

The Effect of Demand-Side Issues in Accessing External Funds on Performance of SMEs in Thailand

Naruanard¹
Bernice Kotey²

New England Business School, University of New England, NSW, 2351, AustraliaTel:
+61+2+6773 2830

¹nsarapai@une.edu.au

²bkotey@une.edu.au

ABSTRACT

Several factors have been identified in the literature as affecting SME performance, in particular ability to access finance. Access to finance is in turn influenced by variables in both the enterprise's internal and external environment. It is held that SMEs are unable to access external finance because they are not investment ready. They lack the necessary information and knowledge of their businesses to approach finance providers or to be successful in accessing funds if they do. Face-to-face interviews using structured questionnaire were conducted to collect primary data from 407 SMEs operating in the trading sector in 3 provinces-Bangkok, Chiang Mai and Khon Kan. Results of the structural equation modelling (SEM) reveal that quality of financial information has significant positive effect on performance and on owner-managers' perception of their ability to access external capital. A significant positive effect of ability to access capital on performance was also found.

Key Words: Ability to access external finance, performance.

INTRODUCTION

Small and Medium Enterprises (SMEs) are increasingly seen as playing an important role in the economy of many countries. Thus, governments throughout the world focus on development of the SME sector to promote economic growth. In Thailand, SMEs comprise the majority of businesses in the country. The Department of Industrial Promotion revealed that in 2002 there were 1,639,427 SMEs in Thailand, comprising 99.63% of all enterprises (Department of Industrial Promotion 2004). SMEs make substantial contributions to the national economy in terms of output, employment and effective utilization of regional resources (Asian Productivity Organization 2002a; Economic and Social Commission for Asia and the Pacific 1993; Industrial Estate Authority of Thailand 2003;

Institute for Small and Medium Enterprises Development 2003; Office of Small and Medium Enterprises Promotion n.d.).

The crucial role of SMEs to the overall health of the economy is dependent on their performance – that is growth and profitability (Sage 1993; Venkatraman and Ramanujam 1987). Although not all small firms pursue growth goals, their mere survival and provision of jobs for the owner-managers and/or their families add to the economic wellbeing of a nation (Kotey and Meredith 1997). Governments around the globe including the Thai government invest in the development, survival and growth of SMEs in recognition of their contribution to economic development. The effectiveness of government assistance to the sector depends on clear identification of barriers to performance and

development of appropriate policies and programs to deal with them.

Several factors have been identified in the literature as affecting SME performance, in particular access to external finance (Bukvic and Bartlett 2003; Levy 1993; Pissarides 1999). Access to finance is in turn influenced by variables in both the enterprise's internal and external environment. It is held that SMEs are unable to access external finance because they are not investment ready. They lack the necessary information and knowledge of their businesses to approach finance providers or to be successful in accessing funds if they do (Ennew and Binks 1995; Lattimore et al. 1998). Financial information does not only influence ability to access external capital, it also influences SME performance. This is because it provides all necessary data on key operational matters with guidelines for controlling the resources of the firm. These data in turn help firms make effective decisions, which ultimately enhance their performance (Palmer 1994; Peacock 2000; Potts 1977; Wichmann 1983).

In spite of the importance of SMEs to the Thai economy, there is a dearth of research on their performance and factors influencing their performance. Lack of access to capital is cited as a major inhibitor to SME performance in Thailand (Office of Small and Medium Enterprises Promotion n.d.; Wiboonchutikula 2002). However, the extent to which this situation is a result of demand- as opposed to supply-side factors is not clear. In this study we examine the impact of financial information quality on owner-managers' perception of their firms' ability to access capital and the effect of these two variables on performance of SMEs in Thailand. An understanding on these issues is critical to effective policy formulation in the area of finance for SMEs in Thailand. Direct intervention through increased supply of

funds to the sector may distort workings of the market and encourage inefficiency and poor performance of the sector.

The paper comprises five sections. A review of the literature on SME performance, access to capital, and generation, quality and use of financial information ends with development of hypotheses for testing. The sections on research design, presentation of results from the analyses, and discussion of the results follow the literature review in that order. The fifth section presents a conclusion to the study with implications for academics, the SME community and policy makers.

LITERATURE REVIEW

SME Access to Capital and Performance

Access to capital allows SMEs to respond to market incentives and to take advantage of new investment opportunities. These in turn increase SME investment, operations and ultimately performance (Asian Productivity Organization 2002a; Brigham, Gapenski, and Ehrhardt 1999; Cooper, Gimeno-Gascon, and Woo 1994; Gaskill, Van Auken, and Manning 1993; Levy 1993; Office of Small and Medium Enterprises Promotion n.d.).

Capital in SMEs takes the form of equity and debt. Equity finance is available through external sources such as angels financing, venture capital and public share offers and internal sources such as the owners' savings, family and friends, and also retained earnings (English 2001; Holmes et al. 2003; Ratnatunga, Romano, and Lourens 1993). An analysis of the capital structure of SMEs indicates that most SMEs depend heavily on personal saving of the owner-/managers (Ghosh, Kim, and Meng 1993; Indarti and Langenberg 2004). This finding is consistent with the situation in

Thailand where owners' savings are the major sources of capital for SMEs (Thongpakde, Puppahavesa, and Pussarangsri 1994). In 1998 the Thai government established the Market for Alternative Investment (MAI) to provide opportunities for SMEs to raise equity finance (Market for Alternative Investment 2005). The MAI has lower capital requirements for listing than in the main Thailand Stock Exchange. However, equity from the public is not common for Thai SMEs, as the majority is unable to meet even the minimum listing requirements. Internal equity continues to be the major source of funding for SMEs in Thailand.

SME reliance on internal equity has been attributed to the pecking theory suggesting that firms have a particular preference order for their choices of financing – that is internally available funds, debt, and external equity (Myers 1984). This hierarchical pecking order is based on transactions and inequities costs resulting from information asymmetries associated with various sources of finance (Cassar and Holmes 2003). These costs are lowest for internally generated funds followed by debt, and then external equity. Hence, firms prefer internal funds to debt, and debt to external equity (Cassar and Holmes 2003; Chirinko and Singha 2000; Chittenden, Hall, and Hutchinson 1996).

