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## THE CREDIT CONSTRAINTS OF SMALL AND MEDIUM ENTERPRISES IN TIEN GIANG PROVINCE OF VIET NAM

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### ABSTRACT

This paper investigated the credit constraints by the SMEs in Tien Giang province of Viet Nam. Data used were collected from direct interviews 190 SMEs in production and trading sectors. By using the multiple regression analysis, the findings showed that the asymmetric information proxied by the Collateral, Credit insurance and Relationship time between SMEs and Banks is significantly affecting on the credit constraints of the SMEs in Tien Giang province of Viet Nam. Regarding to given results, possible implications are mainly considered as follows.

**Keywords:** Credit constraints, SMEs, Tien Giang.

### INTRODUCTION

Small and Medium Enterprises (SMEs) are particularly significant in supporting economic growth and livelihoods in developing countries (Cobbold et al., 2008). The SMEs are described as efficient prolific job creator, the seed of big business and the fuel of national engine (Abor and Quartey, 2010). Recognition of these potential role of the sector, in order to achieve industrial growth and development, the Vietnamese government have continued to articulate policy measures and programmes that included direct participation, alone or jointly with the private sector, interest group, assistance from external sides, provision of industrial incentive and adequate finance as discussed in Vietnamese reports. However, the poor performance of the industrial sector, especially when emphasis was on the SMEs in the courses of implementing the strategy of the Vietnamese.

As discussed, the SMEs have significantly contributed to the economic growth. It is accepted that their major obstacles to growth and development appear to be shortage of both equity financing and debt. Later (1996) concluded that one other significant problem that SMEs often face is access to capital. Lack of adequate financial resources also places important constraints on SMEs growth and development (Mensah, 2004). Various factors have been considered as determinants of given lacks. These are low levels of intermediation, lack of institutional and legal structure that facilitate the management of SMEs lending risk, and high borrowing cost and rigidities in interest rates. The SMEs in Vietnam in general and in Tien Giang province are also the considered cases. It is significant to explore whether the SMEs are facing the difficult in credit accessibility and what are determinants of credit constraints for the SMEs in Tien Giang province. This research aimed to clarify the essential elements that should be enough to be formal credit apply amounts sufficient to meet. The results of research will be the scientific base to propose efficiency solutions for the phenomenon of credit constraints to contribute the local economic growth in particular and the country in General.

### MATERIAL AND METHOD

#### Materials

Dwight and Russell (1976) proposed a model of imperfect information, uncertainty and credit rationing. The model assumed that the financial market included both honest and dishonest borrowers. The former are those that accept loan contracts they are sure they would repay on time while the later are those that accept loan contracts they know they won't be able to repay on time. Their model indicates that loan market is constructed by the borrowers who know more information about their likelihood of default than the lenders. As discussed previously, there are two cases in the case of a perfect market competition. First, the borrowers are rationed in the amounts they can repay so there is no default. Second, the market can alternate in an unstable mode with lender entering and making short-run profits and then disappearing in the long-run. However, in reality, given features are not illustrated by the loan market. Even though bank failures may absorb a percentage of the default, the market does not show instability as estimated by the model. In order to access to loan market, the borrowers are requested to follow the non-price terms such as collateral, and down payment requirements. The intervention of Governments may also be justified as one of possible solutions to market failures.

Many studies on the firm-level credit constraints have been conducted in developed and developing countries. Qian and Strahan (2007) presented that the influences of creditor rights on loans depend on borrower's characteristics such as the size and tangibility of their assets. Particularly, the foreign banks are considered as very high sensitive lenders to the legal and institutional environment, with their ownership declining relative to domestic banks as creditor protection falls. Given issues have been investigated in the study of Haselmann et al. (2010). By using the data from 12 transition countries, the findings showed that the supply of bank credit increased after a legal change and these changes in collateral law matter more than changes in bankruptcy law for increased bank lending. In

previous study, using establishment level data from manufacturing enterprises, Gaston and Werner (2002) investigate the influence of financial liberalization on fixed investment in Mexico, mentioning on the real estate collateral. The results indicated that financial constraints were mitigated for the smallest firms, but not for larger ones, and given that banks relied on collateral in their lending decision, the importance of having real estate rose.

In addition, the role of information sharing and lender and borrower legal right for access to credit are also discussed. It is widely accepted that the information sharing facilitates access to credit (Brown et al., 2009; Djankov et al., 2007). However, the wider information led to less access to bank credit for Small and medium sized firms in Mexico (Negrin, 2001). Other firms' characteristics have been considered such as the firms' size, education, collateral and financial insurance. It is mentioned that larger firms are less credit constraint than the smaller ones because of the economics of scales in lending, clients control (Bernake và Gilchrist, 1996; Beck và Dermiguc-Kun, 2006; Ninh, 2010). As indicated in F.A. Ajagbe (2012), the managers of firms who have higher educational level are able to obtain the knowledge of sciences and technologies and manage the firms better. Therefore, firms' managers with higher educational level are less credit constraint than those with lower educational level.

