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The Adoption of Computerized Accounting System in Small Medium Enterprises in Melaka, Malaysia

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Abstract

The increasing competition and the highly demands of globalization, Malaysia government attempt for Small Medium Enterprise, SME for the development of innovative, competitive with high technology. Computerized accounting system (CAS) adoption may be decisive factor for an organization to be success and also to survive.

This research project which aimed to investigate SME practice of CAS and to identify the factor affecting the adoption among SMEs in Melaka. A survey was carried out through a set of questionnaires to examine the CEO Innovativeness Factors Scale, Perceive Usefulness Factors Scale, Perceive Ease of Use Factors Scale and Business Competitiveness. The sample selected comprised of CEOs of SMEs in three districts in Melaka, namely Melaka Tengah, Alor Gajah and Jasin. The data gathered were coded and analyzed using descriptive statistics, linear regression analysis, Pearson Correlation analysis and Analysis of Variance (ANOVA).

This study reveals that CAS adoption rate in SMEs in Melaka is high. Results from the analysis also shown the significant of independent variables and proved the relationships have been substantiated to the dependent variable which contribute to the usage of CAS adoption between SMEs in Melaka. The findings indicate that CEO innovativeness; perceive ease of use and business competitiveness negatively correlated to the adoption of CAS. Results reveals that only perceive usefulness are significantly positive correlated to CAS adoption. Therefore it can be deduced that adoption of CAS among SMEs in Melaka is caused by its usefulness.

The findings reveal that types of business and business location influence the adoption of CAS. However, size (paid up capital, sales turnover and number of employee) do not influence the adopter. Results also indicate that CEO literacy on ICT, accounting and CAS has influence the responded CEO to adopt CAS in their business. However, the advantages by using the accounting systems software were not fully utilized by CAS adopters.

Keywords: computerized accounting system, small and medium enterprise, adoption, innovativeness, business competitiveness

1. Introduction

In a dynamic world, the availability and adoption of Information and Communication Technologies (ICTs) across the globe has altered the norm of the game and expectations of the new mode of economics activities. The norm of inter and transnational trading changed dramatically to admit the increasing number of financial transactions and trade-related activities that take place via the Internet and technologically assisted tools.

The traditional view of small business record keeping suggest that it is a paper based and hand of to the accountant firm to prepare the annual tax return. Porter & Millar (1985) mentioned in this competitive advantage, over the years, information technology had played a major role, changing the nature of business who knows its effects. With the introduction of new technology and more user friendly software, computerized accounting system (CAS) appears to reduce the problems in book record keeping practice. Furthermore, with the new and rapid financial information, new updates and changes will be available for others in making decisions.

Profitability through price competitiveness and also quality of their services and products were the target in

Small and Medium Enterprises (SMEs) as a profit seeking organizations. To survive and grow, SMEs need more non-financial information such as customer behavior, market trends and price changes, besides the fundamental of financial reports, Chenhall & Morris (1986). Changes in information are constant with the changing environment. With lower labor costs that offered by China and Vietnam gives a global competitive in Malaysia SMEs environment. Therefore, without the use of technology such as computerized accounting system, it will be more difficult for the SMEs to make a good decision. In the Northern Region of Malaysia, CAS usage in SMEs are at the early stage as most of the firms adopt this technology within six years or less Noor et. al. (2003). Powell and Xiao (1996) and Duchinsky and Dunn (1998) mentioned that UK companies adopted this system and limited to fundamental accounting components. Study conducted by Josept and Janggu (2003) in Kuching Sarawak found that the rate of adoption of computerized accounting system is minimal 52 percent.

Shaping the future of the local economic landscape had changed dramatically and it is important that efforts for a more equitable and sustainable progress towards may not stop ICT adoption by SMEs in the region. SME's is in transition, moving rapidly from "production driven" to "knowledge and information based". In Malaysia, SMEs play an important role. By contributing to expand output, provide value-added in the manufacturing sector, create jobs and help expand the country's export-based activities (UNDP, 2007). Furthermore, in 2003 Malaysia SMEs represent 99% of business establishments, employs more than three million workers and create a total added value of RM 54 billion, Census (2005). The increasing competition and the highly demands of globalization, Malaysia government attempt for Small Medium Enterprise, SME for the development of innovative, competitive with high technology according to the 9th Malaysia Plan from year 2006 to 2010. By achieving industrialized nation status by 2020, Malaysia SMEs is seen as a potential factor.

This research aims to determine the factors that influence the use of CAS among SMEs in Melaka. The main objective of this study is to observe related issues on the application of CAS with the CEOs of SME in Melaka. The objectives are whether CEO innovativeness influence the adoption of CAS, to determine the perceiveness of use influence the adoption of CAS, perceive usefulness in the adoption of CAS and to determine whether business competition influence the adoption of CAS in SMEs in Melaka.

