the samples by using Slovin Method. The result of the qualitative study explained that harmonious culture-based credit risk was influenced by loan quality, collateral quality, customary rules, traditional leaders, and the belief in karma phala law. Quantitatively, it was found that loan quality, collateral quality, customary rules, traditional leaders, and the belief in karma phala law simultaneously influenced the financial performance. The research result had an implication to risk management in improving financial performance. It could also be used as a new strategy for managers to maintain good relationship with customers.

Keywords: credit risk, harmonious culture, performance.

JEL Classification: G21, G23, G32, M14.

Introduction

Lembaga Keuangan Mikro/LKM (microfinance institution) hold an important role as a source of funding for the societies and small businesses. There are 3,700 LKMs in 100 countries that provide non-collateral loans to 230 customers (Reed et al., 2014). Non-collateral loans bear higher risk compared to collateral loans. Therefore, LKMs should pay attention to good financial performance (Armenda Riz De Aghion & Morduch, 2010; Banerjee, 2013; Hermes & Lensink, 2011). The performance of LKM varies asthere are LKMs that are capable of generating profit, whereas others fail to maintain their performance. Previous researches on this condition found an element of risk management. Risk management is a part of performance appraisal that is crucial to be noted by microfinance institutions since it consists of various risks such as liquidity risk, market risk, credit risk, operational risk, legal risk, owner reputation risk and last obedience risk (Rozzani, Mohamed, & Yusuf, 2017; Astawa, Sudana, & Murni, 2017; Hussain et al., 2012; Churchill & Coster, 2001). The control of liquidity risk, market risk, credit risk and operational risk has positive impact on financial performance, whereas the control of legal risk, owner reputation risk, and obedience risk has no direct impact on performance (G. O. Boateng, A. A. Boateng, & Bampoe, 2015; Chandrakumarman galam & Vetrivel, 2012; Ekunwe et al., 2015; Vanroose & Espallier, 2013).

Credit risk experienced by microfinance institutions also has an impact on the microfinance institution industry since it could compromise the liquidity or bring up liquidity risk related to financial sustainability (Castellani & Cincinelli, 2015). Study results in several countries in Europe and Asia found that the factors of foreign currency risk, liquidity risk, and asset liability management held significant influence on the performance of microfinance institutions (Bruett, 2004). The risks experienced by microfinance institutions can be divided into three groups, namely, financial, operational, and strategic risks which are interconnected. Currently, microfinance institutions that serve loan have the potential to experience issues in liquidity, market condition, transaction, fraud, governance,
and reputation (Khan & Ashta, 2013). Credit risk experienced by microfinance institutions is originated from company's internal and external factors thus it requires a non-financial factor-integrated financial management strategy (Brueggeman, 2004).

Changes in environment bring pressure into the company that require some adjustments in company’s vision, mission, as well as culture (Loasby, 2010). Organizational culture also influences by local culture where the company is established. It has been proven by Schein (2004) and confirmed by Hofstede (1983) that national culture is formed from local cultures originated from customs they followed. People in Asian countries are different to people in European countries in term of their attachment to each other (Hofstede, 1983).

Indonesia is one of Asian countries that has mutual cooperation (gotongroyong) culture to perform an activity that is in line with Hofstede’s (1983) view. Indonesian preference to be in group is indicated by their fondness to be with the family than being alone (Siagian, 2002). One of universal cultures that has also been used in tourism industry is harmonious culture. Harmonious culture is a culture that maintain a harmonious relationship between human and God, human and other human being, and human and environment (Windia & Dewi, 2007). The cultural concept is not only adopted in the tourism world but also in microfinance institutions that grow and develop in Indonesia, especially in Bali. It is recognized that microfinance institution serves low income communities mostly in rural areas. The institution has a concept of serving the weak and moving along with the social condition of the communities. This type of financial institution is called Lembaga Perkreditan Desa/LPD (village financial institution) and it amounts to 1,405 institutions (Bank, 2016). The large number of LPDs indicates the acceptance of its existence and it provides benefits to the communities. The success of the microfinance institutions is closely related to its ability to adopt cultural values or to adjust with the environment (Barreto, 2010; Loasby, 2010; Helfat & Peteraf, 2003).