Agency costs arising from conflicts between the goals of management and those of suppliers of capital, when external funding is introduced into the capital structure is another explanation for SME preference to internal equity finance. It is suggested that SMEs generally rely on internal equity and avoid debt and external equity in order to reduce the agency cost of capital (Cassar and Holmes 2003).

Peterson and Rajan (1994), however, argue that SMEs rely heavily on their owners' capital, because they are not

able to access capital from other sources. Typically they do not have the option of issuing shares or bonds (Cole and Wolken 1996; Holmes et al. 2003; Peterson and Rajan 1994). In addition, owner/managers have strong desire to maintain control of strategic decisions in the firm and are afraid of losing control of the firm because of outside financing decisions or pressures (Hamilton and Fox 1998; Holmes and Kent 1991; Peterson and Rajan 1994).

Though SMEs seem to rely mostly on internal equity, empirical evidence reveals that a number of SMEs use debt (Carter and Van Auken 1990; Van Auken, Doran, and Yoon 1993). Short-term debt has been the major source of outside finance for SMEs for many years, while long-term debt plays a lesser role in SMEs because of the requirement for collateral security (Dewhurst and Burns 1988; Perry and Pendleton 1983). The findings also apply to SMEs in Thailand. There are several sources of credit for SMEs in Thailand although access to formal credit from financial institutions is claimed to be difficult for SMEs due to their small size and lack of collateral (International Labour Organization 2000; Thongpakde, Puppahavesa, and Pussarangsri 1994).

A number of studies indicate that small firms are heavily dependent on the owners' personal funds for start-up while debt finance increased significantly as a source after the start-up phase (Fong 1990; Hamilton and Fox 1998; Holmes and Kent 1991). Similar evidence showing an increasing trend in the use of debt financing by established SMEs was confirmed for Thailand (Asian Productivity Organization 2002b). It appears from the literature that the general contention that internal equity is the major source of finance for SMEs does not apply at all stages of small firm development. The type of finance employed tends to vary with each stage of

development (Berger and Udell 1998), with increasing demand for external funding, in particular debt, to finance growth (Kotey 1999).

Though capital is viewed as critical to SME performance, previous studies have found that SMEs have difficulties accessing debt and external equity (Ang 1991; Ang 1992; Peterson and Rajan 1994; Weinberg 1994). Steel and Webster (1992) show that despite financial sector reform, the strengthening of banking capabilities, and introduction of numerous financial instruments, such as the stock exchange, venture capital companies and business assistance funds, access to capital continues to be a major problem for SMEs in developing country for example Thailand. Specific difficulties, such as high interest rates, high collateral requirements, and complicated loan application procedures, have been identified as constraints to accessing debt (Bukvic and Bartlett 2003; Leeds 2003; Lim 1980; Lim 1984; The Committee of Donor Agencies for Small Enterprise Development 1989). The Office of Small and Medium Enterprises Promotion (n.d.) notes the difficulty of SMEs in Thailand in obtaining loans from commercial banks. This credit constraint prevents them from expanding and growing in their business which ultimately hampers their performance (Brigham, Gapenski, and Ehrhardt 1999).

Financial Information and Ability to Access Capital

Whilst the above supply side factors are often cited as deterring SMEs from accessing capital from external sources it is also acknowledged that there is a demand side dimension to the problem. SMEs are not investment ready. They do not know when and where to access capital, how much is required and how best to present a case to funding organisations for capital.

The generation and effective use of financial information is essential to accessing funds from external sources. Compared with their larger counterparts SMEs face greater constraints in accessing capital because they lack adequate financial information to enable outside investors to assess their performance (Holmes et al. 2003; Lattimore et al. 1998). Information asymmetries, where capital providers have less information on the financial circumstances and prospects of small firms than owner/managers, are regarded as the root of small business finance problems (Binks, Ennew, and Reed 1992; Deakins and Hussain 1994).

Financial information facilitates SMEs' access to capital by providing useful information to owner/managers for identifying their financial blind spots and in determining how much financial resources is required, when it is required and the most suitable sources from which to access finance (Gibson 1963; Ingram et al. 1999). Financial information also communicates SME financial prospects to capital providers (Choy 1990; Ingram et al. 1999; Ratnatunga, Romano, and Lourens 1993).

Since financial information is very useful to accessing funds from external sources, the practical issues involved in preparing and using financial information in SMEs have been investigated by a number of studies (Gibson 1992; Gibson 1993; McMahon n.d.). The literature suggests that financial information practices of SMEs in Thailand are consistent with other countries. That is, SME financial information is mainly prepared by external professional accountants in order to meet statutory obligations, and that it normally comprises profit and loss statements and balance sheets (Cameron 1993; Dart, Ng, and Sarkar 1990; McMahon 1999a; Palmer 1994; Sarapaivanich 2002 (unpub.)). Moreover, in the majority of

cases financial information is not adequate and timely. It is likely to be considerably out-of-date by the time it is ready to be used for decision-making (Kingkaew and Limpaphayom 2001; KPMG Special Services and EIM Business & Policy Research in the Netherlands, European Network for SME Research, and Intomart 2003; McMahon 1999b; Storey et al. 1989).

The Office of Small and Medium Enterprises Promotion (n.d.) indicates that SMEs in Thailand have difficulty in obtaining loans from commercial banks, because they do not meet the basic requirements of the banks, in terms of professional management and standard accounting procedures. SMEs successful

in obtaining loans pay higher interest rates, as they are considered to present higher risks than larger firms. Therefore, financial information is crucial to accessing external capital as it decreases the ambiguities about SME financial position, and smoothes the process of accessing capital (Cunningham, Nikolai, and Bazley 2000; Ray and Hutchinson 1985). SMEs with quality financial information will exhibit greater confidence in their ability to access external capital. Greater confidence in ability to access capital should enhance performance of the firms as it provides an indication of the investment readiness of the firm. Accordingly we draw the following hypotheses for testing –

- H1 The quality of a firm's financial information is positively correlated with the owner/manager's perception of its ability to access external finance
- H2 Perception of ability to access external finance relates positively with firm performance

Financial Information and Performance

Apart from its indirect contribution to performance through enabling access to capital, the generation and effective use of financial information in decision making contributes directly to firm performance. Financial information is central to all business functions, forming the basis for corrective and preventive actions to improve organisational performance (Palmer 1994; Peacock 2000; Potts 1977; Wichmann 1983). It provides useful information to assist owner/managers to make sound decisions on effective use of limited resources (Cunningham, Nikolai, and Bazley 2000; Ingram et al. 1999; Ratnatunga and Dixon 1993).