Thus, the results of this research will give an important indicator of the willingness of SMEs in Malacca towards future challenges by adopting a CAS, could speed-up the preparation of financial reports on time. A complete CAS should allow the management to make an important predictions to compete in the global economy and also an important indicator for achieving the status of "Melaka Maju 2010" where small and medium industries play an important role to achieve this objective.

This study examined factors of the CAS adoption including the contexts of CEO characteristic, business competition, perceive ease of use and perceive usefulness. Data was gathered from 180 SMEs' Chief Executive Officers (CEO) in Melaka from participating organizations in the three districts of Melaka that are Melaka Tengah, Alor Gajah and Jasin. Organizational structure of SMEs is less complex and CEO used to be the owner and main decision-maker of the business. Hence, CEOs' characteristic and perceive towards CAS can represent the organizational intention to adopt CAS.

2. CAS Adoption Factors

Linda (2004) noted that there are two functions in record keeping, namely: to provide entrepreneurs business operation and a complete and easy set to record the business activity by providing income tax information which is widely available and verifiable. A good accounting system should give an accurate and comprehensive results of operations, which allow quick comparison between current and previous years data, offers the financial statements to be used by prospective creditors, bankers and management, facilitate filing reports and tax returns to government regulatory agencies and tax-collecting, and disclosing record keeping error, waste, theft, and employee misconduct, Longenecker, et al. (2006) However, this study also showed that many entrepreneurs simply do not keep sufficient records and/or that they do not benefit the use of their financial statements.

A more simplistic view is presented by Klien (2002) stressed that a business either small or big business must have equivalent accounts namely, the income, capital, expenses and liabilities Small business need to track its assets, liabilities, income and the expenses. Various software package introduce such as interface, wizards file, icon and pre built templates for multipurpose. It can be memorizes by saving the data and the forms that been used regularly. By using this feature, record keeping will be consistent and also save time, Davis and Dunn (2005).

This study consolidated Thong (1999) research model and Davis (1989) Technological Acceptance Model as framework that is useful in studying variables that affect the adoption of CAS. According to Thong (1999) owner-managers particularly features important characteristics towards education, knowledge level in IT,

experience in IT training, innovativeness IT adoption and computer self- efficiency. Capability using a computer was defined by Compeau and Higgins (1995) in computer self- efficiency. CEO is usually the owner-manager in a small and medium business, Thong (1999). Determining the innovation attitude in small and medium business are the most critical for the CEO as a decision maker, Rizzoni (1991). Meanwhile, process in the IT decisions making were made by large business teams. This is different to the small and medium business, where in IT decision were done by the owner-managers, Thong (1999). According to Frissen (1999) in small and medium business, decision making is done by one-person, either the entrepreneur, director or the self-employed owner. As a consequence the owner had the maximum autonomy in this small and medium business.

Kirton (1976) mentioned that everyone able to things with their own ability and differently within its own range. The range is known as innovators and adaptors. In adapter, CEO will find solutions which he/she had understood and known meanwhile, in the innovator, vice versa. If the CEO or others members in the business has the spirit to innovate by adopting information system or extent the adoption in information system, Thong (1999). Rogers (1983) in his innovation theory mentioned that attitude of an individual firm towards innovation, which lead to the decision to accept or reject and, if the decision is to adopt is to implement the innovation in their business activity.

There is a strong link between qualifications of their leaders and technology-driven firm. According to Lal, (2006) finding educational attainment of company directors who are related to the use of ICT and further stressed that one possible clarification for the low level of IT usage in Malaysia is that most SME owners are anxious in IT and also because of their unfamiliarity of the technology. IT implementation in small business is more likely to be conduct by CEO (business owner), who has been conducting computer training and have their own computer efficiency IT (Delone 1988, Raymond 1988). Ettlie (1990), CEOs with greater knowledge in technological innovation is significantly more likely to implement an aggressive technology adoption policy. Lacking in basic knowledge and awareness in information systems were found in the CEO small and medium businesses, Gable & Raman (1992). Unfamiliarity of IT was the main cause why most of them are less concern and do not know the benefits using information system. If the owner (CEO) knows the importance of CAS, technology adoption is ready for them.

This seems to imply that, if CEOs have knowledge about the benefits of CAS, they would be willing to adopt such technology. Furthermore, further stressed that they have to be provided further insight that required skills in IT besides the basic skill needed by the small business owner-manager, Feeney & Wilcox (1998). Instead, the owner-manager can prevent any worthwhile IT performance through group or hostility to the IT (Thatcher and Perrewe, 2002). Therefore, owner-manager has IT adoption efficiency in small and medium business.

