Factors Influencing Small Medium Enterprises (SMES) in Obtaining Loan

Hasnah Haron
Graduate School of Business
Universiti Sains Malaysia
Pulau Pinang, Malaysia.

Saniza Binti Said
Graduate School of Business
Pulau Pinang, Malaysia.

K. Jayaraman
Graduate School of Business
Universiti Sains Malaysia
Pulau Pinang, Malaysia.

Ishak Ismail
School of Management
Universiti Sains Malaysia
Pulau Pinang, Malaysia.

Abstract

Small and Medium Enterprise (SMEs) are the backbone of all economies and a key source of economic growth. The important contribution of SMEs in Malaysia's economy, employment and industrialization has been well documented. Although their role in the economy is substantial, many SMEs are facing difficulties to access to financing, human capital, technology and market. Given that there are an issue to finance this is one of the main reasons for the inability of SMEs to sustain their business. Henceforth, it is important that this challenge is to be explored in depth. One of the main reasons why banking and financial institutions are reluctant to disburse funds to the SMEs is due to lack of collateral and good track record of the company. With this scenario in place, they are left with limited financing choices. The objective of the study is to examine as to whether the character (or management's knowledge of business) of having collateral and also the capacity of borrowing by the SMEs, which is measured by default in loan shown by CCRIS report (Central Credit Reference Information System), will have an influence on the loan approved by the bank officers. A 2 x 2 x 3 experimental within subject design was used in the study. This resulted in 12 cases to be answered by each respondent. Questionnaires were sent to bank managers and officers located in the northern region of Peninsular Malaysia (with centralized business centers) for respective loan applications. 63 bank officers participated in the study. Findings showed that all the three variables had significant effect on the likelihood of the loan approval by the financial institutions from the perspective of credit officers. SMEs should be better prepared when applying for loan with getting the collateral, good relationship with financial institution and having a good financial record. On the other hand government agencies assisting SMEs should educate them to ensure that they are equipped with the knowledge to prepare the required documentations required by the financial institutions.

Keywords: Small Medium Enterprises, Collateral, CCRIS (Central Credit Reference Information System) Close Relationship of Management with Financial Institutions

Introduction

The Small and Medium Enterprises (SMEs) play a vital role in the development of the Malaysian government's economic growth. SMEs assist in regional and local development as they accelerate industrialization in rural areas by linking them with the more organized urban sector. This helps achieve fair and equitable distribution of wealth by regional dispersion of economic activities.

In Malaysia, SMEs generally face difficulties in obtaining finance with lack of collateral and insufficient documents to support loan application. This lack of financial track record is the main constraint faced by Malaysian SMEs in accessing financing (Airs, 2007). SMEs are vital for economic growth and development in both industrialized and developing countries because they play a key role in creating new jobs. Financing is necessary to help them set up and expand their operations, develop new products, and invest in new staff or production facilities. Many small businesses start out as an idea from one or two people, who invest their own money and probably turn to family and friends for financial help in return for a share in the business. But if they are successful, there come at times for all developing SMEs when they need new investment to expand or innovate further. That is where they often run into problems, because they find it much harder than larger businesses to obtain financing from banks, capital markets or other suppliers of credit.

The global financial crisis have caused the financial institutions to be more cautious and credit processing has become more complex, that SMEs find it difficult to both understand the procedures and decisions when it come to the loan processing. The credit "crunch" appears to be even more severe among service providers. Many SMEs in the service sector do not own land and equipment, and as a result, it is difficult to provide any form of security or collateral to financial institutions.

Reflecting that, Bank Negara Malaysia (2004) stated that demand for new financing by businesses was higher in 2004. Loan applications received from businesses were increased by 20% in 2004, a turnaround from the decline of 7.7% in 2003.

Accessibility to finance is a major factor affecting the growth and success of SMEs, thus adequate access to financing is critical to enable SMEs to contribute to the economic development of the nation.

From a bank's perspective, the financing to SMEs is often regarded to be of higher risk due to the relative opaqueness of these firms as compared to larger firms (Berger & Udell, 2006). Previous studies have shown that management's relationship and track record of payment to the bank or financial institutions, presence of collateral and capacity of the Small Medium Enterprises to repay the loan are some of the factors that are being assessed by the credit officers of the banks or financial institutions when issuing out the loan.

Thus the objective of this study is to examine whether the factors have a significant influence on the loan assessment of the Small Medium Enterprises. Sections to follow will discuss the literature review, theoretical framework of the study, data collection, findings and finally will dwell on the implications of the study.

Literature Review

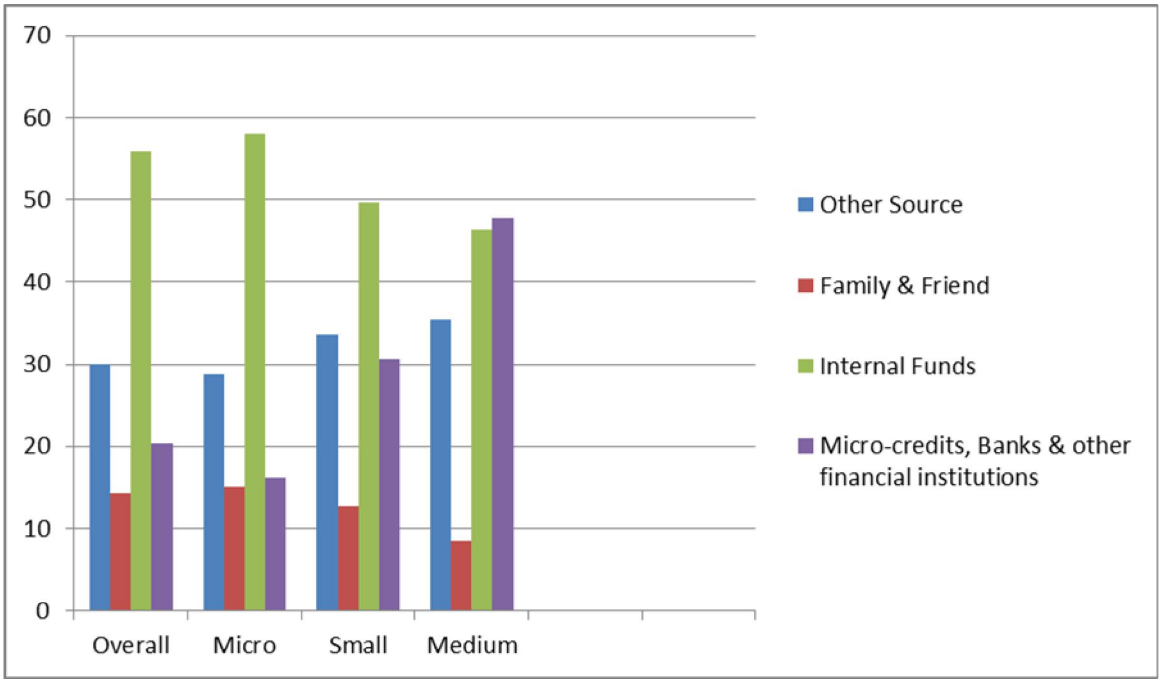
In Malaysia, the non-availability of finance has been the most frequently cited problem encountered by SMEs, and it is also a crucial issue to many of them. Chee (1986) noted that majority of SMEs indicated inadequate working capital and lack of access to commercial lending as their major problem.

