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Study On the Influence of Lending Decisions on Small and Medium Enterprises at Vietinbank Tien Giang

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Abstract

Small and medium-sized enterprises (SMEs) in the world are an indispensable part of the national economy. Customer information is always an important input data for the banking industry. Currently, banks are facing the problem of information asymmetry because borrowers provide unreliable and transparent information (data on financial and non-financial statements). Research approaches the theory of distribution of bank credit capital based on the theory of Asymmetric Information; The theory of adverse selection of credit markets; Moral hazard theory; Social capital theory; Theory of application in banking administration. The results of the factors affecting the bank's lending decision from high to low: (1) Information about the relationship with the bank (MQHNH) (ES = 0.207, P = 0.000); (2) Information on the capacity of the owner of the enterprise (NLCSH) (ES = 0.158, P = 0.005); (3) Social Information (ESR) (ES = 0.111, P = 0.020); (4) Information on Collateral (TSTC) (ES = 0.100, P = 0.022); (5) Information on Corporate Finance (TCDN) (ES = 0.088, P = 0.005) and (6) Information on Credit History (LSTD) (ES = 0.070, P = 0.009).

Keywords: Credit capital, SMEs, Vietin Bank Tien Giang.
JEL classification: M31; F16; O31.

1. Introduction

Customer information is always an important input data for the banking industry. Currently, banks are facing the problem of information asymmetry because borrowers provide unreliable and transparent information (data on financial and non-financial statements). Providing untruthful information changes borrowers' credit ratings, making it easier for customers to access loans, however, banks have an adverse selection that is the foundation of credit risk formation use and bad debt.

In the process of collecting and processing credit data of corporate customers, small and medium-sized enterprises are considered to be the most unreliable and transparent, especially in developing countries with disproportionate situation information worthy of serious occurrence. To solve the information asymmetry situation, the banking system has built a customer credit rating process based on collecting and processing data of 2 types of information: hard information (defined as external, based on financial reports, credit history, assessment, credit scoring (Feldman, R, 1997a, Berger et al., 2002a) and soft information (defined as inside information, through the relationship between the borrower and the bank, or judged personal views, trust in customers, honesty in providing information...(Petersen, 2004, Berger and Udell 2002). A bank's lending decision is influenced by: hard information and soft information.

In 2020, out of 2,205 SMEs in Tien Giang, over 30% of enterprises are severely lacking in the capital but cannot access bank credit for the following reasons: Unaudited financial statements, weak asset guarantee, low financial efficiency, profit decline in recent years following the global trend... This means that SMEs cannot meet the requirements of hard information set by banks. In addition to hard information, bank credit officers also consider soft information when making loan decisions such as: belief in the ability and ethics of business owners, participation in the network of relationships, etc. A social system of the business, what special relationships does the business have with banks or local authorities?... These factors play an important role in making credit decisions but are currently not reflected in the credit policies of banks and businesses in Tien Giang.

2. Theoretical Basis

2.1. Concept and classification of hard information - soft information

The concepts of hard information and soft information have been widely developed in the organizational economics literature (Degryse et al, 2000; Sarasvathy 2001). The distinction between hard information and soft information is not clearly stated, inconsistent, and incompletely defined. Kirschenheiter (2002) proposes to define hard and soft information in the accounting framework as follows: Hard information is when everyone completely agrees on its meaning when there is disagreement in the interpretation of information, i.e., is to interpret different information as soft information. According to research by Petersen (2004): hard information is quantitative information - Digital numbers (in finance are balance sheet data, profits, assets...) soft information is qualitative information, speech (opinion, idea, project, opinion...); hard information about trends is backward in search direction (e.g.: balance sheet data), soft information tends to forecast future trends (e.g.: business plan).

Hard information is almost always recorded in digital form. Thus, in finance, hard information represented by financial statements, history of payments made on time, stock returns… is hard information. Soft information is often communicated in writing. It includes opinions, ideas, rumors, economic projections, management statements, future plans, and market commentary. The hard method of gathering information does not have to be personal. Instead, information is entered into a form without significant assistance or guidance from the data collector. With the soft data collection method, the information collection context and the information collected are part of the information, inseparable. Evaluation of the quality of hard information and soft information: Hard information may (or may not be) publicly available and may (or may not be) verified by a third party, assessing the quality of hard information not explicitly verified. On the contrary, it is always possible to make certain points with soft information.

2.2. The role of two types of information in lending decisions of commercial banks

The role of hard and soft information in influencing firms' ability to access bank credit is described in Stein (2002). According to Stein (2002), large banks will be less efficient at lending relationships, that is, loans that depend on soft information. Information in a large bank is likely to be collected by one individual or a group of analysts and decisions made by another. As a result, financial decisions require information that is easily transmitted across physical or organizational distances. The information must also have a uniform interpretation regardless of the context in which the information was collected. Large banks have multiple layers of management, which are decentralized or centralized as opposed to small or decentralized organizations. Thus, making financial decisions in the context of large banks shows that large banks depend relatively more on hard information.

The studies examine the important role of appropriate soft information in the context of geographical distance or stratification between lenders and borrowers. Soft information is collected by lenders through personal interactions with borrowers over time. In particular, the proximity between lenders and borrowers facilitates soft information gathering (Agarwal and Hauswald, 2010). In the study by Petersen and Rajan (2002), it was found that soft information affects the performance of lenders increased and communication between lenders and borrowers is carried out according to the relationship of mutual trust. Berger, et al., (2001), emphasize that small-scale banks have more flexibility than larger banks to assess credit by mainly relying on qualitative or soft information, collected by loan officers such as the personal knowledge of company owners, owners, and managers.