Outsourcing the accounting work to the public accounting firm is preferred by the small and medium businesses. By outsourcing, the awareness of the importance and the benefit in using IT is low, Lees (1987); Delone (1988) and Niedleman (1979). These knowledge deficiencies will create a barrier to CAS adoption. By this study, CEO will be exposed to the importance and the benefits in using IT. According to Longenecker, et al. (2006), small and medium business owners-managers are not expert in accounting but they should know the process including the financial statements and identify the best methods can be apply to its business.

The characteristics of the organization are other variables that influences the decision whether to adopt IT. Organizational characteristics such as business size, employee's level of IT knowledge, industry sector, business location, and information-intensity has been analyzed in previous research studies by Wenzler, (1996); Attewell, (1992); and Delone, (1988).

Generally, the larger the number of employees, the greater the sales turnover, the more information-intensive the industry and the more likely a small business will adopt IT innovation. Moreover, small businesses tend to suffer resource poverty (Thong, 1999) in terms of financial capacity, available time and IT skilled staff to facilitate innovation adoption. Consequently, resource poverty raises the barrier to innovation adoption in small business (Attewell, 1992).

Past literature in technology innovation, more resources and infrastructure in large businesses to facilitate the adoption of innovation (Dewar and Dutton, 1983; Moch and Morse, 1977). Barriers that small and medium businesses had to face such as limited financial resources, lack of expertise in-house information system to adopt information system (Ein-Dor and Segev, 1978). Alpar & Reeves, (1990) mentioned that, knowledge of information systems, even among small businesses able to hire people with specific skills.

Environmental characteristics related to organizations operating variables such as external agents and competition. Competition may lead to the use of innovative technology. Wholesalers, trade associations, franchisors and voluntary groups were influenced from high IT adoption by small businesses, Treadgold (1990).

Wenzler (1996) identify that the reason behind implementing IT in their business are their customers rather than the competitor.

Competition is generally believed to increase the probability of innovation adoption (Thong, 1999). Competition led to the uncertainty of the environment and enhances both the rate and the need of adoption of innovations. Porter and Millar (1985) suggests that, there are three ways businesses can adopt IT. By changing the competition rules, as well as changing the industry structure. IT can create competitive advantage by reducing costs or increase differentiation. Finally, IT seed new businesses by creating a demand from new products, often in the existing business operations.

Adopt an innovation are also affected by peer pressure associated to the "diffusion effect," which is, the degree of influence on individual outstanding increased by 1 or an organization to approve or reject the innovation, resulting from activation of the peer network in social system (Rogers, 1983). Firms may end up adopting because of perceived competitive necessity (or even sheer imitation) rather than as a result of a cost/benefit assessment (O'Callaghan, 2005).

2.1 Relationship between Adoption of CAS and CEOs Characteristic

From the preceding literature review, this section develops a research framework that best describe the relationship for all the independent variables and dependent variables. The dependent variable is the use of CAS. Definition by Davis and Olson (1985), to support management, operations and decision making in business, adoption in information system by using computer software and hardware applications. In this research, by using at least one module of accounting application was defined as computerized. Powell & Xiao (1996), the number of accounting modules in use and the level of integration among the modules will be used to measure the size of the use of CAS, CAS sophistication adopted,.

There will several independent variables such as, characteristic of organization decision maker (CEO innovativeness), business environment (competition) and perception towards CAS (usefulness and ease of use). CEO innovativeness was chosen among all because as mentioned above according to Rogers' innovation theory, an individual firm attitude towards innovation, which led to the decision to accept or reject. Therefore, the potential adopter perception towards the use of IT is the main determinant of CAS (Rogers, 1983).

3. Methodology

The goal of this descriptive study is to describe the relative importance of the characteristic of CEO, organization characteristic and business environment to the adoption of CAS among SMEs in manufacturing sector in Melaka. Further, hypotheses developed were tested to enhance the understanding of the relationship between the variables. Data collection was done in two phases: questionnaire and pilot study. The factor analysis and Cronbach's alpha computed to establish the validity and reliability of data. A structured questionnaire will be mailed to the CEO (owners-managers). CEO is the person who decides to adopt CAS in their business, Thong (1999). In deciding sample companies, this study utilized the list of SMEs located in Melaka as listed in Direktori Usahawan Bumiputra Melaka 2006. To undertake this study, there are two types of data that consists of primary data and secondary data. All data will be discussed using descriptive statistic such as frequencies. Statistical Package for Social Sciences (SPSS) 16.0 will be used to formulate the data collected from the study. Multiple linear regression techniques will be used to test the hypotheses.