While access to capital is essential to performance it is not enough to simply have adequate capital. Capital must be effectively managed if it is to enhance performance (Bryan and Friedlob 1984; Hughes 2004). This requires generation

and use of financial information for planning and controlling the use of capital. Financial information enables SMEs to monitor their financial position, providing an ability to detect business weaknesses and their associated causes. This information is used to generate an array of possible actions to minimise effect of the weaknesses, assess the utility of each action, and react to the changing circumstances. In addition, it allows owner/managers to measure how well their businesses are following stated goals, and to check the businesses' health (Barsley and Kleiner 1990; Gibson 1992; Ray and Hutchinson 1985). For the reasons discussed above, financial information supplies a solid basis for good management which assists SME performance and access to external capital (Ratnatunga and Dixon 1993; Schaper and Volery 2004).

Financial information does not provide any performance benefits unless it is used as a management tool (Ingram et al. 1999). Nevertheless, the benefits

financial information depend on its quality (KPMG Special Services and EIM Business & Policy Research in the Netherlands, European Network for SME Research, and Intomart 2003). Quality financial information is timely, accurate, complete and consistent. The following hypothesis is tested based on the discussion in this section.

H3 Quality financial information positively influences performance

The theoretical framework tested in the study thus comprises the relationships among the three constructs -performance, ability to access capital, and financial information.

RESEARCH DESIGN

This section details how the constructs were measured, the sampling procedure, data collection method and the analytical technique adopted.

Measurement of Variables

SME performance is often assessed in terms of the motives or goals of the owner/managers (Blackwood and Mowl 2000; Jarvis et al. 1996b; Naffziger, Hornsby, and Kuratko 1994). Owner/managers pursue a range of goals in addition to profit maximisation. In many cases the desire to make money is not entirely, or even the primary goal (Barsley and Kleiner 1990; Cooper 1993; Etzioni 1964; Jarvis et al. 1996a; McMahon and Stanger 1995). In this study SME performance is measured by both financial and non-financial goals (Blackwood and Mowl 2000; Kasey and Watson 1987).

Key financial goals pursued by owner/managers include profitability, sales growth, return on assets, and cash flow (Jarvis et al. 1996b; Palepu, Healy, and Bernard 2000; Schaper and Volery 2004). Lifestyle, independence, and job security are measures widely used to

capture non-financial goals (Akanke 1994; Fielden, Davidson, and Makin 2000; Glancey 1998; Kuratko, Hornsby, and Naffziger 1997). Consequently, we measure business performance in relation to the attainment of these four financial and three non-financial goals. This approach to performance measurement is supported by the general unavailability of financial information for SMEs in Thailand. Where such information is available it is inaccurate and difficult to access (Kingkaew and Limpaphayom 2001; Sarapaivanich 2002 (unpub.)). The use of subjective measures of performance is suggested as the most appropriate surrogates of performance when objective data is not available (Dess and Robinson 1984; Venkatraman and Ramanujam 1987).

Performance was measured with a modified version of an instrument developed by Gupta and Govindarajan (1984). Respondents were first asked to indicate the level of importance attached to the seven performance goals on a five point Likert scale ranging from 'not at all important' to 'very important'. Respondents were then asked to indicate their satisfaction with their firm's performance over the previous two financial years on a five point Likert scale ranging from 'strongly dissatisfied' to 'very satisfied'. Each 'satisfaction' score was multiplied by the corresponding 'importance' scores to compute a weighted average performance index for each firm.

The surrogates for ability to access capital are the capital constraints indicated in the literature -outside equity capital; costs of credit; loan processing costs; collateral requirements; and loan accessing procedures. Firstly, respondents were asked to classify the level of importance they attach to these surrogates on a five point Likert scale ranging from 'not at all important' to 'very important'. They were then asked to indicate the ability of their business to access capital

on a five point Likert scale ranging from 'very poor' to 'very good'. The results from these two questions were multiplied in order to obtain a weighted average score of ability to access capital.

This study adopts a more detailed measure of financial information quality, acknowledging the large variation in financial reports and financial indicators used by previous studies, and recommended as useful for small businesses. The reports and indicators employed are - 1) balance sheet, 2) profit and loss statement, 3) cash flow statement, 4) aged debtors balances, 5) aged creditors balance, 6) budget, 7) variance analysis, 8) inventory turnover, 9) return on assets, 10) return on equity, 11) net profit margin, 12) current ratio, 13) debt to total assets ratio, 14) debt to equity ratio, 15) times interest covered.

To capture both preparation and use of financial information a nominal scale - with a 'yes' or 'no' answer - was employed to assess whether owner-/managers prepare and use financial information when making decisions. Answers to these two questions provided information for measurement of financial information quality. Respondents who prepared financial information were asked to evaluate quality of financial information in their businesses. Firstly,

respondents were asked to classify the level of importance they attach to the financial information surrogates on a five point Likert scale ranging from 'not at all important' to 'very important'. They were then asked to indicate the quality of their financial information. A Likert scale was used to access the three quality dimensions of each measure of financial information-accuracy and completeness; timeliness; and consistency. A five-point Likert scale ranging from 'not at all accurate and complete' to 'very accurate and complete' was employed to measure the accuracy and completeness dimensions. Another five-point Likert scale ranging from 'not at all on time' to 'very on time' was used to identify the timeliness of financial information. To assess the consistency dimension, respondents were asked to indicate the frequency of financial information prepared in their businesses on six different levels of frequency ranging from 'never' to 'monthly'. The results of the level of importance were multiplied by each of the three financial information quality criteria (accuracy and completeness, timeliness, and consistency) to obtain a weighted average score of financial information quality. The unobserved and observed variables for this study are summarized in Table 1.