2.3. The role of the credit officer in the bank's lending decision

Procedures for information collection, information, analysis, and loan decision, a recommendation is established by loan officers (Petersen and Rajan, 2002). In modern financial institutions, lower-level loan officers are often responsible for gathering information about borrowers and communicating this information to the bank's high-level managers (Stein, 2002). Finally, large-scale banks with a distance of management decentralization have empowered lower-level agents (such as loan officers) to collect and process information about customers and make final lending decisions.

In Stein's study (2002), it was found that loan officer influences three common loan terms: loan spread, loan covenant, and loan maturity. Specifically: the loan officer explains about 24% of the variation in loan spreads, 47% of the variation in bank loans, and 56% of loan maturities. Hart (1995) examines the role of soft information in lending relationships. Discovered that loan officers always play an important role in the lending process and customers' ability to get loans.

Table 1: Types of loans to SMEs in banks

Priority level	Characteristics that determine loan type	Loan type	Information sources used	The main type of information	% For SMEs to borrow from banks
1	Leases	Lease for rent	Fixed asset rental valuation	Hard	4,84%
2	Commercial real estate mortgage	Commercial real estate loans CRE	Valuation of commercial real estate	Hard	15,45%
3	Mortgage of residential real estate	Real estate loans	Residential real estate valuation	Hard	7,64%
4,5	Mortgage of motor vehicle/equipment	housing RRE	Valuation of motor vehicle/equipment	Hard	14,96% MV9, 47% EQ 6,14 % MV/EQ
6	Goods Receivable / Inventories	Motor vehicle loan MV/ EQ equipment	Valuation of receivables/inventories	Hard	9,02%
7	Large company/low leverage or Owner non-bankrupt equity	ABL asset-based lending	Financial statement review	Hard	8,94%
8	Small/medium company Small credit size Ownerdoes not repay large bank loans	Loan Report	Credit scores are mainly based on the personal credit history of the owner with limited financial information about the company and the loan.	Hard	11,83%
9	Relationship-based lending	Small business credit scoring SBCS	Lenders process information collected through timedcontact with SMEs/CSHs/third parties	Soft	4,07%
10	Judgment loan	Loan relationship RELATE	Lending judgment is based on limited hard information and personal and soft company experience/training (other than relationship lending)	Soft	7,64%

Source: SME Financial Survey Report 2008)

2.4. Difficulties in accessing bank loans of SMEs

According to IFC research (2013), SMEs account for about 90% of all businesses and more than 50% of jobs worldwide. SMEs contribute 33% to the GDP of developing countries World Bank (2010). The World Bank's SME Survey (World Bank, 2013), with a survey of 130,000 companies in 135 countries, found that limited access to finance ranks at the top of the list of obstacles to the growth and development of SMEs. Both internal and external financial resources are needed for SMEs to grow, expand, develop and prosper (European Commission of Enterprise and Industry, 2009). Regarding the capital structure selection behavior of SMEs: In the study of Berger, A.N., and G.F. Udell (2002) shows that the capital structure of small-scale enterprises is as follows:

+ Commercial banks provide 18.75% of total financial needs,

+ Financial companies provide 4.91%,

+ Other financial institutions 3.00%,

+ Trade credit offers 15.78%,

+ The owner offers 4.10%.

+ Remaining capital types (not shown individually) include other types: Corporate 1.74%, other individuals 1.47%, Government 0.49%, and credit cards 0.14%.

For most companies, it is assumed that external debt can optimize under the deterioration of internal financing. The study concludes that: external equity is raised only after external borrowing for high-growth firms. External debt financing will mainly be provided by commercial banks and other financial institutions, as well as by commercial creditors. Agree: SMEs depend a lot on internal finance, but internal capital is not enough to meet development requirements (Pandula, G., 2011). Internal finance is not as efficient as debt capital (Ahmed, H., and Hamid, 2011). This drives a growing need for external sources of finance.

2.5. Theories related to lending decisions in commercial banks

• Theories on the distribution of bank credit resources are based on the theories of Asymmetric Information; The theory of adverse selection of credit markets; Moral hazard theory; Social capital theory; Theory of application in banking administration.

• Asymmetric Information Theory

Asymmetric information theory (George Akerlof, et al. 1970) won the 2001 Nobel Prize in economics for his work: "Signaling in Retrospect and the Informational Structure of Markets" and "Information and the Change in the Paradigm in Economics". Asymmetric information, sometimes referred to as information failure or information imbalance, means that in an economic transaction, one party has the advantage of holding more information than the other, leading to informed decisions. inefficient economic regulation. This is evident when the seller of a good or service has more knowledge about the quality of the product than the buyer, or the borrower always understands the possibility.

• The theory of adverse selection of the credit market (Adverse selection)

This theory is also known as adverse selection, adverse selection, adverse selection) "…is an economic situation that can arise from the existence of asymmetric information, people choose the good things in return. choosing the wrong thing is a kind of market failure… In terms of symmetric information, the parties to a transaction have equal and complete information about what is being transacted. Then people can find something good or something commensurate with the price they pay. But in the condition of asymmetric information, which means that one party to the transaction has more information about the subject of the transaction than the other party, the person with the information advantage can provide dishonest information about the subject of the transaction be transacted to the information privileged party.

• • Moral hazard in banking operations

"…Moral hazard arises when the party with an information advantage understands the asymmetric information situation between the transaction parties and naturally forms an incentive to act in the direction of self-benefit regardless of such action. may harm an informationally disadvantaged party…" (Paul, 2009), specifically "a situation when one party makes decisions regarding the degree of risk tolerance, while the other party suffers fail if those decisions fail" (Paul, 2009). Subjects of moral hazard: Moral risk arises from borrowers; Moral hazard arises from the lender; Moral risk comes from the lender's side. Thus, SMEs in accessing bank credit may face difficulties from supply-side market failures (Banks refuse to lend) because of the feasibility of the proposals, the information in the proposal is not complete. enough, high-interest cost...

