

**ACCOUNTING INFORMATION USAGE AND PERFORMANCE OF
SMEs IN THE NORTHERN REGION**

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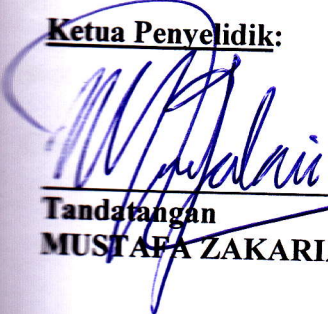
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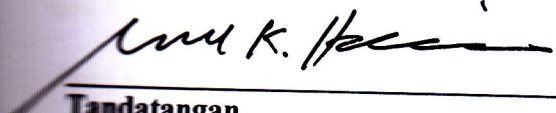
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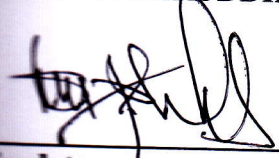
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The Compassionate, the Merciful,
Praise be to Allah, Lord of the Universe,
And Peace and Prayers be upon
His Final Prophet and Messenger*

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ABSTRACT

Firms need accounting information to make decision. Only with good accounting information inputs can firms come up with effective decision to survive, compete and strategize in the present global competition. More precisely firms need accounting information to make effective strategic decision. However in Malaysia there are limited studies carried out on the usage of accounting information, thus there is a need to carry out more studies on accounting information especially among SMEs. In view of the limited studies in the area this study endeavors to investigate accounting information usage among SMEs, particularly the relationship between accounting information usage and performance of the SMEs. In this research, the list of SMEs registered with the Small and Medium Industries Development Corporation (SMIDEC) Northern Branch was used as the sampling frame. Questionnaires were sent to 500 SMEs selected from the sampling frame. From the 500 SMEs only 61 responses of the firms were useable for analysis, providing a response rate of 15 percent. Descriptive analysis, mean and standard deviation scores, and correlation analyses were carried out on data obtained from the respondents. There are a number of findings from the study such as there are various uses and users of SMEs accounting information. The accounting information need to fulfill certain requirement of the users. Further cash flow and strategic accounting information seems to be important for the SMEs. However a significant finding of this study is the presence of the relationship between accounting information usage and performance of the SMEs.

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INTRODUCTION

1.1 Background of the Study

SMEs made up a significant percentage in many countries in the world today. As a dominant factor in many of the world economies, SMEs' contribution to their respective economies can easily be observed. Among the SMEs contributions are such as in the form of providing employment to the populace and also corporate tax to their respective governments. There is no doubt that the SMEs play major role in the economic development in many countries (Pervan, 2012)

Since the intense period of globalization that swept the world at the turn of the new century, most firms have not much choice other than to improve themselves and face the challenges that come along with globalization. SMEs and large firms alike have to face the challenges. One way for these firms to face the challenges of globalization is to be effective in crafting, implementing and controlling their strategies.

In developing effective strategies managers of SMEs and large firms are required to make quality decisions. Quality strategic decisions require the inputs of quality information. With quality information and in turn good strategic decisions, performance can be improved, (Al Mawali, Zainuddin and Ali, 2012)

As a matters of fact for firms to survive, compete and strategize in the present global competition, firms depend on a supply of quality information. More precisely firms need accounting information to make decision. Only with good accounting information inputs can firms come up with effective decision.

Accounting information is the input that is much needed by firms to make and implement strategic decision. In more advanced countries particularly western economies, there had been numerous studies on accounting information that had been carried out. However in Malaysia there is not many studies carried out, thus there is a need to carry out more studies on accounting information especially among SMEs, (Mohd Yusof, Wee, Abdul Rahman, Omar, and Tse, 2012)

1.2 Research Problem

The studies carried out by Langfield-Smith (1997) and Tucker (2009) indicate that the subject of accounting information had received vast research attention. This is particularly so especially in the area of management accounting information. Management accounting information will be able to provide valuable input that is much required for the formation and implementation of effective strategy. Thus accounting information fulfills a vital role for the development and implementation of strategy. In line with this proposition the proper application of accounting information may improve performance.