4. Findings

4.1 Respondent Profile

In terms of geographical location, 54 (40.30%) companies are located in Melaka Tengah, 32 (23.9%) companies in Alor Gajah and 48 (35.8%) companies being located in Jasin (Appendix A). SMEs in Malaysia fall into two broad categories, manufacturing and services. Thus, responded CEOs were classified according to the types of industry they operated. Manufacturing represented by 85 (63.4%) companies sample and 49 (36.6%) companies from services sector. This suggests that majority of the sample from manufacturing sector. There are 84 (62.7%) companies have been operating for three to six years. Only 8% of the companies studied operated more than 9 years. Others have been operating less than 3 years. Majority of the respondents, 85 (63.4%) companies paid up capital is below RM500,000 and 34 (25.4%) companies is between RM 500,000 to RM 1 million. This suggest that majority of the responded companies (63.4%) have a small capital and small capital company unsufficient from financial ability, skilled It staff and time available to adopt, Thong (1999).

To confirm whether the responded companies were under small medium enterprise category, number of employee is one of the important factors. The finding shows 100% of the responded companies having employee less than 150 that suggest respondents are small medium enterprises. Beside number of employee, company sales

turnover was also the important determinant to categorized SME companies. All responded company having sales turnover below RM10 million per year. The result reveals that most of the companies' yearly turnover is less than RM250,000 (70.1%) and 29.9% is between RM250,000 and RM10 million. This confirmed that all responded companies studied falls under small enterprises.

4.2 Preparation of Company Account

The result illustrates that most of the companies (65.7%) prepare company account internally. However there are still 34.3% of the companies outsource the preparation of company account to accounting firm. Even only 65.7% of the companies prepared account internally, 79.9% of the companies using the CAS. This suggests that 19 companies (14.2%) that outsource the preparation of account is using CAS since it is defined as the use of computerized if it uses at least one module such as ledger.

The finding also revealed that majority of the companies (81) is using the CAS purchased from vendor (Integrated accounting system) which ease of use rather flexibility and customized functionality for example UBS accounting system and MPOB. Only 26 companies using internally developed system (modular accounting system) that is customized according to customer needs.

4.3 Characteristic of CEO

There are four criteria that are related to characteristic of CEO namely the ownership, accounting literacy, ICT literacy and CAS literacy. Finding shows that 90.3% CEO having majority shares in the company and owner-decision maker of the company. Therefore, their characteristics are important in determining the attitude of small and medium business innovation (Rizzoni, 1991). Majority of the CEO have at least basic knowledge/literacy in ICT. Only small number of CEO that is 15 (11.2%) does not literate in ICT. The result reveals that 100% of the respondents literate in accounting with 44% least basic accounting literacy where 11.9% of the respondent expert in accounting. Whilst, 46.3% CEOs do not literate in CAS, 33.6% CEOs have a basic literacy in CAS and only 2.2% CEOs expert in CAS.

4.4 Hypothesis Testing Result

Hypothesis 1: CEO innovativeness influences the adoption of CAS in SMEs in Melaka.

There is a significant relationship between CEO innovativeness and the adoption of CAS as shown in Table 1. So, we have to reject the Ho hypothesis and accept the H1 hypothesis. The result indicated that there was a medium, negative correlation between CEO innovativeness and adoption of CAS, $r = -.351$, $p<.001$. This explains that CEO innovativeness factors play a role in influencing CAS adoption among SMEs in Melaka. The Pearson correlation coefficient result indicated that there was a medium, negative correlation between CEO innovativeness and adoption of CAS. On the other hand CEO literacy on ICT, accounting and CAS do have positive relation on the adoption of CAS. This support by Cross tabulation outcome reveals that most of the CAS adopter have at least a basic knowledge and skill on ICT, accounting and CAS.

Table 1. Relationship between CEO innovativeness and usage of CAS

		Company usage CAS	CEO innovativeness
Company usage CAS	Pearson Correlation	1	-.351**
	Sig. (2-tailed)		.000
	N	134	134
CEO innovativeness	Pearson Correlation	-.351**	1
	Sig. (2-tailed)	.000	
	N	134	134

**. Correlation is significant at the 0.01 level (2-tailed).

Hypothesis 2: Perceiveness of use influence the adoption of CAS in SMEs in Melaka.

The figures in Table 2 were analyzed using Pearson product-moment correlation coefficient. This result revealed that there was a strong, positive correlation perceive of influence and usage of CAS, ($r =.539$, $p < .001$). This suggests that perceive usefulness have positive effects on influencing the adoption of CAS among SMEs in

Melaka. Thus, the Ho hypothesis rejected and accepts the H2 hypothesis.

Table 2. Relationship between perceive of influence and usage of CAS

		Company usage CAS	Perceive usefulness
Company usage CAS	Pearson Correlation	1	.539**
	Sig. (2-tailed)		.000
	N	134	134
Perceive usefulness	Pearson Correlation	.539**	1
	Sig. (2-tailed)	.000	
	N	134	134

**. Correlation is significant at the 0.01 level (2-tailed)

Hypothesis 3: Perceive usefulness in the adoption of CAS in SMEs in Melaka.