Based on the previous research results, it was stated that a company's internal and external factors influencing credit risk had not clearly discussed cultural factors although it was stated implicitly. Therefore, this research filled the gap to test harmonious culture used to handle credit risk. The handling of loan problems in microfinance institutions, generally, refers to the loan agreement and various procedures that strictly determined (Baland et al., 2017). This research used harmonious culture to handle credit risk and it was different to previous researches, such as Baland et al. (2017), Agbola, Acupan, and Mahmoud (2017) and Castellani and Cincinelli (2015), that did not include a cultural variable to build a model. Therefore, in this study the problems that occur are related to how credit risk assessment is based on the application of a culture of harmony to improve the performance of microfinance institutions. To answer the question, the harmonious culture value in Schein’s culture (2004) was utilized as a theoretical basis. The study used qualitative and quantitative methods (exploratory sequential design) developed by Creswell and Clark (2017). Further, analysis and discussion were conducted and in the end, the conclusions were drawn, and implications were suggested, both theoretically and practically.

1. Theoretical analysis and hypotheses development

Market development will impact risk development thus building communication with customers is significantly important to be conducted through various strategies. One of the strategies is building communication with the customers and paying attention to the culture of the customers (Astawa et al., 2016a; Astawa & Sudika, 2014; Astawa et al., 2013; Astawa, 2013). Organizational culture followed by microfinance institutions is originated from local cultures in Indonesia called harmonious culture. The harmonious culture gives emphasize on the harmonious relationship between microfinance institution and God (parahyangan) as the creator of the universe through various religious and indigenous activities (Astawa, Sudana, & Murni, 2017; Sukawati & Astawa, 2017; Astawa & Sukawati, 2016; Astawa et al., 2016). Two other harmonious relationships are maintaining the relationship between microfinance institution and the employees, customers, and environment. The harmonious culture has become an organizational culture in microfinance institution and has a significant impact on company performance (Astawa et al., 2017; Sukawati & Astawa, 2017; Astawa & Sukawati, 2016; Astawa et al., 2016) and is used as a strategy to win the competition with general banks. The ability to win the competition is based on the ability of the companies to adjust their resources to give the best service to the consumers. The resources adjustment is a strategy to win the competition (Amir, Auzair, & Amiruddin, 2016) as well as innovation in service that hard to imitate by the competitors (Barney, 1991).

Microfinance institutions or LPDs provide loan service to the villagers and operate under the law of traditional village and local government. The concept of loan service is similar to those general banks. The difference is only in the collateral, the speed and the elements of custom as well as the values of religious belief. In the current condition, LPDs compete with general banks that have strong resources, capital, and technology. Other problems, such as a slowing economic condition in Indonesia, give impact on the purchasing power of the society thus a slowdown in loan payment with an average mark of above five percent (Bank, 2016). The high loan problems should be overcome immediately so it would not disturb the performance.

Human capital theory provides direction on how the good use of resources could improve performance (Becker, 1993). Previous researches also provide an explanation that the adaptability of resources encourages
the achievement of sustainable competitiveness (Barreto, 2010; Loasby, 2010; Helfat & Peteraf, 2003). The adaptability pace of human resources in microfinance institutions to the environment gives strength in conducting the increasingly high competition. Proximity to environment is a necessity to facilitate decision making of competitive strategy (Barreto, 2010). Many companies fail because they don't adapt quickly to the environment and it is related to their internal factor, which is the company's management that is unwilling to change (Helfat & Peteraf, 2003). This stiffness occurs due to over-confidence towards the organizational culture that is previously able to drive resources accordingly. One of intangible properties of a company is organizational culture and it can be used as a competitive strategy (Barney, 1991). The result of previous research indicates that the performance of a company was influenced by organizational culture (Schein, 2004; Kotter & Heskett, 1997). One of the organizational cultures originated from local culture is harmonious culture or Tri Hita Karana or Green Culture. It becomes the reference in the operation of organizations in Indonesia, especially in Bali and has an influence on company performance (Surya et al., 2017).

