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ADOPTION OF INFORMATION TECHNOLOGY WITHIN THE ACCOUNTING INFORMATION SYSTEM: THE CASE OF THE IPOS AND NON-IPOS SMES IN THAILAND

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ABSTRACT

This study reports on the adoption of information technology within the accounting information system examining small and medium-sized enterprises (SMEs) in Thailand. The comparison made is between SMEs which have moved into the market for alternative investment (MAI) referred to as Initial Public Offerings (IPO) and those which have not. In a triangulated approach both mail survey and interview techniques were used to increase the richness of the data. The results indicated that in Non-IPO firms fifty-two percentage operate a computerized accounting information system as compared to seventy-seven percentage of IPO SMEs, forty-two percent of Non-IPO operated a mixed system as compared to twenty-three percent of IPO firms. Interestingly only six percentage of Non-IPO firms still operate manual systems. Both IPO and Non-IPO SMEs indicated that they believed the use of information technology improved the firm's ability to capture and record business operations and business events, to assist in providing timely information, and to provide better information in terms of relevance and reliability to assist management in reducing costs and improving productivity. Ninety-one percent of IPO SMEs indicate that information technology facilitates the preparation of up-to-date financial and analytical report. While eighty-four percent of both Non-IPO and IPO respondents believe that information technology facilitates the inquiry/search process important to information requirements of management. This study provides support regarding the importance of information technology, particularly the accounting information system and internal control, to both IPO and Non-IPO SMEs in Thailand.

Field: *Accounting – Accounting Information Systems and Auditing*

1. INTRODUCTION

In Thailand, as in other parts of the world, the success of the economy relies heavily on the performance of small and medium enterprises (SMEs). In 2005 there were more than 2.2m SMEs in Thailand comprising 99.5% of all enterprises, the number had increased by almost 40,000 from 2004. While the share of SMEs in Thailand's Gross Domestic Product (GDP) totaled 1.9 trillion Baht ($A 57 trillion) or about 38.3% of the total of value of GDP in 2005. (Office of Small and Medium Enterprises Promotion (OSMEP) 2005).

At present, there is no generally agreed definition of SMEs. The various administrative organizations which deal with the SMEs classify SMEs based on measures of fixed assets,

registered capital, sales or number of employees. In Thailand, an official definition of SMEs, proposed by the Ministry of Industry issued in 2002, covers the number of employees and the value of total fixed assets (excluding land). SMEs can be classified into four categories shown as below;

Table 1
Definitions of Thai SMEs

Sectors	*Number of Employment (persons)*	*Fixed Asset*	
		THB (million)	*(USD) (million)*
1. Manufacturing			
- Small Enterprises	< 50	< 50	< 1.28
- Medium Enterprises	51-200	50-200	1.28-5.13
2. Wholesale			
- Small Enterprises	< 25	< 50	< 1.28
- Medium Enterprises	26-50	50-100	1.28-2.56
3. Service			
- Small Enterprises	< 50	< 50	< 1.28
- Medium Enterprises	51-200	50-200	1.28-5.13
4. Retail			
- Small Enterprises	< 15	< 30	< 0.78
- Medium Enterprises	16-30	30-60	0.78-1.56

Source: Adapted from Ministry of Industry (issued in 2002) by Sawatsuk, 2007

Subsequent to the economic crisis in 1997 the Thai government has acted to promote and encourage the growth and development of the SME as a foundation for stability and to provide a basis for the on-going economic development of the country. In an effort to achieve this objective the Thai government created the Office of Small and Medium Enterprise Promotion (OSMEP). This office was charged with the responsibility to promote the SME. One way in which the OSMEP acted to achieve this was to create a fund for SME promotion to help them to list on the Market for Alternative Investment (MAI) established by the Stock Exchange of Thailand (SET). Once listed access to the MAI was expected to assist the SME in seeking additional capital. The MAI officially commenced operations on June 21, 1999. It is a dynamic stock exchange, featuring the high-growth potential of new age businesses, where entrepreneurs and investors can come together for mutual gain (*http://www.mai.or.th/en/about/vision_mission.html*). SMEs which are doing well and meet the listing qualifications are able to raise funds or go public. In other words, MAI was intended to act as a nursery for SMEs before registering in the Stock Exchange of Thailand (SET) (Patrawimolpon & Pongsaparn 2006). As of July 2007, the number of IPOs had grown from 36 companies at June 2006 to 44. Furthermore, the department of Export Promotion (DEP) and SME Bank have collaborated to organise business matchmaking events to expand marketing channels for SMEs operators, in particular for exports (Jaiimsin 2005).

