Determinants of the Price and Non-price Terms of Bank Loans: A Study of Malaysian SMEs

Shaista Wasiuzzaman[1]

Abstract

The aim of this study is to investigate the determinants of the price and non-price terms of banks loans to SMEs. Responses from a survey questionnaire answered by 74 SMEs that had applied for and were granted bank loans is analyzed using SEM-PLS. The results indicate that the condition and capacity of the SME is significant in influencing interest rates while the SME's ability to provide collateral, its capital and the character significantly influence the non-price terms. Soft information is highly significant in influencing both the price and non-price terms.

***JEL classification**:* G21, E43

Keywords: Bank Lending; Loan pricing; Loan terms and conditions; SMEs

[1] School of Business, Universiti Teknologi Brunei, Brunei

1. Introduction

The aim of this study is to investigate the various factors that determine the price and non-price terms of bank loans to small and medium enterprises (SMEs) in an emerging market such as Malaysia. Most SMEs have limited access to capital markets (Bek and Demirguc-Kunt, 2006) and with under-developed and bank-dominated financial systems and capital markets in Asia (Yoshino and Taghizadeh-Hesary, 2015), banks are the most important source of external financing for SMEs. The opaque nature of SMEs and the high level of information asymmetry (DeHaas et al., 2010) further complicate the issue, more so in emerging markets where the lack of proper records and documentation is a common problem among SMEs. Therefore an understanding of how banks operate and make decisions in these markets is very important.

Previous studies on bank loan contracts (Anagnostopoulou and Konstantinos, 2016; English and Nelson, 1999; Neuberger and Räthke-Doppner, 2015; Strahan, 1999) have mainly focused on developed markets where capital markets are well developed and a wide range of financing solutions are available. In most cases, even when the studies investigate developing markets, the focus has been on large firms for which data is easily available through secondary sources. Although research on large firms do shed light on bank financing decisions, the findings may not apply to SMEs as SMEs can be very different from large firms in terms of their operations (Xiang and Worthington, 2015), their access to finance (Wasiuzzaman and Nurdin, 2018) and the way they are perceived by banks in terms of their credit risk. Credit risk is an important element in the formulation of bank loan contracts but the evaluation of the credit risk of SMEs is not as straight forward as that of large firms due to the high levels of information asymmetry arising due to their opaque nature. Additionally, commercial banks are thought to discriminate against SMEs as the loans requested are smaller in size (Copisarow, 2000) and smaller loans are riskier with higher transaction costs (Benston, 1964; Titman and Wessels, 1988). Therefore, what is known so far about the financing decisions by banks through studies on large firms may not be entirely applicable to SMEs.

This study therefore aims to study the influence of each dimension of the 5Cs of credit (condition, capital, collateral, capacity and character) on the price and non-price terms of bank loans. Additionally, the influence of soft information is also assessed. Further, SMEs in Malaysia are chosen as the sample of this study due to two reasons. First, historically it is believed that small banks are the main providers of loans to SMEs due to their organizational structure which makes it more convenient for them to undertake small business lending (Berger and Black, 2011; Durguner, 2017; Uchida, 2011). The Malaysian banking system is however unique in that there are only 8 large local commercial banks with branches all over the country. The banking system in Malaysia has evolved following the 1997 Asian financial crisis. Prior to the 1997 financial crisis, the banking system was fragmented with 77 domestic banking institutions. However, post the financial crisis, the central bank, or the Bank Negara Malaysia, took measures to strengthen the local banking system through the consolidation and rationalization of the banking system, where the banks were merged into ten anchor banks by year 2002 (Bank Negara Malaysia, 2011). Further mergers were encouraged to further strengthen the banking system to ensure its competitiveness with international banks. Second, the Government of Malaysia provides various initiatives to assist SMEs in various ways, including financially. Grants and financial schemes are channeled through commercial banks, development financial institutions and the Credit Guarantee Corporation Bhd. and the government encourages these financial institutions to assist the SMEs

by offering fast, convenient and flexible financing to the SMEs. However, the funds and grants have not been fully utilized by the SMEs (Bernama, 2018). Therefore, the absence of small banks in the country and the ample funding available but lack of utilization may mean that the results in this study may be different from those of previous studies.

To achieve the aim of this study, a survey questionnaire was distributed to a total of 456 SMEs in the manufacturing industry, out of which 156 surveys were returned. However, out of the 156, after excluding the responses of those SMEs that did not apply for any loans or whose loan applications were rejected, a total of 74 usable responses were obtained. Analysis of the survey results show significant influences of only character and collateral on the non-price terms of bank loans. On the other hand, only condition has a significant positive influence on the price terms of bank loans (i.e. the interest rate charged). Soft information, measured via processing time, is found to have a significant positive influence on both the price and non-price terms of bank loans while both capacity and capital do not significantly influence in both cases.

The results are significant as the different importance of each factor is shown, i.e. while some influence the price terms and others the non-price terms. The study therefore contributes significantly to literature on SME financing issues and on bank financing as it provides a better understanding of the differing importance of the different dimensions of creditworthiness on the terms of bank loans.

The rest of the study is as follows: the next section discusses the literatures related to this study and the relationships between each dimension of creditworthiness and the price and non-price terms of bank loans. This is followed with a section discussing the data collection process and the measurement of variables. Analysis is carried out using SEM-PLS and the results of the analysis are then presented in the next section followed by a section where the results are discussed. The study is then concluded in the final section.

2. Literature Review and Hypothesis Development

SMEs in Asia are very reliant on banks as their source of external financing (Beck et al., 2008) due to the under-developed financial systems and capital markets. The lack of documentation and financial records and the resulting high levels of information asymmetry makes it difficult for banks to assess their credit risk (De Haas et al., 2010). Banks rely heavily on credit ratings when making loan pricing and credit granting decisions (Bottazzi et al., 2014). The credit rating (or creditworthiness) is a valuation performed by banks based on the SME's financial capacity and willingness to repay its loan (Safi and Lin, 2014) and is used to determine the possibility that the borrower (in this case the SME) may default on his/her debt obligation. Information is gathered to assess the credit ratings of borrowers through hard, historical information about the borrower and the business and/or through relationship lending which enables the gathering of soft information through close bank-customer relationship over time (Boot, 2000).
Past studies have mostly found that higher credit scores imply lower credit risk and this has favorable influences on bank loan terms and conditions, i.e. the better the credit score, the better the terms offered by the bank. The approval or rejection of an SME's loan request by the banks and the terms it received on its loans (if successful) therefore depends very much on the rating

assigned to it by the banks. The positive relationship between credit rating and terms of loan is explained by the argument that firms with better credit rating, i.e. higher credit scores, are less risky and will more likely get better loan terms such as lower interest rates on loans (Neuberger and Räthke-Doppner, 2015). Ono et al. (2016) find that firms are less likely to change their main bank when they have better credit ratings in order to secure better terms and improved access to future financing. English and Nelson (1999) confirm that banks in England have at least rudimentary risk rating systems in place and that the price and non-price of bank loans is determined by the loan risk, which is determined by the rating system. This is confirmed by Strahan (1999) who suggests that the price and non-price terms of banks loans are used as complements in dealing with borrower risk. Hence, tighter non-price terms are imposed on riskier firms. Haron and Shanmugam's (1994) study of bank officers in Malaysian commercial banks who were involved in approval of loans to Malaysian SMEs finds that the 5Cs of credit are the basic factors considered by those banks when assessing the credit rating of loan applicants.