• ***Theory of judgment and perception in decision making***

In the study of Brown, M., et al (2012), managers around the world admit that managers are "rational within limits", and therefore, management decisions are often not can be entirely "reason-based". "Judgement and perception are rules of perception, reasoning processes, and subjective judgments of people in decision making” (Marsh, 1982) subject. This theory is supported by empirical research (Keh et al., 2002; Brown, M., 2012): in every financial decision, people use subjective feelings, however, the perceived level and everyone's mind is different.

• ***Social capital theory***

Crane, D., et al., (1988), Hauswald, R., et al (2006) Social capital includes social networks, beliefs in society, ability to connect to perform work. Social capital has an important influence on individuals when making action decisions. The French sociologist and philosopher P Bourdieu are considered the most representative of the concept of social capital as a form of resource. Bourdieu (1986) introduced the concept of three types of capital: economic capital, cultural capital, and social capital.

• ***Applied theory in bank credit management***

Banks often face high risks when lending to SMEs (e.g., Blackwell and Winter, 1997; Le and Nguyen, 2009). To limit these risks, banks often use criteria that apply specifically to SMEs that are different from those for large enterprises. Commercial banks try to measure the creditworthiness of businesses, or that is to say, measure the level of credit risk when lending to a corporate customer. The credit rating measures of enterprises include Fi

• The theory of adverse selection of the credit market (Adverse selection)

This theory is also known as adverse selection, adverse selection, adverse selection) “…is an economic situation that can arise from the existence of asymmetric information, people choose the good things in return. choosing the wrong thing is a kind of market failure… In terms of symmetric information, the parties to a transaction have equal and complete information about what is being transacted. Then people can find something good or something commensurate with the price they pay. But in the condition of asymmetric information, which means that one party to the transaction has more information about the subject of the transaction than the other party, the person with the information advantage can provide dishonest information about the subject of the transaction be transacted to the information privileged party.

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3. Overview of factors affecting SME lending decision

Information provided by SMEs and collected by credit officers is critical to the loan officer's loan approval process. Credit specialists will use the information to assess the creditworthiness of SMEs and make credit decisions. From the review of empirical studies on lending to SMEs, 15 factors are reviewed, which are important components of hard information and soft information when approving loans. The first factor that banks consider when assessing the creditworthiness of borrowers is the audited financial statements. There have been many studies showings that financial statements are a factor affecting the lending decisions of commercial banks. Research Berger and Udell (2006) argue that financial statement lending is a transaction technology that mainly relies on the strength of a company's financial statements.

Table 2: Overview of factors affecting banks' lending decisions in previous studies

No.	Influence factor	Previous studies
I	**Hard Information**	
1	Financial report	Nguyen Anh Hoang (2014)
2	Business plan	Le, Sundar, & Nguyen (2006)
3	Business purpose	Uchida et al. (2006)
4	Products, services and potential	Ha Thi Thieu Dao (2014)
5	Knowledge of business owners	Uchida et al. (2006)
6	Third party opinion	Ha Thi Thieu Dao (2014)
7	Enterprise size	Nofsinger& Wang (2011)
8	Owner characteristics	Ajagbe (2013)
9	Collateral	Nguyen Anh Hoang (2014)
10	Credit history record	Ha Thi Thieu Dao (2014 .)
II	**Soft information**	
11	Beliefs (ability and entrepreneurial personality)	Nguyen Hong Ha (2013)
12	Social network participation	Ferrary (2003)
13	Main lending bank	Khalid (2014)
14	Time of relationships	Yamori, Nobuyoshi (2009)
15	Number of banking products	Ha Thi Thieu Dao (2014)

4. Research model and hypothesis

Through studying the theory and reality related to the lending decision of commercial banks for SME customers, the author proposes the following research model and hypothesis:

Hypothesis H1: Vietnam Public Bank Tien Giang uses both hard and soft information in lending decision approval.

Hypothesis H2: Soft information plays a more important role than hard information in a bank's lending decision.