Table 1.
Unobserved and Observed Variables for this Study

Unobserved Variables	Observed Variables
Performance (PERF)	1. Satisfaction with profitability (PERF1) 2. Satisfaction with growth in sales (PERF2) 3. Satisfaction with return on assets (PERF3) 4. Satisfaction with cash flow (PERF4) 5. Satisfaction with lifestyle (PERF5) 6. Satisfaction with independence (PERF6) 7. Satisfaction with job security (PERF7)
Ability to Access Capital (ACCESS)	1. Ability to access outside equity capital (ACCESS1) 2. Ability to achieve low costs of accessing outside equity capital (ACCESS2) 3. Ability to achieve low interest rate (ACCESS3) 4. Ability to achieve low processing costs (ACCESS4) 5. Ability to achieve low collateral requirements (ACCESS5) 6. Easy to accommodate loan application process (ACCESS6)
Financial Information (FI)	1. Accuracy and completeness (COMP) 2. Timeliness (TIME) 3. Consistency (CONS)

Population, Sample Selection and Data Collection

SMEs in Thailand are categorized into three major sectors -production, service, and trading. The study sample focused on SMEs in the trading sector because an analysis of the distribution of the total Thai SME population identified trading as the largest sector (Department of Industrial Promotion 2004; Institute for Small and Medium Enterprises Development 2006). Also restricting the study to the trading sector was considered more desirable than using a cross-section of SMEs as it enabled control of the extraneous factors which may affect the dependent variables and thus impact on internal validity (Conant, Mokwa, and Varadarajan 1990; Kotey 1999; Robinson and Pearce 1983; Zikmund 1997).

Apart from industry, another key factor considered in sample selection was the geographic location of the sample. Focusing on certain locations ensures that target respondents face similar regulations, policies, infrastructural support and environment (Kotey 1999). SMEs were mainly located in Bangkok and metropolitan, Khon Kan and Chiang Mai provinces. These provinces together have the largest number of SMEs in Thailand. As a result, area sampling was applied to collect data from SMEs in the trading sector within Bangkok, Khon Kan, and Chiang Mai. In addition, due to time and resource limitations, area sampling was used to have a large number of questionnaires completed economically (Cooper and Schindler 2001).

Face-to-face interviews using a structured questionnaire were conducted to collect primary data from 407 SMEs. It comprises 220 respondents who prepare financial information and 159 respondents who ever sought capital in addition to the start-up capital. According to Kline (1998) the minimum sample size to the number of parameters to be

estimated in a model is at least 5:1. Therefore, at least 160 cases ($5 * 32$ parameters) were needed to analyze the structural equation model in this study. The total 407 questionnaire responses were obtained for this study.

RESULT AND DISCUSSION

Structural equation modeling technique using generalized least-squares estimation in LISREL (version 8.52) was used to analyze the relationships among financial information quality, ability to access capital and performance of SMEs in Thailand. Following the two-step approach recommended by Anderson and Gerbing (1988), the measurement model and structural model were analyzed to test the hypotheses.

It was found that SMEs in Thailand mainly obtained funds from equity during the start-up stage and for continuing operations. Owner's saving (42.57%) and retained earning (42.57%) were major sources of equity for continuing operations. The two main sources of start-up funds were owner's saving (70.75%) and family and friends (27.15%). This finding concurs with those of Indarti and Langenberg (n.d.) and Ghosh, Kim, and Meng (1993).

Also the study revealed that the level of debt employed increased after start-up (Fong 1990; Holmes and Kent 1991). The key sources of start-up debt for SMEs in Thailand were trade credit (27.34%), family loan (20.31%) and long-term loan (17.97%). Further, SMEs depended on trade credit (30.54%), overdraft (19.25%), and family loan (15.90%), for continuing operations.

The main purposes of seeking capital in addition to start-up capital were to increase the level of current assets (39.19%) and prevent liquidity problem (26.01%). The key problems owner-/managers encountered when trying to obtain capital were high interest rates

(28.52%), complex application and processing procedures (12.08%), and high collateral requirements (14.41%).

Measurement Model

Confirmatory factor analysis (CFA) was used to test the measurement assumptions, examining the relationship between the observed measures (indicators) and their latent variables (Hoyle 1995). It is suggested that the greater the

variance explained by the indicators, the higher their validity in representing the latent variable or construct (Mueller 1996). The three constructs and their indicators are presented in Table 2. The two constructs -ability to access capital and financial information quality were modeled as first-order factors. Performance was modeled as a second-order factor, composed of two dimensions - financial and non-financial performance.

Table 2.
The Path between Observed and Unobserved Variables Path

	Parameter Estimate	Standardised Estimate	t-value
→PERF1	1.00	0.95	-
→PERF2	0.98	0.99	18.02
→PERF3	1.13	1.04	11.04
→PERF4	0.57	0.54	3.34
→PERF5	1.00	0.95	-
→PERF6	0.79	0.67	5.43
→ACCESS1	1.00	0.72	-
→ACCESS3	1.80	1.10	8.01
→ACCESS6	1.36	0.81	23.81
→CONS	1.00	0.87	-
→COMP	1.21	1.02	11.06

Note: Profitability (PERF1), lifestyle (PERF5), ability to access outside equity capital (ACCESS1), and consistency (CONS) are assigned as unit of measurement with unstandardised loading fixed at 1.00. Therefore, test of significance is not reported for these indicators. where: PERF, PERF1, PERF2, PERF3, PERF4, PERF5, PERF6, ACCESS, ACCESS1, ACCESS3, ACCESS6, CONS, and COMP are described

in Table 1. Other assessments of validity of measurement model are the magnitude and significance of the paths between each latent variable and its indicators. From the outputs in Table 2, all indicator loadings are significant (at $p < 0.05$), as indicated by t -values which exceed 1.96. From the table, return on assets (PERF3) is the strongest indicator of financial performance and lifestyle (PERF5) is the most valid indicator for non-financial performance. In addition, the most valid indicator for ability to access capital and financial information quality are ability to achieve low interest rate (ACCESS3) and accuracy and completeness (COMP) respectively.

The squared multiple correlations (R), the composite reliability (ρ_c) and average variance extracted (ρ_v) were used to assess reliability of the measurement models. From Table 3, the R values of all variables, except the cash flow (0.29) and independence (0.45) measure of performance, are more than 0.5. These results indicate high reliability of the measurement models for the study. In addition, the ρ_c and ρ_v values of all three unobserved variables comfortably exceed the 0.60 and 0.50 thresholds respectively. These values reveal that the indicators provide reliable representations of the construct.