Many studies in the past have investigated the influence of the 5Cs of credit and macroeconomic factors on the credit risk of borrowers, hence the bank loan's terms and conditions, but most of these studies focus on some or all the above mentioned 5 factors although much attention has been given to the role of collateral. For instance, Berger and Udell (1990) find that the pledging of collateral by firms tends to indicate higher risk borrowers and hence riskier loans. This is confirmed by Jiménez and Saurina (2003) who find higher chances of default on collateralized loans. Strahan (1999) finds that small firms are mostly provided small loans, which have short maturity and are required to secure the loans by collateral. Additionally, Strahan (1999) finds that size and performance of a firm does affect the non-price terms of a loan, i.e. large and profitable firms enjoy better non-price terms. According to Uchida (2010) banks mainly focus on the relationship, financial statement and collateral factors when deciding on whether to grant a loan or not. Neuberger and Räthke-Doppner (2015) find that late payments have strong influence on loan pricing. Anagnostopoulou and Konstantinos (2016) find that macroeconomic variables can significantly explain the loan terms and conditions offered to borrowers and in fact the effect of the macroeconomic variables are found to be distinct or incremental to any influence on the terms and conditions from firm-specific and country-specific institutional factor.

While the 5Cs of credit are important in lending decisions, most studies have focused mainly on the role of collateral. This study however does not focus on the overall credit rating or on a specific dimension of creditworthiness such as collateral but on all its dimensions, specifically, capacity, capital, collateral, character and condition.

Hypothesis Development

Capacity refers to a borrower's ability to meet loan payments (Rose, 2002). An SME that is capable of repaying its loans is deemed to be less risky to a bank when the bank considers its loan application. More profitable firms are more capable of paying both their current and future loan payments and are therefore deemed to be more creditworthy (Johnston and Morduch, 2008) and can therefore borrow with better loan terms from banks (Strahan, 1999). Unfortunately, SMEs are reputed to lack capacity thus they are only able to secure small amounts of funds from financial institutions (Nyamboga et al., 2014) at high loan rates. Banks also impose stricter non-price terms,

i.e. collateral requirement, loan maturity and loan size. The SME would need to provide collateral to back its loans and will be approved smaller loans with shorter maturity period.

H1a: Banks charge lower loan rates on SMEs with better capacity.

H1b: Banks impose better non-price loan terms on SMEs with better capacity.

Capital refers to the money invested in the business and is an indicator of how much is at risk should the business fail (Rose, 2002). Banks view capital as an important factor when considering loan applications because capital indicates the default risk of the firm. The higher the firm's or owner's capital, the lower the probability of default by the firm/owner hence the lower the default risk borne by the bank resulting in better loan terms offered by the bank. Additionally, larger capital investment indicates greater commitment to the business since the owner/SME has more assets and money at stake. Therefore, an SME is able to secure loans with better terms when it has greater capital as it is considered less risky.

On the other hand, when a firm has large amounts of capital, it relies more on its internal financing rather than on external finance. Hence, it may lack credit history and the unavailability or lack of borrowing information increases information asymmetry resulting in difficulties in securing loans and/or tougher loan terms (Shin and Park, 1999; Shen et al., 2009).

H2a: Banks impose lower loan rates on SMEs with greater capital.

H2b: Banks impose better non-price loan terms on SMEs with greater capital.

Ayyagari et al. (2010) show that having good credit history signals a strong character. Firms that default on their payments are more likely to default again and are perceived as having higher default risk by banks, therefore the banks impose stricter terms, more requirements, screening and longer processing time for loan approvals when granting loans to these firms (Comeig et al., 2015). Firms with better repayment history are preferred by the banks as they are perceived to be less risky.

H3a: Banks charge lower loan rates on SMEs with better character.

H3b: Banks impose better non-price loan terms on SMEs with better character.

According to Berger and Udell (1990), conventional wisdom among banks is that highest risk borrowers tend to pledge collateral. Accordingly, study by Jiménez and Saurina (2004) finds that collateralized loans are associated with higher probabilities of default since the pledging of collateral becomes a disincentive to undertake adequate screening of potential borrowers by the banks when evaluating a loan application. Additionally, there is the optimistic businessman who underestimates his chance of going bankrupt and is therefore willing to provide the collateral required to obtain the financing for his project.

However, prior studies have mostly found that higher pledged collateral can reduce the demand for financial reporting (Minnis and Sutherland, 2017) and helps attenuate the problem of adverse selection and moral hazard (Jiménez and Saurina, 2004). Low risk borrowers are willing to pledge more and better collateral as they are less likely to lose it (Jiménez and Saurina, 2004). Loan interest rates depend on the amount of collateral the applicant submits, i.e. borrowers that pledge higher collateral get lower rates of interest (Chan and Kantas, 1985; Comeig et al., 2015). Additionally, Uchida (2011) suggests that banks require more collateral as compensation for shortfall in repayment from the previous borrowing of the borrower. Hence it is expected that:

H4a: Banks charge lower loan rates on SMEs that pledge higher collateral.

H4b: Banks impose better non-price loan terms on SMEs that pledge higher collateral.

The condition of an SME refers to the state of the borrower or/and the economy, which can change over time and is beyond the control of the lender or the borrower. Theoretically, banks would prefer to give out loans to firms in better conditions. Banks need to also analyze how changing economic conditions of the economy might affect the loan as the loan value could be eroded in a recession or due to inflation (Rose and Hudgins, 2010). The sensitivity of the business or the industry the business is in affects the business's credit rating and therefore the terms of loan. Since SMEs are generally dependent on the domestic market, macroeconomic conditions should affect the demand for the products/services, with a corresponding effect on the SME's revenues (Anagnostopoulou and Drakos, 2016). Additionally, SMEs are assumed to be more sensitive to economic downturns compared to large firms hence their probabilities of default tend to increase during these periods (Dietsch and Petey, 2004). SMEs whose business income is sensitive to the economic conditions and the outlook for its industry is not good, have higher probabilities of default, which depends on current income and is linked to uncertainty about future income (Louzis et al., 2010). Sensitivity of an SME's business can thus affect the firm's financial stability and financial risk and so the SME is perceived as risky to the bank, resulting in stricter loan terms and conditions by banks.

H5a: Banks charge higher loan rates on SMEs whose business is more sensitive to macroeconomic conditions.

H5b: Banks impose stricter non-price terms on SMEs whose business is more sensitive to macroeconomic conditions.

Prior studies have shown that relationship lending influences loan terms. The use of soft information in relationship lending results in better loan terms and credit access (Boot, 2000). As more soft information is gathered about the quality of the borrower, the problem of information asymmetry is reduced, resulting in a reduction in credit risk (Neuberger and Räthke-Doppner, 2015). Therefore, banks charge lower loan rates when more soft information is gathered (Neuberger and Räthke-Doppner, 2015). Additionally, Bharath et al. (2011) find that because relationships reduce information asymmetry between lenders and borrowers, the likelihood for collateral to be pledged is reduced, consistent with the reduction in adverse selection and moral hazard problems. They also find that relationships result in shorter loan maturity for the lowest quality borrowers as shorter maturity loans require more frequent monitoring but relationships

reduce the cost of monitoring. Bharath et al. (2011) posit that relationships are especially valuable when borrower transparency is low. Since SMEs are well-known to be opaque in nature with high levels of information asymmetry, relationship lending should have considerable influence on the price and non-price terms of bank loans to the SMEs.

H6a: Banks charge lower loan rates when they are able to collect more soft information on the SME.

