A conceptual paper on factors influencing Financial Institutions on lending technologies to technology-based SMEs in the northern region of Malaysia

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ABSTRACT

The unavailability of external financing and lack of access to formal finance are topics of significant research interest to academicians and important issues to policy makers around the globe. However compared to large firms, SMEs frequently tend to report financing as a major obstacle. The financial constraints of SMEs to access to finance are beyond question by many researchers. Thus, this study attempts to discuss the factors that lead to influence financial institutions in lending technologies to provide finance to SMEs in Malaysia. The methodologies on the relationship between the requirements of financial institutional and the type of lending technologies provided for SMEs is illustrate. This conceptual paper is aimed to improved the theoretical parts of analysis, on the factors influencing Financial Institutions on lending technologies to technology-based SMEs in the northern region of Malaysia and identify the challenges issues regarding the requirements of financial providers based on the lending technologies adoption, be it transaction lending or relationship lending. Furthermore, the methodologies will also be able to assist researchers to get more information on the unique needs for finance of SMEs and tailor the finance providers' requirements to be SMEs friendlier i.e. better meet SMEs ability and needs in order to achieve win-win situation.

1. Introduction

Small and Medium Enterprises (SMEs) have played a very important role in the global economic development. They are deemed to generate employment, encourage entrepreneurship, help diversify economic activities, and make significant contribution to exports and trade. More generally, the development of SMEs is seen as accelerating the achievement of wider socio-economic objectives, including poverty alleviation. Therefore focused support for SME sector will be of utmost important for the country to achieved sustainable economic development.

At present, the unavailability of external financing to SMEs and the lack of access to formal finance are topics of significant research interest to academicians and important issues to policy makers around the globe. According to International Trade Centre, in the Asia-Pacific region, SMEs generate only around 30% of exports, mainly due to lack of access to finance. As for the empirical evidence, Ayyagari, Demirgüç-Kunt, and Maksimovic (2006) point out that, worldwide, SMEs frequently tend to report financing as a major obstacle compared to large firms. The main reason is that the financing of small businesses is manifestly different from that of large businesses. Large businesses have ready access to equity capital markets, such as Bursa Malaysia, which are not accessible to the vast majority of small businesses. The lack of equity capital invested in small firms forces these businesses to seek out access to finance, which tend to be government grant and financing, bank lending and other types of financial products. These different of access to finance characteristics require different policy responses to foster a functioning finance market for all small firms. Again, the requirements from finance providers do not always fully meet the ability of SMEs, rendering it harder than large firms to acquire finance that is accessible, appropriate and affordable.

In Malaysia for example, there are a lot of financing facilities allocated for Malaysian SMEs. The facilities are either channeled via financial institutions appointed by Bank Negara Malaysia or through government agencies. However, do the requirements set by financial providers fully meet the needs of Malaysian SMEs? And, do the requirements set by financial providers take into consideration the ability of SMEs? Or are the SMEs able to fully meet the requirements set by financial providers in order to qualify for the facilities? Or are the SME managers well equipped to produce bankable proposals that would attract and embolden banks to lend to SMEs? Are they facing a win-win situation? If not, what are the financial constraints of SMEs to access to finance? Thus, this study intends to answer those entire questions. To be more specific, the aim of this study is to improved the theoretical parts of analysis, on the factors influencing Financial Institutions on lending technologies to technology-based SMEs in the northern region of Malaysia and identify the challenges issues regarding the requirements of financial providers based on the lending technologies adoption, be it transaction lending or relationship lending.

2. Literature review

2.1 Definition of SME

According to the SME Malaysian Corporation, the definition of SME is based on two criteria, namely: number of employees; or annual sales turnover. Therefore, an enterprise will be classified as an SME if it meets either the specified number of employees or annual sales turnover definition. The table 1 and 2 below summarizes the approved SME definitions based on number of full-time employees and annual sales turnover:

Table 1: Number of Employees

Based on the number of full-time employees:

	Primary Agriculture	**Manufacturing (including Agro-Based) & MRS***	**Services Sector (including ICT**)**
Micro	Less than 5 employees	Less than 5 employees	Less than 5 employees
Small	Between 5 & 19 employees	Between 5 & 50 employees	Between 5 & 19 employees
Medium	Between 20 & 50 employees	Between 51 & 150 employees	Between 20 & 50 employees

*MRS : Manufacturing-Related Services
** ICT : Information and Communications Technology

Table 2: Annual Sales Turnover

Based on annual sales turnover:

	Primary Agriculture	**Manufacturing (including Agro-Based) & MRS***	**Services Sector (including ICT**)**
Micro	Less than RM200,000	Less than RM250,000	Less than RM200,000
Small	Between RM200,000 & less than RM1 million	Between RM250,000 & less than RM10 million	Between RM200,000 & less than RM1 million
Medium	Between RM1 million & RM5 million	Between RM10 million & RM25 million	Between RM1 million & RM5 million

*MRS : Manufacturing-Related Services
** ICT : Information and Communications Technology

2.2 Financial facilities in Malaysian SME

Reflecting the diversified nature of the Malaysian economy, SMEs increasingly require more customized and differentiated financial products and services for their unique requirements. According to SME Annual Report, SME financing needs are based on three key stages of the business life-cycle - namely, start-up, business expansion and rehabilitation. Currently, financial institutions remain the largest source of funding for SMEs. Conventional as well as Islamic financing products are available for a wide range of SME needs. These would cover items like term loans, leasing and industrial hire-purchase for asset acquisitions or business expansions; overdrafts, revolving credit facilities and factoring for working capital; letters of credit (LC), trust receipts, banker's acceptance (BA) and Export Credit Refinancing (ECR) for trade financing; and bank guarantee as well as shipping guarantee facilities[2].