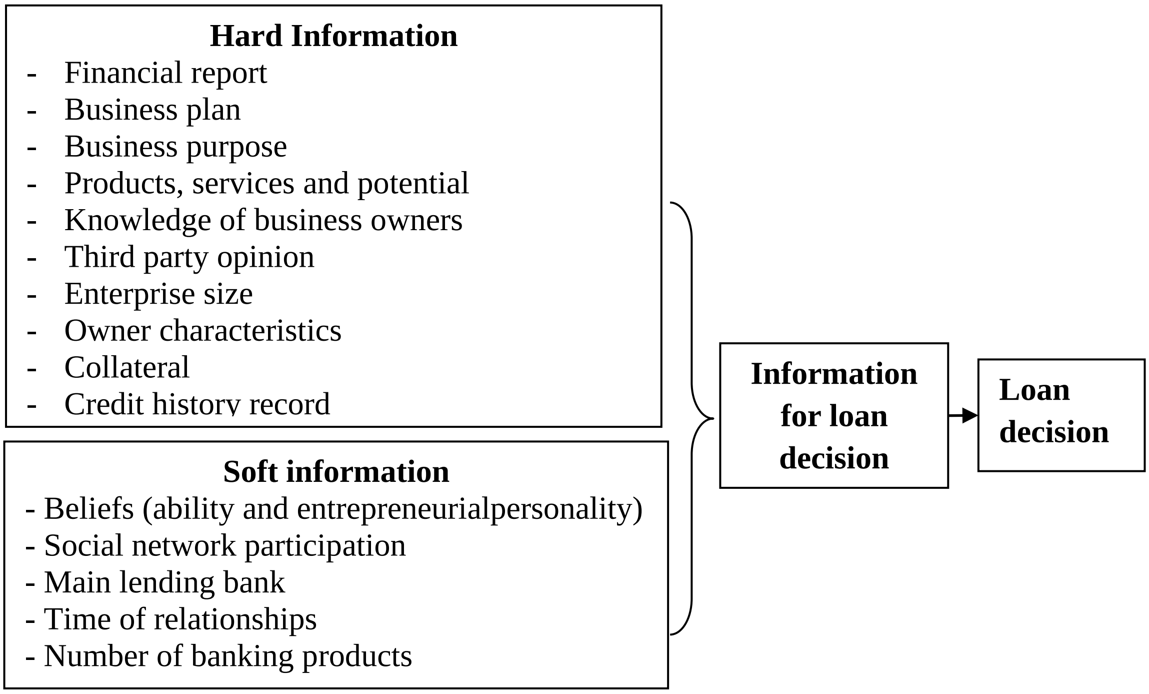

Figure 1: Expected research model and hypothesis

5. Research Methods

Only with a suitable and scientific method can we accurately determine the necessary information affecting the loan approval process. Based on the previous overview and the views of the credit officers who directly collect information and credit ratings of corporate customers in Tien Giang, these necessary information sources, grouped into the following factors: Thereby testing the reliability of the scale and exploratory factor analysis to have the basis of multivariable regression analysis to determine the influencing factors. From there, there are grounds to recommend authorities to strengthen credit support for SMEs.

The research consists of two main steps: Preliminary research and formal research. Preliminary research was carried out through two methods: qualitative and quantitative.
Qualitative research is used to discover, adjust and determine the relationship between the variables in the proposed research model, which is obtained after theoretical overview and situation overview. The purpose of qualitative research is to recalibrate the scales used in previous quantitative studies. Due to the difference in culture, language, and level of development, the scales need to be adjusted to better suit the context in Vietnam.

Qualitative research uses a preliminary questionnaire for 50 samples, selected by random sampling method and carried out in September 2021. When reviewing the research, building a model and 15 groups of factors from the review, in-depth interviewing, filtering 06 groups included in the official quantitative research model are 35 observed variables:
Hard information: (1) Information on corporate finance (TCDN) has 6 observed variables; (2 Information about collateral (TSTC) has 6 observed variables; (3) Information about credit history (LSTD) has 6 variables. Soft information: (4) Information about owner capacity Enterprises have 6 observed variables; (5) Information about participating in social networks has 5 observed variables, and (6) Information about relationships with banks (MQHNH) has 6 observed variables. A formal quantitative study was carried out to make a preliminary assessment of the reliability and validity of the scales designed and adjusted to suit the conditions in Vietnam. The study was officially carried out in Tien Giang province, convenient random sampling method, the survey process was conducted from October 2021 to December 2021, 300 questionnaires were distributed, the results were obtained. 275 votes, 246 best answers, reaching 89.45% of the samples. According to Cooper and Schindler (2006), a vote recall rate of 30% to 50% is typical for investigative studies, a response rate of >80% or more will indicate that respondents are very interested in the

topic. Research and researchers cannot expect to get a 100% response rate.

Exploratory factor analysis (EFA) to determine the number of appropriate factors, the indexes are often interested in testing such as KMO coefficient (Kaiser-Meyer-Olkin) > 0.5 is a sufficient condition. For the appropriate factor analysis (Hoang Trong et al., 2010), the factor loading, if the factor loading is less than 0.4 in EFA, it will be rejected (Anderson &Gerbing, 1998) and the Eigenvalue has to stop when extracted factors have eigenvalue coefficient ≥ 1 and total variance extracted (AVE ≥ 50%) (Hoang Trong et al., 2010).

The preliminary assessment is performed using a scale with Cronbach's alpha reliability coefficient and exploratory factor analysis method, presenting indicators to check the appropriateness of the research model such as F-value, R2, correlation coefficient, variance inflation factor (VIF), and hypothesis testing. The results of the linear regression analysis show the relationship between the factors constituting the hard information and the soft information affecting the bank's lending decision, from the regression analysis results will determine significant relationships (95% test significance level). At the same time, it also tests the research hypotheses to see if the relationship between factors is positive or negative and is significant at the 95% test value. Finally, we tested the reliability of the scale using Cronbach's Alpha, EFA, CFA, linear regression analysis, and SEM.

Table 3: Cronbach's Alpha test after EFA

No.	Scale	Number of variables observe	Cronbach's Alpha	Correlation coefficient - total variable
1	Information about corporate finance	6	0.855	0.602
2	Information about collateral	6	0.885	0.631
3	Information about credit history	6	0.920	0.623
4	Information about the capacity of business owners	6	0.809	0.553
5	Information about participating in social networks	5	0.867	0.533
6	Information about the relationship with the bank	6	0.849	0.521
7	Bank loan decision	4	0.791	0.736
	Total	**39**		

(Source: Author's calculation)

• **Exploratory factor analysis (EFA)**

In this study, the author uses the EFA exploratory factor analysis method to extract 35 components into a number of component factors (Hoang Trong et al., 2008) to measure the lending decision of banks row.

- EFA results have 35 observed variables in the 6 components of the scale of influence on bank lending decisions, which are extracted into 6 components with KMO = 0.834, so EFA is appropriate. The chi-squared statistics of Bartlett's test reached 2543,438 with significance level Sig = 0.000; Therefore, the observed variables are correlated with each other. With an eigenvalue of 1,083 and extracted variances of 66.109%, it proves that the analyzed data are in accordance with EFA, satisfactory.

All scales have confidence > 0.7 and correlation coefficients of all variables are > 0.4. Therefore, the reliability coefficients of all scales are obtained after EFA analysis.