Cadez and Guilding, (2012) suggest that an issue that had received much research attention concern the use of contingency approach in accounting and performance research. There is a tendency in many of the previous research to employ contingency approach, (Chenhall, 2003, Langfield-Smith, 1997). Nevertheless the overly dependence may have shortcoming. The problem with contingency theory methodology is that: 1. The variables may be 'competing' to explain outcome and 2. The linkage among the relationships of the variables concerned may not be necessarily unidirectional, (Fiss, 2007; Simons. 1987; 1994). As an alternative to the use of the contingency approach, Cadez and Guilding (2012) suggest the configurational theory. Configurational theory with its emphasis on equifinality, combination and reciprocity is suggested to overcome the short comings of the contingency theory. In this

respect the theoretical approach and thereby choice of methodology is another important research issues in area of accounting information usage.

Style of information usage is yet another focus of the study on accounting information usage. Though there had been much interest in the studies on styles of information usage, most of the studies are carried out in the United States and Australia. However in Malaysia there is not many studies that had been carried out. Thus there is a need to carry out studies on information usage particularly on the style of information usage locally, (Mohd Yusof at al., 2012)

According to Mia and Patiar (2001), the accounting information as provided by the conventional accounting method seems unable to fulfill the requirement of the present environmental challenges. Not only that accounting information based on the conventional method is unable to meet the challenges but at the same time they are inadequate to develop an organization's competitiveness over the long term. According to Drury (2007) this is due to conventional accounting which is historically oriented instead of future focused, and internally focused rather than external. While there are numerous studies on the information usage based on conventional accounting systems, more research is needed to be carried on the nonconventional accounting usage. According to the Al Mawali, Zainuddin, and Ali (2012), among other usage based on nonconventional accounting, usage of customer accounting information is another area of research that needs further investigation.

The perception of accounting information users is another aspect that warrants further investigation, (Al Mawali, Zainuddin, and Ali, 2012). This due to the fact that implementation of accounting systems may cause changes in strategic decision. Thus it is important to identify the perception of the accounting information users with regard to the usefulness of the accounting of

the accounting information us age. Further it is useful to gauge the characteristics of the information users including training and knowledge about the accounting concepts.

In the context of SMEs, there are numerous studies that emphasize the importance of accounting information to business organizations. A literature review suggests that many studies are focused on accounting information of SMEs such as the studies by Monk (2000), Al-Shaikh (1998), Potts (1997), Simons (1991), Arnold and Hope (1990), Haswell and Holmes (1989), and Withman (1983).

Accounting information usage may determine the outcome for SMEs. For instance the study by Potts (1997) found marked differences between successful and problem SMEs. The success of the SMEs in the study may rest with their approach to the usage of accounting information in their organizations.

In another study on SMEs, Haswell and Holmes (1989) indicated the link between the lacked of accounting information and the performance of SMEs. The study by the researchers suggests that poor accessibility to accounting information among SMEs can lead to business failure.

Along similar vein, Withman (1983) noted that SMEs need to not only develop their accounting capability but also to be able to use their accounting information to make decisions. According to the researcher the ability to make good use of their accounting information can lead to success.

However despite the importance of accounting information to SMEs the review of the literature indicates that not many studies have specifically attempted to examine accounting information usage and the relationship between accounting information usage and performance

of SMEs in Malaysia. In view of the limited studies in the area this study endeavors to investigate accounting information usage among SMEs, particularly the relationship between accounting information usage and performance of the SMEs

1.3 Objectives of the Study

Following the views presented in the literature, this study initiates an attempt to investigate the accounting information usage among Malaysian SMEs. More specifically, the objectives of this study include the following:

1. To determine the level of managerial needs for accounting information among SMEs.
2. To examine the design features of accounting information preferred by the accounting information users in SMEs.
3. To identify the accounting information usage by SMEs
4. To investigate the relationship between accounting information and the performance of the SMEs

1.4 Scope of the Study

This study focused on the SMEs that are operating in the three northern states of Perlis, Kedah, and Pulau Pinang. The study is also focused on the SMEs that employed not more than 300 employees. Only SMEs that are registered with the Small and Medium Industries Development Corporation (SMIDEC) Northern Branch, were chosen to participate in the research. The list of SMEs obtained from SMIDEC Northern Branch is the sampling frame that was used for the research.

1.5 Significance of the Study

It is believed that this study would be useful in a number of ways. This study would be useful for academicians, practitioners as well as government agencies responsible for facilitating SMEs development. More precisely the study is useful for coming up with the following meaningful implications.