To assist in meeting the technology requirements of the SME, the National Science and Technology Development Agency (NSTDA) and the Office of the Higher Education Commission forged a partnership to found the Thai Business Incubator and Science and

Technology Park Association (known as Thai-Bispa). This association was mandated to facilitate the sharing and exchange of technology, industrial innovations, other business benefits identified, and with other countries where SMEs have had achieved success such as in Japan and South Korea (Jaiimsin 2005).

This paper investigates the adoption of technology within the accounting information system in those SMEs that list on the Market for Alternative Investment (MAI), and those that do not, and draws comparisons between the two. The implications of this in terms of the quality of the information system is also considered.

Clearly the SME is important to Thailand's economic growth providing employment, products and service opportunities. In exploring the performance of these firms an adequate information system would seem to be essential yet there has been little research undertaken to assess the quality of the information system in these Thai firms. Previous studies of SMEs in Thailand have emphasized Information Systems and E-Commerce. For instance, Art-Erm and Chiamsiri (2002) examined a case study of a "Stand Alone" Small and Medium-sized Enterprise adopting E-Commerce. Panyasorn *et al* (2004) explored the use of Lotus Notes in SMEs. Intrapairot and Srivihok (2003) and Art-Erm (2002) investigated E-Commerce opportunities for small and medium-sized enterprises. . This study intends to assist in filling this gap in knowledge by investigating the adoption of information technology within the Accounting Information System in Thai SMEs. A comparison between the Initial Public Offerings (IPOs) and non-IPO SMEs in Thailand is made. In addressing this investigation a number of research questions have been posed:

1. In what ways do IPO and non-IPO SMEs utilize technology within the Accounting Information System in Thailand?
2. Is it important for IPO and non-IPO SMEs in Thailand to adopt Information technology within their Accounting Information Systems?
3. What role does Information Technology play in the Accounting Information System of IPO and non-IPO SMEs in Thailand, and
4. What plans do IPO and non-IPO SMEs have for the adoption of technology based information systems?

This knowledge is important in identifying the role of technology and the accounting information system in discussing how Thai SMEs might operate more efficiently and effectively, be more competitive in the globalised market place and identify approaches to improving the quality of the management process, communication within and between Thai firms and the outside world, and the ability of Thai SMEs to meet the needs of stakeholders.

In the next section the accounting information system and the role of technology in small and medium business and previous Thai SME studies are discussed.

2. THE ACCOUNTING INFORMATION SYSTEM AND INFORMATION TECHNOLOGY

The importance of quality financial information became clear during economic recovery in the late 1990s with companies seeking to identify ways to increase shareholder value through growth (Nogiec 1998, quoted in Manning 2004). Equally the role that technology could play

in this process also became clear. Nogiec (1998) stated that there were four imperatives in the development of a strategic framework for the financial function:

1. Improving fundamental financial processes.
2. Conducting value-added business analysis.
3. Managing business risks and opportunities.
4. Developing company-wide performance measurement systems.

Each of these can be made more effective adopting information technology. [can we find more on this. How technology can assist the smaller firm?] Small firms must rely on their own accounting information systems in day to day management decisions as they are not in a position to buy consulting advice or to have their financial statements audited by the large and globally skilled accounting firms yet they do need quality information to enable accurate decision making to compete in local market and global market. Yet they need updated, accurate, and timely accounting information to survive. (Bressler and Bressler 2006). Kuncoro (1998) argued that finance departments need to spend less time tweaking transaction processing systems, and work harder to produce analyses that help line managers make sound competitive decisions quickly and effectively.