Table 4: Summary results of EFA

No.	Scale	Number of variables observe	Cronbach's Alpha	Variance	Value
1	Information about corporate finance	6	0,855	**66.109**	**Qualified**
2	Information about collateral	6	0,885		
3	Information about credit history	6	0,920		
4	Information about the capacity of business	6	0,809		

	owners				
5	Information about participating in social networks	5	0,867		
6	Information about the relationship with the bank	6	0,849		
7	Bank loan decision	4	0,791	**59.744**	
	Total	**39**			

A preliminary assessment is performed using a scale with Cronbach's alpha reliability coefficient and exploratory factor analysis method, presenting indicators to check the appropriateness of the research model such as F-value, R2, correlation coefficient, variance inflation factor (VIF), and hypothesis testing. Then, we tested the model fit, built multiple regression equations, and tested the hypotheses. Finally, we tested the reliability of the scale using Cronbach's Alpha, EFA, CFA, linear regression analysis, and SEM.

• **Confirmatory factor analysis (CFA)**

Regarding the overall goodness of fit, factor analysis confirmed that this model has a chi-squared statistical value of 454,661 with 304 degrees of freedom (p = 0.000). The relative chi-squared for degrees of freedom CMIN/def is 1.496 (<2). Other metrics are: GLI = 0.823 (>0.8). TLI = 0.930 (> 0.9). CFI = 0.939 (> 0.9) and RMSEA = 0.059 (< 0.08). Therefore, this model is not suitable for market data. This also allows us to say that there is a disorientation of the observed variables. Convergence values, standard weights of all scales are > 0.5 and statistically significant at p < 0.5. Therefore, the scales achieve convergent value.

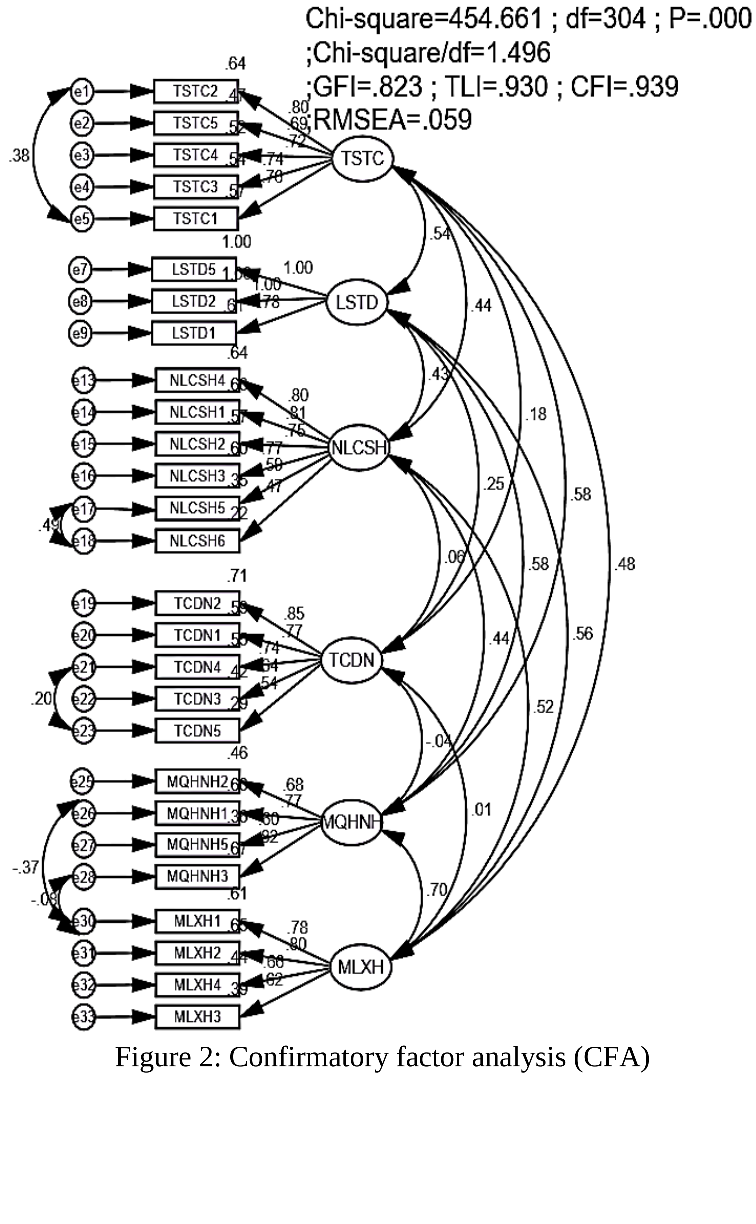

Figure 2: Confirmatory factor analysis (CFA)

Table 5: Results of estimating the correlation between factors of a bank's lending decision

Correlation			Estimate	S.E.	C.R.	P
TSTC	<-->	LSTD	0,323	0,065	4,988	***
TSTC	<-->	NLCSH	0,196	0,050	3,950	***
TSTC	<-->	MQHNH	0,216	0,048	4,509	***
TSTC	<-->	MLXH	0,192	0,047	4,101	***
LSTD	<-->	NLCSH	0,275	0,064	4,284	***
LSTD	<-->	TCDN	0,186	0,072	2,600	0,009
LSTD	<-->	MQHNH	0,309	0,063	4,939	***
LSTD	<-->	MLXH	0,324	0,064	5,100	***
NLCSH	<-->	MQHNH	0,170	0,045	3,758	***
NLCSH	<-->	MLXH	0,220	0,050	4,403	***
MQHNH	<-->	MLXH	0,249	0,050	4,964	***

- **Structural equation modeling (SEM) results.**

The research model includes 6 concepts. After checking CFA and SEM, all concepts are satisfactory: Hard information: (1) Information about corporate finance (TCDN); (2 Information about collateral (TSTC) and (3) Information about credit history (LSTD) Soft information: (1) Information about business owner capacity (NLCSH); (2) Information on social network participation (social network); and (3) information on the relationship with the bank (MQHNH).