In addition, to provide greater financial accessibility, the Malaysian government provides a comprehensive set of programs through the various ministries and agencies, which are broadly categorized into Financial Assistance and Business Support Service. The category of government financial assistance consists of soft loan, grants, equity financing, venture capital, guarantee scheme and tax incentives.

2.3 The constraints of SME access to finance

According to numerous studies conducted by European researchers, their studies shows that SMEs with high-technologies businesses (including SME in bio-technologies) face distinct challenges when accessing finance compared to other sectors of SME. Most high-tech start-ups lack long-term investment capability. They require larger markets to generate revenue to recover high development costs and this will reflect high financial risk and challenges. In addition Berger (2006) states that lending technologies are the key conduit through which government policies and national financial structures affect credit availability.

Whereas, the literature on economic development and corporate finance consistently demonstrates that inadequacies in relation to finance are key barriers to firm growth. Schiffer and Weder (2001) argued that SME find accessing financing more difficult than larger firms. They rank all the obstacles firms face in doing business and find that financing is a top problem for SMEs, which rate is higher than larger firms. In addition to above mentioned, according to word bank (2004) SME are usually more credit constrained than other segments of the economy because of the following: (a) financial sector policy distortions; (b) lack of know-how on the part of banks; (c) information asymmetries, for example, lack of audited financial statements; and (d) high risks inherent in lending to SMEs. Furthermore the researched done by Stiglitz & Weiss (1981) proved that lending to small business can be difficult to financial institutions because of informational opaqueness, moral hazard, and adverse selection problems. Beck et al. (in press) also raised that size; age and ownership are the most reliable predictors of firms' financing obstacles.

Besides that, most of the literature stated that lending technologies play a key role as the conduit through which government policies and national financial structures affect SME credit availability (e.g., Stein, 2002; Berger & Udell, 2002). Lending technologies are often categorized into two types: a transaction lending that is based primarily on ''hard'' quantitative data and relationship lending, which is based significantly on ''soft'' qualitative information. There are a number of distinct transactions technologies used by financial institutions, including financial statement lending, small business credit scoring, asset-based lending, factoring, fixed-asset lending, and leasing. While relationship lending focuses on qualitative and non-verifiable information, such as entrepreneur's skill and competence that banks collect through long-term relationship and multiple transactions with borrowers.

3. THEORETICAL FRAMEWORK AND RESEARCH METHODOLOGY

Figure 3.1 illustrates the schematic diagram for the theoretical framework for this study.

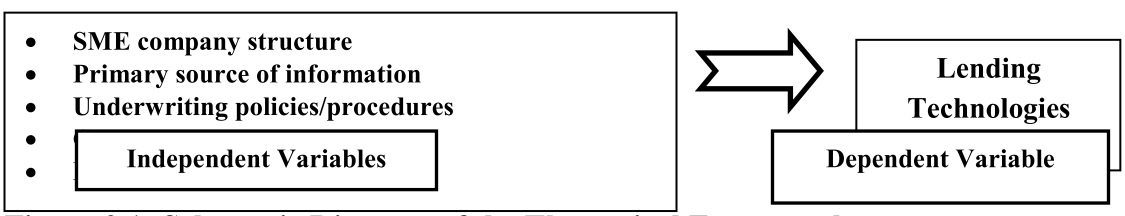

Figure 3.1: Schematic Diagram of the Theoretical Framework.

Lending technology is the dependent variable and independent variables are: SME company structure, primary source of information, underwriting policies/procedures, contract feature and monitoring strategies

3.1 Research Hypotheses

The study intended to see the relationship between SME company structure, primary source of information, underwriting policies/procedures, contract feature and monitoring strategies towards the accessibility to the lending technologies provided by financial institutional.

From the above theoretical framework, the following hypotheses were derived:

H1 : There is a positive relationship between SME company structure and lending technologies in Financial institutional

H2 : There is a positive relationship between primary source of information and lending technologies in Financial institutional

H3 : There is a positive relationship between underwriting policies/procedures and lending technologies in Financial institutional

H4 : There is a positive relationship between contract feature and lending technologies in Financial institutional

H5 : There is a positive relationship between monitoring strategies and lending technologies in Financial institutional

3.2 Research Approach

A self-designed questionnaire was used to gather the research data. The questionnaire consisted of three parts. The first part comprised of size, characteristic, and profile information of the respondents. The respondents were asked to rank statements on contextual condition related to each success factor faced by the respondents in the second part. This part consisted of 20 questions which were intended to measure factors influencing lending technologies, using 5-point liker scale anchored by strongly agree to strongly disagree. The factors were SME company structure, primary source of information, underwriting policies/procedures, contract feature and monitoring strategies. In the third part, the respondents were asked to score the importance of access of lending technologies. Five-point liker scale anchored by strongly agree and strongly disagree were applied to measure the access of lending technologies.