The Accounting Information System, composed of people, equipment and other resources, provides the framework that allows the accumulation, classification, and processing of transaction data in a form that can then be presented as information for analysis, and communication, primarily of a financial nature, to meet the decision making needs of internal and external stakeholders. Implicit in this system are the provision of adequate controls to safeguard the organization's assets, including it's data (Marshall and Paul 1997). Technology plays a significant role in the AIS today as computerisation of this activity is common. For example, Breen *et al.* (2003) found that information generated by a computerized system assisted the small firm in making more efficient business decisions and meeting compliance requirements such as that imposed by the GST system. Computerised applications are characterized by the presence of a high volume transaction of transactions that require processing. In this the technology plays four main roles - data gathering, data manipulation, data storage, and document preparation. This activity results in the transformation of the data into information, and prepares the information for users both inside and outside the firm (Mcleod 1995, Gibson 1963 quoted in Thomas & Evanson 1987; Report of the study group on the objectives of financial statements, American Institute of Certified Public Accountants, 1972 quoted in Lothian 1976).

SME Studies in Thailand

Thai studies available have suggested that the accounting information systems in place and the use of the information generated in decision making has been a problem. Kingkaew & Limpaphayom (2001) found that this financial information was generally of low quality and reliability. Researchers have found that a major cause of the problems faced by the SME included poor record keeping and the inefficient use of accounting information available in financial decision-making (World Bank 1978, Wichmann 1983, Ubonratchathanee University 2000, Berryman 1982 quoted in Walton 2000, Brooks *et al* 1990). This issue was also identified by Siripunyawit (2004) who found SMEs faced major problems related to quality and standards

evidenced by poor financial accounting procedures and/or were family operated and had not developed professional management practices. SMEs lack of access to capital and high interest rates faced are partially the result of incomplete accounting records, and the inefficient use of accounting information. Poor financial information and use of that information available has effected their ability to successfully compete in international markets, to recognize the issues associated with falling sales revenue, to manage problems associated with a shortage of and access to funds and identifying the need to effectively manage non-performing debt. SMEs that had recovered from the Asian Crisis were those that were able to update their technology, restructure their marketing strategy, lower costs, improve operations and productivity, and gain access to state assistance and financing (Phoosupphanusorn and Treeapongpichit 2002).

In recognition of these issues the Department of Industrial Promotion of Thailand (DIP) reported in 2003 that it was necessary for SME entrepreneurs to learn about and adopt Information Technology in their businesses to assist in ensuring the availability of better information to improve their competitive capabilities, to assist in the reduction of business and production costs, and to provide a basis from which to manage the business more efficiently. Intrapairot and Srivihok (2003) noted that SMEs were fundamental business units to the economic recovery of Thailand and were widely dispersed across the country. They argued to enhance the viability of SMEs they needed to be transformed from the traditional form to digital business using the Internet and e-commerce. The adoption of technology is supported by the recognition that Thai SMEs need to improve the quality of their products and management processes, as well as lower costs, so as to be able to complete with products of other countries that are more adaptable (Mephokee and Ruengsrichaiya 2005). The Office of Industrial Economics investigating the participation of SMEs in information technology found that 58.3% of medium-sized enterprises in manufacturing were using information technology, while only 24.4% of small enterprises were. In the trading sector information technology was not commonly in use by firms in the managerial or marketing functions. The use of technology was restricted to cross-docking and efficient consumer response (ECR) such as bar coding. In the service sector information technology and e-commerce were important in marketing, advertising, sale processing and service management. Fifty-five percent of tourism businesses and hotels had their own websites (reported by Mephokee and Ruengsrichaiya 2005).

There are few SME studies in Thailand that have emphasized the accounting information system nor the application of technology specifically. Prior work has emphasized the listed company considering such issues as ownership structure on corporate performance (Yammeesri 2003), the relationship between Thai accounting information and Thai security prices (Graham *et al.* 2000), financial distress in listed companies using macro and micro variables (Tirapat and Nittayagasetwat 1999) and variables involved in predicting bankruptcy for finance companies (Person 1999). One of the objectives of this has been to redress this gap in knowledge. The following section presents research methodology of this study.

3. RESEARCH METHODOLOGY

The sample selected for this study was drawn from SMEs involved in the Initial Public Offering (IPO) and the non IPO groups. In this study, IPO SMEs are those firms which have entered into the market for alternative investment (MAI) and those which have not are termed

non-IPO SMEs. SMEs were located in Bangkok and the metropolitan area. The SME sample selected focused on the Bangkok area for two reasons. The first being that most of the IPOs are located in the Bangkok area, and second by focusing on the Bangkok area this helped to ensure that the target respondents, IPO and non IPO SMEs, faced similar regulations, policies, infrastructural support and environmental conditions (Kotey 1999). The adoption of area sampling also assisted in overcoming time and resource constraints in administering a large number of questionnaires (Cooper and Schindler 2006).