The results show that this model has a chi-squared value of 644.0248 with 407 degrees of freedom (p = 0.000). The relative squared value of CMIN/def degrees of freedom is 1.582 (<2). Other indicators include: GTI = 0.902 (> 0.9), TLI = 0.912 (> 0.9), CFI = 0.923 (> 0.9) and RMSEA = 0.064 (< 0.08). Therefore, this model achieves compatibility with the collected information. The factors include (1) Financial information of enterprises (TCDN) (ES = 0.088, P = 0.005); (2) Information on Collateral (TSTC) (ES = 0.100, P = 0.022); (3) Credit History Information (LSTD) (ES = 0.070, P = 0.009); (4) Information on the capacity of the business owner (NLCSH) (ES = 0.158, P = 0.005); (5) Social information (ESD) (ES = 0.111, P = 0.020); (6) Information about the relationship with the bank (MQHNH) (ES = 0.207, P = 0.000).

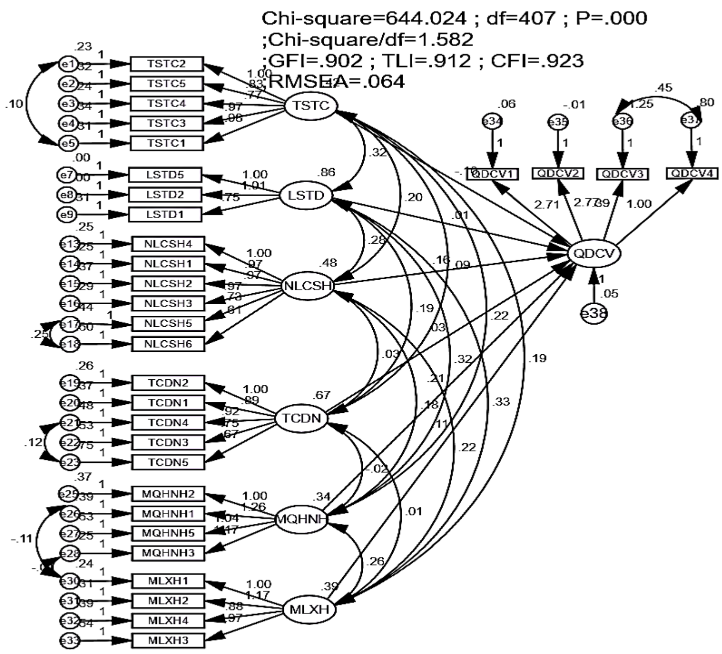

Figure 3: Structural Equation Model (SEM)
(Source: Author's calculation

Table 6: Results of estimating the causal relationship between hard and soft information factors and banks' lending decisions (Source: Author's calculation)

Correlations			Estimate	S.E.	C.R.	P	Label
QDCV	<---	TSTC	0.100	0.056	1.797	0.022	Yes
QDCV	<---	LSTD	0.070	0.032	0.319	0.009	Yes
QDCV	<---	NLCSH	0.158	0.056	2.828	0.005	Yes
QDCV	<---	TCDN	0.088	0.031	0.919	0.005	Yes
QDCV	<---	MQHNH	0.207	0.092	2.235	0.000	Yes
QDCV	<---	MLXH	0.111	0.071	1.555	0.020	Yes

The Bootstrap method is often used to test the model's estimates, with the iterative model being N = 1000. The estimated results for 1000 sampled mean plus deviation are shown in Table 5. CR has the absolute value is very small, so it can be confirmed that the deviation is very low, and at the same time not statistically significant at the 95% confidence level. Therefore, we can conclude that the model's estimates can be trusted

Table 7: Estimated results according to bootstrap, N = 1000

Correlations			SE	SE-SE	Mean	Bias	SE-Bias	CR
QDCV	<---	TSTC	0.080	0.002	-0.098	0.002	0.003	1.50
QDCV	<---	LSTD	0.058	0.001	0.011	0.001	0.002	2.00
QDCV	<---	NLCSH	0.083	0.002	0.161	0.004	0.003	0.75
QDCV	<---	TCDN	0.039	0.001	0.025	-0.003	0.001	-0.33
QDCV	<---	MQHNH	0.185	0.004	0.218	0.011	0.006	0.55
QDCV	<---	MLXH	0.165	0.004	0.095	-0.016	0.005	-0.31

Discussing research results

The objective of the study is to find out the factors that affect the lending decision of commercial banks, thereby improving the ability to access bank loans of SMEs in Tien Giang province. Through analyzing data collected from 246 bank credit officers survey, the research shows that:

Commercial banks in Tien Giang province use both hard information and soft information collected from customers to serve lending decisions. Including 04 groups of hard information and soft information as follows: Financial situation; Credit history information; Information about collateral; Relationship with banks. This information group predicts about 90.1% of commercial banks' lending decisions.

First, the forecast results of the research model highly appreciate the role of information gathering and processing of credit officers, which means that: subjective feelings of credit officers with the responsiveness of SMEs corresponds to the probability of being loaned or refused by the bank. The research results are the scientific basis to prove the role of credit officers in the lending decisions of commercial banks, similar to the research results in the review: Stein (2002: loan officers explained about 24%. of the change in loan spreads, which explains 47% of the variation in bank lending, and 56% of loan maturity. obtain loans from customers Berger et al (2005) showed that credit officers can manipulate the information collected and affect the results of customers receiving loans or not.

The factor financial situation collected from the financial statements of enterprises plays an important role in the decision to lend to SMEs, consistent with the research results of Uchida et al (20012), Nguyen Anh Hoang (2014). The research results are also consistent with the requirements of providing a healthy financial situation in the approval of loan applications of commercial banks. The financial situation signals the health and ability of enterprises to repay loans. Especially for SMEs in Tien Giang province, most of them are small businesses, just starting up, so the requirements are very high on financial indicators such as liquidity, quick payment, inventory turnover, average collection period. revenue, total assets, liabilities/total assets, overdue debts/total bank loans; Pre-tax/revenue collection; Earnings before tax/Total assets…these indicators show transparency in business and predict the debt repayment ability of enterprises. Therefore, joint-stock SMEs with the public, transparent, and audited financial statements are always highly appreciated by banks, maintaining a weight of 45% - 70% of the total customer credit rating coefficients. General information about SMEs: General information about SMEs' resources, business plans, business prospects, and management systems of SMEs also affect the lending decision of commercial banks. The research results are consistent with the research results of Petersen, (2004); Berry et al. (1993); however, in contrast to the study Uchida et al. (2006); Agarwal, and Hauswald (2010) argue that general information about firms does not significantly influence lending decisions.