Based on the correlation between perceive ease of use and usage or adoption of CAS as shown in Table 3, it is found that there was a strong, negative correlation, ($r=-.541$, $p < .001$). The fact is that majority of the company that adopt CAS, the CEO having very little knowledge and skill on CAS, 60% of the respondent is under nil and basic scale. The result proved that perceive ease of use is one of the important variables to determine the factor influencing the adoption of CAS and we reject the Ho hypothesis and accept the H3 hypothesis.

Hypothesis 4: Business competitions influence the adoption of CAS in SMEs in Melaka.

Relationship between business competition and usage of CAS reveals that there is a small, negative correlation between business competition and adoption of CAS, ($r = -.338$, $p < .001$) as shown in Table 3. This suggests that business competition factors also play some role as influence factors of CAS adoption. Based on findings the Ho hypothesis rejected and the H4 hypothesis accepted

Table 3. Business competitions influence the adoption of CAS in SMEs in Melaka

		Company usage CAS	Business competition
Company usage CAS	Pearson Correlation	1	-.338**
	Sig. (2-tailed)		.000
	N	134	134
Business competition	Pearson Correlation	-.338**	1
	Sig. (2-tailed)	.000	
	N	134	134

**. Correlation is significant at the 0.01 level (2-tailed)

Hypothesis 5: The four independent variables influence the adoption of CAS in SME in Melaka.

Testing the influence of all four independent variable to the adoption of CAS, it is found that this model account for 61.5% of variance in the factor influence the adoption of CAS among SMEs in Melaka as shown in Table 4.

Table 4. Multiple linear regression – output 1

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.792[a]	.627	.615	.24973

a. Predictors: (Constant), Perceive ease of use, Perceive usefulness, CEO innovativeness, Business competition

Table 5. Multiple linear regression – output 2

ANOVA[b]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	13.515	4	3.379	54.177	.000[a]
	Residual	8.045	129	.062		
	Total	21.560	133			

a. Predictors: (Constant), PEOU, PU, CEO innovativeness, Business competition

b. Dependent Variable: Company usage CAS

In term of overall significant of this model, Table 5 shows that significant model emerged ($F_{4,129} = 54.177$, $p < 0.001$).

Table 6. Multiple linear regression – output 3

Coefficients[a]						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.662	.250		6.645	.000
	Perceive usefulness (PU)	.035	.004	.483	8.426	.000
	Business competition (BC)	-.009	.004	-.130	-2.241	.027
	CEO innovativeness (CEO)	-.021	.003	-.337	-6.040	.000
	Perceive ease of use (PEOU)	-.032	.005	-.377	-6.638	.000

a. Dependent Variable: Company usage CAS

The perceive usefulness, business competition, CEO innovativeness and perceive ease of use are significant variable for this model ($p < 0.05$). Based on regression analysis outcome, the Ho hypothesis rejected and the H5 hypothesis accepted. In this study, the relationship between the independent variables and dependent variable from regression analysis is:

$$CAS\ Adoption = 0.483PU - 0.130BC - 0.337CEO - 0.337PEOU$$
$$(8.426) \quad (2.241) \quad (6.040) \quad (6.638)$$

where t value is in parentheses.

This indicates that CAS adoption will increase by 0.483 when PU goes up by one (holding other variables constant), decrease by 0.130 when business competition goes up by one (holding other variables constant), decrease by 0.337 when CEO innovativeness goes up by one (holding other variables constant) and decrease by 0.337 when PEOU goes up by one (holding other variables constant). In conclusion the findings that have been gathered revealed the variables have positive and negative influence the adoption of CAS. The finding also reveals that the model used is significant and the four variables were significant for this model.

5. Conclusions

This study revealed that from the 180 questionnaires, only 134 complete sets for analysis. Response rate was presented by 74%. An analysis indicates that 85 (63%) of the respondents from manufacturing sector. Majority of the respondent having employee less than 55 (84%) with total annual revenues less than RM250,000 for 70% of the respondent. The frequency analysis also revealed that almost 90% of the responded CEO is the majority shareholder of the company.

As for the adoption of CAS, the findings reveal that almost 80% of the SMEs have adopted CAS at various stages of implementation. The result of this study was consistent with the empirical study by Thong (1999) that stated with the use of several accounting software, barriers to IT innovation adoption are reduced. IT adoption in small business had increase. This has led to an increase in the adoption of IT by small business.