It was decided to adopt a triangulated approach in this study to enrich the data collected. It was decided to adopt a quantitative mail survey and also to undertake a small number of qualitative interviews. In selecting the sample for this study the total population of IPO SMEs, listed by the MAI (June 2006), was selected. This gave a sample of 36 SMEs. Due to the large number of non-IPOs a stratified random sample from the directory of the Institute for Small and Medium Enterprises (ISMED) website (*http://sme2.ismed.or.th/alliances/index.php retrieved 14 June 2006*) was used to select 200 non-IPO SMEs from a possible 460,843 for inclusion in the mail survey.

The mail survey adopted a questionnaire to collect demographic information about respondents, to identify how accounting information was processed within the SME, the utilisation of information technology by the SMEs, in particular with regard to the collection and preparation of financial information and, the background to the decision whether to adopt information technology within the SMEs Accounting Information System, and the benefits that might be obtained from the use of information technology in processing accounting information. Other than for demographic detail it was decided to use a Likert scale, rating from 1 to 5, for questions in the mail survey to assist in identifying , a sense of the agreement with or the importance respondents attached to each of the questions. Once questionnaires were returned, the raw data was coded and entered into the computer and then analysed using SPSS (V.14). In order to classify, review, and explain the demographic of IPO and non-IPO SMEs, frequencies and percentage analysis were used in this study. Moreover, T-test statistic technique was analysed to show how information technology adopted by the comparison between IPO and non IPO SMEs within the AIS and to test the hypotheses.

In the mail survey a 41% (82 of 200) response rate was received from non-IPO firms, and 36% (13 of 36) from IPO firms.

Two SMEs were selected from each of the IPO and non-IPO groups to participate in the interview stage of the data collection. Semi structured interviews were undertaken with each of the four respondents. Permission was sought and given for interviews to be taped. The raw data was transcribed and the results were initially written case by case. Cross-case analysis was then used by grouping answers from different interviewees and their viewpoints on the principal issues were analysed.

H1: IPO and non-IPO respondents indicate that the application of technology within the accounting information system improves the quality of financial information that can be produced to meet the decision making needs of the SME.

H2: IPO and non-IPO respondents attribute the same level of importance to the roles that information technology can play within the accounting information system of the SME.

3. RESEARCH RESULTS

3.1 Demographic[2]

In the case of the non-IPO respondents were principally the owner (35%) or the manager (37%), while for the IPO the manager (62%) was the major reposndent followed by the SMEs accountant (15%). Interestingly, in the case of the IPO SME the majority of respondents were female (69%) suggesting that many of the IPO SMEs are managed by women. While in the case of the non-IPO SME respondents were equally divided between male and female. In terms of age the majority of respondents from the IPO SMEs were aged from 30 to 50 years of age (92%), while for the non-IPO SMEs the age range was greater with 65% in the 30 to 50 age group, with 21% less than 30 (compared to the non-IPO SME 8%). In the case of the non-IPO 15% of respondents were aged over 50 years, while no respondent for the IPO SMEs exceeded 50 years of age. Educationally IPO respondents were better qualified than the non-IPO respondent with 69% holding a masters degree compared to 35%. However, 59% of non-IPO SMEs held a bachelors degree compared to 31% of IPO SMEs. The majority of respondents were therefore tertiary qualified. The majority of the IPO SMEs had been active for 7-10 years (77%) as compared to the non-IPO (65%). Respondents appear to come from firms that have been successful. The IPO SMEs were all larger firms with over 45 employees, while 38% of the non-IPO SMEs employed 15 or less people.

3.2 Utilisation of Computerised Accounting Information Systems[3]

To assess the degree of technology usage in SMEs respondents were asked to indicate whether computerised accounting information systems were in use. The results suggested that a higher percentage of IPO SMEs operate computerised systems as compared to non-IPO SMEs. In the case of the IPO SMEs 77% operate a computerised system as compared to 52% of non-IPO SMEs. However, 41.5% of the non-IPO firms operate a mixed system involving elements of computerisation and manually based recording, as compared to 23% of the IPO SMEs. Only a small percentage (6%) of non-IPO SME operate totally manual systems, and no IPO SME did. The use of computerised systems was common across both sampled groups though the sophistication of the system in place might be quite different. Given the size of the IPO SMEs the degree of technology usage is not that surprising.