Small and Medium Industries Development Corporation (SMIDEC) defined SMEs in Malaysia as:

- Manufacturing, Manufacturing-Related Services and Agro-based industries "Small and medium enterprises in the manufacturing, manufacturing related services and agro-based industries are enterprises with full-time employees not exceeding 150 OR with annual sales turnover not exceeding RM25 million".
- Services, Primary Agriculture and Information & Communication Technology (ICT) "Small and medium enterprises in the services, primary agriculture and Information & Communication Technology (ICT) sectors are enterprises with full-time employees not exceeding 50 OR with annual sales turnover not exceeding RM5 million".

As shown in Figure 1, Economic Census 2011, it is found that most SMEs (55.9%) sourced their finance from internally-generated funds or from shareholders to finance their operations in the 2011 Census. However, majority of medium-sized firms (47.7%) were able to source their funds from financial institutions, including commercial banks, micro-credit organisation and development financial institutions. In the case for microenterprises and small-sized firms, their main source of funding was from their own internally-generated funds. About three-quarters (75.6%) of SMEs financing was for working capital. The financing needs were similar across all sizes, namely microenterprise (74.6%), small-sized firms (77.8%) and medium-sized firms (74.2%). Other main activities which required financing (43.6%) were for purchase and lease of equipment, machinery, vehicles, computer hardware and software as well as land and buildings.

Figure 1: Access to Financing



Source: Economic Census 2011, Profile of Small and Medium Enterprises, Department of Statistics.

Hossain (1998) found that the most critical constraint that small and medium scale manufacturers mention is the lack of sufficient capital to operate the business. In most cases, businesses started using own savings and borrowing from friends and relatives followed by funding from banks. Banks are not willing to provide loans to small medium entrepreneurs as they present a high risk group. Small medium enterprises can sometimes are not interested to borrow from banks due to the tight procedural process and the length of time it might take to obtain the loan.

Loan Assessment

The broad principles that financial institutions apply to assess business's credit risks can be summarised as shown in Table 1:

Table 1: Principles of Lending

(1)	***Management / Character*** * Knowledge of the business experience and past projects * Past repayment records, reputation and commitment to business * Key management and business style * Succession plan, age and health
(2)	***Financial / Capacity*** * The capacity and ability of the business to repay loan (i) Primarily from the generation of sufficient cash flow (ii) Other sources of repayment
(3)	***Collateral*** * Security offered to compensate/mitigate weaknesses in the above for credit factors

Source: Bank Negara Malaysia. (2003).

SMEs - Your Loan Application and Financing Needs

Financial institutions in Malaysia generally assess the credit rating of potential borrowers through the Central Credit Reference Information System (CCRIS) or a similar type of bankruptcy search to look at capacity to pay of the borrowers.

Central Credit Reference Information System (CCRIS)

A majority of financial institutions report to the Credit Bureau at Bank Negara Malaysia (BNM) monthly on all their loans. CCRIS is a computerised database system that stores information that reports to the Credit Bureau. CCRIS currently contains credit information of about 5 million borrowers in Malaysia. CCRIS processes the credit data received from the financial institutions and summarises the information into credit reports, which can be made available to the financial institutions upon request. CCRIS report shows the total principal, interest and charges outstanding on each of the borrower's loans to include housing loans, personal loans, credit cards, car hire purchase and overdrafts. It also shows the number of months the borrower's payments are in arrears on a monthly basis for one year. A CCRIS report also shows other loans that the borrower has applied for as well as brief information on summonses or bankruptcy petitions if any.

Financial institutions will assess borrower's credit rating by analysing each debt item, looking at loan balances and trends and repayments track records. In general financial institutions will either reject or query debt repayments in arrears of more than 2 months. Some financial institutions are stricter than others. Financial institutions will also use existing debt and debt application balances in the CCRIS report to estimate how much total debt commitments the borrower has or are likely to have and the likely total monthly debt servicing amount.

A Credit Bureau, established by Bank Negara Malaysia under the Central Bank of Malaysia Act 2009 is set up to administer CCRIS. One of the functions of Bank Negara Malaysia is to regulate and supervise the financial institutions so that the financial system of the country would be sound and stable. As such, the Bank promotes prudent credit policies and professionalism among the financial institutions, including the adoption of best business practices in credit risk management. One way of doing this is by providing CCRIS to the financial institutions so that they can make faster and better informed lending decisions.

Factors Affecting Loan Approval and Hypotheses Development

Factors affecting loan approval in previous literature is much in line with the principles o lending as shown in Table 2 and they are management/character, collateral and capacity/CCRIS report.