H6b: Banks impose better non-price terms when they are able to collect more soft information on the SME.

3. Data and Methodology

Sampling method and procedures

Data is collected from SMEs in the manufacturing sector located in the states of Selangor and the Federal Territory of Kuala Lumpur via the convenient sampling method. A questionnaire was distributed to a total of 456 SMEs that were as SMEs from the manufacturing sector by cross referencing the list of manufacturing firms in the Federation of Malaysian Manufacturer (FMM) directory with the list of SMEs in the SME Corporation (a government organization dedicated to the development of SMEs in Malaysia) website. To ensure that the SME is from the manufacturing sector, the survey instrument included a screening question. A pilot test was initially conducted and necessary modifications were carried out on the survey questions based on the results of the pilot test data. The questionnaires were personally distributed to the SMEs in order to explain to them the research and its purpose. However, the questionnaires were also sent to the respondents for the second time via email if they requested it. Finance officers in the SME were approached but in case of no specific or multiple job function(s), as can be found in most SMEs, the questionnaire was passed on to the Human Resource (HR) manager or to the person responsible for, and with knowledge of, the finance function of the firm. Out of the 456 questionnaires distributed, a total of 158 responses were returned with only 145 usable responses. However, since the focus of this study is on the terms of loans, the responses of respondents who had not applied for a loan or whose loan applications were rejected, is not used as they could not answer the questions relating to the terms of loans. Only those respondents that had applied for a loan in the past 12 months and the loan was granted are considered in this study as only these SMEs were offered loans with various terms and conditions, resulting in a final sample of 74 respondents. Therefore, despite a response rate of 34.6%, the final sample represents 16.4% of the population of the study. Although a sample size of more than 100 is ideal as suggested by Bartlett et al. (2001), the 10 times rule of thumb by Hair et al. (2010) is used here to justify the use of the small sample size in this study. Since the model consists of a total of 6 variables, the required minimum of 60 respondents is fulfilled.

The demographic profile of the respondents based on the frequency and proportion are presented in Table 1.

Table 1: Demographic Profile of Respondents

	Freq	%
LEGAL		
Sole proprietorship	5	6.76
Partnership	8	10.81
Private limited	61	82.43
AGE		
Less than 5 years	3	4.05
Between 5 to 10 years	2	2.70
More than 10 years	69	93.24
TYPE		
Subsidiary/Branch company	28	37.84
Independent	46	62.16
SIZE		
Small	29	39.19
Medium	45	60.81
PREFERRED SOURCE OF FINANCING		
Internal funds or retained earnings	23	31.08
Owner's contribution or new equity shares	7	9.46
Borrowed from banks: private and state-owned	31	41.89
Purchases on credit from suppliers and advances from customers	10	13.51
Others: money lenders, friends, relatives	3	4.05

Most of the respondents are independent (62%) private-limited SMEs (82%) that are more than 10 years old (93.24%). It is interesting to note that out of the 145 SMEs only 74 applied for a loan and were granted the loan and out of these 75, 93% are more than 10 years old. This shows the bias towards SMEs with histories and track records in loan approval process. In terms of size, 39% of the respondents are small enterprises while 61% are medium ones. The most preferred source of financing is borrowing from banks (42%), followed by the use of internal funds and retained earnings (31%) and credit from suppliers and advances from customers (13.5%). Although not reported in Table 1, it is found that 92% of the respondents indicated that their loan applications were with private commercial banks. The rest (8%) obtained their loans from either state-owned banks or government agencies, or from non-bank financial institutions. Further, the top three reasons given for applying for financing are: working capital and cash flow (64.86%), purchase of equipment and vehicle (47.30%) and business growth/expansion (29.73%).

Measurement of Variables

The dependent variable in this study is the loan terms offered to the SMEs by the banks where they applied for their loan within the last 12 months. Only those SME that had applied for the loan and the loan was approved could answer the question. For all the dependent and independent variables, the respondents are asked to indicate the degree to which they agree with the statements using a 5-point Likert scale ranging from 1 being "Strongly Disagree" to 5 being "Strongly Agree".

Items used to measure loan terms are adopted from ECB (2014). However, only the items relevant to this study, i.e. interest rates, size of loan, loan maturity and collateral requirement are used. Since this study investigates both the price and non-price terms of the loan separately, there are 2 dependent variables and 2 models in this study, where the price terms of the loan is a single item construct measured by the statement - 'Interest rates charged to us are low' - while the non-price items are measured by the statements - 'Size of loan or credit line approved to us is high', 'Loan maturity approved to us is long' and 'Collateral requirement imposed on us is low'.

The independent variables are 'Condition', 'Capital', 'Collateral', 'Capacity' and 'Character' to represent hard information while 'Processing Time' is the independent variable which represent the soft information collected about the SME. To assess the sensitivity of the SME to economic conditions (or the 'Condition'), the statements are adopted from Rose (2002). Specifically, the statements are: 'Our business and industry are less sensitive to business cycles and changes in technology', 'Regulations, politics and environment has little effect on our business' and 'Inflation has little impact on our balance sheet and cash flows'. Statements to measure how much is at risk should the business fail (or the 'Capital') are also adopted from Rose (2002). The statements are: 'Our firm record shows strong past earnings, dividends, and sales', 'Our firm has adequate liquid reserves', 'Our firm has high turnover of payables, account receivables and inventory' and 'Our firm has a good and effective management team'. Statements to measure the ability of the SME to provide collateral are adopted from various sources. The statements are: 'Our firm is able to provide required the collateral', 'The value of our collateral is high', 'Our firm is able to provide guarantors as per bank requirements' and 'Our firm owns most of our assets (land, buildings, vehicle, machinery, equipment)'. Items to assess the SME's ability to meet the loan payments (or the 'Capacity') are adopted from various sources. Specifically, the statements are: 'Our firm is able to handle its debt capacity', 'Our firm successfully managed its payments/commitments in the past', 'Our firm is able to repay its debt' and 'Our firm has strong cash flow and financial viability'. The SME's attitude towards its loan obligations (or the 'Character') is measured adopted from Harvey et al. (2012). The statements are: 'Banks are willing to provide credit to our firm', 'Business partners are willing to provide credit to our firm' and 'Investors are willing to invest in our firm'. Finally, 'Processing Time' is a single item construct which is measured by the statement 'Time taken to process the loan is short' adopted from ECB (2014). The items and the sources from which they were adopted are provided in Table 2.

Since the items for the dependent and independent variables are taken from various sources and have not been used in previous empirical studies, exploratory factor analysis (EFA) is first carried out to correctly identify the dimensions or the factors for each variable. The strength of the inter-correlation in the correlation matrix is checked and found to be more than 0.3 as recommended by Tabachnick & Fidell (1996). Bartlett's t-test of sphericity (Bartlett, 1954) and the Kaiser-Meyer-Oklin (KMO) measure of sampling adequacy (Kaiser, 1970) are also used for multi-item constructs to assess the factorability of the data. It is found that all values of the Bartlett's test are significant (p-value<0.05) and KMO results are more than 0.6 (Tabachnick & Fidell, 1996).
The final items for each construct (dependent and independent variables) and the source from which the items are adopted are presented in Table 2. Also provided in Table 2 are the KMO and the Bartlett's test results for each construct.