Table 3.
Parameter Estimates of the Measurement Model

Variables	R2	pc	pv
Performance (PERF): Profitability (PERF1) Growth on Sale (PERF2) Return on assets (PERF3) Cash flow (PERF4) Lifestyle (PERF5) Independence (PERF6)	0.89 0.99 1.08	0.95 0.92 0.94	0.77 0.80 0.90
Capability to access capital (ACCESS): Ability to access outside equity capital (ACCESS1) Ability to achieve low interest rate (ACCESS3) Easy to accommodate loan accessing Process (ACCESS6)	0.29 0.90 0.45 0.52		
Financial Information (FI): Consistency (CONS) Accuracy and completeness (COMP)	1.22 0.65 0.75 1.04		

Structural Model

The signs and the magnitudes of the estimated constructs were used to assess the structural models. The results reported in Table 4 show that all signs representing the paths between the constructs indicate positive directions for

the hypothesised relationships. Moreover, the magnitudes of all the estimated constructs are significant (at $p < 0.05$), as t -values are more than 1.96. These values reveal that the theoretical relationships specified during the conceptualisation process are supported by the data.

Table 4.
Signs and Magnitude of the Estimated Parameters

Paths between Unobserved Variables	Signs	Parameter Estimate	Standardised Estimate	t -value
ACCESS PERF FI PERF FI ACCESS	+ + +	0.02 0.03 0.10	0.10 0.22 0.18	2.60 3.87 3.35

Hypotheses Testing

Table 5 contains the indices representing the overall fit of the model. It can be seen that they all indicate a well-fitting model. That is, the chi-square statistic was

significant and the chi-square/degree of freedom was less than 0.20. Moreover, RMSEA, GFI, CFI, NNFI and SRMR are under acceptable fit levels

Table 5.
Measures of Overall Fit

Fit Index	Tested Value of Hypothesised model	Levels of Acceptable Fit
Chi-square/degree of freedom Significance level (p-value) Root Mean Square Error of Approximation (RMSEA) Goodness of Fit Index (GFI) Comparative Fit Index (CFI) Non-Normed Fit Index (NNFI) Standardised Root Mean Square Residual (SRMR)	1.17 0.25 0.02 0.99 1.00 1.00 0.04	Less than 2.00 Significance level (greater than 0.05, or 0.10) $\leq 0.05 \geq 0.90 \geq 0.90$ $\geq 0.90 < 0.05$

DISCUSSIONS

The estimated path coefficient for the relation between financial information quality and perception of ability to access capital was 0.10 (standardised 0.18 and t -value 3.35) and significant at 0.05. These values provide support for the first hypothesised relationship that financial information quality decreases ambiguities about SME financial position, and enhances owner-managers' confidence in accessing capital (Cunningham, Nikolai, and Bazley 2000; Ray and Hutchinson 1985). The production of accurate and complete financial information on a regular basis provides timely information to support owner/managers' decision to access capital, and enhances their confidence in approaching capital providers. Quality financial information also increases owner-managers' belief that they will obtain capital at reasonable costs.

The second hypothesis (H2) proposed a positive relationship between owner/-managers' perception to their ability to access external capital and performance of their businesses. The estimated path coefficient for the relation between ability to access capital and performance was 0.02 (standardised 0.10 and t -value 2.60). This was significant at 0.05.

Confidence in ability to access capital allows owner-managers to respond to new investment opportunities which in turn increase SME investment, operations and ultimately performance. This finding is consistent with that of Leed (2003) and indicates the importance of access to capital to firm performance. Firms forego potential viable growth opportunities when they are unsure about their ability to access capital (Binks, Ennew, and Reed 1992; Brigham, Gapenski, and Ehrhardt 1999; Cooper, Gimeno-Gascon, and Woo 1994; Indarti and Langenberg 2004).

The significant parameter estimate for the relationship between financial information quality and performance (parameter estimate 0.03 and t -value 3.87) supports the proposition that for financial information to enhance performance it must be accurate, complete and must be prepared on a regular basis. Quality financial information provides owner/managers with valuable information and guidelines for controlling resources of the firms. This in turn helps them to make effective decisions, which ultimately enhance firm performance. The findings are consistent with previous studies that suggest that financial information is central to business operations and forms the basis for corrective and preventive actions that help improve organizational performance (Palmer 1994; Peacock 2000; Potts 1977; Wichmann 1983). The indirect relationship between quality financial information and performance mediated by ability to access finance was also positive (0.02). This indicates that quality financial information increases owner/managers confidence in accessing finance to pursue new opportunities. Pursuit of new opportunities in turn adds to firm performance.

CONCLUSION AND IMPLICATIONS

The findings portray the important role of quality financial information in directly providing access to capital and enhancing performance. Quality financial information also enhances performance through access to capital. The findings support the contention that developing the investment readiness of SMEs will increase their ability to access external capital. Government response to the financial problems of SMEs through policies that interfere with free market operations of financial markets (that is interventions that increase the supply of funds through direct financial subsidies)

could be counter-productive to the performance of SMEs. Such policies disrupt the signaling effect of incentives on productive SME activities. Instead the SME sector will be well served by programs that enable SMEs improve their investment readiness through preparation and use of quality financial information in making decisions about financial requirements and use.

The study implies that in addition to providing finance for the SME sector, governments can enhance the ability of SMEs to access the available funds for use in improving their performance by ensuring they maintain adequate records and use them in managing their businesses. Moreover, SMEs support agencies can assist government policy in improving SME ability to prepare and use financial information to support owner/managers decision making by providing financial management or other related courses.

Limitations and Future Research

Although this study collected data from three provinces located in the first three regions where most SMEs are found, it focuses only on trading sector. The results therefore should not be generalized outside the industry studied. Moreover, a longitudinal examination of capability to access capital should be done as it varies through various growth stages. A cross-industry-based and a longitudinal measurement would complement the findings in this study.

REFERENCES

Akande, A. 1994. "Coping with Entrepreneurial Stress: Evidence from Nigeria." *Journal of Small Business Management*, Vol.32, No. 1, pp. 83-87.