Based on the first objective, the independent variable is the CEO innovativeness. Rogers (2003) defined innovativeness as "the degree to which an individual is relatively earlier in adopting new ideas than other members of a system" (p. 267). Pearson correlation coefficient result reveals that there was medium, negative correlation between CEO innovativeness and CAS adoption among SMEs in Melaka. This finding highlight that CEO innovativeness has a negative impact on CAS adoption. Thus, further analysis using cross tabulation was carried out to study whether others CEO characteristic will influence the adoption of CAS. ICT literacy in this study defined as a judgment of the ability to use a computer. According to the previous study, a person will be easy to adopt a computerized accounting system if they know to use a computer. By using these factors, the user group of CAS had a higher proportion of CEO that literate with at least basic skill and knowledge on ICT (80%) compared to non-users consist of responded CEO that have no skill and knowledge on ICT (11%) and basic skill (9%). Cross tabulation analysis also reveals that 80% of the responded CEO that adopts CAS has at least basic knowledge of accounting and 33% of CAS adopter does not literate on CAS, while 42% of those identified as having basic CAS literacy. There are no strong link between CAS literacy and CAS adoption. A conceivable explanation is the importance of CAS mitigates the necessity for CEO to literate in CAS as long as the company concerns have the skill staff to operate the system. Evidently, the CEO innovativeness is not a positive influence to the CEO of SMEs in Melaka to adopt a CAS.

Perceived usefulness is the second independent variable in this study. As mentioned earlier, the availability of user-friendly accounting software has improved the benefits of adopting CAS. Burges (1997), increase business efficiency and facilitate the timely information are the main benefits in implementing CAS. Therefore, findings highlight a strong positive perception of the usefulness of CAS among respondent. The majority of CEO considered that the CAS can improve job performance (M=3.91, SD=1.12), CAS support decision making (M=3.78, SD=.396), CAS give owner more control over company account (M=3.75, SD=1.03). Moreover, there is one question on their overall perception whether the CAS is useful for the company and the mean (3.25) indicated that responded CEO perceive that CAS is useful on their business. Further analysis is to analyze the relationship between perceive usefulness and CAS adoption. Evidently, there is a strong positive influence of perceive usefulness and CAS adoption ($r=.539$, $p<0.001$). The result of this study confirmed prior studies where CEOs' perception of usefulness was a significant predictor of CAS adoption (Tan & Teo, 1998). Thus, this support the objective where perceive usefulness can influence CAS adoption on SMEs Melaka.

The third independent variable is perceived ease of use. The conclusion can be made where 33% of the CAS adopters do not literate in CAS and 42% have a basic skill and knowledge in CAS. Overall, 75% of the CAS adopters were not familiar with CAS. This outcome supported by the fact that the lowest mean is CEO perception that learning to operate CAS is easy (M= 2.96). However, the mean for interaction with CAS clear and understandable (M= 3.82) and easy to produce report using CAS (M= 3.49) among the highest means. This outcome can be cause by the situation whereby the CEOs only access the CAS to get financial report and not involved directly in preparing the account using CAS. In this study, the main focus was on how CEOs perceptions that CAS is easy to use can influence the adoption of CAS. The finding showed that there is strong negative relationship between CEO perceives ease of use and the adoption of CAS ($r = -.531$, $p<.001$). This evidence reveal that the CEO perceive ease of use does not have positive influence on CAS adoption and the finding may suggest that the adoption of CAS is strongly influenced by the perceive usefulness.

From the literature above, these external factors such as suppliers, competitors, customers and accounting firm can influence the adoption of CAS. This research only focus on how responded CEO perceived that their business is competitive and to test whether this factor influence the adoption of CAS. The study reveals that businesses competitiveness has a significant negative relation with the adoption of CAS ($r =-.338$, $p<.001$). Further cross tabulation analysis was carried out to determine what other factors related to the business that might effect the adoption of CAS. First result indicates that 77 companies out of 107 companies adopt CAS (70%) is from manufacturing company. This suggests that the respondent believed that their organizations were in an industry of high information intensity, that means that the organizations needed up to date, reliable and accurate information anytime. The finding of this study was consistent with prior study (Thong, 1999) that higher information intensity would lead an organization to perceive CAS as a competitive tool.

Second, the highest portion of the CAS adopter is from Melaka Tengah District (50 out of 54), followed by Jasin District (35 out of 40) then Alor Gajah (22 out of 32). The organization located in Melaka Tengah was more likely than expected to adopt CAS earlier than other district. This is because of Melaka Tengah District known to be the central resources in terms of finance, technology information and human resource compared to other districts in Melaka.

Finally, from the result above shows that neither size of a business or age indicates the clear pattern on CAS

adoption. This evidence suggests that there is no correlation between the number of years in business, paid up capital, sales turnover per year and number of employee with the adoption of CAS. The findings had matched with the earlier studies that the company size was not correlated, with the use of accounting system (Hunton and Flowers, 1997). Previous studies suggested that the difference may be the capital constraints and lower risks due to the dramatic reduction in IT costs where all firms will get the benefit from the latest IT development. Thus, from the finding it can be concluded that business competitiveness have negative influence on CAS adoption. In fact, type of business and business location show the positive relationship with CAS adoption.