The factor Information about Collateral plays an important role in the lending decision of commercial banks consistent with the research results of Petersen and Rajan (2002), Uchida et al., (2006); A bank is a special type of enterprise, especially providing a number of operations such as Receiving deposits, providing credit or providing payment services through accounts... That is, no matter what operations it performs, it is special. The common point of banks is still taking money as a direct business object, based on trust and creditworthiness. This is also an area that always faces many risks, so the goal of the bank is to always recover the loan and ensure the expected profit. The biggest risk and also the most common, causing the most loss in the business of banks is credit risk. Therefore, when assessing credit, banks cannot skip the review of conditions that can ensure the recovery of loans of enterprises, in which the condition of collateral is common. Without collateral, banks will not approve loans for businesses. All these reasons lead to the conclusion that lending to SMEs in Tien Giang province is very risky, so commercial banks require collateral to improve credit repayment confidence to easily access capital bank loans.

Factors Credit history information plays an important role in the lending decision of commercial banks consistent with the research results of Berger and Udell (2006); Nguyen Anh Hoang (2014). Commercial banks always look back at the customer's transaction history before making a credit decision, because the transaction history reflects the financial situation and attitude to the bank's debt repayment obligation. Including: do customers always pay their debts on time? often overdue or renewing their debts? the number of times of debt extension or insolvency of customers? This is an accurate source of information to help banks proactively assess the personality and ethics of business owners. This research result is also consistent with the general credit process at commercial banks in Tien Giang province, if customers have a good credit history, it will be an advantage in creating trust with commercial banks, will easily access capital. more bank credit.

Factor the capacity and personality of the business owner play an important role in the lending decision of commercial banks, the research results are similar to the research results of Petersen, MA. (2004); The capacity of business owners is highly appreciated in non-financial indicators when rating credits of corporate customers. Including the management experience in the business field, the experience through the previous achievements or failures of the business owner, the ability to forecast market movements are factors that enhance the competitive position of the company enterprises themselves in the market. The ethics of business owners are assessed through honesty in providing information to credit officers, these data help banks to assess the ability and attitude of SMEs to repay loans, which is an important factor important for commercial banks to decide whether to lend or refuse to grant credit.

Factor the social network participation of SMEs has no significant influence on the bank's lending decision. Research results are in agreement with previous studies: Petersen, (2004); Nguyen Anh Hoang (2014) believes that social relationships make it easier for businesses to access bank loans. The participation in the social network of enterprises is shown by whether the enterprises maintain good relationships with the Government and other administrative agencies? Is there a cooperative relationship of mutual benefit with other enterprises? Especially, do businesses maintain good relationships with government officials? Social capital is a special type of capital that makes it easy for SMEs to raise capital.

Factor the relationship with the lending bank plays an important role in the lending decision of commercial banks, consistent with the research results of Uchida et al. (2006); Nguyen Anh Hoang (2014). SMEs have quality collateral and a long-term relationship between SMEs and commercial banks helps to reduce information asymmetry and makes it easier for SMEs to access bank loans. SMEs maintain a good relationship with the lending bank through maintaining outstanding loans at the bank, using a variety of bank products and services, having a regular relationship with the bank will help SMEs easy access to loans from commercial banks in Tien Giang province.

In addition, quantifying, evaluating, and explaining factors affecting lending decisions: Regression model shows collateral variables, financial situation, credit history, relationship with banks'lending banks have the same effect, that is when the level of response to this information increases, the probability of banks'lending to businesses is higher; The increase of one unit that meets the requirements of collateral, the ability to approve bank loans for SMEs increases by the rate of 10.87 times; Similarly, for each increase in corporate response to financial information and credit history information, banks are approximately 2.7 and 4,5 times more likely to approve loan applications, respectively 5,69 times; at the 95% confidence interval, SMEs with a good relationship with the bank applying for a loan is about 5.69 times more likely to receive a loan.

7. Limitations of the study

Although there have been some results related to the decision to lend credit to SMEs at commercial banks in Tien Giang province, there are still some limitations as follows:

Firstly: There are a number of factors that may have an impact on the lending decision but have not been included in the research. Therefore, in the next study, these factors should be added in order to have higher practical results.

Second: The new study only mentions the role of hard information being more important than soft information, going against the internal credit-granting process at commercial banks in Tien Giang province as there is no in-depth analysis of the evaluation basis. evaluate the role of each type of information as well as the basis for building a set of internal credit rating indicators of commercial banks.

REFERENCES

1. Ahmed, M. E. ; Abdel-Gawad, A. M. ; Shehata, E. I. ; Tawfik, S. A., 2011. Influence of using reed forage in different forms as fresh, silage and hay on blood profile and carcass quality of growing Rahmani sheep. Egyptian J. Sheep Goat Sci., 6 (2): 25-35.

2. Anderson, J. C. and Gerbing, D. W. (1998). Structural, Equation Modelling in Practice: A Review and Recommended Two-Step Approach. *Psychological Bulletin,* N_0 103, pp. 411 - 423.

3. Agarwal, S., and Hauswald (2010). Distance and Private Information in Lending. *Review of Financial Studies,* 23, 2757-2788.

4. Ajagbe, Ganiyu and Adeniji (2013). Quality Assessment of Sandcrete Blocks in Ibadan – A review. *Epistemics in Science, Engineering and Technology,* Vol.3, No.2, 2013, 272-277.

