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### The Role of Borrower Characteristics, Relationship Lending and Trust on SME's Creditworthiness

I Gde Kajeng Baskara<sup>1</sup>, Ubud Salim<sup>2</sup>, Djumahir<sup>2</sup> and Atim Djazuli<sup>2</sup>

<sup>1</sup> Faculty of Economics and Business, Udayana University, Indonesia, Corresponding Author,

Email: [kajengbaskara@unud.ac.id](mailto:kajengbaskara@unud.ac.id), [kajengbaskara@yahoo.com](mailto:kajengbaskara@yahoo.com)

<sup>2</sup> Faculty of Economics and Business, Brwijaya University, Indonesia

**Abstract:** This research aim is to explore and review the variables affecting the SMEs borrower creditworthiness. This research will examine the qualitative and quantitative characteristics of SMEs borrowers, relationship lending and trust on creditworthiness of SMEs borrowers. This research will explore the role of trust to affect creditworthiness. Research findings show that trust of loan officer is very important in the interaction. The trust is perfect mediation (complete intervening variable) in relationship between the qualitative characteristics of borrower and relationship lending on creditworthiness. The trust also becomes a partial mediation variable (partial intervening variable) in relation to quantitative characteristics of borrower creditworthiness.

**Keywords:** Creditworthiness, trust, relationship lending, borrower's characteristic, small and medium enterprise

#### INTRODUCTION

Banks use lending technology as an effort to provide the necessary information related to borrower. Lending technology is a mechanism to provide qualitative and quantitative measures information. Qualitative information or "soft" information is usually in form of a personal character, management capability, social character, cultural, environmental, business and marketing (Petersen, 2004 and Udell, 2007). In addition, "hard" quantitative information is borrower's financial information, whether obtained through the financial statements, as well as collecting information directly related to financial condition of borrower as collateral, condition of assets, capital, profitability and others.

Qualitative and quantitative information of borrower characteristics has a significant effect on the creditworthiness. Bank produced borrower characteristics through loan officers as front man of bank to explore information. To reduce the inequality of information, intermediary institutions such as banks

require intense relationship with borrowers. Literature on financial intermediation and bank called this a relationship lending.

Relationship lending will collect information of related customer completely and accurately. This information can be deduced that effect of loan and information completeness, but not the content or such information. More complete and accurate information means better borrowers characteristics known by bank.

The role of loan officer in relationship lending was investigated by Uchida et al. (2011) which found that loan officer play an important role to build relationships with borrowers. The researchers found that close relationship between the loan officer and borrowers could improve the availability of soft information for bank. Some other studies shows that trust can reinforce or fill the shortage of uncertainties arising after the information received and evaluated by loan officer (Moro and Fink, 2012). In relationship lending, trust can compensate the imbalance of information so the analysis of creditworthiness can become more precise and better.

The findings inconsistencies of previous studies on the effect of qualitative characteristics on creditworthiness has shown by Catasus and Grojer (2003) as well as Tornberg and Hemlin (2013). The two studies found evidence that qualitative information (non-financial information) does not affect on loan decisions by loan officers and loan officers encountered considerable difficulty to make a credit decision if it involves soft information such as personal character, social and environmental conditions. Research by Beaulieu, (1996), Soares et al. (2011), Bartoli et al. (2013) as well as Elsakit and Worthington (2013) found evidences that qualitative characteristics affect on creditworthiness.

The previous study about the relationship between relationship lending and creditworthiness also showed the different findings. Petersan and Rajan (1994), Cole (1998) and Behr et al. (2012) found that relationship lending affects on creditworthiness, while Campanella et al. (2013), Uchida et al. (2012) and De La Torre et al. (2010) stated that relationship lending has no impact on creditworthiness, especially on large banks.

The different findings in previous research led to speculation that there are variables to mediate the relationship between the borrower characteristics and relationship lending on creditworthiness. Trust alleged to become mediation of this relationship. It based on findings of Moro and Fink (2012). This study suspected that trust plays a very important role in relationship between loan officers and borrowers.