Table 2: Items for each construct in measurement model using Exploratory Factor Analysis

DEPENDENT VARIABLES				
Item Name	**Item**	**Source**	**KMO**	**Bartlett's**
	PRICE TERMS OF LOAN (price)			
terms_price	Interest rates charged to us is low.	European Central Bank Survey (2014)		
	NON-PRICE TERMS OF LOAN (nonprice)			
terms_size	Size of loan or credit line approved to us is high.	European Central Bank Survey (2014)		
terms_maturity	Loan maturity approved to us is long.	European Central Bank Survey (2014)	0.733	0.000
terms_colla	Collateral requirement imposed to us is low.	European Central Bank Survey (2014)		
INDEPENDENT VARIABLES				
Item Name	**Item**	**Source**	**KMO**	**Bartlett's**
	CONDITION			
cond1	Our business and industry is less sensitive to business cycles and changes in technology.	(Rose, 2002)		
cond2	Regulations, politics and environment has little effect on our business.	(Rose, 2002)	0.681	0.000
cond3	Inflation has little impact on our balance sheet and cash flows.	(Rose, 2002)		
	CAPITAL			
cap1	Our firm record shows strong past earnings, dividends, and sales.	(Rose, 2002)		
cap2	Our firm has adequate liquid reserves.	(Rose, 2002)		
cap3	Our firm has high turnover of payables, account receivables & inventory.	(Rose, 2002)	0.680	0.000
cap4	Our firm has a good and effective management team.	(Rose, 2002)		
	COLLATERAL			
colla1	Our firm is able to provide required collateral.	European Central Bank Survey (2014)		
colla2	The value of our collateral is high.	Harvey et al. (2012)		
colla3	Our firm is able to provide guarantors as per bank requirements.	Harvey et al. (2012)	0.809	0.000
colla4	Our firm owns most of our assets (land, buildings, vehicle, machinery, equipment)	(Rose, 2002)		
	CAPACITY			
capa1	Our firm is able to handle its debt capacity.	Berger and Schaeck (2011)		
capa2	Our firm successfully managed its payments/commitments in the past.	Love and Mylenko (2003)	0.759	0.000

capa3	Our firm is able to repay its debt.	Mohd Harif et al. (2011)		
capa4	Our firm has strong cash flow and financial viability.	Mohd Harif et al. (2011)		
	CHARACTER			
char1	Banks are willing to provide credit to our firm.	Harvey et al. (2012)	0.663	0.000
char2	Business partners are willing to provide credit to our firm.	Harvey et al. (2012)		
char3	Investors are willing to invest in our firm.	Harvey et al. (2012)		
	PROCESSING TIME			
process_time	Time taken to process the loan is short.	European Central Bank Survey (2014)		

The Structural Model

Analysis is carried out on the dependent and independent variables using SEM-PLS. Since there are two dependent variables (price and nonprice), two structural models are constructed. Figures 1 and 2 illustrate the two models which consist of the dependent and independent variables. The independent variables in Figures 1 and 2 are the same, however the dependent variable in Figure 1 is nonprice while in Figure 2 is price. All variables are treated as reflective measurement variables as the latent constructs exist independent of the measures used and variations in the constructs cause variations in the item measurements. However, price and process_time are single item variables.