Management/ Character

Character refers to the probability in fulfilling and honouring obligations by the SMEs. Hasnah Haron, Ishak Ismail, Yuvaraj Ganesan and Suraiya Md Mustafa (2012) have found that character/management plays a significant role on the probability of loans approved by credit officers. Recent attention to the role of small and medium size enterprise in economic development are driving banks to refocus on their small business clientele. Banks are not only to seek out for new business opportunity in today's competitive business environment but must also retain existing customers through relationship development. As stated by (Moriarty, Kimball & Gay, 1983) the relationship between small business firms and financial services providers has been the focus of much study in the management and marketing literature.

As described by Moriarty et al. (1983) relationship banking is recognition that the bank can increase its earnings by maximizing the profitability of the total customer relationship over time, rather than seeking to extract the most profit from any individual product or transaction. The transfer from a transaction oriented to one long-term interactive relationship expected to exist in the banking environment. Therefore the hypothesis of the study is as follows:

H1: Presence of character will increase the likelihood of loan approval.

CCRIS/ Capacity

In this study, capacity refers to the ability of the business to repay the loan. This is determined by looking at the Central Credit Reference Information System **(**CCRIS) report. Hasnah et al. (2012), has found that character/management plays a significant role on the probability of loans approved by credit officers.

Chauveau, Deartini, & Moneva (1996) found that small business financial reports were most relevant to internal (management) and external (bankers) users. Hence, there is an evidence t show that financial capacity of the borrower does affect the loan assessment by the financial institutions in making decision for the loan approval. Thus it is hypothesise that,

H2: Presence of capacity will increase the likelihood of loan approval.

Collateral

In this study, collateral refers to security or guarantee for the loan borrowed. Collateral acts as an indication enabling the bank to attenuate or eliminate the adverse selection problem caused by the existence of information asymmetries between the bank and the borrower at the time of the loan decision. Although bank knows the credit quality of the customers, the collateral helps to alleviate moral hazard problems once the loan has been granted. Consequently, problem of moral hazard faced by the bank in lending could be restrained by having collateral. As stated by Aghion and Bolton (1992), collateral can therefore be seen as an instrument ensuring good behavior on the part of borrowers, given the existence of a credible threat. Hasnah et al. (2012), has found that character/management plays a significant role on the probability of loans approved by credit officers.

In the case of Malaysia, SME financing is also relatively small, and thus, could not be the major source of income, or deposit, for the financial institutions. Moreover, it is difficult to obtain information and supportive documents to justify the validity and creditability of SME businesses since most SMEs do not keep proper records of their business transactions. Banks are starting point of external credit but they are reluctant to lend to small and medium enterprises (SMEs) due to the high credit risk involved. In view of that, Credit Guarantee Corporation (Malaysia) Limited (CGC) was set up to assist SMEs to secure loans from financial institutions in Malaysia. CGC is the only issuer of credit guarantees to SMEs, the performance of CGC directly reflects the availability of credit guarantees to SMEs. In 2006, CGC has shown commendable progress in providing wider credit enhancement products, advisory services on financial and business development and credit information services besides provider of credit guarantees. (www.bnm.gov.my)

Collateral is less likely to be required for older, more established firms. Collateral also may be used to lessen some of the moral hazard related monitoring issues in business lending. As displayed by (Boot, Thakor & Udell, 1991), even after accounting for the cost of repossessions, banks may use collateral to reduce moral hazard problems when lenders are able to take unobservable *ex post* actions that affect project payoffs. Thus this study hypothesised that,

H3: Presence of collateral will improve the likelihood of loan approval.

Management/Character and CCRIS/ Capacity

Srinivasan and Kim (1987), stated that decisions regarding credit risk assessment concern the evaluation of the firms' financial and non-financial characteristics in order to make ''optimal'' decisions that incorporate a trade off between the potential risk of loss and the probability of profits from granting credit. Actually, credit-granting decisions are usually realized by credit and financial analysts as sorting (classifying) the firms seeking financing from banks or credit institutions into categories according to their creditworthiness (i.e., creditworthy and insolvent firms). In financial management, it is a duty of credit/financial analysts to investigate a large volume of financial and non-financial data of firms, estimate the corresponding credit risk, and finally make crucial decisions regarding the financing of firms. It is thus hypothesised as follows:

H4: 2 way interactions between character and capacity will influence the likelihood of loan approval.

Management/ Character and Collateral

Berger and Udell (1995), using the 1987 NSSBF data has found that *both* the incidences of collateral and credit costs fall with the length of the bank–borrower relationship for line of credit ("L/C") loans. Loans to small businesses with little reputation or verifiable accounting practices and monitored by relationship building may seem even more risky, requiring higher rates and more collateral. Despite that, the nature of this relationship also can affect the collateral usage.

Thus it is hypothesised that,

H5: 2 way interactions between character and collateral will influence the likelihood of loan approval

CCRIS/ Capacity and Collateral

Very often SMEs lack the accounting knowledge and do not have proper financial reporting to reflect their financial position. In expanding the business further, SMEs need financial assistance to facilitate the business requirement. Financial provider like banks and other credit agencies are having problems in providing the loan to SMEs.

Banks are reluctant to lend to SMEs as quite a substantial amount of risk is involved in SME lendings. The provision of management forecasts, along with the reasonableness of the underlying assumptions, also affected bank loan officers' probabilities of granting a loan.

Thus it is hypothesised that,
H6: 2 way interactions between capacity and collateral will influence the likelihood of loan approval.