The effect of trust on creditworthiness has not been studied deeply. Moro and Fink (2012) found that trust plays an important role in relationship lending. The study shows empirical evidence in form of higher trust of loan officer to the borrower will improve access to borrower's loan. This study only tested the effect of trusts on creditworthiness of SMEs, and deeply investigation the role of borrower characteristics information and relationship lending to affect these beliefs. Many factors affecting the creditworthiness decision are qualitative and quantitative characteristics of borrower, relationship lending and psychological factor of loan officer. This research is important, as it will be able to provide a better understanding the role of these variables on creditworthiness, especially the SMEs borrowers.

Uchida et al. (2008, 2006) concluded that banks in face of micro-scale borrowers using only the qualitative characteristics of information disputed by. Research conducted in Japan found that both types

of lending technology in practice turned out to be complementary in an attempt to dig up information related to micro and SMEs borrowers. The researchers argue that further research in different countries is urgently needed to strengthen the understanding of concept of loan related technology. They declare whether they get the empirical evidence is an inconsistency with previous findings or the effect of reflection commonplace in Japan.

Factors affecting the decision making related to creditworthiness of a customer is characteristic information (qualitative and quantitative), relation between borrower and factors psychological condition of loan officers where one of them is the trust. The phenomenon becomes theme of proposed research. What is the role of qualitative and quantitative borrower characteristics; relationship lending and trust in a borrower creditworthiness of SME's are rarely scrutinized. By understanding this role in more depth, imbalance of information between banks and borrowers, especially SMEs customers, can be handled better.

### **THEORETICAL FRAMEWORK AND RESEARCH HYPOTHESIS**

Creditworthiness analysis uses quantitative and qualitative methods to assess creditworthiness. Creditworthiness is the feasibility of loan application to be approved and suitability of loans plafond approved based on proposal (Behr et al., 2011). Studies to examine the effect of qualitative characteristics of borrower on creditworthiness is conducted by Lehman (2003) to find that qualitative characteristics information usage on borrowers credit rating analysis can improve accuracy in creditworthiness and monitoring. The term non-financial factors in related qualitative characteristics research was conducted by Grunert et al. (2005). This study concluded that the usage of non-financial information and finance together in analysis of creditworthiness and monitoring of internal credit rating could improve the accuracy to estimate feasibility and default prediction of borrowers.

Bealieu (1996) proves that loan officer uses the information of personal character and accounting information to make loan decisions. Soares et al. (2011) demonstrated that criteria for qualitative characteristics have a higher interest rate than the quantitative characteristics of criteria in creditworthiness. Elsakit and Worthington (2013) found that loan officers also consider aspects of social environment to analyze the borrower creditworthiness.

Based on previous research, the first hypotheses are below.

H1a: Better qualitative characteristics will improve the borrower's creditworthiness.

H1b: Better qualitative characteristics of borrowers will increase the trust of loan officers.

Studies the effect of quantitative characteristics are derived from hard information on creditworthiness in accounting field. Danos, et al. (1989) conducted an experimental research and found that trust will increase after the loan officer is given the accounting information of borrower. Bealieu (1996), Price (1992), Soares, et al. (2011) and Bartoli, et al. (2013) find evidence the effect of quantitative characteristics such as the borrower's financial information on creditworthiness.

Based on previous research, the second hypotheses are below.

H2a: Better quantitative characteristics of borrowers will improve the creditworthiness.

H2b: Better quantitative characteristics of borrowers will increase the trust of loan officers.

The relationship lending theory is based on close relationship between the lender and borrower to get economic benefit (Elsas, 2002) Relationship lending is the borrower and lender interaction to create intertwined relationship between the two parties. This relationship pattern will benefit the borrower and the lenders in its efforts to collect information related to borrower (Uchida et al., 2012).

Petersan and Rajan (1994) and Cole (1998) stated that good relationship lending will increase the creditworthiness of SMEs borrower. Behr et al. (2012). They found evidence that creditworthiness will be higher along with higher level of relationship lending. In other words, there is an intense relationship between micro entrepreneurs and bank.

Based on previous research, the third hypotheses are below.

H3a: Better relationship between bank and loan officers with borrower will increase creditworthiness.

H3b: Better relationship between bank loan and loan officers with borrowers will increase the trust.

Findings of previous researches become basis for researchers to conduct this research. Inconsistency findings on relation between relationship lending with creditworthiness led to speculation that there are other variables to mediate these relationship. This research also expected to provide an understanding the relationship lending and SMEs borrower creditworthiness to major banks in Indonesia.