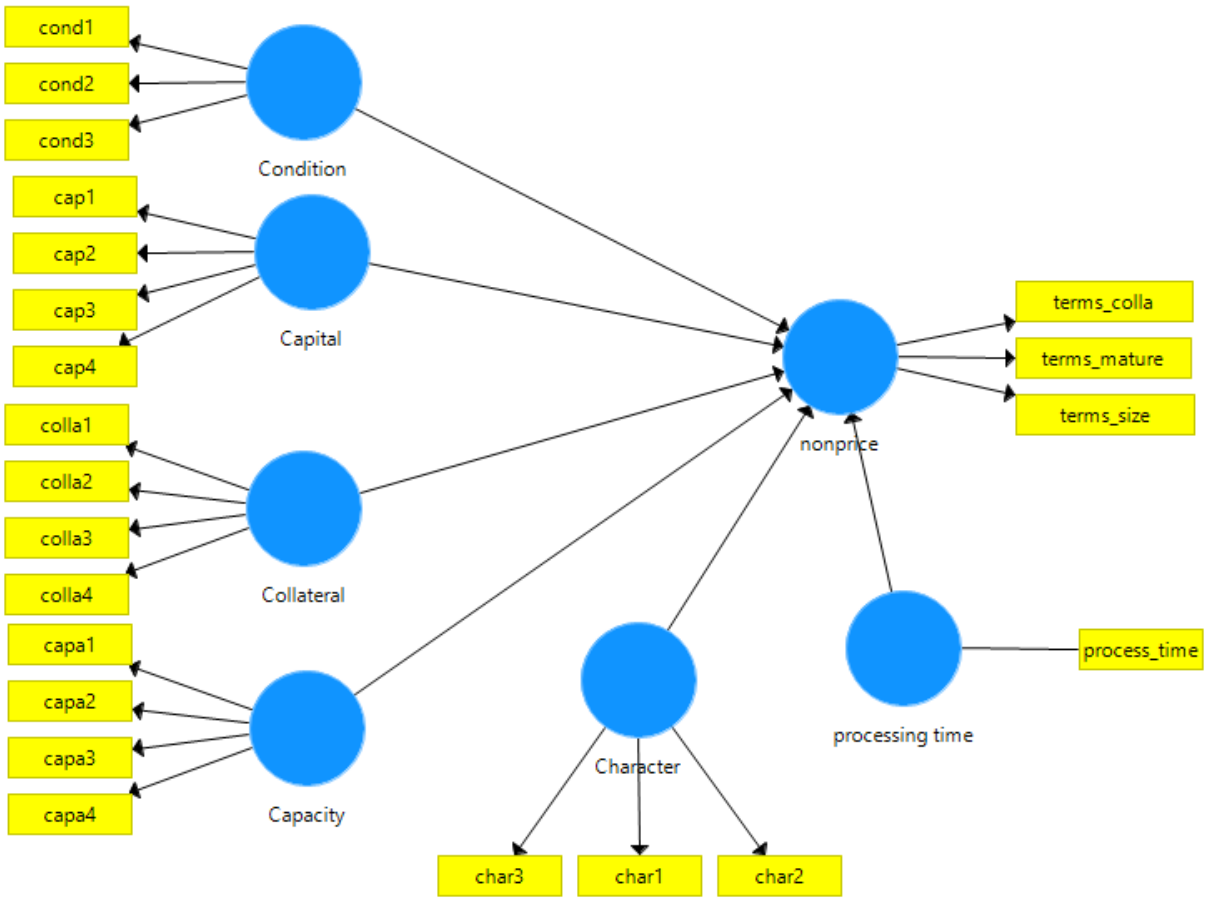

Figure 1: Structural model with nonprice as dependent variable

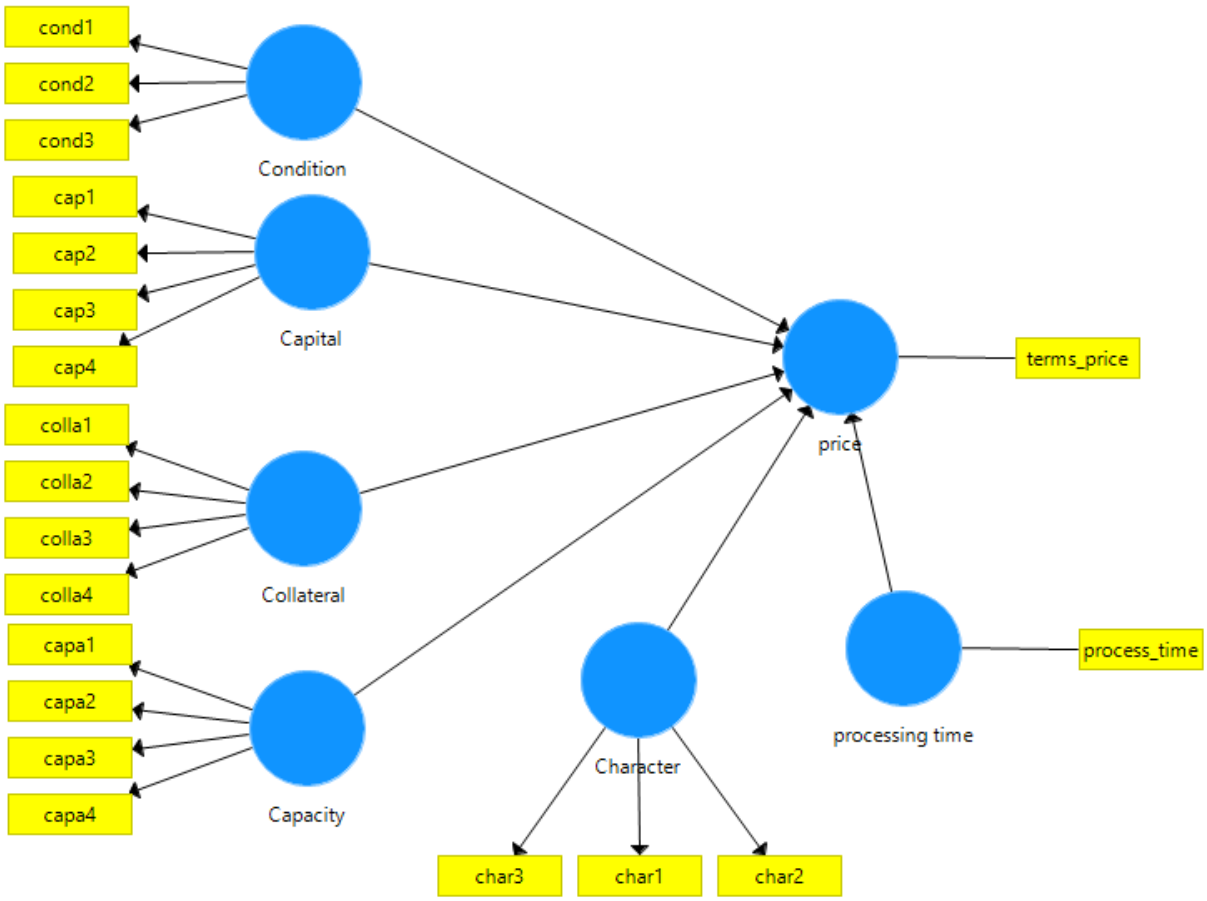

Figure 2: Structural model with price as dependent variable

As the variables are all reflective, assessment of the models is first carried out in terms of the internal consistency, indicator reliability, convergent and discriminant validity. Also calculated in the outer loading for each of the indicator. The results of the assessment is provided in Table 3.

Table 3: Summary of assessment of measurement models

Construct	Item	Outer loading	Cronbach's Alpha	Composite reliability	AVE	VIF
price	terms_price	1.000	1.000	1.000	1.000	1.000
nonprice	terms_size	0.891	0.858	0.853	0.601	2.301
	terms_maturity	0.861				2.074
	terms_colla	0.894				2.131
condition	cond1	0.672	0.741	0.835	0.631	1.482
	cond2	0.786				1.578
	cond3	0.907				1.402
capital	cap1	0.700	0.750	0.835	0.562	1.597
	cap2	0.835				1.537
	cap3	0.633				1.375
	cap4	0.811				1.649
collateral	colla1	0.911	0.853	0.899	0.690	2.567
	colla2	0.877				2.255
	colla3	0.758				1.637
	colla4	0.767				1.815
capacity	capa1	0.900	0.827	0.853	0.601	2.517
	capa2	0.630				1.817
	capa3	0.920				2.024
	capa4	0.593				1.518
character	char1	0.526	0.708	0.805	0.592	1.279
	char2	0.930				1.481
	char3	0.795				1.466
processing time	process_time	1.000	1.000	1.000	1.000	1.000

Internal consistency is first assessed using the Cronbach's Alpha and it is found that all variables fulfill this condition, i.e. all Cronbach's Alpha values for all the variables are greater than 0.7. It is also found that the Composite Reliability values for all the variables are greater than 0.7, indicating sufficient convergence and/or internal consistency (Gefen et al., 2000). Next, indicator reliability is assessed via the outer loading values of each item. The outer loading values for each of the items are found to be greater than 0.5. As a rule of thumb, according to Hulland (1999), reflective indicators with outer loading values less than 0.4 need to removed. Most of the outer loadings are greater than 0.7 except for some items such as cond1 (0.672), cap3 (0.633), capa2 (0.630), capa 4 (0.593) and char1 (0.526). Although indicators with outer loadings found to be between 0.4 and 0.7 are not considered strong indicators, removal of these indicators is only suggested if the deletion increases the composite value and the Average Variance Extracted (AVE). The indicators above are maintained and not deleted as it was found that their removal results in either the Cronbach's Alpha values or the AVE values dropping to below the threshold. In fact, retaining these indicators is actually found to improve the models.

Convergent validity is assessed via the AVE value of each of the variable. The AVE values for all the variables are found to be between 0.562 and 0.690. The values are greater than the required threshold of 0.5 as variables having AVE values greater than 0.5 are considered to have adequate Convergent validity (Bagozzi and Youjae, 1988). Finally, to assess discriminant validity, the Heterotrait-Monotrait Ratio of correlations (HTMT) is calculated for each of the variable. The resulting values are provided in Table 4. HTMT values below 0.90 indicates that discriminant validity is established between two reflective constructs (Henseler et al., 2015). Since all the values are less than 0.7, discriminant validity is established for the two models. Although not provided, discriminat validity is also established via the Fornell-Larcker criterion (Fornell and Larcker, 1981) as the values of the diagonal elements exceed those of the off-diagonal elements in the same row and column for both the models.

Since both models fulfill the various assessment criterion, the structural models are evaluated. The results of both the structural models are presented in Table 5 (dependent variable: price) and Table 6 (dependent variable: nonprice). Both the structural models show SRMR values of 0.093 and 0.094, respectively, which is below the threshold of 0.10 (Henseler et al., 2014).