3.3 Importance of Adopting Technology in the Accounting Information System

In considering the issue of the adoption of technology respondents were first asked to identify the importance of a number of characteristics relating to the adoption of information technology in the accounting information system. The results for the IPO SMEs, and for non-IPO in table 2. The results for both the IPO and the non-IPO SMEs suggest that both groups recognise the importance of adopting technology within the accounting information system although the degree of importance does vary. T-tests revealed that for both groups each of the characteristics were found to be significant. Both groups believe that technology allows them to better capture and record business operations and business events. While the IPO SMEs indicated that this was important (69%), a higher percentage of the non-IPOs regarded this characteristic to be most important (54% compared to 31%). Also, IPO SMEs strongly indicate

that adoption technology could enhance the accuracy and reliability with which data processed was important (92%) and they also believe that technology provides better information to support performance evaluation (timely, relevant and reliable) to management regarding reducing costs and improving productivity was important (100%). On the other hand, the non-IPO SMEs regard each concern as less important. In terms of the enhancement of the accuracy and reliability with which data could be processed 83% believed information technology was important. In terms of timely, relevant and reliable information regarding reducing costs and improving productivity 88% indicated technology was important. Further, IPO SMEs agree that using technology within AIS could assist in providing timely information to support an effective performance evaluation system was important (100%). On the same characteristic, Non-IPO SMEs raked on important scale (80%). Both IPO and non-IPO SMEs indicated that access to low cost of microcomputers and user-friendly accounting software" had facilitated the ability to utilise technology (77% and 83% respectively). The adoption of technology within the AIS was important to both IPO and non-IPO SMEs in providing the ability to advise management and to prepare reports for decision making (84% and 78% respectively). Both groups also indicated that technology within the AIS allowed for the more timely, relevant and reliable information to be prepared to assist in identifying and minimising the risks faced by the SME (85% IPO, 80% non-IPO SME). IPO and non-IPO believe that technology within the AIS has been an effective way to facilitate financial management (85% IPO, 87% non-IPO). In fact, they argue that this has assisted in allowing more careful attention to financial management and financial reporting to meet stakeholder information needs (92% IPO, 83% non-IPO). In this way technology has the ability to increase the value and effectiveness of business operations (IPO 85%, non-IPO 88%).

H1: IPO and non-IPO respondents indicate that the application of technology within the accounting information system improves the quality of financial information that can be produced to meet the decision making needs of the SME.

It was hypothesised that there would be a relationship between the application of technology within the accounting information system and an observable improvement in the quality of financial information that can be produced to meet the decision making needs of the SME. A T-test analysis was conducted to indicate the relationship. The results show that the value of two-tail significance of both IPO and non-IPO SMEs are less than 0.05 ($p<.05$). H1 therefore is supported. It is concluded that the application of technology within the accounting information system improves the quality of financial information that can be produced to meet the decision making needs of the SME.

3.4 The Role of Information Technology in the Accounting Information System

Respondents indicated that information technology had an important part to play in the accounting information system (table 3). A comparison of the views of the IPO and non-IPO SMEs, and the responses have been divided into four groups:

- Financial Information Processing
- Financial Report Preparation
- Management Accounting Reports
- Financial Information Utility

Table 2
The Importance of the Adoption of Information Technology in the Accounting Information System