### **Trust as intervening variable**

Inconsistency findings of previous studies about the effect of qualitative characteristics on creditworthiness are shown by Catusus and Grojer (2003) as well as Tornberg and Hemlin (2013). The two studies found evidence that qualitative information (non-financial information) does not affect on loan decisions by loan officers and loan officers encountered considerable difficulty to make a credit decision if it involves soft information such as personal character, social and environmental conditions, as well as management capabilities.

The different findings about the effect of creditworthiness on relationship lending are shown by Campanella et. al. (2013) and Uchida et al. (2012) that relationship lending has no effect on creditworthiness. Inconsistency findings of previous research raise a presumption that there are other variables to mediate this correlation.

The theory of Mayer et al. (1995) explains that trust consist of collection and information analysis for both sides, especially the collection of information on those who believed (trustee) by those who believe (trustor). Luhman (1979) states that trust relationships past become a basic (historical) to build trust. The role of trust in process to receive information is to reinforce or fill the shortage of uncertainties arising after the information received and evaluated by loan officer (Moro and Fink, 2012). In relation to relationship lending, trust can compensate for imbalance of information so that analysis of creditworthiness can be more precise and better.

Better qualitative and quantitative borrower characteristics and better relationships between loan officers and borrower are alleged will be able to increase the trust of loan officer to borrowers and their loan application. Based on previous explanation, the hypothesis 4 and 5 are below.

- H4: Higher trust of loan officer will improve the borrower's creditworthiness.
- H5a: Better qualitative characteristics of borrowers will improve the creditworthiness if mediated by trust.
- H5b: Better quantitative characteristics of borrowers will improve the creditworthiness if mediated by trust.
- H5c: Better relationship lending will increase creditworthiness if mediated by trust.

## **CONCEPTUAL FRAMEWORK**

The conceptual framework and research model developed based on theory and findings of previous research. Next will presented a description of operational variables, structural model and research hypothesis.

### **Variables Description**

The exogenous variables are qualitative characteristics (X1), quantitative characteristics (X2), and relationship lending (X3). Intervening variables as the endogenous variable is trust (Y1) and creditworthiness (Y2). The descriptions of operational variables are below.

Qualitative Characteristics (X1): measured from the indicators, (1) social and personal behavior (Bealieu, 1996; Soares, et al., 2011; Sutter 2007; Elyasiani & Goldberg, 2004; Elsakit & Worthington, 2012), (2) management capabilities (Soares et al., 2011; Grunert et al., 2005) and (3) borrower's business and marketing (Behr et al., 2011; Grunert et al., 2005; Soares et al., 2011).

Quantitative Characteristics (X2): measured by data and predictions based on following financial statements: (1) development of profitability (Soares et al., 2011), (2) development of liquidity (Grunert et al., 2005, Soares et al., 2011) and (3) development of solvency (Grunert et al., 2005, Soares et al., 2011).

Relationship lending (X3): this variable measured by, (1) proximity of personal relationships (Sutter, 2007), (2) intensity of meetings and communication (Uchida et al., 2012), (3) length as a customer (Uchida et al., 2012), (4) intensity of credit application (Behr et al., 2011), (5) ownership of bank products (Berger and Udell, 2002), (6) distance between home and bank (Uchida et al., 2012 ) and (7) distance between business location and bank (Uchida et al., 2012).

Trust (Y1): This study uses trust measurement from Mayer et al. (1995). It consists of three factors as follows: (1) ability, (2) benevolence and (3) integrity.

Creditworthiness (Y2): This study uses creditworthiness measurement based on Behr et al. (2011), namely: (1) feasibility of a loan application approved or how viable a client granted a loan and (2) loan plafond feasibility of borrower.

### **Research Framework**

Research framework of this study presented based on relationship between variables from previous research and relevant theory. The figure 1 below shows relationship between variables to research to create hypotheses.