Anderson, J C, and D W Gerbing. 1988. "Structural Equation Modeling In

Practice: A Review and Recommended Two-Step Approach." *Psychological Bulletin*, Vol. 103, No. 3, pp. 411-423.

Ang, J S. 1991. Small Business Uniqueness and the Theory of Financial Management. *Journal of Small Business Finance*, Vol. 1, No. 1, pp.1-13.

Ang, J S. 1992. "On the Theory of Finance for Privately Held Firms." *Journal of Small Business Finance*, Vol. 1, No. 3, pp.185-203.

Asian Productivity Organization. 2002a. *Enhancing SME Competitiveness in the Age of Globalization*. Edited by S. A. Khader and C. P. Gupta. Tokyo:

Asian Productivity Organization. Asian Productivity Organization. 2002b. *SMEs in Competitive Markets*. Tokyo: Asian Productivity Organization.

Barsley, G, and B H Kleiner. 1990. "Small Business Management: Ensuring Your Client's Success." *The National Public Accountant*, Vol. 35, No. 2, pp. 30-33.

Berger, A N, and G F Udell. 1998. "The Economics of Small Business Finance: The Roles of Private Equity and Debt Markets in the Financial Growth Cycle." *Journal of Banking and Finance*, Vol. 22, pp.613-673. Binks, M R, C

Ennew, and G V Reed. 1992. "Information Asymmetries and the Provision of Finance to Small Firms." *International Small Business Journal*, Vol. 11, No. 1, pp. 35-46.

Blackwood, T, and G Mowl. 2000. "Expatriate-Owned Small Businesses: Measuring and Accounting for Success." *International Small Business Journal*, Vol. 18, 3, pp. 60-73.

- Brigham, E F, L C Gapenski, and M C Ehrhardt. 1999. *Financial Management: Theory and Practice*. Edited by 9. Florida: Dryden Press.
- Bryan, E L, and T Friedlob. 1984. "Why Small Businesses Fail: Testimony Proposes Solutions.: *Management Accounting*, 65, 7, pp. 16, 73.
- Bukvic, V , and W Bartlett. 2003. "Financial Barriers to SME Growth in Slovenia." *Economic and Business Review for Central and South - Eastern Europe*, Vol. 5. 3, pp.161-181.
- Cameron, A. 1993. "The Range of Public Accountants' Services to Small Business: Results of A New Zealand Survey." *Accounting Forum*, Vol. 16, No. 4, 81-97.
- Carter, R, and H E Van Auken. 1990. "A Comparison of Small Business and Large Corporations: Interrelationships Among Position Statement Accounts." *Journal of Business and Entrepreneurship*, Vol. 2, No. 1, pp.73-80.
- Cassar, G , and S Holmes. 2003. "Capital Structure and Financing of SMEs: Australian Evidence." *Accounting and Finance*, Vol. 43, No. 2, pp. 123-147.
- Chirinko, R S, and A R Singha. 2000. "Testing Static Tradeoff Against Pecking Order Models of Capital Structure: A Critical Comment." *Journal of Financial Economics*, Vol. 58, No. 3, pp. 417-425.
- Chittenden, F, G Hall, and P Hutchinson. 1996. "Small Firm Growth, Access to Capital Markets and Financial Structure: Review of Issues and An Empirical Investigation." *Small Business Economics*, Vol. 8, No. 1, pp. 59-67.
- Choy, C L. 1990. "Sources of Business Financing and Financing Practices: A Comparison Among U.S. and Asian Countries." *Journal of Business Venturing*, Vol. 5, No. 1, pp. 271-275.
- Cole, R A, and J D Wolken. 1996. "Financial Services Used by Small Businesses: Evidence from the 1993 National Survey of Small Business Finances." *Federal Reserve Bulletin*, Vol. 81, No. 7, pp. 629-667.
- Conant, J S, M P Mokwa, and P R Varadarajan. 1990. "Strategic Types, Distinctive Marketing Competencies and Organizational Performance: A Multiple Measures-Based Study." *Strategic Management Journal*, Vol. 11, No. 5, pp. 365-383.
- Cooper, A C. 1993. "Challenges in Predicting New Firm Performance." *Journal of Business Venturing*, Vol. 8, No. 3, pp. 241-253.
- Cooper, A C , F J Gimeno-Gascon, and C Y Woo. 1994. "Initial Human and Financial Capital as Predictors of New Venture Performance." *Journal of Business Venturing*, Vol. 9, No. 5, pp. 371-395.
- Cunningham, B M, L A Nikolai, and J D Bazley. 2000. *Accounting Information for Business Decisions*. USA: Harcourt Brace College.
- Dart,J, I Ng, and A Sarkar. 1990. "A Comparative Analysis of Managerial Practices among SMEs from Malaysia, Singapore, and Thailand." *ASEAN Economic Bulletin*, Vol. 7, No. 1, pp. 84-95.
- Deakins, D , and G Hussain. 1994. "Risk Assessment with Asymmetric Information." *The International Journal of Bank Marketing*, Vol. 12, No. 1, pp. 24-31.
- Department of Industrial Promotion. 2004. New entrepreneurs creations (in Thai). Paper read at New Entrepreneur Creations, March, at Thailand.
- Dess, G G, and R B Robinson. 1984. "Measuring Organizational Perfor-