Table 4: Heterotrait-Monotrait Ratio of correlations (HTMT)

	capacity	capital	character	collateral	condition	price	nonprice
capacity							
capital	0.320						
character	0.339	0.604					
collateral	0.224	0.370	0.430				
condition	0.146	0.234	0.176	0.205			
price	0.224	0.267	0.326	0.447	0.188		
nonprice	0.362	0.135	0.146	0.096	0.249		
processing time	0.287	0.196	0.137	0.062	0.074	0.216	0.627

Table 5: Summary of structural model (Dependent: price)

	Path coefficient	**F^2**	**R^2**	**SRMR**	**d_{ULS}**
capacity -> price	-0.149*	0.038	0.515	0.093	1.797
capital -> price	-0.174	0.043			
character -> price	-0.079	0.009			
collateral -> price	0.008	0.000			
condition -> price	0.185**	0.068			
processing time -> price	0.601***	0.644			

***, **, * denote significance at 1%, 5% and 10% levels respectively.

Table 6: Summary of structural model (Dependent: nonprice)

	Path coefficient	**F^2**	**R^2**	**SRMR**	**d_{ULS}**
capacity -> nonprice	-0.099	0.015	0.464	0.094	2.219
capital -> nonprice	-0.262*	0.083			
character -> nonprice	-0.290**	0.108			
collateral -> nonprice	0.590***	0.554			
condition -> nonprice	-0.076	0.010			
processing time -> nonprice	0.259**	0.105			

***, **, * denote significance at 1%, 5% and 10% levels respectively.

The results of the price model show that the sensitivity of an SME's business to the economic condition has a significant influence on the level of interest rates it is charged by the banks when they approve of the loan application. The capacity of the SME is also significant in influencing the level of interest rates, although the influence is only significant at the 10% level. For the non-price model on the other hand, the character of the SME and its ability to provide collateral are highly significant in influencing the non-price of loan terms it is able to secure from the bank. Its capital is only significant in influencing the non-price loan terms at the 10% level. For both the models, processing time is found to have highly significant influence on the price and non-price terms of bank loans. In terms of R-squared, the values are 0.515 and 0.464 for the price and non-price models, respectively. This indicates that the independent variables explain around 50% of the overall variations in the price and non-price terms of bank loans.

Analysis for the non-price model is also carried out using Ordinary Least Squares (OLS) regression method with robust standard errors. Average values are calculated for the each variable that is a multi-item construct (nonprice, capacity, capital, character, collateral, condition). Since process_time is a single item construct, the value is taken as is. The results of the regression analysis, presented in Table 7, confirm the PLS-SEM results.

Table 7: OLS Regression Analysis (Dependent: nonprice)

Variable	Coef.	t
capacity	-0.067	-0.550
capital	-0.337*	-1.790
character	-0.291**	-2.600
collateral	0.400***	5.420
condition	0.010	0.110
processing time	0.281***	3.510
constant	3.399***	4.450
N	74	

***, **, * denote significance at 1%, 5% and 10% levels respectively.

4. Discussion of Results

Price terms of bank loans (interest rates)

Among the five dimensions of creditworthiness, only condition is found to have a highly significant influence on the interest rates charged by banks on the loans they grant to SMEs, i.e. the price terms of the loan. Hypothesis 5a is therefore supported at the 5% significance level. Condition refers to the sensitivity of the SME's business to the economic condition. The relationship between condition and price terms of a bank loan is found to be positive implying the better the condition (i.e. the less sensitive the business is to the economic condition), the better the

loan pricing offered by the bank (i.e. interest rates charged are lower). This result is as expected as the sensitivity of the business affects its credit ratings. Since unlike large firms, SMEs are dependent mainly on the domestic market (Anagnostopoulou and Drakos, 2016), the SME's business is therefore more sensitive to the macroeconomic conditions thus affecting its probability of default (Dietsch and Petey, 2004). The importance of condition to the interest rate charged by a bank is due to the SME's dependence on the domestic market which affects its revenues (Anagnostopoulou and Drakos, 2016).

Capacity is found to have a significant influence also but the influence is only significant at the 10% level. However, capacity has a negative influence on the price terms of loan which is opposite to what was hypothesized in Hypothesis 1a. Although an SME which is highly capable of repaying its loans is viewed as less risky by financial institutions, its preference for internal funds and other informal sources of financing (Haron and Ibrahim, 2016) and its capability of generating internal funds would mean that it would request for smaller amounts of funds from financial institutions

The other dimensions of creditworthiness – Capital, Character and Collateral – have no significant influence on the interest rates charged by banks for loans. Hence, Hypotheses 2a, 3a and 4a are not supported by the results in Table 5. Additionally, despite the significance of Condition and Capacity, the F^2 values for these variables are less than 0.15, which implies small effect size (Cohen, 1988).

On the other hand, processing time which represents soft information gathered by the banks regarding the SME is found to be highly significant (at 1% level) in influencing interest rates with the effect size being large (0.644). Time taken to process a loan application is found to have a positive influence on interest rates, i.e. the longer time is taken to process a loan application, the lower the interest rates imposed by the banks. Hypothesis 6a is therefore supported. Since SMEs are opaque in nature, there is high levels of information asymmetry which is reduced with more soft information gathered about the borrower hence credit risk is also reduced (Neuberger and Räthke-Doppner, 2015). Reduced credit risk means lower interest rates charged by the banks on the loans given out to the SMEs. The large effect size indicates the great significance of soft information in determining interest rates on loans, as compared to hard information used to assess the creditworthiness of an SME, due to the opaque nature of SMEs and their poor financial record keeping practices.

Non-price terms of bank loans (size, maturity and collateral requirement)

Among the five dimensions of creditworthiness, character and collateral are found to be highly significant (at 5% level) in influencing the non-price terms of bank loans. Collateral is found to have a positive influence but character has a negative influence on the non-price terms of bank loans. Capacity and condition have no significant influence on the non-price terms of the bank loans hence Hypotheses 1b and 5b are not supported by the results of this study. Therefore, only Hypothesis 4b is supported while although hypothesis 3b is supported statistically, the relationship found is opposite to what was hypothesized.

The positive influence of collateral on the non-price terms of bank loans indicates the role of collateral in reducing adverse selection and moral hazard (Jiménez and Saurina, 2004) and also the

demand for financial reporting (Minnis and Sutherland, 2017). The pledging of collateral is therefore an indicator of the quality of the borrower where borrowers who are confident of their ability to repay their loans would be more willing to put up more and better collateral as they are less likely to lose the collateral (Jiménez and Saurina, 2004). Hence, reduced risk means less strict non-price terms of loans imposed by the banks on the SME. In terms of effect size, collateral is found to have F^2 value of 0.554 which indicates large effect. Among all the variables, collateral has the largest effect indicating the importance of this variable in influencing the non-price terms of a bank loan to an SME. Hence, an SME that is able to provide collateral to back its loan request will be able to secure better non-price loan terms, i.e. larger loan sizes, longer loan maturities and lower collateral requirements.

On the other hand, although Character is found to be significant, its influence is found to be negative but its effect on non-price terms of bank loans is small (0.108). Character is thus important but does not have a very large effect on the non-price terms of bank loans. Character is measured as the willingness of different parties (banks, business parties and investors) to provide credit or invest in the SME. In this case, the better the character of the SME, i.e. the more parties there are available to provide the financing to the SME, the less the SME would turn to financial institutions for loans, i.e. the more avenues to financing available to the SME. With more avenues for financing, the SME would only apply for smaller loans, which come with high interest rates. Additionally, an SME that has other alternative sources of financing might lack credit history as it may not have borrowed from formal sources previously thus resulting in higher rates of interests charged to the SME. Alternatively, a more plausible explanation could be that this relationship is a result of the perception of the SME respondents. Since the questions regarding the price and non-price terms of loans are answered by the SMEs and not based on hard data, the answer is subjective. An SME with good character might in actual fact be getting better terms of loan from the bank's point of view but the SME might not view the terms as better or favorable due to its own expectations on what it should be getting while those with dubious credit histories may be happy with the terms of loans offered to them. This result provides opportunities for future research where lenders and borrowers view of the terms of loans may be analyzed.

Capital is found to have a significant but weak influence (at 10% level) on the non-price terms of bank loans. Additionally, an F^2 value of 0.085 indicates small effect of this variable on the independent variable. Hypothesis 2b is thus supported at the 10% level statistically but in terms of the sign of coefficient, this hypothesis is not supported. An SME with large amounts of capital would rely more on its internal capital and hence lack credit history and borrowing information which increases asymmetric information (Shin and Park, 1999; Shen et al., 2009). Therefore, the non-price terms of bank loans could be higher for these SMEs.