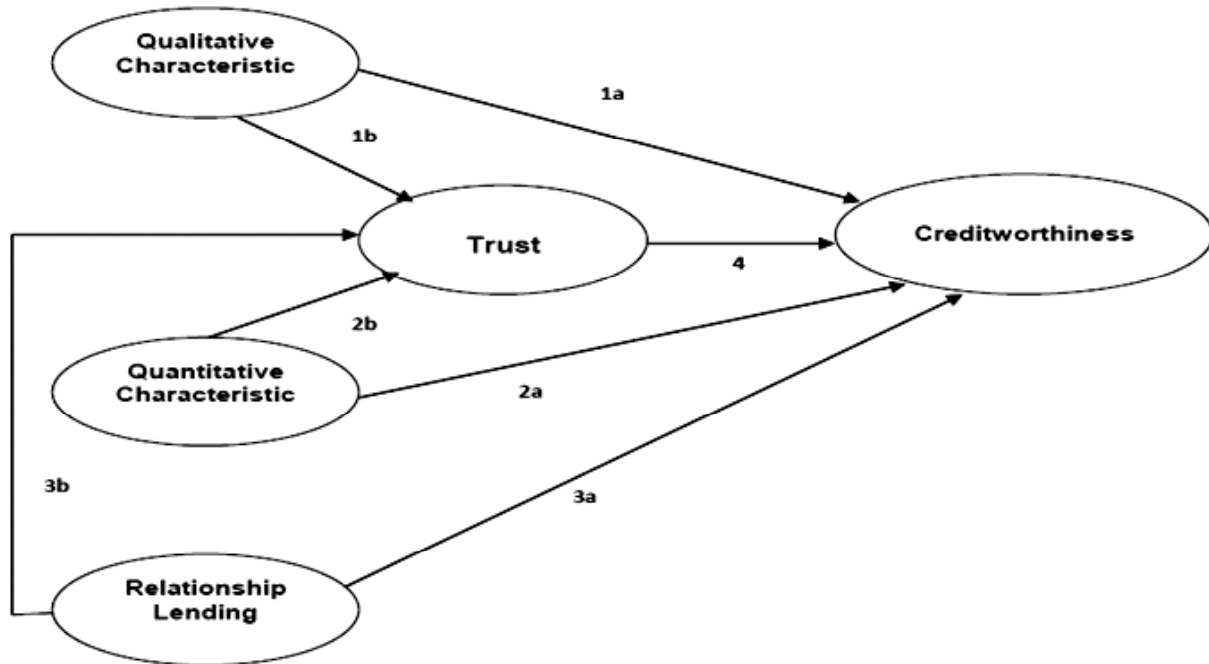


Figure 1: Research Framework

## DATA AND METHODOLOGY

This research was conducted at PT Bank BRI in Denpasar Regional Office, Bali Province, Indonesia. The populations are borrowers and potential borrowers who apply loans for SME's. Borrowers data was collected during the March to May 2015. Population criteria of this study are as follows:

- The borrowers are (1) *Kredit Usaha Rakyat (KUR) Mikro* or people micro business loan, (2) *Kredit Usaha Pedesaan (Kupedes)* or Rural Business Loans, (3) *Kupedes Rakyat*, (4) *KUR Ritel* and (5) *Ritel dan Komersial* in form of Working Capital Loan and Credit Investment.
- The borrowers with a loan plafond from IDR 5 millions until IDR 500 millions (micro and small category by Bank Indonesia).
- The borrowers were analyzed the creditworthiness by loan officer at time of study or the questionnaire collection.
- The borrower already approved the submission of a loan with a range of at least one month prior approval in order to avoid bias effect of non-performing loans or loans are categorized day per due (DPD).
- Rejected loan applications of borrowers.

Based on field data collection, the 351 questionnaires data collected from borrowers. There 33 borrowers who do not fit with criteria and excluded from the population, remaining 318 borrowers become research population. This study use saturated sample where all 318 members of population borrowers and prospective borrowers used as a sample. Primary data collected directly by spreading questionnaire and interview. This research also supported by secondary data of documents that relevant to this research study, as data from the bank (loan applications, credit documents), website and other related agencies.

Guidelines to measure all variables are 5-point Likert scale, where the lower weight score is 1 (one) and so on so that answers are weighted higher by a score of 5 (five) (Malhotra, 2010; Cooper and Schindler, 2003). Category of each answer follows these criteria: Very Good / Very agree (score 5); Good / agree (score 4); Quite / Neutral (score 3); No Good / Disagree (score 2); Very Not Good / Strongly Disagree (score 1). This study uses inferential statistical analysis with Partial Least Square (PLS. SmartPLS program use for statistical tests in stages wherein first outer models will be tested followed by inner test models and final test research hypotheses.