- mance in the Absence of Objective Measures: The Case of The Privately-Held Firm and Conglomerate Business Unit." *Strategic Management Journal*, Vol. 5, No. 3, pp. 265-273.
- Dewhurst, J, and P Burns. 1988. *Small Business Planning, Finance and Control*. Edited by 2. London: Macmillan.
- Economic and Social Commission for Asia and the Pacific. 1993. *Small Industry Bulletin for Asia and the Pacific*. Vol. no. 28. Bangkok: Economic and Social Commission for Asia and the Pacific.
- English, J. 2001. *How to Organise & Operate a Small Business in Australia*. Edited by 8. Australia: Allen & Unwin.
- Ennew, C T, and M R Binks. 1995. "The Provision of Finance to Small Businesses: Does The Banking Relationship Constrain Performance." *The Journal of Small Business Finance*, Vol. 4, No. 1, pp. 57-73.
- Etzioni, A. 1964. *Modern Organizations*. Englewood Cliffs: Prentice-Hall.
- Fielden, S L, M J Davidson, and P J Makin. 2000. "Barriers Encountered During Micro and Small Business Start-up in North-West England." *Journal of small business and Enterprise*, Vol. 7, No. 4, 295-304.
- Fong, C O. 1990. "Small and Medium Industries in Malaysia: Economic Efficiency and Entrepreneurship." *The Developing Economies*, Vol.28, No. 2, pp. 152-179.
- Gaskill, L R, H E Van Auken, and R A Manning. 1993. "A factor Analytic Study of The Perceived Causes of Small Business Failure." *Journal of Small Business Management*, Vol. 31, No. 4, pp. 18-31.
- Ghosh, B C, T S Kim, and L A Meng. 1993. "Factors Contributing to the Success of Local SMEs: an Insight from Singapore." *Journal of Small Business and Entrepreneurship*, Vol. 10, No. 3, pp. 33-46.
- Gibson, B. 1992. Financial Information for Decision Making: an Alternative Small Firm Perspective." *The Journal of Small Business Finance*, Vol. 1, No. 3, pp. 221-232.
- Gibson, B. 1993. The Alternative to Assuming "Rational" Use of Financial Information within Small Firms." *The Journal of Small Business Finance*, Vol. 2, No. 2, pp. 163-174.
- Gibson, J L. 1963. "Accounting in the Decision-Making Process: Some Empirical Evidence." *The Accounting Review*, pp. :492-500.
- Glancey, K. 1998. "Determinants of Growth and Profitability in Small Entrepreneurial Firms." *International Journal of Entrepreneurial Behaviour & Research*, Vol. 4, No. 1, pp. 18-27.
- Gupta, A K, and V Govindarajan. 1984. "Business Unit Strategy, Managerial Characteristics, and Business Unit Effectiveness at Strategy Implementation." *Academy of Management Journal*, Vol. 27, No. 1, pp. 25-41.
- Hamilton, R T, and M A Fox. 1998. "The Financing Preferences of Small Firm Owners." *International Journal of Entrepreneurial Behaviour*, Vol. 4, No. 3, pp. 239-248.
- Holmes, S, P Hutchinson, D Forsaith, B Gibson, and R McMahon. 2003. *Small Enterprise Finance*. Australia: John Wiley & Sons.
- Holmes, S, and P Kent. 1991. 'An Empirical Analysis of the Financial Structure of Small and Large Australian Manufacturing Enterprises." *Journal of Small Business Finance*, Vol. 1, No. 2, pp. 141-154.
- Hoyle, R H, ed. 1995. *Structural Equation Modeling: Concepts, Issues, and Applications*. Thousand Oaks, Cali-

- fornia: SAGE.
- Hughes, C. 2004. Records reflect successful businesses. *LP -Gas*, January, 9.
- Indarti, N, and M Langenberg. 2004. *Factors Affecting Business Success Among SMEs: Empirical Evidences from Indonesia*. University of Twente, 2004.
- Ingram, R W, T L Albright, B A Balswin, and J W Hill. 1999. *Accounting Information for Decisions*. USA: South-Western College.
- Institute for Small and Medium Enterprises Development. 2003. *Definition of SMEs (in Thai)* 2003 [cited 16 October 2003]. Available from <http://www.ismed.or.th/intro-ismed/quotaion.php>.
- Institute for Small and Medium Enterprises Development. 2006. *Alliances (in Thai)* Institute for Small and Medium Enterprises Development, 2006 [cited 19 January 2006]. Available from <http://www.ismed.or.th/alliances/search.php>.
- International Labour Organization. 2000. Micro and small enterprise development and poverty alleviation in Thailand. In *Micro and small enterprises giants in employment and development report and recommendations*. Bangkok: International Labour Organization The United Nations Development Programme.
- Jarvis, R, J Curran, J Kitching, and G Lightfoot. 1996a. "Financial Management of Small Firms: An Alternative Perspective." In *ACCA Report No. 49*. London: Chartered Association of Certified Accountants.
- Jarvis, R, J Kitching, J Curran, and G Lightfoot. 1996b. "Performance Measures and Small Firms." *Certified Accountant*, Vol. 88, No. 11, pp. 48-49.
- Kasey, K , and R Watson. 1987. "NonLi Financial Symptoms and the Prediction of Small Company Failure: A Test of Argenti's Hypotheses." *Journal of Business Finance and Accounting*, Vol. 14, No. 3, pp. 335-354.
- Kingkaew, P, and P Limpaphayom. 2001. A Note on The Use of Publicly-Available Financial Data to Predict Bankruptcy of Non-Listed Firms in Thailand." *Accountants' Journal*, Vol. 3, pp. 19-27.
- Kline, R B. 1998. *Principles and Practice of Structural Equation Modeling*. New York: The Guilford Press.
- Kotey, B. 1999. "Debt Financing and Factors Internal to the Business." *International Small Business Journal*, Vol. 17, No. 3, pp. 11-29.
- KPMG Special Services and EIM Business & Policy Research in the Netherlands, European Network for SME Research, and Intomart. 2003. Observatory of European SMEs 2003, No. 2. In *SMEs and Access to Finance*: European Commission.
- Kuratko, D F, J S Hornsby, and D W Naffziger. 1997. "An Examination of Owners' Goals in Sustaining Entrepreneurship." *Journal of Small Business Management*, Vol. 35, No. 1, pp. 24-33.
- Lattimore, R, A Madge, B Martin, and J Mills. 1998. *Design Principles for Small Business Programs and Regulations, Productivity Commission Staff Research Paper*. Canberra: AusInfo.
- Leeds, R S. 2003. *Financing Small Enterprises in Developing Nations: Learning from Experience*. USA: Transnational Publishers.
- Levy, B. 1993. "Obstacles to Developing Indigenous Small and Medium Enterprises: An Empirical Assessment." *The World Bank Economic Review*, Vol. 7, No. 1, pp. 65-83.
- C P. 1980. "Big Problems for Small Scale