### Methods

Data used in this paper was directly collected from the survey of 190 Productive and Business Enterprises located in Tien Giang province through the simple random sampling. As discussed previously in the theoretical and empirical studies, this paper uses the multiple regression models to analyze the determinants of credit constraints for SMEs in Tien Giang province. Based on given statistical results, possible solutions for credit constraint need to be considered. The specific model of credit constraints is considered as follows.

Where : Const (Dependent variable) is defined as credit constraints by the SMEs at Tien Giang province.

The Const is a ratio between supplied credit amount above demand credit amount. This variable is close to 1 meaning that the SMEs are less credit constraints.

The independent variables included: Management experience: is defined as number of years that the enterprises' holders are on the board management; Education is defined as the educational level of enterprises' managers which

$$Const = \beta_0 + \beta_1 ManagementExperience + \beta_2 Education + \beta_3 Collateral + \beta_4 Time + \beta_5 Training + \beta_6 AgeSMEs + \beta_7 Revenue/Asset + \beta_8 Size + \beta_9 FinancialAsset + U_i$$

is a dummy variable that values 1 if the managers hold university level up, and 0 otherwise; Collateral is defined as a dummy variable that values 1 if the enterprises are access to credit by the collateral, 0 otherwise. Time is defined as number of years the enterprises have relationship to the bank credit. Training is defined as a number of times the enterprises' managers attend in professional training, management ability, creating the customer relationship and suppliers; AgeSMEs is defined as the number of years the enterprises are in the business; Revenue/Asset is the ration between revenue to total assets of enterprises at the same period; Size is defined as logarithm of total fixed assets of the enterprises; FinancialAsset is defined as the ratio between collateral to demand money amount.

## RESULTS AND DISCUSSIONS

### Results

Table 1. Results of the regression model

Variable	Coefficients	Sig.F	t-Statistic
Management Experience	-0.0185	0.4800	-0.7100
Education	-0.0179	0.5600	-0.5800
<b>Collateral</b>	<b>-0.0601</b>	<b>0.0900*</b>	-1.7100
<b>Time</b>	<b>-0.0623</b>	<b>0.0110**</b>	-2.5900
Training	-0.0007	0.8530	-0.1900
<b>AgeSMEs</b>	<b>0.0826</b>	<b>0.0040***</b>	2.9400
Revenue/Assets	-0.0052	0.4390	-0.7800
Size	-0.0107	0.2950	-1.0500
<b>Financial Asset</b>	<b>0.1402</b>	<b>0.0000***</b>	4.9800
C	0.7188	0.0000	5.8600
R <sup>2</sup>	52.86		
R <sup>2</sup> Adjusted	19.00		
F value	0.0000		
Observations (N)	190		

Notes: \* Significant at 10%, \*\* Significant at 5%, \*\*\* Significant at 1%

Table 1 illustrated the result of multiple regression models. The Coefficient of determination R<sup>2</sup> = 22.86% mean regression results showed models explain 52.86% of the influence of variables explained to restrict credit for small

and medium enterprises in Tien Giang. 47.37% remaining is influenced by other factors not included in the model. The model does not have multicollinearity due to the VIF factor of variables are smaller than 10. The error variance change test is also satisfied for the model. The findings showed that four variables are significantly affecting on the credit constraints of the SMEs in Tien Giang province. Following are possible explanation for their effects.

**Credit Insurance** has statistically negative impact on the credit constraints at 10% significant level. This result contradicted the theory of the subject and the financial management theory. This shows that the SMEs bought property insurance will be more credit constraints than those without property insurance. This can be explained that land is considered as collateral that is usually low risk. Therefore, the land holders are not interested in the insurance. In contrast, machinery, equipment, transport vehicles have a higher level of risk that are higher requirement by the lenders to trade off the risk. Therefore, the Banks usually require the borrowers to buy insurance since the mortgages are these properties. Given results confirmed for the studies of Brown et al., (2009) and Djankov et al., (2007).