## **RESEARCH FINDINGS**

Statistical tests findings will divide into two parts, outer and inner models test findings and hypotheses. The following test findings presented by PLS method using SmartPLS program.

### **Evaluation of Outer Model**

Evaluation of outer model purposed to test the validity and reliability of research instrument. There are four variables with reflective indicators namely qualitative characteristics, relationship lending, trust and creditworthiness and one variable with formative indicators namely quantitative characteristic. There are three indicators of relationship lending (X3) that not valid and reliable. They are length as a customer (X3.3), intensity of credit application (X3.4) and ownership of bank products (X3.5). These indicators of relationship lending must removed from the model. Valid indicators for reflective must have outer loading values  $> 0.60$  for exploratory research (Chin, 1998; Ghozaly and Latan, 2012).

The evaluation show that value of AVE and communality between 0.59 up to 0.95 and greater than the cutoff value of 0.5. These findings indicate that all variables are valid. Reliability test findings show that composite reliability values are between 0.94 to 0.97 and cronbach alpha of 0.90 up to 0.95 and greater than the cutoff of 0.60.

### **Evaluation of Inner Model and Hypothesis**

Goodness of fit value is  $R^2$ , which  $R^2$  of  $Y_1 = 0.81$  and  $Y_2 = 0.60$ . Value for  $Q^2$  predictive relevance is  $Q^2 = 0.93$  or 93 percent. This test show the model has very good estimate value and can be continued to test the hypotheses by looking at path coefficient relationships among latent variables. Model output of PLS test structural models and hypotheses made by looking at value of estimated path coefficients and t-statistic (critical point) findings. Hypothesis testing and model the relationship between variables was conducted in two phases, namely: (1) direct effect path coefficient test and (2) mediation effects of path coefficients.

### **Direct effect coefficient**

Table 1 shows two relationships that insignificant. In accordance with rule of thumb of structural model, relationships between variables are considered have significant effect if t-statistic  $> 1.96$  at  $\alpha = 0.05$ . The rejected hypotheses are H1a and H3a, while is H1b, H2a, H2b, H3b and H4 are accepted.

**Table 1**  
**Hypothesis test result of direct effect**

<i>Hypotheses</i>	<i>Variables relationship</i>	<i>Path coefficient</i>	<i>t-statistic</i>	<i>Description</i>
H1a	Qualitative Characteristic (X1) → Creditworthiness (Y2)	0,102	1,295	Insignificant
H1b	Qualitative Characteristic (X1) → Trust (Y1)	0,550	8,524	Significant
H2a	Quantitative Characteristic (X2) → Creditworthiness (Y2)	0,319	3,592	Significant
H2b	Quantitative Characteristic (X2) → Trust (Y1)	0,191	2,712	Significant
H3a	Relationship lending (X3) → Creditworthiness (Y2)	0,111	1,798	Insignificant
H3b	Relationship lending (X3) → Trust (Y1)	0,230	5,206	Significant
H4	Trust (Y1) → Creditworthiness (Y2)	0,304	3,250	Significant

### Mediation effect coefficient

Sobel test is used to measure the mediation effects. There are three hypotheses to show that mediation variables proven empirically (t-count of Sobel test > 1.96).

**Table 2**  
**Hypothesis test result of indirect effect**

<i>Hypotheses</i>	<i>Variables</i>				<i>Sobel test</i>	<i>Mediation Type</i>	
	<i>Exogenous</i>		<i>Mediation</i>	<i>Endogenous</i>			
H5a	Qualitative Characteristic	→	Trust	→	Creditworthiness	2,937	<i>Complete Mediation</i>
H5b	Quantitative Characteristic	→	Trust	→	Creditworthiness	2,138	<i>Partial Mediation</i>
H5c	Relationship lending	→	Trust	→	Creditworthiness	2,629	<i>Complete Mediation</i>

## DISCUSSION AND CONCLUSION

The discussion of this study will compare the empirical evidences with theory and previous research as well as qualitative information collected during the research.