- Industries.” *ASEAN Business Quarterly*, Vol. 4, No. 4, pp. 43-48.
- Lim, C P. 1984. “Small Enterprises in ASEAN: Need for Regional Co-Operation.” *ASEAN Economic Bulletin*, Vol. 1, No. 2, pp. 89-114.
- Market for Alternative Investment. 2005. *About MAI 2005* [cited 10 February 2005]. Available from <http://www2.set.or.th/set/mai/en/about/about.jsp>.
- McMahon, R. 1999a. “Financial Reporting Practices of Australian Manufacturing SMEs.” *The Journal of SEAANZ*, Vol. 7, No. 1, pp. 25-52.
- McMahon, R. 2005. *Putting SME financial reporting into the theoretical and practical perspective* n.d. [cited 18 March 2005]. Available from <http://www.ssn.flinders.edu.au/commmerce/researchpapers/98-10main.htm>.
- McMahon, R G P. 1999b. “Financial Reporting to Financiers by Australian Manufacturing SMEs.” *International Small Business Journal*, Vol. 18, No. 1, pp. 35-52.
- McMahon, R G P , and A M J Stanger. 1995. “Understanding the Small Enterprise Financial Objective Function.” *Entrepreneurship: Theory and Practice*, pp. 21-39.
- Mueller, R O. 1996. *Basic Principles of Structural Equation Modeling: An Introduction to LISREL and EQS*. New York: Springer.
- Myers, S C. 1984. “The Capital Structure Puzzle.” *The Journal of Finance*, Vol. 39, No. 3, pp. 575-592.
- Naffziger, D W, J S Hornsby, and D F Kuratko. 1994. “A Proposed Research Model of Entrepreneurial Motivation.” *Entrepreneurship Theory and Practice*, Vol. 18, No. 3, pp. 29-42.
- Office of Small and Medium Enterprises Promotion. n.d. *Master Plan of Thailand's Small and Medium Enterprises (SMEs) Promotion 2002-2006*. Thailand: Office of Small and Medium Enterprises Promotion.
- Palepu, K G, P M Healy, and V L Bernard. 2000. *Business Analysis and Valuation: Using Financial Statement*. Cincinnati: South-Western College.
- Palmer, K N. 1994. “Financial Information Used by Small Independent Retailers.” *The CPA Journal*, Vol. 64, No. 4, pp. 70-72.
- Peacock, R. 2004. *Failure and Assistance of Small Firms 2000* [cited September 20 2004]. Available from <http://www.sbeducation.info/downloads/sbfail.pdf>.
- Perry, C, and W Pendleton. 1983. *Successful Small Business Management*. New Zealand: Pitman.
- Peterson, M A, and R G Rajan. 1994. “The Benefits of Lending Relationships: Evidence from Small Business Data.” *International Small Business Journal*, Vol. 13, No. 1, pp. 80-83.
- Pissarides, F. 1999. “Is Lack of Funds the Main Obstacle to Growth? EBRD's Experience with Small-and Medium-Sized Businesses in Central and Eastern Europe.” *Journal Of Business Venturing*, Vol. 14, pp. 519-539.
- Potts, A J. 1977. “A Study of the Success and Failure Rates of Small Businesses and the Use or Non-Use of Accounting Information.” *Ed.D thesis*, George Washington University, Washington, D.C.
- Ratnatunga, J, and J Dixon. 1993. *Australia and New Zealand Small Business Manual*. Edited by 3.

- Australia: Australia.
- Ratnatunga, J, C Romano, and L Lourens. 1993. *Financial Entrepreneurship in the Small Firm*. Australia: Addison-Wesley.
- Ray, G, and P Hutchinson. 1985. "The Entrepreneur, Accounting Information and Financial Control." *Management Forum*, Vol. 11, No. 4, pp. 223-233.
- Robinson, R B, And J A Pearce. 1983. "The Impact of Formalized Strategic Planning on Financial Performance in Small Organizations." *Strategic Management Journal*, Vol. 4, No. 3, pp. 197-207.
- Sage, G. 1993. "Entrepreneurship as an Economic Development Strategy." *Economic Development Review*, Vol. 11, No. 2, pp. 66-67.
- Sarapaivanich, N. 2002 (Unpub.). "The Use of Accounting and Other Economic Information in Financing Decision of the Small And Medium Enterprises in the Plastic Manufacturing Sector in Bangkok, Thailand." In *Special topics in finance and banking*: University of New England.
- Schaper, M, and T Volery. 2004. *Entrepreneurship and Small Business: a Pacific Rim Perspective*. Milton: John Wiley & Son.
- Steel, W F, and L M Webster. 1992. "How Small Enterprises in Ghana Have Responded to Adjustment." *The World Bank Economic Review*, Vol. 6, No. 3, pp. 423-438.
- Storey, D, K Keasey, R Watson, and P Wynarczyk. 1989. *The Performance of Small Firms: Profits, Jobs, and Failure*. London: Routledge.
- The Committee of Donor Agencies for Small Enterprise Development. 1989. *Microenterprises in Developing Countries: Papers and Proceedings of International Conference*. Edited by J. Levitsky. London: Intermediate Technology.
- Thongpakde, N, W Puppahavesa, and B Pussarangsri. 1994. Thailand. In *Industrial Structures and the Development of Small and Medium Enterprises Linkages: Examples from East Asia*, edited by S. D. Meyanathan. Washington: World Bank.
- Van Auken, H E, B M Doran, and K-J Yoon. 1993. "A Financial Comparison Between Korean and U.S. Firms: A Cross Balance Sheet Canonical Correlation Analysis." *Journal of Small Business Management*, Vol. 31, No. 3, pp. 73-83.
- Venkatraman, N, and V Ramanujam. 1987. "Measurement of Business Economic Performance: An Examination of Method Convergence." *Journal of Management*, Vol. 13, No. 1, pp. 109-122.
- Weinberg, J A. 1994. "Firm Size, Finance, and Investment." *Federal Reserve Bank of Richmond Economic Quarterly*, Vol. 80, No. 1, pp. 19-40.
- Wiboonchutikula, P. 2002. "Small and Medium Enterprises in Thailand: Recent Trends." *Small Business Economics*, Vol. 18, No. 1-3, pp. 213-226.
- Wichmann, H. 1983. "Accounting and Marketing -Key Small Business Problems." *American Journal of Small Business*, Vol. 7, No. 4, pp. 19-26.
- Zikmund, W G. 1997. *Business Research Methods*. Edited by 5th. Fort Worth, Texas: Dryden Press.