The Banks always expect that the SMEs maintain **credit relations**. SMEs with long time relationship with the Banks are expected to mitigate the effect of asymmetric information. This can be explained that the Banks will clearly understand about themselves as SMEs of production and business situation, financial capability and reputation that may reduce the information asymmetry phenomenon. However, research indicates that unlawful, the coefficient of the variable Time is -0.0622, contrary to the theory of the subject and the financial management theory. This implies that SMEs as a longtime relationship, the level of credit limit increased. This can be explained by the time relation as long years, the Banks have understood the information on the SMEs, production capacity, and economic as capital demand needed to meet business projects of SMEs. However, It is likely that the SMEs' demand for credit in Tien Giang is little higher than the rating of the Banks. This result is similar to the study of Ajagbe (2012) and Sen (2002).

The coefficient of the ratio of **Collateral** to demand money is 0.1402 implying that per unit change of collateral value on the money will make the loan amount fluctuation. This result is consistent with the research hypothesis and the study of various studies of Danh (2013), Ajagbe (2012), Ninh (2010), Brown et al., (2009); Djankov et al., (2007). Indeed, Banks expect the high ratio to ensure high recovery of debt when risk happens. This factor also affect on the loan amount received by the SMEs. If the customer adopt the Banks' credit contract such as reputation, financial healthy, viable business plan-to be given credit but if property values too low, the loan amount is also limited or even no loans. On the other hand, customers who have large collateral value, the problem of "not paying" are identified as virtually at least happen – unless guests were serious losses.

The other variables such as number of time attending in professional training, management experience of enterprises, the size of enterprises and the ratio of revenue to total assets are not statistically influencing on the credit constraints of the SMEs in Tien Giang province of Viet Nam.

### Discussions and Possible solutions

The findings help us indicating the asymmetric information have affected on the credit constraints of the SMEs (Stiglitz and Weiss, 1981) in Tien Giang province. In particular, the collateral, credit insurance and the relationship time between SMEs and Banks that are proxies for the asymmetric information are considered as determinants of credit constraints of the SMEs in the studied areas. Facing credit constraints may lead the SMEs into the situations of inefficiency production, lack of operational capital, lack of internal and external investments and influence the economic development of the Tien Giang province in general. In order to overcome given problems, possible solutions for the SMEs need to be considered.

Complete accounting system and the strengthening of coercive legislation: forcing SMEs comply with rigorous accounting rules to limit the distortions in the information published and the violations on this issue should be handled strictly. Besides, it is accepted that the reliability of the information need to be improved by the intensify auditing.

Categorized, rated reputable credit the SMEs based on financial indicators, capacity management many nations have built a system of criteria to evaluate the credit risk of the SMEs as well as the classification of SMEs about the credit reputation. This criterion system needs to be cited or built separate criteria for assessing, classifying SMEs and widely published, to credit institutions additional information, to rely on lending decisions accordingly.

Build a system to share information between the credit institutions operate effectively in two ways: (i) through an organization of the Government (such as CIC) operates under a compulsory mechanism; (ii) voluntary information sharing through private organizations (such as the company Dun Bradstreet & (D&B) is famous in the world).

The sharing of information between credit institutions is very beneficial because a credit institution would have less information about its customers and the customers often have a credit relationship with many different credit institutions. Through the exchange of information to each other, credit institutions may cost less for getting a full set of information about the customers.

### CONCLUSIONS

Due to the asymmetric between the credit institution and the enterprise, the credit institutions are often faced with the choice of mistakes and deviations. This makes it difficult for businesses to borrow or not to borrow capital. To overcome such problems, SMEs have to go to informal credit markets with relatively high lending interest rates that

lead to insolvency risks because the profit does not offset the cost of operations. This also affected on the development of the local and state economies.

This paper investigated the credit constraints by the SMEs in Tien Giang province of Viet Nam. Data used were collected from direct interviews 190 SMEs in production and trading sectors. By using the multiple regression analysis, the findings showed that the asymmetric information proxied by the Collateral, Credit insurance and Relationship time between SMEs and Banks is significantly affecting on the credit constraints of the SMEs in Tien Giang province of Viet Nam. Regarding to given results, possible implications are mainly considered as follows.

### Implications

The main policy implication of the study is that the government of Viet Nam and Tien Giang province should try hard to meet the credit needs of the SMEs in the country for a speedy economic growth of the nation. This the government may achieve through the following ways: (1) Establishment of a well funded National Credit Guarantee fund that will assist for credit facilities from the banks and other financial institutions. This will help reduce the excessive demand for collateral security; (2) Easy accessibility to credit through specialized or development oriented banking or financial institutions should be encouraged. This fund should be made available to the SMEs at reduced interest rate; (3) Development of clear national development objectives to meet the needs of the SMEs sector. That is, formal policies and regulations that guarantees achievement of anticipated results of SMEs; (4) It is strongly suggests that government subsidies and financial support programs for micro and small and firms could make a positive contribution to increasing the performance of the SMEs in Tien Giang and Viet Nam.

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