### Qualitative characteristics on creditworthiness and trust

This study proves that qualitative characteristics of borrower does not affect directly on creditworthiness. Thus, the hypothesis that better qualitative characteristics will improve the borrower's creditworthiness is not proven. This means that qualitative characteristics of borrower cannot explains the variation change of creditworthiness.

This study finding is inconsistent with Soares et al. (2011) that qualitative characteristics have a major effect on creditworthiness. Elsakit and Worthington (2013) research finding also different with this study findings, which empirically proves that social environment of borrower does not have effect on creditworthiness.

This empirical finding is consistent Catusus and Grojer (2003), Tronberg and Hemlin (2013) and De La Torre et al. (2010) which found that qualitative information (non-financial information) does not affect loan decisions of loan officers. Loan officers encountered considerable difficulty to make a credit decision



if it involves soft information such as personal character, social and environmental conditions as well as relationships.

Campanella et. al. (2013) and Uchida et al. (2012) suggest that small banks typically rely on qualitative information and good relationships with borrowers. This is contrast to bank with a larger size, although also uses qualitative characteristics information, but this information is not a major concern, because the loan officers at large banks are accustomed to use quantitative information and did not have ample time to gather qualitative characteristics information.

This study enriches the lending technology theory to prove to large bank that soft information cannot be collect in a short time and loan officer at a large bank prioritizes the rapid information transfer in order to shorten the analysis of creditworthiness. Interviews with loan officers show that one reason to give credit to SMEs is to expand marketing network and to offer other products than loans. They are doing this because the SMEs segment is a great market niche. PT. BRI Indonesia implements strategies to reach new customers through loan on a massive scale. Therefore, qualitative characteristics are not main concern creditworthiness analysis of SMEs.

This study finding proves that qualitative characteristics of borrower directly affect on trust of loan officers. Better qualitative characteristics of borrower will increase the trust of loan officers. These findings support the concept and theory of trust by Luhmann (1979) and Mayer et al. (1995) which states that at short relationship, the trust based on characteristic information. Mayer et al. (1995) suggest that the trust contains the collection and analysis of information for both sides, especially the trusted information by two parties. Luhman (1979) states that short-term relationship trust usually based on information received.

This study examines the trust on lender-borrower relationship and to prove that good information about the qualitative characteristics will increasing trust. Interview with loan officers show that trust of loan officers will arise from the character of personal, social, environmental and management capability of borrower.

### **Quantitative characteristics on creditworthiness and trust**

This research can prove that quantitative characteristics of borrower directly affect on creditworthiness. Development of profitability, liquidity and solvency significantly affect on SMEs borrower creditworthiness. This means that quantitative characteristics of borrower will be able to improve creditworthiness. These findings reinforce the findings of Danos, et al. (1989) which proves accounting information such as profitability, liquidity and solvency of borrower's will significantly affect on loan decisions. These findings are also consistent with research of Beaulieu (1996), Price (1992), Soares, et al. (2011) and Bartoli, et al. (2013) who found that financial information (characteristic quantitative) of borrowers affect on creditworthiness.

Hypothesis testing shows that quantitative characteristics directly affect on trust of loan officers. This study proves the concept of Seal and Vincent Jones (1997) that accounting information will affect the trust of loan officers in short and long term. This confirmed by interviews with loan officers who stated that officer trust would arise from the business condition of borrowers based on profit, turnover and quantitative aspects such as the condition of debt and repayment ability. This finding proves empirically that lender-borrower relation concepts by Luhman (1979) and Mayer et. al. (1995) which reveals that information was an important factor to build trust.

### **Relationship lending on creditworthiness and trust**

Hypotheses test result indicates that relationship lending does not have direct effect on creditworthiness. Measurement of model evaluation shows there are three indicators do not meet the validity and reliability (length with a customer, intensity of credit application and product ownership of banks). This finding inconsistent with by Uchida et al. (2012) which states that longer a customer becomes an indicator of relationship lending. This result different from the findings of Behr et al. (2011) which uses intensity of credit application as indicator and Berger and Udell (2002) which uses ownership of bank products as an indicator of relationship lending. This study proves that for SMEs borrowers on large banks, length with a customer, intensity of credit application and product ownership is not an indicator of a bank's relationship lending. Interviews result with loan officers and bank expert show that in an effort to expand marketing network, PT Bank BRI attract customers as much as possible so that loan officers do not distinguish the new and old borrowers.