Finally, soft information, measured by processing time, is found to have a significantly positive (at 5% level) influence on the non-price terms of bank loans, thus supporting Hypothesis 6b. Therefore the longer the time to process a loan application, the better the non-price terms of the loans will be. The gathering of soft information reduces asymmetric information and hence with more information, the need to pledge collateral is reduced and large loan sizes with longer time to maturity can be offered. With more soft information, monitoring costs are reduced and relationships are formed between the bank and the SME hence enabling better non-price terms to be offered (Bharath et al., 2011). The effect size of this variable is however found to be 0.105,

which is small, unlike the effect size of this variable on the price terms of loans. Soft information is therefore more important in determining the interest rates compared to the non-price terms of loans. More soft information gathered reduces credit risk and this has a strong influence on interest rates but not as much on the other loan terms.

5. Conclusion

The aim of this study was to analyze the factors that influence the terms of bank loans. This study delves further by the price and non-price terms of bank loans separately. To do this, responses from questionnaires returned by 74 SMEs from Selangor and the Federal Territory of Kuala Lumpur are utilized. The questionnaire was distributed to 456 SMEs out of which 145 responses were returned but only 74 were usable for this study as these SMEs were granted loans within a period of 12 months. The responses were analyzed via SEM-PLS and it was found that factors that significantly affect the price terms of bank loans are distinct from those that affect the non-price terms of bank loans. The economic condition and the capacity of the SME was significant in influencing the price terms of bank loans (i.e. the interest rates) while ability to provide collateral, the capital put up by the SME and the character of the SME were important in influencing the non-price terms of bank loans (i.e. size of loan, maturity of loan and collateral requirement). However, soft information (proxied by time taken to process the loan application) was found to be significant in influencing both the price and non-price terms of bank loans, although its importance was greater in determining the price terms. This indicates the importance of soft information in reducing asymmetric information and moral hazard problems and therefore loosening terms of loans.

The results are important as to the author's knowledge, no study so far has analyzed the terms of bank loans separately to provide a clearer picture of the differing importance and influence of each of the 5 dimensions of creditworthiness towards the different terms imposed by banks for the loans they offer to SMEs. This study therefore provides SMEs with additional knowledge on what is important in bank loan applications. Additionally, some of the results found are different from expectations and previous studies, indicating a few possibilities. One, the results may be different for developing economies as compared to developed economies thus highlighting the need to carry out further studies in developing economies as the financial structure in these economies are different from those of developed ones. Second, most standard expectations and assumptions regarding the relationships are based on the large firms whereas SMEs are unique compared to large firms. Hence, there is a need to analyze whether there are differences in the results for large firms and SMES. Third, the questionnaires were answered by SMEs therefore this study provides the relationships based on the perceptions of the SMEs. The differing results could indicate the different perceptions of SMEs and banks with respect to the loan terms offered hence there is a need to further study on these possible different perceptions and to hopefully bridge the gap that may be there between these two entities.

However, this study has its limitations. Firstly, the data source is unofficial, i.e. via survey questionnaires which are filled up by SMEs, therefore, there is bound to be bias as it is based on their perceptions. Data from official sources such as banks or credit agencies, or even those which are quantitative in nature (usually obtained from banks) will provide a clearer picture of what influences the loan terms as the banks are the ones setting these terms. The survey was also carried

out at one particular point in time hence restricting the analysis to cross-sectional analysis. Due to the evolving nature of the financial system, the results may not be applicable in the future and therefore there is a need to carry out panel data analysis instead.

This study also mainly focuses on the 5Cs of credit as proxies for hard information and processing time as a proxy for soft information gathered by the banks. There are various credit analysis tools which employ different dimensions of creditworthiness and these dimensions were not taken into consideration in this study as the 5Cs of credit is popularly used in Malaysia. Additionally, soft information can be measured in other ways such as the number of accounts held with the bank. Therefore future studies could include both processing time and number of accounts held as measures of soft information. Other variables such as demographic ones were not considered in this study due to the small sample size. These demographic factors can also be considered in future studies.

References

Anagnostopoulou, S. C., & Drakos, K. (2016). Bank loan terms and conditions: Is there a macro effect? *Research in International Business and Finance*, *37*, 269–282. http://doi.org/10.1016/j.ribaf.2015.11.012

Ayyagari, M., Demirg, A., & Maksimovic, K. V. (2010). Formal versus Informal Finance : Evidence from China. *Review of Financial Studies*, *23*(8), 3048–3097.

Bagozzi, R. P., & Youjae, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, *16*(1), 74–94.

Bank Negara Malaysia. (2011). Financial Sector Blueprint 2011-2020. Retrieved from http://www.bnm.gov.my/index.php?ch=en_publication&pg=en_fsmp&ac=8&en

Bartlett, J. E., Kotrlik, J. W., & Higgins, C. C. (2001). Organizational Research: Determining Appropriate Sample Size in Survey Research. *Information Technology, Learning, and Performance Journal*, *19*(1), 43–50. http://doi.org/10.1109/LPT.2009.2020494

Bartlett, M. S. (1954). A Note on the Multiplying Factors for Various Chi Square Approximations. *Journal of the Royal Statistical Society*, *16*(2), 296–298.

Beck, T., & Demirguc-Kunt, A. (2006). Small and Medium-size Enterprises: Access to Finance as a Growth Constraint. *Journal of Banking & Finance*, *30*(11), 2931–2943.

Beck, T., Demirguc-Kunt, A., & Martinez Peria, M. (2008). *Banking SMEs Around the World: Lending pratices, business models, drivers and obstacles* (Policy Research Working Paper No. 4785). Washington DC.

Benston, G. J. (1964). Commercial Bank Price Discrimination Against Small Loans : An Empirical Study. *The Journal of Finance*, *19*(4), 631–643.

Berger, A. N., & Black, L. K. (2011). Bank size, lending technologies, and small business finance. *Journal of Banking & Finance*, *35*(3), 724–735. http://doi.org/10.1016/j.jbankfin.2010.09.004

Berger, A. N., & Udell, G. F. (1990). Collateral, loan quality and bank risk. *Journal of Monetary*

Economics, *25*(1), 21–42. http://doi.org/10.1016/0304-3932(90)90042-3

Bernama (2018), "Lack of awareness finds SMEs not taking up RM3.3 billion in funds", 27 February, available at: http://www.freemalaysiatoday.com/category/business/2018/02/27/lack-of-awareness-finds-smes-not-taking-up-rm3-3-billion-in-funds/

Bharath, S. T., Dahiya, S., Saunders, A., & Srinivasan, A. (2011). *Lending relationships and loan contract terms*. *Review of Financial Studies* (Vol. 24). http://doi.org/10.1093/rfs/hhp064

Boot, A. W. A. (2000). Relationship banking: what do we know? *Journal of Financial Intermediation*, *9*(1), 7–25.

Bottazzi, G., Secchi, A., & Tamagni, F. (2014). Financial Constraints and Firm Dynamics. *Small Business Economics*, *42*(1), 99–116.

Chan, Y.-S., & Kantas, G. (1985). Asymmetric Valuations and the Role of Collateral in Loan Agreements. *Journal of Money, Credit and Banking*, *17*(1), 84–95.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Earlbaum Associates.