Statements	*In IPO SMEs (No. of respondents)*					*One-Sample*		*In Non-IPO SMEs (No. of respondents)*					*One-Sample*	
	1	*2*	*3*	*4*	*5*	*t*	*Sig.* (2tailed)	*1*	*2*	*3*	*4*	*5*	*t*	*Sig.* (2tailed)
Improved ability to capture and record business operations and business events.				9	4	9.815	0.000			5	33	44	14.249	0.000
Ability to advise management and to prepare reports for decision making			2	8	3	3.825	0.002			18	34	30	10.183	0.000
To assist in providing timely information to support an effective performance evaluation system				7	6	10.126	0.000		1	15	39	27	10.018	0.000
Enhances the accuracy and reliability with which data is processed			1	9	3	7.500	0.000		1	13	37	31	10.668	0.000
Better information (timely, relevant and reliable) to management to assist in reducing costs and improving productivity.				11	2	11.078	0.000			10	45	27	11.242	0.000
Better information (timely, relevant and reliable) to management to assist in identifying and minimising risks faced by company.		1	1	8	3	4.416	0.001		1	15	42	24	9.778	0.000
Technology has become a effective way to facilitate financial management			2	9	2	6.245	0.000			11	34	37	12.041	0.000
Technological approaches offer the ability to increase the value and effectiveness of business operations			2	8	3	6.062	0.000			10	36	36	12.135	0.000
The ability to utilise technology has been facilitated by access to low cost of microcomputers and user-friendly accounting software		2	1	6	4	3.207	0.008	1		13	29	39	11.076	0.000
Technology has assisted in allowing the careful attention to financial management and financial reporting required to meet information needs.			1	8	4	7.407	0.000			14	35	33	11.095	0.000

In terms of financial information processing both groups indicate that the ability to process transaction using technology is important (69% IPO, 79% non-IPO). Further, the ability to undertake interactive processing is also important, though of lesser importance than being enabled to process transactions (66% IPO, 69% non-IPO). Interestingly, both abilities were seen to be more important by the non-IPO.

The ability to use information technology in the preparation of financial reports was indicated to be important by both groups (IPO 77%, non-IPO 80%). The ability to edit reports was also important (IPO 69%, non-IPO 74%). Both groups believed that the ability to prepare up to date financial and analytical reports was most important. Of the IPO respondents 92% considered this to be important, as did 83% of non-IPO SMEs. In terms of the ability to prepare internal management reports both groups indicated that this was important. This importance was identified in terms of the ability to provide management reports (77% IPO, 80% non-IPO), and in terms of the ability to present to management reports in a foirm suited to their analytical needs (77% IPO, 82% non-IPO). The final group of questions sought information from respondents about the utility of the financial information that could be available through the use of information technology. In each of these cases the IPO SME indicated that the characteristics were more important to them than to the non-IPO though only marginally so. The IPO SMEs, in particular, indicated the ability of information technology to provide instant real time information was important (85% IPO, 72% non-IPO). Both groups believed that the ability of information technology to facilitate the inquiry/search process was important (85% IPO, 84% non-IPO SME). IPO SMEs indicated that the ability of information technology to facilitate the integration of the financial area of the enterprise with other areas of the business operations was important (85% of IPOs, 80% of non-IPO SMEs). These results indicate that information technology and it's application within the accounting information system is important to both the IPO and the non-IPO SME. Marginal evidence suggests that the utility of the information generated is more important to the IPO than the non-IPO. This was further supported by the importance the IPO placed on the ability of information technology to facilitate the preparation of up to date financial and analytical information. Aspects of more importance to the non-IPO would appear to be the utilisation of information technology for more routine actions such as the processing of transactions, the ability to prepare and edit financial and management reports.

H2: IPO and non-IPO respondents attribute the same level of importance to the roles that information technology can play within the accounting information system of the SME.

In terms of H2, it was posed that both IPO and non-IPO SMEs would attribute the same level of importance to the roles of technology in their AIS. An analysis of descriptive and t-test was conducted. The results show that IPO would expect the role of technology to be more relevant to financial information utility rather than in financial report preparation. Non-IPO saw the focus more rlated to management accounting reports and financial report preparation. Therefore, H2 is not supported. It is indicated that both IPO and non-IPO attributed the difference level of importance to the roles that information technology can play within the accounting information system of the SME.