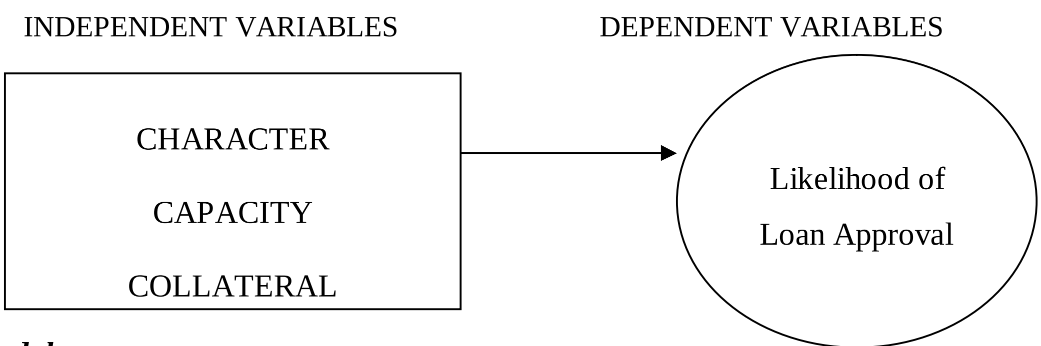
Management/ Character, CCRIS/ Capacity and Collateral
Relationship development will reduce the gap between the two parties, which includes track records, forecasts and some form of collateral. Deeper understanding on the characteristics, objective and constraints will allow mutual expectations with a good relationship. Thus it is hypothesised that,

H7: 3 ways interaction between character, capacity and collateral will influence the likelihood of loan approval.

Theoretical Framework

Based on the previous literature, the theoretical framework of the study is as shown n Figure 2. The study consists of the following variables, management, capability (represented by CCRIS), collateral and likelihood of loan approval.

Figure 2: Research Model



Methodology

Population/sample

The population for this study will be the credit officers responsible for providing loan for SMEs Malaysia. In terms of geographical location and distribution, most of the manufacturing companies are located in the central parts of Malaysia and around the major industrial regions. Penang is one of the major industrial regions as most of the manufacturing sector is located in Penang (island and mainland). Hence, this study uses Northern Peninsular Malaysia to represent Malaysia on the SMEs development. The population will be restricted to only Northern Peninsular Malaysia Bank that is: Penang, Kedah and Perlis in mainland and within Penang Island and Kedah. The sampling frame was the commercial banks, and SME Bank that currently participate in giving loan to SMEs. The sampling units were the bank managers and officers in these banks who are involved in business centre analyzing credit application.

Firstly, SME Banks running their assessment via business centre (performing the loan evaluation functions) were identified. Four banks with centralized business centers were then identified. Secondly, these banks were contacted to ascertain their willingness to participate in this survey. Positive affirmation had been obtained on their willingness to be involved in this project. Bank managers and officers who are involved with the centralized business centers for respective loan applications are the best person to interpret the success of this evaluation method. These decision makers have the right information of how evaluation functions are done as they have done the evaluation. Questionnaires were distributed to 124 bank managers and officers but finally only 63 were returned and usable. According to Roscoe (1975), sample size larger than 30 and less than 500 are appropriate for most research (as cited in Sekaran, 2000), thus 63 is an appropriate sample size.

Instrument design

This research used quasi-experimental study and within subject design approach whereby the one respondent will answer all 8 cases or scenario. Formation of scenario is based on the combination case needed from this research design as per Table 2.

Character, capacity and collateral will be of two levels e.g. present and absent. 2(character) x 2(collateral) within subject x 3 (levels) between subject design was used. 12 combination cases will be used as per Table 9. All 12 cases will be given to credit officer to be answered.

Table 2: Experimental Design of Study

Case	Management/Characater (2 levels- present, absent)	Collateral (2 levels- present, absent)	CCRIS/Capacity (3 levels- 1 mth, 2mths, 3 mths)
1	Present	Present	1 mth
2	Absent	Absent	2 mths
3	Present	Present	3 mths
4	Absent	Absent	1 mth
5	Present	Present	2 mths
6	Absent	Absent	3 mths
7	Present	Absent	1 mth
8	Absent	Present	2 mths
9	Present	Absent	3 mths
10	Absent	Present	1 mth
11	Present	Absent	2 mths
12	Absent	Present	3 mths

Illustration of Case

A case scenario will be developed where the variables will be manipulated.

Illustration of a case is as follows:

Scenario 1

PCS SDN BHD. is principally engaged in manufacturing fin and swimming wear. The Company owns by two directors which at age of 65 and 22 respectively. The authorized capital of the company is RM1 million, however, the paid up capital is only RM350, 000.00. There are 35 employees assisting the Company in the daily operation of producing the fin. The Company is producing the products for export only. The Company is applying the loan amounting to RM3.5million.

Management	:	The customer has maintained an account with the bank for the past 5 years
CCRIS Report	:	Default payment for 1 month of existing financing
Collateral	:	Presence of adequate security

Based on the above information, please rate (by mark "x") at any of the line based your assessment on the likelihood that the loan will be approved.

Very Unlikely	Very Likely

Respondents are asked to indicate his or her response by placing an "X on the horizontal line given.

Analysis

Table 3 shows that out of 63 questionnaires received, highest participation is from Bank C with 41.27%.

Profile of Respondents' Organizations

Table 3: Respondents' Organization Profiles

	Organization	N	State	Frequency	Percentage
1)	Bank A	10	Perlis	1	1.59%
			Kedah	4	6.35%
			Pulau Pinang	5	7.93%
				10	15.87%
2)	Bank B	22	Perlis	1	1.59%
			Kedah	8	12.70%
			Pulau Pinang	13	20.63%
				22	34.92%
3)	Bank C	26	Perlis	1	1.59%
			Kedah	9	14.28%
			Pulau Pinang	16	25.40%
				26	41.27%
4)	Bank D	5	Perlis	1	1.58%
			Kedah	2	3.18%
			Pulau Pinang	2	3.18%
				5	7.94%
	TOTAL	**63**		**63**	**100.00**

Profile of Respondents

Table 4 shows that 57.14% of the respondents were male, 36.51% were age between 36 to 55, 44.44% are graduated from college with Diploma, 36.51% were having experience between 11 to 15 years in credit department, 44.44% were holding middle management position. Every level of management has the same power of making decision on the loan approval process.