3.3 The Population of Analysis

This study focuses on technologies-based SME which their industrial based is in northern region of Malaysia. Thus, the population of this study comprised of SME in Manufacturing (including Agro-Based) & MRS (Manufacturing-Related Services) in Penang, Kedah and Perlis. To ensure appropriate respondents, Director's or Account Manager/Executive who manage company financial will be surveyed. The SME are split into three groups according to number of employees (see table 3):

Table 3: Manufacturing (including Agro-Based) & MRS

Micro	Less than 5 employees
Small	Between 5 & 50 employees
Medium	Between 51 & 150 employees

An appropriate questionnaire with a cover letter will be sent by mail/e-mail to each Directors or Account Manager/Executive of the company. The questionnaire will be evaluated base on pilot test to reveal draft questionnaire error, look for control problem and scan the environment for factors that might confound the results. Face-to-face interview will be made to get their comments and valuable feedback regarding unclear statement and instructions, and also unfamiliar term to them. The questionnaires are than modified according to the respondent's feedback. The new questionnaires will be used to collect the actual data for the study.

3.4 Data Analysis Methods

The analysis of data began with Factor Analysis using *Principal Component Analysis* to the items in the questionnaire. Factor Analysis is one of the techniques that help researcher to identify items for each dimension. Kaiser-Meyer Olkin (KMO) test was used in order to know the sampling adequacy. The reliability test was conducted in order to know the reliability of the items in each factor. In this study, Croncbach's Alpha is used to measure the reliability of the items. The next step, bias test was used to assess whether responses received e-mail would have been significant different from the data collected from mailed. According to Sekaran (1992), the information obtained from the study should be as free as possible of bias.

To determine the relationship between dependent variable and independent variables Pearson Correlation Analysis was used. Guilford's Rule of Thumbs (Guilford and Frunchter, 1978) was used as a magnitude to interpret the relationships. In this study 0.05 level of significant is used in the study because it is commonly acceptable decision statistic used by researchers. Finally, multiple regression tests were conducted to identify the factors influencing financial institutional on lending technologies to technology-based SME in the northern regions in Malaysia. The multiple regressions involved a single dependent variable and two or more independent variables. This method examined research hypotheses that have been posited. Results of analysis of data collected in this study are presented in tables and diagrams.

4. Conclusion

This is a conceptual framework on a study to investigate the factors that influence the lending-technologies adopted by finance providers in providing the finance needs for SMEs, particularly technology-based SMEs. The theoretical framework and the research hypotheses have been developed based on our review of the literature related to the subject of SME financings and lending technologies of finance providers. From the literature review, we can expect to see relationship the factors of company structure, primary source of information, loan underwriting policies/procedures, contract features, and monitoring strategies and the type of lending technologies adopted by finance providers. The findings should assist SMEs to better understand the requirements of financial providers based on the lending technologies adopted, and provide insights to SMEs in preparing bankable proposals to attract more viable, accessible, and affordable finance. The findings should also be able to assist finance providers to better understand the unique needs for finance of SMEs and to be able to structure finance products that will better meet SMEs finance needs for finance. It is further hoped that better access to finance will help promote the growth of SMEs which will be instrumental in the advancement of the national economy.

References

Allen N. Berger and Gregory F. Udell (2006). A more complete conceptual framework for SME finance. Journal of Banking & Finance 30.

Bakker, Marie H.R., Klapper, L., Udell, G.F. (2004). Financing small and medium-size enterprises with factoring: Global growth and its potential in Eastern Europe. World Bank Monograph, Washington, DC.

Beck, T., Demirguc-Kunt, A., Maksimovic, V. (2005). Financial and legal constraints to firm growth: Does firm size matter? Journal of Finance 60, 137–177.

Berger, A.N., Frame, W.S., 2006. Small business credit scoring and credit availability. Journal of Small Business Management 46.

Jarvis R. (2000). 'Finance and the Small Firm'. Carter S. and Jones-Evans D. (ed.). Enterprise and Small Business: Principles. Practice and Policy. (London).

Klapper, L. (2006). The role of factoring for financing small and medium enterprises. Journal of Banking and Finance. this issue. doi:10.1016/j.jbankfin.2006.05.001.

National SME Development Council. Access to financing,SME Annual Report 2006

Sapienza, P. (2004). The effects of government ownership on bank lending. Journal of Financial Economics 74, 357–384.

SME Corp Malaysia (2009). Government Grants & Financing. MIDA. website: www.smidec.gov.my

Uchida, Hirofumi, Yamori, Nobuyoshi and Udell, Gregory F., SME Financing and the Deployment of Lending Technologies in Japan (March 2007).