1. This study would contribute to the present body of knowledge on accounting information especially on accounting information usage among SMEs in Malaysia.
2. This study would be able to indicate the extent on the need for accounting information among the managers and owners of the local SMEs.
3. This study would be able to suggest the design features of accounting information as required by accounting information users of the SMEs.
4. As accounting information plays an important role in furnishing the much required information in making strategic decisions, the study also indicates the frequency of the preparation and usage of the accounting information.
5. The findings from the study would be useful in the sense of identifying the relationship between accounting information and the performance of the SMEs.
6. Finally, the result of this study may also be useful to SMEs supporting agencies. More specifically, the agencies would be able to use the information from the study to develop further support for the SMEs such as training programs to further improve the performance of the SMEs in particular and the nation in general.

1.6 Key Terms

Small and Medium sized Enterprises (SMEs) in this study refers to firms that have been operating for at least three years and that employed between ten and 300 workers.

Accounting information in the study comprised information relating to;

1. Statutory accounting,
2. Budgetary accounting,
3. Strategic management accounting,
4. Managerial Need for Accounting Information, and
5. Design Features of Accounting Information

Statutory accounting refers to the financial statement that must be prepared by firms in accordance with the statutory requirement

Budgetary accounting is the accounting information that covers the area of management accounting prepared for a firm's internal decision makers

Strategic management accounting is a subset of management accounting that focuses on accounting's facilitation of strategic decisions and strategic management processes

Managerial Need for Accounting Information refers to management need or usefulness of the accounting information prepared for SME's management

Design Features of Accounting Information is the structure of the accounting information as prepared for the users

Performance refers to the average performance measures comprising the following performance indicators; sales, capital, assets, net profit, and number of employees.

LITERATURE REVIEW

2.0 Introduction

The chapter on literature review is divided into three sections. The first section discusses accounting information usage and further discusses the three types of accounting information usage. The second section highlights the conceptual and empirical literature on the relationship between accounting information and performance of SMEs while section three is the conclusion of the literature review chapter.

2.1 Accounting Information Usage

Managers need information to make operational and strategic decisions. Information is also much required for the purpose of planning, implementing and evaluating strategy. Information in particular, accounting information provide much assistance for managers to plan, control and evaluate operating performance, (Choe, 2004).

The literature suggests that accounting information is a set of accounting data that indicates various financial information of a firm. In general, the preparation of accounting information can be categorized into three major forms, statutory information, budgetary information and management accounting information.

According to Bruns and McKinnon (1998) and Kaplan and Norton (1996) accounting information can be generally classified into two major types, financial information and non-financial information. Financial information takes a quantitative form while non-financial

information can be in the form of both quantitative and qualitative. Further according to Kaplan and Norton (1996) managers may also use both financial and non-financial information at the same time.

Managers with different background orientation will require different type of accounting information. In addition the information requirement may also depend on the decision making processes and also problems faced, (Mia and Patiar, 2001; Naranjo-Gil and Hartmann, 2007; Tse and Gong, 2009)

Briciu, Groza, and Gânfălean (2009) conduct a study to identify similarities and differences among SMEs in different countries with respect to accounting and financial reporting. In particular the researchers compared the need for financial information among accounting information users in SMEs from Canada and Romania. Their study reveals that 40 percent of the respondents from Canada prefer to have financial information for internal use in Canada and only 20 percent respondents in Romania prefer to have financial information for internal use. The internal use refers to marketing, payroll, income and expenses. The researchers also noted that 20 percent of the respondents in Canada viewed the role of income statement is to facilitate tax assessment while it the percentage is much higher for Romanian SMEs at 50 percent.

In a study on 32 manufacturing SMEs in Croatia, Pervan (2005) found that accounting information was frequently prepared for tax purposes and this is followed by accounting information for managers. The research also revealed that 71.8% of sampled firms prepared

budget. The most frequently preparation of budget is the operating budget while most of the SMEs prepared annual budget (78.3%).

The users of accounting information are not only limited to those inside the firms. The accounting information users also consist of those outside the firm. The external users may also include bankers and investors as well, (Briciu, Groza, and Gânfălean, 2009; Pervan, 2005)

In a study on general usage of accounting information in SME with the participation of 1000 firms from the United Kingdom, Page (1984) noted that 41percent of SMEs ranked managers as the most important users of accounting information. This is followed by 26 percent of SMEs ranked tax computations as the most important accounting information while 17 percent of SMEs ranked banks as the most important users of accounting information. Additionally the usage of accounting information provides indication of profitability to 67 percent of the SMEs, managerial efficiency to 36 percent of the SMEs, and probability of bankruptcy to 27 percent of the SMEs.