The concept of harmonious culture is highly universal and it emphasizes harmony to the values of belief in the society, harmony to other human beings, and harmony to the environment.

Risk theory indicates that individual expects to strengthen the perception of risk and commitment from their physical culture as a way of life (Thomson, 1990). Based on the theory, lending activities cannot be separated from the culture of the people who borrow or the belief values of the customers. Microfinance institutions serve rural communities who have low income and mostly have no collaterals (Abdul et al., 2018). It is a challenge for the microfinance institutions to maintain the low credit risk. Credit risk is related to the opportunity of a failure by the customers in fulfilling the obligations at the due date. Credit risk occurs from various possibilities, for example, debtors are incapable of paying their debts; bonds bought by the bank does not pay the coupon or the principal; and the occurrence of non-performance loans of all obligations between a bank and other parties.

The amount of risk consists of two factors, namely, the amount and the quality of loan exposure. The amount of loan exposure is equal to the amount of the loan itself. The bigger the loan, the bigger the loan exposure. The quality of exposure is reflected by the possibility of the non-performing loans by debtors and the collateral quality provided by debtors or loan buyers. The lower the quality of the collaterals, the lower the loan quality and thus the higher is the credit risk faced (Baland et al., 2017; Agbola et al., 2017). Credit risk is influenced by loan quality and the collateral quality and it has a significant influence on the financial performance (Baland et al., 2017; Agbola et al., 2017).

Financial performance is measured through the level of the profit achieved by the microfinance institutions (Kanyurhi, Bugandwa, & Akonkwa, 2016). Loan quality is reflected by the amount of non-performing loan while the collateral quality is reflected by the value of collateral that is capable of generating profit from selling (Baland et al., 2017; Agbola et al., 2017).

Company's culture strongly influences the company success (Schein, 2004) and the implementation depends on the belief values and social values of the communities (Hofstede, 1983). The belief values in a community considered to have influence in developing performance in Indonesia is customs and traditional leaders (Surya et al., 2017, Astawa et al., 2013). Another factor found to be related to the cultural values is the belief values in the law of cause and effect or often called by most of Indonesian people as hukum karma phala. The law provides a foundation for the people to be honest since bad deeds brings bad result and vice versa.

Therefore, the community obedient in making their obligation payment thus less credit issues and in turn, it could improve company performance (Surya et al., 2017, Astawa et al., 2013; Schein, 2004; Kotter & Heskett, 1997). Based on the result of previous research, the following hypotheses could be proposed.

H1: the loan quality has a positive and significant influence on financial performance and
H2: the collateral quality has a positive and significant influence on financial performance.
H3: the customary rule has a positive and significant influence on financial performance.
H4: the traditional leader has a positive and significant influence on financial performance.
H5: the belief in karma phala law has a positive and significant influence on financial performance.

2. Research method

The research used qualitative and quantitative methods (exploratory sequential design) developed by Creswell and Clarc (2017). List of questions was prepared as a base in conducting interview on how the implementation of harmonious culture in the implementation of credit risk. Interview was conducted to LPD managers at Bali that started with permission application to conduct the interview and recording. The duration of interview was between 30 to 60 minutes and content deepening was conducted if it related to the discussed theory. Data was compared to the existing theories (Glaser & Strauss, 1967) and coding was conducted using Miles and Huberman (1994). Based on the result of qualitative processing, questionnaire was built that consisted of five dimensions: loan quality, the collateral quality, customary rules, traditional leaders, and the belief in karma phala law (Thomson, 1990; Baland et al., 2017; Agbola et al., 2017) and tested to determine their validity and reliability in 40 LPDs and the results were all valid and reliable. The next stage was distributing the questionnaire to LPDs in Bali by mail and email. Sampling was conducted using Slovin formula with an error level of 10% (Umar, 1998) and resulted in 94 LPDs of 1,405...
The questionnaire distribution resulted in 90 questionnaires returned and they were analyzed using multiple regression analysis to look for the five dimensions of credit risk related to company performance. Performance dimension referred to the research of Kanyurhi et al. (2016) which consisted of the rate of profit gained.