4. DISCUSSION AND CONCLUSION

This study intended to investigate the present position and the importance attached to aspects of information technology and potential roles that information technology could play

Table 3
Roles Played by Information Technology Played in the Accounting Information System in IPOs and Non IPO SMEs

Statements	*In IPO SMEs (% and No of respondents)*					*One-Sample T-test*		*In Non-IPO SMEs (% and No of respondents)*					*One-Sample T-test*	
	1	*2*	*3*	*4*	*5*	*t*	*Sig. (2tailed)*	*1*	*2*	*3*	*4*	*5*	*t*	*Sig. (2tailed)*
1. Financial Information Processing														
To process transactions			4	6	3	4.382	0.001	2	4	11	39	26	8.388	0.000
To allow interactive processing	1		3	7	2	2.420	0.032	2	5	21	31	23	6.907	0.000
2. Financial Report Preparation														
To prepare financial reports			3	7	3	5.099	0.000	1	1	14	33	33	10.014	0.000
To facilitate the editing of reports			4	9		5.196	0.000	1	2	18	40	21	8.287	0.000
To facilitate the preparation of up-to-date financial and analytical reports			1	11	1	8.832	0.000		3	11	37	31	10.212	0.000
3. Management Accounting Reports														
To prepare management reports		1	2	8	2	3.811	0.002	2	2	12	44	22	8.562	0.000
To present reports in a format suited to management analytical requirements			3	8	2	5.196	0.000		2	13	43	24	9.712	0.000
4. Financial Information Utility														
To provide instant real time information	1		1	7	4	3.338	0.006	2	2	19	33	26	8.028	0.000
To facilitate an inquiry/ search process	1		1	9	2	3.091	0.009	1	3	9	39	30	9.789	0.000
To facilitate integration with other areas of operation of the business	1		1	9	2	3.091	0.009	2	1	13	36	30	9.321	0.000

within Accounting Information System (AIS) in Thai SMEs. The basis of the study was a comparison between the Initial Public Offerings (IPOs) and non- IPOs SMEs in Thailand. The findings found that both groups were operated their accounting system by computerized system and/or mixed system (a combination of computerized and manual system), and only a small percentage (6%) of Non-IPO SMEs were operated a manual system.

In this study two hypotheses were posed:

H1: IPO and non-IPO respondents indicate that the application of technology within the accounting information system improves the quality of financial information that can be produced to meet the decision making needs of the SME.

H2: IPO and non-IPO respondents attribute the same level of importance to the roles that information technology can play within the accounting information system of the SME.

In the first hypothesis it was posed that both groups of SMEs would indicate that they believed that the application of technology within the accounting information systems of the Thai SME would improve the quality of financial information that could be produced to meet the decision making needs of the SME. It was found that this hypothesis was supported. For both IPO and non-IPO SMEs the descriptive and t-test results indicated that respondents believed each statement identifying a characteristic that the application of information technology within the accounting information system would achieve was important. For each of the identified characteristics with the exception of two items over 80% of both groups of SME respondents identified the characteristic to be important. Together with significant t-statistics this indicates that Thai SMEs by and large regard the application of technology within the accounting information system to be important. A summary of this information is provided in table 4.

Table 4
Percentage Importance of Characteristics by Respondents

Characteristic	*IPO SMEs (% Important)*	*Non-IPO SMEs (% Important)*
Improved ability to capture and record business operations and business events.	90	94
Ability to advise management and to prepare reports for decision making	85	78
To assist in providing timely information to support an effective performance evaluation system	100	80
Enhances the accuracy and reliability with which data is processed.	92	83
Better information (timely, relevant and reliable) to management to assist in reducing costs and improving productivity.	100	88
Better information (timely, relevant and reliable) to management to assist in identifying and minimising risks faced by company.	85	80
Technology has become a effective way to facilitate financial management	85	87
Technological approaches offer the ability to increase the value and effectiveness of business operations	85	88
The ability to utilise technology has been facilitated by access to low cost of microcomputers and user-friendly accounting software	77	83
Technology has assisted in allowing the careful attention to financial management and financial reporting required to meet information needs.	92	83

In the second hypothesis it is posed that both groups, the IPO and the non-IPO SME, would attribute the same importance to the roles that they would envisage information technology would play in the accounting information system. While hypothesis 1 focused more on the qualitative aspects that might be expected to result from the information generated from the accounting information system this hypothesis focused more on the practical outcomes that would be expected from the accounting information system. It was expected that both groups would consider the roles that information technology could play in the accounting information system to be equally important. The resultant descriptive statistics and t-statistics indicated in the case of most of the roles both IPO and non-IPO did regard the role as important but not equally so. An interesting difference in the level of importance appeared in that the non-IPO SMEs indicated that the more practical application roles were most important, and indicated less importance to the utility roles of the financial information generated with the use of information technology.