Table 4: Respondents' Profiles

	Profiles	N	Characteristics	Respondents	
				Frequency	Percentage
1)	Gender	63	Female	27	42.86%
			Male	36	57.14%
			TOTAL	63	100.00%
2)	Age		Under 25	16	25.40%
			Between 26 to 35	13	20.63%
			Between 36 to 55	23	36.51%
			Above 55	11	17.46%
			TOTAL	63	100.00%
3)	Education		Secondary/High School	20	31.75%
			College/Diploma	28	44.44%
			University Graduate	11	17.46%
			Postgraduate	4	6.35%
			TOTAL	63	100.00%
4)	Experience		Less than 5 years	19	30.16%
			Between 6 to 10 years	11	17.46%
			Between 11 to 15 years	23	36.51%
			More than 15 years	10	15.87%
			TOTAL	63	100.00%
5)	Position		Top management	19	30.16%
			Middle management	21	33.33%
			First level management	23	36.51%
			TOTAL	63	100.00%

Table 5 identifies the 12 scenario of the repeated independent variables and credit parameter. Respondents are asked to rate their opinion on the likelihood of loan approval by "crossing" (X) on a straight line measuring 16.35cm. The line is then measured and converted to 10cm.

Table 5: 12 scenarios

SCENARIO	DESCRIPTION*			MEAN
	MANAGEMENT/CHARACTER	*CCRIS/CAPACITY*	*COLLATERAL*	
1	Present	1 month	Present	8.79
2	Absent	2 months	Absent	4.73
3	Present	3 months	Present	4.56
4	Absent	1 month	Absent	3.62
5	Present	2 months	Present	4.92
6	Absent	3 months	Absent	1.50
7	Present	1 month	Absent	4.46
8	Absent	2 months	Present	4.09
9	Present	3 months	Absent	2.07
10	Absent	1 month	Present	6.65
11	Present	2 months	Absent	3.35
12	Absent	3 months	Present	1.91

Note:

**Management 1 – Present, 2 – Absent*
**Collateral 1 – Present, 2 – Absent*
**CCRIS – 1 month, 2 months and 3 months default*

The results shows that Scenario 1 is most likely to be given the loan approval with a mean at 8.49 which is the highest score where the management and collateral present, and the number of months default for other loan is minimum which is 1 month. The least scenario to get the loan approval is Scenario 6 with a mean of 1.50, where the management and collateral are absent and the number of default month is at a maximum at 3 month.

By calculating the mean which is 4.22(50.65/12), Table 6 shows that 6 scenarios that are above mean and 6 scenarios below the mean. The scenarios have been ranked as below:

Table 6: Ranking of Scenario

SCENARIO	DESCRIPTION*			MEAN	RANK
	MANAGEMENT/CHARACTER	*CCRIS/CAPACITY*	*COLLATERAL*		
Above Mean (more than 4.22)					
1	Present	1 month	Present	8.79	(1)
10	Absent	1 month	Present	6.65	(2)
5	Present	2 months	Present	4.92	(3)
2	Absent	2 months	Absent	4.73	(4)
3	Present	3 months	Present	4.56	(5)
7	Present	1 month	Absent	4.46	(6)
Below Mean(above mean 4.22)					
8	Absent	2 months	Present	4.09	(7)
4	Absent	1 month	Absent	3.62	(8)
11	Present	2 months	Absent	3.35	(9)
9	Present	3 months	Absent	2.07	(10)
12	Absent	3 months	Present	1.91	(11)
6	Absent	3 months	Absent	1.50	(12)

Table 6 shows that the collateral which is more objective are more important than the management which is the relationship is subjective. The second best scenario to get loan approval is Scenario 10 with a mean of 6.65, but at this point, the management is absent but the collateral is present and number of defaulter month also at 1 month only. This proves that the collateral is the most important factors in the decision of loan approval process as compared to the management.

It can also be seen from Table 6 that by comparing the Scenario 10 at rank no. 2 with the Scenario 7 at rank no. 6 where the number of month default for existing loan is only 1 month, the percentage to get the loan approval is more higher when the collateral is present compared to when the collateral is absent which is 6.65 and 4.46. Under 2 months of defaulter under CCRIS, under Scenario 8(4.09) and Scenario 11(3.35), the result also shown that the percentage of getting loan approval is higher when there is present of collateral. When there is 3 months defaulter under CCRIS, the chances of getting loan approval is higher when the collateral is present (Scenario 12) compared to when the collateral is absent (Scenario 6).

Hypothesis Testing

Table 7 shows that the main effects of all the three independent variable, i.e. management, CCRIS and collateral are all insignificant for the loan approval decision. The F statistics for CCRIS (490.33) and associated with significant level (p<.000) indicate that there is a significant difference of the loan approval when there is minimum no of month default with the maximum no of month default.

For c**ollateral**, the F statistics (249.07) and the significant level (p<.000) indicates that there is also a significant difference of the loan approval when collateral is present compared to when there is an absent of collateral.

As for **management**, the F statistics (62.47) and the significant level (p<.000) indicates that there is a significant difference of the loan approval when the customer is an existing customer to the bank or as a new customer to the bank. Therefore hypothesis 1, 2 and 3 is supported.

Table 7: Multivariate Test for 12 scenarios

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Management	Sphericity Assumed	166.999	1	166.999	62.467	.000
	Greenhouse-Geisser	166.999	1	166.999	62.467	.000
	Huynh-Feldt	166.999	1	166.999	62.467	.000
	Lower-bound	166.999	1	166.999	62.467	.000
CCRIS	Sphericity Assumed	1435.041	2	717.520	327.542	.000
	Greenhouse-Geisser	1435.041	1.727	830.794	327.542	.000
	Huynh-Feldt	1435.041	1.772	809.710	327.542	.000
	Lower-bound	1435.041	1	1435.041	327.542	.000
Collateral	Sphericity Assumed	656.506	1	656.506	249.071	.000
	Greenhouse-Geisser	656.506	1	656.506	249.071	.000
	Huynh-Feldt	656.506	1	656.506	249.071	.000
	Lower-bound	656.506	1	656.506	249.071	.000
Management * CCRIS	Sphericity Assumed	140.403	2	70.201	35.388	.000
	Greenhouse-Geisser	140.403	1.961	71.602	35.388	.000
	Huynh-Feldt	140.403	2	70.201	35.388	.000
	Lower-bound	140.403	1	140.403	35.388	.000
Management * Collateral	Sphericity Assumed	163.815	1	163.815	52.356	.000
	Greenhouse-Geisser	163.815	1	163.815	52.356	.000
	Huynh-Feldt	163.815	1	163.815	52.356	.000
	Lower-bound	163.815	1	163.815	52.356	.000
CCRIS * Collateral	Sphericity Assumed	341.839	2	170.920	71.913	.000
	Greenhouse-Geisser	341.839	1.772	192.908	71.913	.000
	Huynh-Feldt	341.839	1.820	187.784	71.913	.000
	Lower-bound	341.839	1	341.839	71.913	.000
Management * CCRIS * Collateral	Sphericity Assumed	7.403	2	3.701	2.610	.078
	Greenhouse-Geisser	7.403	1.991	3.717	2.610	.078
	Huynh-Feldt	7.403	2	3.701	2.610	.078
	Lower-bound	7.403	1	7.403	2.610	.111