Previous research result that performance was influenced by loan quality and collateral quality (Baland et al., 2017; Agbola et al., 2017) became a base in qualitative study as formulated in the regression equation 1.

The regression equation was:

\[ Y_1 = a + \beta_1 X_1 + \beta_2 X_2 + \epsilon_1, \]

where: \( Y = \) company performance; \( X_1 = \) loan quality; \( X_2 = \) collateral quality; \( \beta_1 (1, 2, 3, 4, 5) = \) partial regression coefficient; \( \epsilon_1 = \) level of stochastic disturbance; \( a = \) a constant.

The result of credit risk assessment based on the harmonious cultural value found five dimensions that influenced the company performance as illustrated in the regression equation 2.

The regression equation was:

\[ Y_1 = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \epsilon_1, \]

where: \( Y = \) company performance; \( X_1 = \) loan quality; \( X_2 = \) collateral quality; \( X_3 = \) customary rules; \( X_4 = \) traditional leaders; \( X_5 = \) the belief in karma phala law; \( \beta_1 (1, 2, 3, 4, 5) = \) partial regression coefficient; \( \epsilon_1 = \) level of stochastic disturbance; \( a = \) a constant.

### 3. Result and discussion

The result of qualitative study was obtained from three informants, head of LPD1, LPD2, and LPD3. The selection of informants was based on three LPDs that had the largest asset. Several themes found as indicated in Table 1.

The result of data collection based on questionnaire indicated that the education level of LPD leaders was as follows: 85 percent held bachelor’s degree, 10 percent held master’s degree, and 5 percent graduated from senior high school. Based on the education qualification, it was evident that LPD leaders had the ability to run the company to a better direction since the ability to understand the work depends on the level of education achieved. The respondents’ appraisal on each indicator was calculated based on the distribution frequency developed by Sugiyono (2008) where 1.00 – 1.74 = Disagree (D); 1.75 – 2.49 = less agree (LA); 2.50 – 3.24 = Agree (A); and 3.25 – 4.00 = strongly agree (SA).

Based on the research result, the loan quality variable consisted of five indicators, namely, customer honesty, loan appraisal honesty, respect to the religion, respect for the culture and give happiness. The average results of respondents’ perceptions can be explained in Table 2. The loan quality variable was 3.28 indicating strongly agree.

The result of the respondents’ perception of the collateral quality was 3.31, on average, which was within the interval of strongly agree. Indicators of the variable of collateral quality were: it has economic value, it does not contain a prayer room for the family, it is not the ancestral heritage, it was not ibah from the traditional village, and it is not in dispute. The result of respondent evaluation of