Table 5
Percentage Importance of Roles by Respondents

Role	*IPO SME (% Important)*	*Non-IPO SME (% Important)*
Financial Information Processing		
To process transactions	69	79
To allow interactive processing	66	69
Financial Report Preparation		
To prepare financial reports	77	80
To facilitate the editing of reports	69	74
To facilitate the preparation of up-to-date financial and analytical reports	92	83
Management Accounting Reports		
To prepare management reports	77	80
To present reports in a format suited to management analytical requirements	77	82
Financial Information Utility		
To provide instant real time information	85	72
To facilitate an inquiry/search process	85	84
To facilitate integration with other areas of operation of the business	85	80

The results of this study indicate that the adoption of information technology within the accounting information system of SMEs is important and would be expected to enhance decision making. While the emphasis on what is important varies between the IPO and the non-IPO SME each group recognizes that technology and the accounting information systems are important. The functions associated with the AIS of collecting and storing transactions data, and processing data into information that is useful for decision making and providing adequate controls to safeguard the organization's assets are identified to be important. There is recognition that the application of technology within the accounting information system is able to increase the efficiency of internal business operation. The findings of this study is a confirmation that the Thai government should continue to encourage and act to increase the awareness of the

benefits of the adoption of information technology, in particular in the accounting information system, to encourage the efficient and effective growth of Thai SMEs.

5. LIMITATION OF THIS STUDY

There are limitations associated with this study. First, the sampling selection of this study was considered the location of the samples located in Bangkok. But it was not focused on the category of SMEs. Thus, the results were combined. Lastly, this study combined company size between small and medium into one size. The company size might affect the use of information technology.

Notes

1. Details are shown in appendix 1.
2. See Appendix 2 for details.

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Appendix 1
Demographic of Respondents

classification	*criteria*	*IPO SMEs % and No. of respondent*	*Non-IPO SMEs % and No. of respondent*
Major role	Owner	7.1% (1)	35.4% (29)
	Manager	61.5% (8)	36.6% (29)
	Accountant	15.4% (2)	15.9% (13)
	Secretary	7.1% (1)	3.7% (3)
	Other	-	8.5% (7)
Gender	Male	30.8% (4)	50% (41)
	Female	69.2% (9)	50% (41)
Age group	Less than 30 years	7.7% (1)	20.7%
	Between 31-40 years	46.2% (6)	32.9%
	Between 41-50 years	46.2% (6)	31.7%
	Over 50 years	-	14.6%
Highest education qualification	Primary school	-	-
	High school or equal	-	2.4% (2)
	Diploma	-	2.4% (2)
	Bachelor's Degree	30.8% (4)	58.8% (48)
	Master's Degree	69.2% (9)	35.4% (29)
	Doctor of Philosophy	-	1
Industrial sector	Manufacturing	(38.5%, 5)	36.6% (30)
	Wholesaling	7.7% (1)	14.6% (12)
	Retailing	-	-
	Trading	-	13.4% (11)
	Services	(23.1%, 3)	-19.5% (16)
	Agribusiness	-	1.2% (1)
	Technology	-	9.8% (8)
	Property and construction	15.4% (2)	-4.9% (4)
	Other	15.4% (2)	-
Establishment length	less than 12 months	-	1.2% (1)
	1-3 years	7.7% (1)	12.2% (10)
	4-6 years	15.4% (2)	22% (18)
	7-10 years	76.9% (10)	64.6% (53)
	More than 10 years	-	-
Business organisation form	Sole trader	-	7.3% (6)
	Partnership	-	4.9% (4)
	Company	-	81.7% (67)
	Listed company	100% (13)	-
	other	-	1.2% (1)
Number of full time employee is this breakdown right?	Equal or less than 15 people	-	38% (31)
	Between 16-25 people	-	8% (7)
	Between 26-35 people	-	5% (4)
	Between 31-45 people	-	11% (9)
	Equal or more than 46 people	100% (13)	38% (31)

Appendix 2
Accounting Information operated in respondents' firm

	Manual system (% and No. of respondents)	*Computerized system (% and No. of respondents)*	*Mixed system (% and No. of respondents)*
IPO	-	76.9% (10)	23.1% (3)
Non-IPO	6.1% (5)	52.4% (43)	41.5% (34)