*Note:*significant level is at 5% level of significant*

Results show that all seven hypotheses were accepted.

Findings

Hypothesis 1 – Presence of management influences the likelihood of loan approval

The results obtained from this study shows that the relationship of the SMEs with the financial institutions contributes to the decision process of the loan approval. Practically, the existing customer of the banks will have a better chance of the loan being approved.

Hypothesis 2: Presence of CCRIS influences the likelihood of loan approval

The level of CCRIS from this study also affects the decision on loan approval. The lesser the number of months the SME is in default of payment (in this study 1 month is minimum) will contribute to higher chances of getting the loan approved. Information from the CCRIS report has shown to have an affect on the financial institutions' decision on the capacity of the SMEs to repay the loan.

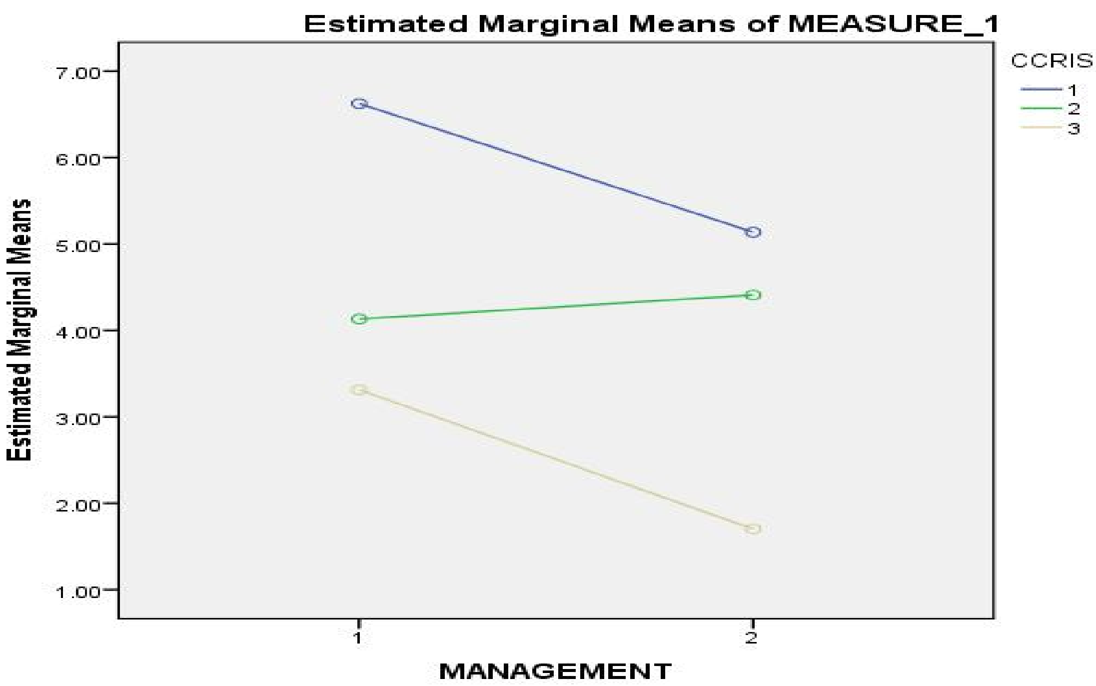
Hypothesis 3 –Presence of Collateral Influences the Likelihood of Loan Approval

This study found that collateral is the most important factors in order to ensure the repayment of the loan. Collateral is considered as a security for the banks in cases where the primary repayment is adversely affected and the borrowers default.

Hypothesis 4 –2 Way Interactions of management and CCRIS of the Likelihood of Loan Approval

Figure 3 shows the two way relationship between CCRIS and collateral. The number of months default under CCRIS will also affect the loan approval process. When the collateral is absent, and there is 3 months of default under CCRIS, the percentage of getting the loan being approve is lowest as compared to when the CCRIS is at 1 month with the collateral is present. For the situation where the CCRIS is at 2 months, the chance to get the loan approval is equal whether the collateral is present or absent.