### Table 1. Themes of qualitative study result (source: processed data, 2018)

<table>
<thead>
<tr>
<th>Question</th>
<th>LPD1</th>
<th>LPD2</th>
<th>LPD3</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>How is the implementation of harmonious culture in handling credit issues?</td>
<td>a) The credit is designated for rural communities for ceremonies as well as business. b) The communities obey the customary rules stated in the credit agreement c) the most important collateral is honesty alone with physical collateral required in credit d) Traditional leader is involved in fostering the community who borrow fund e) Religious values believed by the community stating that be in debt will be a burden until their next generation if they don't pay it</td>
<td>a) The community should aware on the purpose of loan b) there are additional rules prevailed in credit c) some people submit collaterals in the credit process and some don’t d) many credit application are rejected since it gained no approval from the traditional leader e) The community is worry regarding an explanation about the effect if they fail to pay the debt, which is karma phala law; therefore, they are willing to pay to avoid the law's curse</td>
<td>a) It is important to find out the allotment of credit proposed by the community b) Some collaterals submitted become the main discussion point with the supervisory body of LPD c) Each head of LPD should understand the prevailing customary rules to avoid mistakes in giving the loan d) Traditional leader usually has significant influence in encouraging the communities to obey the agreement</td>
<td>a) Loan quality provided b) Collateral used in credit c) Customary rules enforced d) The role of traditional leader e) the faith in the law of cause and effect (karma phala)</td>
</tr>
</tbody>
</table>
The belief in *karma phala* law amounted to 3.38, on average, which was within the interval of strongly agree. Indicators of the customary rules variable included: it becomes the holy book, it tranquillises, it is a community guidance, it maintains the culture, and it maintains the community’s harmony. The variable of traditional leaders consisted of several indicators, namely, understanding religion, understanding culture, maintaining village asset, maintaining traditional village harmonization, and serving the community sincerely. The appraisal result of respondent perception on traditional leader variable was 3.27, on average, which was within a very good interval. The result of respondent appraisal on the belief in *karma phala* law amounted to 3.38, on average, which was within the interval of strongly agree. Whereas, indicators of the belief in *karma phala* law included: not inheriting debt, afraid of being cursed, part of the way to God, and feeling happy if paying the debt.

The result of the quantitative test on five dimensions of credit risk can be explained in Table 3.

### Table 3. Respondents’ perception result (source: processed data, 2018)

<table>
<thead>
<tr>
<th>No</th>
<th>Variable</th>
<th>Clarification</th>
<th>Total Score</th>
<th>Average score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>D</td>
<td>LA</td>
<td>A</td>
</tr>
<tr>
<td>1.</td>
<td>Loan quality</td>
<td>0</td>
<td>0</td>
<td>65</td>
</tr>
<tr>
<td>2.</td>
<td>Collateral quality</td>
<td>0</td>
<td>0</td>
<td>62</td>
</tr>
<tr>
<td>3.</td>
<td>Customary rules</td>
<td>0</td>
<td>0</td>
<td>63</td>
</tr>
<tr>
<td>4.</td>
<td>Traditional leaders</td>
<td>0</td>
<td>0</td>
<td>65</td>
</tr>
<tr>
<td>5.</td>
<td>The belief in <em>karma phala</em> law</td>
<td>0</td>
<td>0</td>
<td>56</td>
</tr>
</tbody>
</table>

The simultaneous test result obtained the value of F-count (51.975) > F-table (2.68). Hence, $H_0$ was rejected or the significance value (0.000) < 0.05. This means that loan quality, collateral quality, customary rules, traditional leaders, and the belief in *karma phala* law simultaneously constituted a significant influence on the financial performance of LPDs. The regression equation became:

$$Y_1 = 3.406 + 0.172X_1 + 0.432X_2 + 0.416X_3 + 0.352X_4 + 0.272X_5 + e_1,$$

(3)

It can be seen that the financial performance was 3.406 without the influence of loan quality, collateral quality, customary rules, traditional leaders and the belief in *karma phala* law. The collateral quality had a substantial influence on maintaining financial performance. The result was in line with a research by Baland et al. (2017) and Agbola et al. (2017).

The result of the qualitative research indicated that credit risk in harmonious cultural-based management was influenced by loan quality, the collateral quality, customary rules, traditional leader, and the belief in *karma phala* law. The influence of loan quality and the collateral quality on credit risk is in line with the result of research conducted by (Castellani & Cincinelli, 2015; Baland et al., 2017; Agbola et al., 2017). Nevertheless, it is different in terms of the applied indicators consisted of customary rules, traditional leaders and the belief in *karma phala* law. Customary rules provided a binding force and were feared by the society. Therefore, debtors and creditors would not perform any fraudulence. The prevailing customary rules were related to the values of belief in the society. The people were afraid of the rules since they contained severe sanctions including being expelled from the village. Traditional leaders became a determinant factor for credit risk and played a role in loan approval. Traditional leaders actively conducted meeting with managers regarding loan or other matters related to the progress of microfinance institutions, customs and religion. The role of traditional leaders in reducing credit risk through supervision had significant influence (Said et al., 2016; Alonso, 2015; Mitrovi, 2015; Astawa et al., 2016; Lay, 2016; Astawa et al., 2017). An interesting finding in other indicators was the existence of belief element or a cultural value called *karma* which means good deeds lead to good results. Hence, not paying the debt means committing...
a bad deed and will result in bad things. The belief has made people willingly pay their loan on time (Hassan, 2014; Supatmi et al., 2019).