5. Berger, A.N, S. Frame, and N.H. Miller, (2002a), "Credit scoring and the price and availability of small business credit", *Finance and Economics Discussion,* Paper Series 2002-26 Board of Governors of the Federal Reserve System.

6. Berger A.N., Udell G. (2002), "Small business credit availability and relationship lending: the importance of bank organisational structure", *Economic Journal,* Vol. 112, n. 477, pp. F32-F53.

7. Bourdieu, P. (1986). The forms of capital. In: Richardson, J., Handbook of Theory and Research for the Sociology of Education. Westport, *CT: Greenwood*: 241–258.

8. Berger, A. and DeYoung, R. (2001), "The effects of geographic expansion on bank efficiency", *Journal of Financial Services Research*, Vol. 19, forthcoming.

9. Berry et al (1993). Financial information: The banker and the small business. *British Accounting Review,* 25(2), 131-150.

10. Blackwell, D. and Winters, D. (1997), "Banking relationships and the effect of monitoring on loan pricing", *Journal of Financial Research,* Vol. 20, pp. 275-89.

11. Brown, M., Matthias Schaller, Simone Westerfeld, and Markus Heusler (2012), *Information or Insurance? On the Role of Loan Officer Discretion in Credit Assessment*, Working Paper on Finance No. 2012/3, University of St. Gallen.

12. Degryse, H., and Cayseele, P. (2000), "Relationship lending within a bank-based system: Evidence from European small business data", *Journal of Financial Intermediation*, Vol. 9, pp. 90-109.

13. EU Product market review 2009. European Economy finance and the euro publications.

14. Feldman, R., (1997a), *Credit scoring and small business loans*, Community dividend Federal Reserve Bank of Minneapolis

15.Ferrary (2003). Trust and Social Capital in the Regulation of Lending Activities. Journal of Socio-Economics 31(6):673-699.
DOI: 10.1016/S1053-5357(02)00145-2

16. George Akerlof, et al. (1970). The Market for Lemons: Quality Uncertainty and the Market Mechanism. *Quarterly Journal of Economics*, 84/3, PP. 488.500.

17. Ha Thi Thieu Dao., Nguyen Thi Mai., Nguyen Thien Kim. (2014). Accessibility to credit of small medium enterprises in Viet Nam. The Vietnam Economist Annual Meeting (VEAM).

18. Hauswald, R., and Robert Marquez, (2006), "Competition and Strategic Information Acquisition in Credit Markets", *Review of Financial Studies*, 19 (3): 967-1000.

19.Hoang Trong and Chu Nguyen Mong Ngoc (2010). "*Research data analysis"*. Volume I and Volume II, Hong Duc Publishing House.

20. Hoang Trong, Chu Nguyen Mong Ngoc (2008), Statistics of application in socio-economy,Statistics Publishing House, Ho Chi Minh City. (in Vietnamese)

21. Keh, Foo và Lim (2002). Whigh - tech venturing as process of resource accumulation. *Management Decision*, 48(8), 1230-1246.

22. Khalid và Kalsom (2014), "Financing of Small and Medium Enterprises (SMEs) in Libya: Determinants of Accessing Bank Loan", *Middle-East Journal of Scientific Research*, 21 (1): 113-122, 2014 ISSN 1990-9233.

23. Kirschenheiter, M., (2002), "Representational faithfulness in accounting: A model of hard information", *Working paper Columbia University*.

24. Le, Sundar, V., & Nguyen, T. V. (2006). Getting bank financing: A study of Vietnamese private firms. Asia Pacific Journal of Management, 23(2), 209-209. doi: http://dx.doi.org /10.1007/s10490-0067167-8.

25. Marsh (1982). The choice between equity and debt: An empirical study. *Journal of Finance,* 37(1), 121-144.

26. Nguyen Anh Hoang (2014), "Original research original research: Vietnamese banks' decision making in lending to small & medium enterprises (SMEs) based on soft and hard information", Ritsumeikan Journal of Asia Pacific Studies, Vol. 33.

27. Nguyen Hong Ha (2013). Analysis of factors affecting the ability to access credit capital of SMEs in Tra Vin province. Journal of Humanities and Social Sciences, No. 9, p. 37 - 45;

28. Nobuyoshi Yamori (2009). What Types of Small and Medium-Sized Businesses are Utilizing New Financial Products?. iBusiness Vol.1 No.2, December 18, DOI: 10.4236/ib.2009
.12014 4.527 Downloads 8.360 Views Citatio ns.

29. Nofsinger and Weicheng Wang (2011). Determinants of start-up firm external financing worldwide. Journal of Banking & Finance, 2011, vol. 35, issue 9, 2282-2294

30. Pandula, G. (2011) An Empirical Investigation of Small and Medium Enterprises' Access to Bank Finance: The Case of an Emerging Economy. ASBBS Annual Conference, Proceedings of ASBBS, Las Vegas, 18, 255-273.

31. Paul Pfleiderer (2009), "The Wall Street Walk and Shareholder Activism": Exit as a Form of Voice", *Review of Financial Studies*, Vol. 22, pp. 2245-2285.

32. Petersen, M.A., (2004*). "Information: Hard and soft, Mimeo Kellogg School of Management"* Northwerstern University.

33. Sarasvathy (2001). Ffectual reasoning in entrepreneurial decision making: Existence and bounds. *Academy of Management*, Best Paper Proceedings.

34. Stein, Jeremy C. 2002. Information Production and Capital Allocation: Decentralized versus

Hierarchical Firms. *Journal of Finance LVII*, (5): 1891-1921.

35. Uchida, H., Udell, G.F. &Yamori, N. (2006). SME financing and the choice of lending technology.

36. WORldBanK.ORG/annual/REPORT (2013). The Development Committee met Saturday amid the 2013 Annual Meetings to discuss critical global issues.