Majority of the firms adopted the most popular method of implementation is available through the purchase of finished packages. Because of the easy-to-use software and low-cost which satisfy the needs for owners-managers. Only 19% of respondents developed their own packages because the lacking of IT expertise in their business organization to develop the accounting system. The findings is matched with previous study by by Gray (1991) and Shahrum et al., (1996) where the most respondents used the ready-made accounting software. Based on this finding, while the adoption rate of CAs is high, it can be reduced, the extent of CAS adopted by SMEs in Melaka is still behind from the industrialized nations (Powell & Xiao, 1996; Henry, 1997; Duchinsky and Dunn, 1998 and Everdingen et al., 2000).

Evidence indicates that SMEs do not fully utilize the technology offered by the accounting system. The study may educate SMEs in Melaka to benefit from the extensive use of CAS since CAS offers greater benefits than those offered by the basic accounting modules. If these systems can be included in Malaysian SMEs, CAS will provide great assistance in making better decisions because they provide a report that contains information about future scenarios.

This paper investigated the variables relationship with the CAS adoption. The finding indicates that CEO innovativeness; perceive ease of use and business competitiveness negatively correlated to the adoption of CAS. Result indicates that only perceive usefulness are significantly positive correlated to CAS adoption. Therefore it can be deduced that adoption of CAS among SMEs in Melaka because of its usefulness.

Finally, the research has also identified other factors that influence the CAS adopter. The finding reveals that types of business and business location influence the adoption of CAS. However, size (paid up capital, sales turnover and number of employee) do not influence the adopter. Results also indicate that CEO literacy on ICT, accounting and CAS has influence the responded CEO to adopt CAS in their business. Evidently, the responded company does not have enough experience staff to operate CAS. Thus, the finding support the conclusion made by Thong (2001), that there are three types of resource barriers of SMEs in IT adoption including expertise constraint.

To conclude, the regression model analysis showed that the relationship between CAS adoption (dependent variable) and CEO innovativeness; perceive usefulness, perceive ease of use and business competitiveness (independent variables) had explain 61.5% of the variance in the factor influence the adoption of CAS among SMEs in Melaka.

6. Recommendations

It is proposed that the government should provide appropriate incentives to encourage the use of CAS. Usually fully integrated accounting software is very expensive to obtain and tax relief from this acquisition by the government will reduce the financial burden of SMEs. In the information age and globalization, time relevant and the actual information in hand, a correct result needs to achieve by SMEs in Malaysia. Data security is another important issue of the computerization of accounting systems. Although our evidence shows that the majority of respondents have implemented various security measures, there is a need to strengthen security measures, especially among the minority.

With respect to trying to introduce non-users to a CAS, it may be useful to consider business operators those who are uninformed about the benefits of using a CAS. This lack of knowledge may be a further result of the deficiency in IT skills as reported by almost half of the non-user respondents Government should set up training organizations offers a CAS specific skills development program targeted to those involved in small businesses, to avoid reluctance among retailers about the effectiveness in computer self-efficacy.

Further studies are needed as we move towards the better adoption of fully integrated accounting system in SMEs in Melaka to obtain more information and gather different opinions of CEOs' by conducting a thorough survey, using a qualitative research to view the results from different perspective. The accessible population for this study was all CEOs for selected companies for each district in Melaka. However, expanding the population through other category, for example employee, might be useful. This is because researchers are able to identify

the influences of the identified independents variable on CAS adoption from employee point of view. This, to a certain extent, will ascertain whether the employee perception influence the adoption of CAS. The findings of this research had significant effects for the government agencies that are responsible for promoting IT adoption within SMEs.

In conclusion, recognition of these recommendations is important because by adopting the computerized accounting systems (CAS), will determine the success of a business organization. As a major role to achieve Malaysia's aspiration to become a fully developed nation by year 2020, SMEs need to consider about implementing this technology.

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Appendix A

	Melaka Tengah	Alor Gajah	Jasin
1	A & S Forwarding	ABSL ENTERPRISE	Ataly Industries Sdn Bhd
2	ACE Metal Sdn. Bhd	Agile Matrix Solutions Sdn Bhd	Adon Steel Line Sdn Bhd
3	Adison Appliances Sdn Bhd	Akhadah Exclusive Touch	Angsana Jingga Enterprise
4	Airis Technic (M) Sdn. Bhd	Applied Kinetics Industries Sdn Bhd	Anjung Bonda Homestay
5	Alpha Xenon Engineering Sdn Bhd	Arena IT Sales And Service	Ansal Ternak Enterprise
6	Alson Haiwa Sdn Bhd	Besfomec Packaging Sdn Bhd	Anzag Industries