New and old borrowers or borrowers who have a good or bad relationship continue to have the same possibility of creditworthiness. These findings are in line with Campanella et. al. (2013), and Uchida et al. (2012) and stating that although a large bank relationship lending apply, but few use the information obtained from this relation in analyzing creditworthiness. This research was conducted at PT Bank BRI, which is the largest government bank in Indonesia so these findings are thought to be affected by size of bank where the research.

Hypotheses testing indicate that relationship lending does not have direct effect on creditworthiness. Therefore, the hypothesis that the better relationship lending will improve creditworthiness is not proven. This means that relationship lending cannot explain the variation changes in SMEs borrower creditworthiness. This finding is inconsistent with Petersan and Rajan (1994), Cole (1998) and Behr et al. (2012) which state that a good relationship lending will increase the creditworthiness of SMEs borrower.

De La Torre et al. (2010) also found that relationship lending is not a major concern to give loan to SMEs borrowers. This research conducted in large and small banks that provide loans to SMEs in developing countries such as Argentina, Chile, Colombia and Serbia. They suggests that banks in country do not rely on relationship lending to provide financing to SMEs, SMEs borrower, both new and old, have an equal opportunity to obtain business funding. This was done primarily to attract many new customers to expand their business scale and introducing other bank product to new customers.

Deep interview with a loan officer explains that relationship lending also relates to type of credit proposed. This study provides a new understanding that certain types of loans affect the relationship between the relationship lending with creditworthiness, due to characteristics and objectives of each program is different. Borrowers who apply for Micro loan to BRI bank are a government loan that intended primarily for SMEs who never get the credit, thus it is a new borrower.

It can be proving that relationship lending directly affects on trust of loan officers. These findings reinforce the concept of Seal (1998) to relate the relationship lending on banking with organizational trust. It also strengthens and proves the concept of trust theory proposed by Mayer, et al. (1995) which states that information (obtained from the intense relation) are constituent elements of a person's belief to others. This study also proved the concept of Luhman (1979) that historical relationship factors are essential elements for trust.

This study also proves empirically the concept of Luhman (1979) and Mayer et al. (1995) in relation to borrower with banks. Relationship lending significantly affect on trust of loan officer to borrower. The theory of relationship lending must also consider the role of trust in relationship lending and creditworthiness.

### **Trust on creditworthiness**

The research found empirical fact that trust directly affect on creditworthiness. This may imply that higher the trust will be able to increase the borrower's creditworthiness significantly. This finding support the research of Moro and Fink (2012) who found that trust significantly affects on creditworthiness and ultimately affect on availability of credit to MSMEs in Italy. These findings are also consistent with research conducted by Canovas and Solano (2010) which prove that relationship based on lender trust to borrower will have more effect in creditworthiness compared with relationship based only on intensity of a long relationship.

### **The role of trust as mediation**

Trust is alleged as mediation the relationship between the qualitative characteristics, quantitative characteristics and relationship lending on creditworthiness. This conjecture is based on inconsistency findings of previous studies. Moro and Fink (2012) proved that trust is an important aspect of borrower creditworthiness and an underlying assumption that trust is mediation the effect of borrower characteristics and relationship lending on SMEs borrowers' creditworthiness.

Inconsistency findings is also shown by Catusus and Grojer (2003) and Tornberg and Hemlin (2013). The two studies found evidence that qualitative information (non-financial information) does not affect on loan decisions by loan officers and loan officers encountered considerable difficulty to make a credit decision if it involves soft information such as personal character, social and environmental conditions, as well as relationships. While Beaulieu, (1996), Soares et al. (2011), Bartoli et al. (2013) as well as Elsakit and Worthington (2013) found qualitative characteristics affect on creditworthiness.

The different findings are also shown by Petersan and Rajan (1994), Cole (1998) and Behr et al. (2012) that relationship lending affects on creditworthiness, while Campanella et. al. (2013), Uchida et al. (2012) and De La Torre et al. (2010) stated that relationship lending has no effect on creditworthiness, especially on large banks.