Comeig, I., Fernández-blanco, M. O., & Ramírez, F. (2015). Information acquisition in SME's relationship lending and the cost of loans. *Journal of Business Research*, *68*(7), 1650–1652. http://doi.org/10.1016/j.jbusres.2015.02.012

Copisarow, R. (2000). The Application of Micro Credit Technology to the UK: Key Commercial and Policy Issues. *Journal of Microfinance*, *2*(1), 13–42.

De Haas, R., Ferreira, D., & Taci, A. (2010). What Determines the Composition of Banks' Loan Portfolios? Evidence from Transition Countries. *Journal of Banking & Finance*, *34*(9), 2280–2293.

Dietsch, M., & Petey, J. (2004). Should SME exposures be treated as retail or corporate exposures? A comparative analysis of default probabilities and asset correlations in French and German SMEs. *Journal of Banking & Finance*, *28*(4), 773–788. http://doi.org/10.1016/j.jbankfin.2003.10.006

Durguner, S. (2017). Do borrower-lender relationships still matter for small business loans ? *Journal of International Financial Markets, Institutions & Money*, *50*, 98–118. http://doi.org/10.1016/j.intfin.2017.09.007

ECB. (2014). *Survey on the Access To Finance of Small And Medium-Sized Enterprises In The Euro Area*. Frankfurt am Main. Retrieved from https://www.ecb.europa.eu/pub/pdf/other/accesstofinancesmallmediumsizedenterprises201404en.pdf

English, W. B., & Nelson, W. R. (1999). *Bank Risk Rating of Business Loan* (No. 98–51). http://doi.org/10.2139/ssrn.148753

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, *18*(1), 39–50.

Gefen, D., Straub, D., & Boudreau, M. C. (2000). Structural Equation Modeling Techniques and Regression: Guidelines for Research Practice. *Communications of the Association for Information Systems*, *4*(7), 2–77.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis: A Global Perspective* (7th ed.). New Jersey: Pearson Prentice Hall.

Haron, S., & Shanmugam, B. (1994). Lending To Small Business in Malaysia. *Journal of Small Business Management*, *32*(4), 88–95.

Harvey, J., Macht, S., & Sharma, S. (2012). *SME Access to Finance: An exploration into the demand and supply contraints around SME access to finance*. Newcastle upon Tyne. Retrieved from http://nrl.northumbria.ac.uk/10904/1/NEA2F__final_June_2012.pdf

Henseler, J., Dijkstra, T., Sarstedt, M., Ringle, C., Diamantopoulos, A., Straub, D., … Calantone, R. (2014). Common Beliefs and Reality About PLS: Comments on Ronnkko and Evermann (2013). *Organizational Research Methods*, *17*(2), 182–209.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A New Criterion for Assessing Discriminant Validity in Variance-based Structural Equation Modeling. *Journal of the Academy of Marketing Science*, *43*(1), 115–135.

Hulland, J. (1999). Use of Partial Least Squares (PLS) in Strategic Management Research: A Review of Four Recent Studies. *Strategic Management Journal*, *20*(2), 198–204.

Jiménez, G., & Saurina, J. (2004). Collateral, type of lender and relationship banking as determinants of credit risk. *Journal of Banking and Finance*, *28*(9), 2191–2212. http://doi.org/10.1016/j.jbankfin.2003.09.002

Johnston, D., & Morduch, J. (2008). The unbanked: evidence from Indonesia. *The World Bank Economic Review*, *22*(3), 517–537.

Kaiser, H. F. (1970). A second generation little jiffy. *Psychometrika*, *35*(4), 401–415.

Louzis, D. P., Vouldis, A. T., & Metaxas, V. L. (2012). Macroeconomic and bank-specific determinants of non-performing loans in Greece : A comparative study of mortgage , business and consumer loan portfolios. *Journal of Banking and Finance*, *36*(4), 1012–1027. http://doi.org/10.1016/j.jbankfin.2011.10.012

Minnis, M., & Sutherland, A. (2017). Financial Statements as Monitoring Mechanisms: Evidence from Small Commercial Loans. *Journal of Accounting Research*, *55*(1), 197–233. http://doi.org/10.1111/1475-679X.12127

Neuberger, D., & Räthke-Döppner, S. (2015). The role of demographics in small business loan pricing. *Small Business Economics*, *44*(2), 411–424. http://doi.org/10.1007/s11187-014-9602-4

Nyamboga, T. O., Nyamweya, B. O., Moulid, A., Felistus, A., & George, G. E. (2014). An Assessment of Financial Literacy on Loan Repayment by Small and Medium Entreprnuers in Ngara , Nairobi County. *Research Journal of Finance and Accounting*, *5*(12), 181–192.

Ono, A., Saito, Y., Sakai, K., & Uesugi, I. (2016). *Does Geographical Proximity Matter in Small*

Business Lending? Evidence from Changes in Main Bank Relationships (HIT-REFINED Working Paper Series No. 40). *HIT-REFINED Working Paper Series*. Tokyo. Retrieved from http://hermes-ir.lib.hit-u.ac.jp/rs/bitstream/10086/27732/1/wp040.pdf

Rose, P. S. (2002). *Commercial bank management* (5th ed.). Boston: McGraw-Hill Irwin.

Rose, P. S., & Hudgins, S. C. (2010). *Bank Management & Financial Services* (Internatio). Singapore: Mc Graw Hill.

Safi, R., & Lin, Z. (2014). Using Non-Financial Data to Assess Creditworthiness of Businesses in Online Trade. In *Pacific Asia Conference on Information Systems (PACIS) 2014 Proceedings* (p. 206). Retrieved from http://aisel.aisnet.org/cgi/viewcontent.cgi?article=1183&context=pacis2014

Shen, Y., Shen, M., Xu, Z., & Bai, Y. (2009). Bank Size and Small- and Medium-sized Enterprise (SME) Lending: Evidence from China. *World Development*, *37*(4), 800–811. http://doi.org/10.1016/j.worlddev.2008.07.014

Shin, H. H., & Park, Y. S. (1999). Financing constraints and internal capital markets: Evidence from Korean chaebols. *Journal of Corporate Finance*, *5*(2), 169–191.

Strahan, P. E. (2000). *Borrower Risk and the Price and Nonprice Terms of Bank Loans* (No. 90). *FRB of New York Staff Report*. http://doi.org/10.2139/ssrn.192769

Tabachnick, B. G., & Fidell, L. S. (1996). *Using multivariate statistics* (3rd ed.). New York: HarperCollins College Publishers.

Titman, S., & Wessels, R. (1988). The determinants of capital structure choice. *Journal of Finance*, *43*, 1–19.

Uchida, H. (2011). What Do Banks Evaluate When They Screen Borrowers? Soft Information, Hard Information and Collateral. *Journal of Financial Services Research*, *40*(1–2), 29–48. http://doi.org/10.1007/s10693-010-0100-9

Wasiuzzaman, S., & Nurdin, N. M. (2018). Debt Financing Decisions of SMEs in Emerging Markets: Empirical Evidence from Malaysia. *International Journal of Bank Marketing*.

Xiang, D., & Worthington, A. (2015). Finance-seeking behaviour and outcomes for small- and medium-sized enterprises. *International Journal of Managerial Finance*, *11*(4), 513–530. http://doi.org/10.1108/IJMF-01-2013-0005

Yoshino, N., & Taghizadeh-Hesary, F. (2015). Analysis of Credit Ratings for Small and Medium-Sized Enterprises: Evidence from Asia. *Asian Development Review*, *32*(2), 18–37.