7	AMG Infotech Sdn Bhd	Byte Computer Services	Berkat Maju Enterprise
8	Aneka Bena M.N. Sdn Bhd	Copycent Sdn. Bhd.	Chin Guan Chan Sdn Bhd
9	Anjung Technology Sdn Bhd	Drinna Enterprise	Chuan Hoe Leong Trading Company
10	Applied Chemie Sdn Bhd	Fetta Marketing (M) Sdn Bhd	Dasar Asli Sdn Bhd
11	Areatwo Enterprise	Framalinus Multibiz Ventures (M) Sdn. Bhd.	Eimei Electronics Sdn Bhd
12	Assess Products Sdn Bhd	General Paper Products (Melaka) Sdn Bhd	Empire JR Trading
13	Atlasinar Sdn. Bhd.	HBK Machinery Service Sdn. Bhd.	Farmasi Taufiq Lim
14	Best bites Marketing	HSE Resources Sdn Bhd	Fikiran Sinar Sdn Bhd
15	Bio-Nutritional Laboratory (Malaysia) Sdn.Bhd	Impress Steel Wire Industries Sdn Bhd	Golden Aroma Sdn Bhd
16	Blackprint Trading Sdn Bhd	Intra Tech Engineering & Trading Sdn Bhd	Good Rubber Works Industries Sdn Bhd
17	Chestronic Sdn Bhd	Jati Beringin Sdn Bhd	Great Nation Enterprise
18	Computer Solution Trio	Kaoten Packaging Sdn Bhd	Heritage Drinks Industries (M) Sdn Bhd
19	Comtec Computer Centre	KJ Waja Engineering (M) Sdn Bhd	High Grade Packaging Sdn. Bhd.
20	Connectcounty Sdn Bhd	Leading Steel Engineering	ITI Jasin Resources Sdn Bhd
21	Cool Tech Solution	Lipta Plastic Industries Sdn Bhd	JAS Inpack Sdn Bhd
22	DAI-TEC Manufacturing Sdn Bhd	Mally Jaya Sdn Bhd	Jasin Khoo Enterprise Sdn. Bhd.
23	Dataran Alam Enterprise	Miracell CCS Sdn. Bhd.	K.K. Best Enterprise
24	Dayamas Enterpsise	Ogy Technology	Kesidang Teguh Enterprise
25	DCC Computer Centre Sdn Bhd	Orange Solution	Lembah Perdana Enterprise
26	Diversified Applied Technology (M) Sdn Bhd	P.Plus Plastic Industries Sdn Bhd	Long Bow Mfg Sdn. Bhd.
27	Dominant Semiconductors Sdn Bhd	Pannu Elastic Industries Sdn Bhd	Maju Steel
28	E-Control Technology Sdn Bhd	Parwood Sdn Bhd	Mnlagency
29	E-Generation Computer Sdn Bhd	Pelorus Services (M) Sdn Bhd	Nasiha Homestay & Enterprise
30	Ebelco Industries Sdn Bhd	Pulp Technologies Sdn Bhd	Nur Aflah Publishers
31	Elemac Precision Engineering Sdn Bhd	RBT Gemilang Enterprise	Orang Kampung Holdings (M) Sdn. Bhd.
32	Elite Ventures Sdn Bhd	Rigidtex Sdn. Bhd.	Orisystems Opto Sdn Bhd
33	Emico Enterprise Sdn. Bhd.		Perniagaan Orang Kampung Sdn Bhd
34	Engjaya Industries Sdn Bhd		Pasrho Trading
35	Eurojaya Precision Sdn Bhd		Pamastha Marketing
36	Ev Oilfield Supply & Services Sdn. Bhd.		Rubi-Foods (Melaka) Sdn Bhd
37	Fandora Recovery Sdn Bhd		Ry Industries Sdn Bhd

38	First Century Networks Sdn.Bhd	Ss Ipro Marketing
39	Forecorp Venture Sdn Bhd	Syarikat Perabot Kiat Huat Sdn Bhd
40	Genius Lube Enterprise	Tegas Tani Enterprise
41	Globetech Enterprise	Umbai Resources (M) Sdn Bhd
42	GOH Fiberglass Industries Sdn Bhd	Unicocomas Industries Sdn. Bhd.
43	Golsta Sdn Bhd	Uraz Corporation Sdn Bhd
44	Guan Seng Steel Sdn Bhd	Usma Brilliant Enterprise
45	Hanidi Enterprise	Xxelent Services
46	Harta Packaging Industries (Malacca) Sdn Bhd	Yeo Aik Hevea Sdn Bhd
47	Harvest Ever Enterprise	Zentech Trading
48	Hazryn Technologies (M) Sdn Bhd	Zmj Enterprise
49	Hexachase Packaging Sdn Bhd	
50	Hexatech Sdn Bhd	
51	Hydmectron Engineering Sdn Bhd	
52	I Pac Pallet Sdn. Bhd.	
53	I.M Three Hi-Tech Sdn Bhd	
54	ICT Niaga Enterprise	