The different findings of previous researches led to speculation that there are variables to mediate the relationship between the borrower characteristics and relationship lending on creditworthiness. The underlying allegations that trust mediates this relationship based on Moro and Fink (2012) findings.

This study finding can prove empirically that trust is mediation the relationship between qualitative characteristics, quantitative characteristics and relationship lending on creditworthiness. The trust is complete or full mediation for relationship between qualitative characteristics and relationship lending on creditworthiness. This may imply that qualitative characteristics and relationship lending will affect the creditworthiness if mediated by trust. On relationship between quantitative characteristics on creditworthiness, trust becomes partial mediation. Partial mediation shows that good quantitative characteristics of borrower will be able to improve significantly their creditworthiness with or without trust as a mediation variable.

Previous studies still not examine the trusts as mediation variable for relationship between qualitative characteristics, quantitative characteristics and relationship lending on creditworthiness. Based on loan decision-making theory and trust theory, this study finding that trust plays a very important role in loan decision. The role of trust in relationship between the deficit and surplus on financial intermediation theory is important and should be concerned academics in this field.

During this time, the trust rarely examined as something important in bank-lender relationship. These study findings can enrich the findings of Moro and Fink (2012) which only examined the effect of trust on feasibility and availability of SMEs loans but did not examine the trust as mediation relationship between the borrower characteristics and relationship lending on creditworthiness. The borrower should focus to build trust with lender through information improvement and quantitative and qualitative characteristics through intense relationships with lenders.

## **CONCLUSION**

Qualitative characteristics and relationship lending directly have no significant effect to SMEs borrower creditworthiness. For large banks, qualitative characteristics and relationship lending are not the main factor for loan officers to analyze creditworthiness. In addition, bank's strategic plan to expand its business network also affect the role of these two variables, because banks are more focused on speed to process borrower data and to get new customers. Survey findings also revealed that role of these two variables on creditworthiness can be different on certain types of loans.

Quantitative characteristic directly has significant effect to improve creditworthiness. Loan officer is still prioritizing hard information to analyze the SMEs borrower creditworthiness. It is because a quantitative characteristic is transferable and increasing speed to process loan applications based on loan targets of loan officers.

The trust can becomes perfect mediation variable for relationship between qualitative characteristics and relationship lending on SMEs borrowers' creditworthiness. The trust also becomes partial mediation for the relationship between the quantitative characteristics of borrower on SMEs creditworthiness. These findings indicate that better qualitative characteristics, quantitative characteristics and relationship lending can improve the creditworthiness that moderated by trust of loan officers.

## **THEORETICAL IMPLICATION**

This research has implications on development of financial management science, especially small business financial management, financial intermediation theory, relation between loan and trust theory. This research has implications to concept and theory of creditworthiness by collecting and testing the effect of items and indicators of qualitative characteristics, quantitative characteristics and relationship lending on SMEs borrower creditworthiness. Previous studies do not measure these variables completely and has not been tested statistically.

These study enriches the theory of lending technology, proving that for big banks in Indonesia, quantitative characteristics information from transactional lending technology takes precedence over the relationship lending technology to gathers qualitative characteristics information of borrower.

These study findings enriches the theory of relationship lending by testing indicator measurement of relationship lending. This study also proves that relationship lending did not significantly affect on SMEs borrower creditworthiness types of loans and certain conditions.

This study can prove empirical concepts of trust from Luhman (1979) and Mayer, et al (1995) when applied to a bank-lender relationship, especially the relationship between borrower and loan officer. It can be proved empirically that good information and a good relationship is basic elements to get trust. Quantitative and qualitative characteristics of information and relationship lending have a significant effect on trust of loan officers.

These study findings also enriches the theory of financial intermediation. The role of trust in relationship between the deficit and surplus on financial intermediation theory are very important and should be concerned by academics to examine this field.

### **RESEARCH LIMITATION**

Research was conducted on National Commercial Bank, which included a large bank category. The findings cannot be generalized to other small banks category, such as rural banks or other financial intermediary institutions such as Credit Unions. The research object is limited to type of SMEs loans, thus it cannot be generalized to other types of loans, where this can limit the research findings.

The data analysis used in this research is survey method. It has limitation in data presentation within a certain time point (cross section), while the condition of banking business environment undergoes rapid change. Therefore, these research findings may be different at different times.

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