The five indicators resulted from the qualitative study was quantitatively tested and indicated that they had a significant influence as explained in Table 1. The simultaneous test also indicated a significant influence on performance. The research result provided a contribution to human capital theory stating that the good use of resources would cultivate productivity (Ghania et al., 2016; Becker, 1993). Productivity is achieved through efficiency or suppression on losses related to the occurrence of bad debt risk. If the cost is low, it could drive bigger profit. The research result contributed to risk management that employed local culture in reducing credit risk in LDPs. The research result was rare to find; thus, it provided an update in risk management developed by Castellani and Cin cinelli (2015), Baland et al. (2017) and Agbola et al. (2017). The research result provided a strong encouragement to the LPD leaders to utilize harmonious cultural values to reduce credit risk.

Reducing credit risk through modern banking approach is usually conducted through contractual concept between the bank and its customer. The research result, however, provided an alternative way to reduce credit risk for microfinance institutions that considered local culture as a tool to motivate their customers to fulfill their obligation. Through the culture, the companies were free from collecting fee caused by late payment of credit since the customers held a belief that paying their debt on time is a way to be closer to God. They feel guilty or afraid to get a bad karma if they don’t pay the debt on time. The cultural concept becomes guidance for the customers in their social life in the village.

Harmonious culture was synergized with belief values followed by the communities, thus it gave strength and encouragement to obey all rules believed to give happiness in life. The belief provided strength for the customers to use LPDs as a tool to fulfill their business capital or to improve their business activities. The customers were indirectly had high loyalty to the LPDs due to the harmonious cultural values that attached in their daily lives. A deeper understanding of cultural values had made the existence of microfinance institutions, such as LPDs in Bali to have performance that continued to increase compared to other microfinance institutions in Indonesia. Harmonious cultural values provided a different color in microfinance institutions governance; thus the concept contributed to performance measurement theory, especially in management that consists of general management and risk management.

Conclusions

Based on the analysis result, conclusions could be drawn that the performance of village microfinance institutions was influenced by loan quality, collateral quality, customary rules, traditional leader, and the belief in *karma phala* law. The five dimensions become a determinant in performance improvement; therefore, the Government of Indonesia as well as the microfinance institution management must pay attention to harmonious cultural values such as customary rules, traditional leaders and the belief in *karma phala* law as a strength in maintaining the company’s sustainability.

The implemented harmonious cultural values could reduce credit risk. Customary rules, traditional leaders, and the belief in *karma* law strengthened the customers to obey the rules or agreement previously made. The belief and harmonious cultural values provided guidance to always do good things by obeying the commitment made to achieve happiness in life. The development of innovation also considers the condition of the society or the cultural values; hence, harmony could occur in achieving the sustainable goals of the organization.

A strong understanding of cultural values by customers provided a benefit for LDP leaders to use harmonious culture as a tool to approach customers who were late in meeting their obligation. Belief value of obedience in fulfilling the obligation would impact their current life. Therefore, the customers would compete to fulfill their obligation. The fulfillment would bring happiness and it is part of their offerings to God. They view their properties as originated from God thus they are obliged to maintain it. The forms of devotion to God according to the religious values put in activities of harmonious culture were varied, such as paying debt on time, work properly, meditation, help others, and so on.

The research could be developed through the division of credit risk types in the microfinance institutions; thus the influence of harmonious culture on each credit type as well as it risk could be observed. The division facilitated the microfinance institution managers to give appropriate solution on problems caused by loan.

References