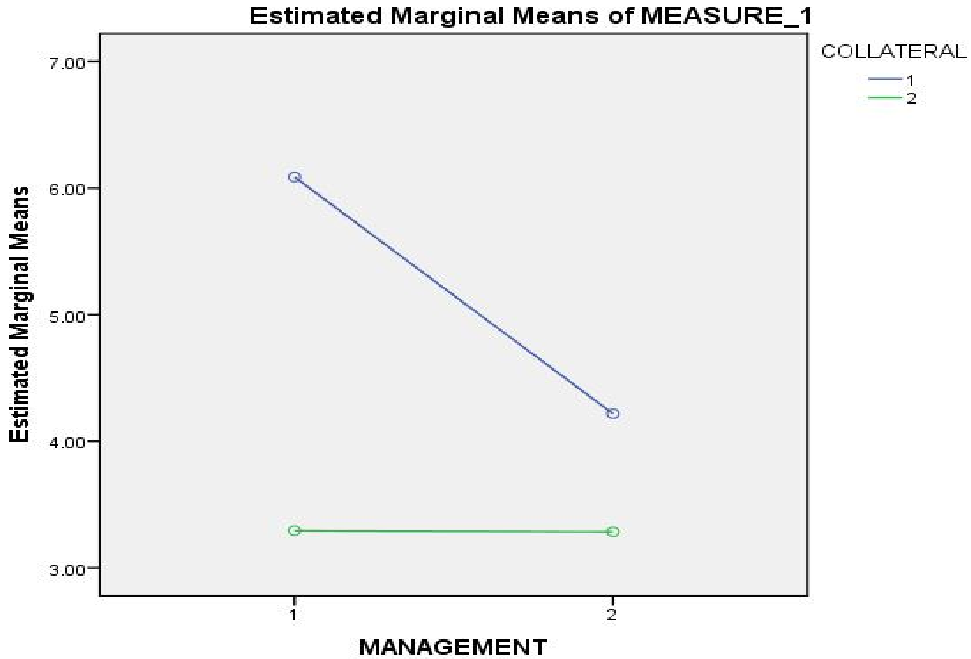
Figure 3: 2 way interactions between CCRIS and collateral will influence the likelihood of loan approval



Hypothesis 5 –2 Way Interactions of management and collateral of the Likelihood of Loan Approval

Figure 4 shows that the collateral is important and the presence of collateral will give higher chance for the SMEs in obtaining loan.

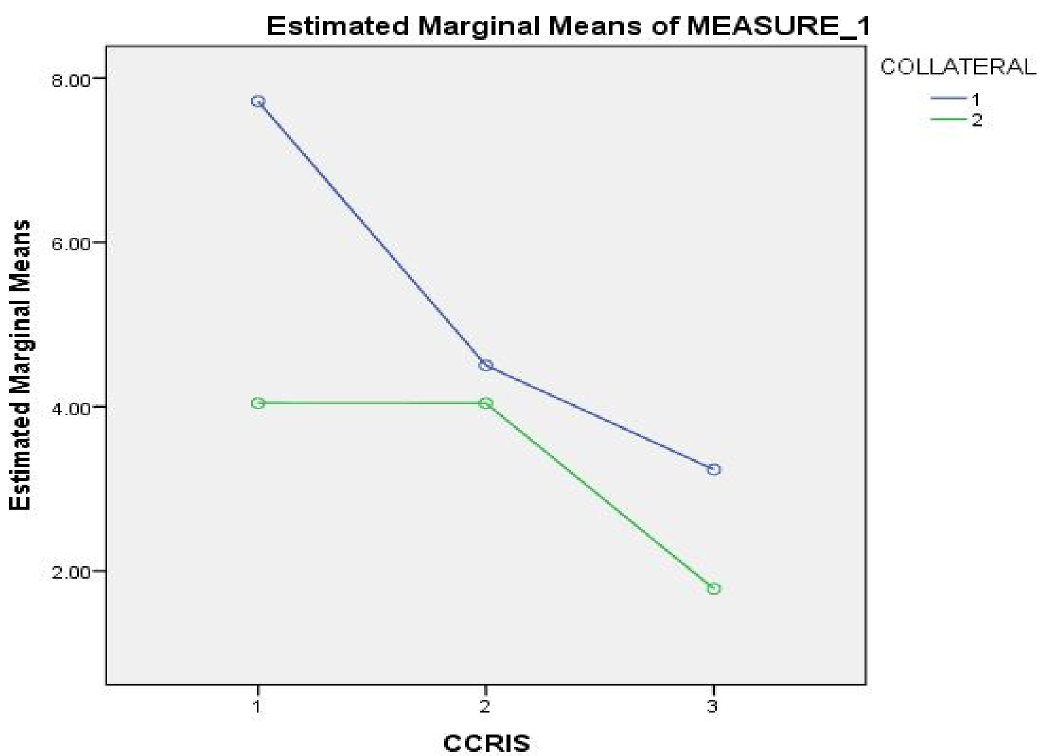
Figure 4: 2 way interactions between management and collateral will influence the likelihood of loan approval



Hypothesis 6 –2 Way Interactions between CCRIS and collateral of the Likelihood of Loan Approval

Figure 5 shows that when the collateral is absent, and there is 3 months of default under CCRIS, the percentage of getting the loan being approved is lowest as compared to when the CCRIS is at 1 month with the collateral is present. For the situation where the CCRIS is at 2 months, the chance to get the loan approval is equal whether the collateral is present or absent.

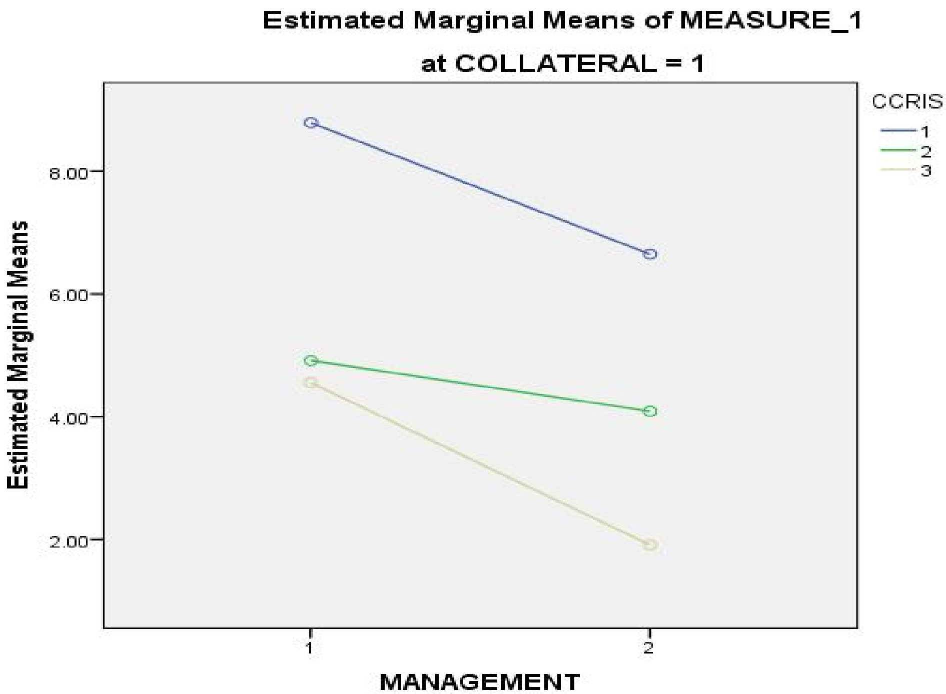
Figure 5: 2 way interactions between CCRIS and collateral will influence the likelihood of loan approval



Hypothesis 7 –3 Way Interactions between management, CCRIS and collateral of the Likelihood of Loan Approval

Figure 6 shows that 3 way interactions between management, CCRIS and collateral in the situation where the COLLATERAL is PRESENT. It can be seen that, when the collateral is present, the chances to get the loan approval is higher when the CCRIS is only 1 month comparing to if the CCRIS is 3 month. The relationship between the customers with the management will enhance the percentage of the loan approval. This is where the existing customer will get higher chances to get their loan approved compared to the new customers.

Figure 6: 3 way interactions between management, CCRIS and collateral



Conclusions

The findings supported Hasnah et al.'s study (2012) that shows that character, collateral and capacity are factors that SMEs should equip themselves with when submitting their loans to the financial institutions as the study has proven that all three factors are assessed individually or simultaneously (as shown by 2 way and 3 way interaction effect) when assessing the loan of SMEs. This study has also shown that collateral which is a more "objective and tangible measurement" is more important than management/character which is a more "subjective and intangible measurement".

Limitations of this Study and Recommendation for Future Research

Small sample size and sample limited to the Northern part of Malaysia could lead to results being not generalizable to the larger population. In future, larger sample size covering east and west Malaysia could be considered so as to make the results more generalisable. Future studies could also consider qualitative or case study research. Interviews with the credit officers or SMEs could lead to a more in depth insights of issues being examined.

References

Aghion, P and Bolton, P. (1992). An Incomplete Contracts Approach to Financial Contracting. Retrieved on 1 February 2013 from https://www2.bc.edu/~chemmanu/phdfincorp/MF891%20papers/Aghion%20and%20Bolton%201992.pdf

Aris, Normah Mohd (2007), *SMEs Building Blocks for Economic Growth*, Department of Statistics Malaysia.

Bank Negara Malaysia (2004). Report on Small and Medium Enterprise Development Framework. Retrieved on 13 March 2013 from http://www.bnm.gov.my/files/publication/ar/en/2004/cp01_002_whitebox.pdf

Bank Negara Malaysia. (2003). Small and Medium Enterprise – Your Loan Application and Financing Needs. Retrieved on 15 February 2013, from http://www.bankinginfo.com.my/_system/media/downloadables/sme_loans.pdf

Berger , A.N and Udell, G.F. (1995). Relationship Lending and Lines of Credit in Small Firm Finance. Retrieved on 24 Febriaru 2013 from http://scholarcommons.sc.edu/cgi/viewcontent.cgi?article=1009&context=fin_facpub

Berger, A.N. and Udell, G.F., 2006. A more complete conceptual framework for SME finance. Journal of Banking and Finance 30.

Biro Kredit, Bank Negara Malaysia, (2002), *Central Credit Reference Information System* (CCRIS)

Boot, Arnoud, W.A; Thakor, Anjan V. and Udell, Gregory F.(1991). Secured Lending and Default Risk: Equilibrium Analysis, Policy Implications and Empirical Results. The Economic Journal, Vol.101, No.406, May, pp 458-472.

Chee, P. L., 1986, *Small industry in Malaysia.* Kuala Lumpur: Berita Publishing Sdn. Bhd

Chapter 5, *SME Annual Report 2007*, Bank Negara Malaysia. (Pp. 67 - 102)

Chauveau, B., Deartini, P. & Moneva, J. M. (1996) Usefulness of small business financial reporting in Europe: the case of Spain, France and Italy. A paper presented in European Accounting Association, Bergen, Norway

Economic Census (2011), Profile of Small and Medium Enterprises. Department of Statistics, Malaysia.

F. Modigliani and M.H. Miller. (1958)*"The Cost of Capital, Corporate Finance and the Theory of Investment,"* American Economic Review, vol. 48, pp.261-297

Hasnah Haron, Ishak Ismail, Yuvaraj Ganesan and Suraiya Md Mustafa. (2012). Factors Influencing Loan Approval of SMEs. Paper presented at 14th Malaysian Finance Association Conference 2012. "Emerging Markets and Financial Resilience: Decoupling Growth from Turbulence." Parkroyal Hotel, Penang on 1 – 3 June, pp. 708-729. ISBN: 978-967-394-093-6

Hossain, Najmul. (1998). Constraints to SME Development in Bangladesh, in Job Opportunities and Business Support (JOBS) Program. Cited in Syed Manzur, Quader and

Muhammad Nayeen Abdullah. 2009. Constraints to SMEs: A Rotated Factor Analysis Approach. A Research Journal of South Asian Studies, Vol. 24, No.2, July-December, pp.334-350. Retrieved in 3 April 2013 from http://pu.edu.pk/images/journal/csas/PDF/11-Syed%20Manzur%20Quader.pdf

Moriarty, R. T.; Kimball, R. C. and Gay, J. H. (1983), "The management of corporate banking relationships", Sloan Management Review, Spring, pp. 3-15.Cited in Proenco, Jolio and Castro, Luis, M. Banking and Financial Service Relationships. Retrieved on February 2013 from https://www.escholar.manchester.ac.uk/api/datastream?publicationPid=uk-ac-man-scw:2n508&datastreamId=FULL-TEXT.PDF

Sekaran, U. (2000). Research Methods for Business: A Skill Building Approach. 4th Edition. *John Wiley & Sons Inn*, New York.

Srinivasan, V., Kim, Y.H. (1987). Credit granting: A comparative analysis of classification procedures. *The Journal of Finance*, XLII/3, 665–683.