King, Clarkson, and Wallace (2010) carried out an investigation on the usage of budgeting practice among SMEs in Australia. A total of 144 SMEs from healthcare sector participated in the study. Based on the contingency approach the researchers explored how variables like size, structure, strategy and perceived environmental uncertainty affect SMEs adoption and usage of budgets. The results of their study indicate that the adoption of written budget was positively related to size and structure of the firms while the extent of budgets usage

was positively related with structure and strategy. However the adoption of written budget was negatively related with perceived environmental uncertainty.

Accordingly information design features refer to the form of accounting information required by users. Usually users would prefer features which are easy to understand the accounting information. Further the accounting information must be able to facilitate users to make decision. Regardless the design of the accounting information may depend on several factors involving the users themselves. Among the factors are such as users involvement in recording accounting transaction, knowledge, skills and training received, (Briciu, Groza, and Gânfălean, 2009) .

This research will also discuss the three types of accounting information that are normally prepared in most of the firms; statutory accounting information, budgetary accounting information and management accounting information or recently strategic accounting information. However more focus will be given to strategic management accounting information as this study attempt to align the accounting information with the strategic perspective.

2.1.1 Statutory Accounting

Statutory accounting is the first dimension of accounting information usage in this study. It comprises the financial statements for firms. Firms need to prepare the financial statements in order to comply with the statutory requirements.

The literature suggests that the International Accounting Standard Committee require that firms present their financial statement in accordance with its framework on the preparation and presentation of financial statements. Preparing and presenting financial statements in such

manner will provide accounting information regarding a firm's financial position, changes in financial position and performance. This allows users to make informed strategic decision, particularly on the performance of management and economic decision, (Epstein and Mirza, 1999; Beaver, 1998).

Zeghal and Mhedhbi (2006) in a study of 64 developing countries found that developing countries that are exposed to Anglo-American culture, recorded the highest literacy rate, have a rather developed capital market are the most motivated to adopt international accounting standards. In the study the researchers examined five factors: economic growth, education level, the degree of external economic openness, cultural membership in a group of countries and the existence of a capital market.

In securing a loan from financial institution, a firm must prepare and provide the financial statement up to a certain standard that fulfill the requirement of the financial institution. This is because the financial statements act as way for the bank to assess the financial risks of the firm, hence approving the loan, (Lavigne, 1999).

In a study on investment readiness of 158 SMEs in Thailand, Sarapaivanich and Kotey (2006) discovered that the SMEs might face difficulty in procuring finance and accrued higher costs if the SMEs' accounting systems were not transparent enough for potential investors to rely on in making investment.

Based on the literature review of the statutory account on SMEs, Sian and Roberts (2009) findings indicate that most of the current studies do not differentiate between larger SMEs, which and the smaller owner-managed enterprises. However, the literature seems to suggest that

not many SME owners understand the contents of statutory accounts, and most tend to depend on their accountant to explain the details to them.

According to Delaney, Adler, Epstein and Foran (2000), the users of financial information can be categorized into two groups, internal and external users. The authors based on the statement of Financial Accounting Concepts (SFAC) in deriving the two groups of users.

Further, Horgnren, Sundem and Elliot (1996) noted that the internal users consist of the management and directors of the SMEs, while the external users are parties that might have a direct financial interest in the firms and the proxies on behalf of those who have a direct interest in the firms. The users can be the owners, lenders, suppliers, employees, tax authorities and government agencies.

According to Lavigne (1999) the users of SMEs' financial statements are mainly bankers, owners, managers, tax authority, and also capital providers. The financial statement consists of:

- i) balance sheet
- ii) income statement
- iii) statement in changes in equity
- iv) cash flow statement
- v) accounting policies and accompanying notes

2.1.2 Budgetary Accounting

Budgetary accounting information is required by decision makers in making strategic organizational decision. In order to better manage their organizations top management, middle managers and other key decision makers need the budgetary accounting information. The budgetary accounting information consists of information from the management accounting activities.

Management accounting deals with the provision of accounting information to managers for making decisions on resource allocation, (Arnold and Hope, 1990).

Base on Turner (1997), management accounting can be viewed as the preparation and provision of management accounting information to decision makers in an understandable, reliable and timely format. Despite, there is not much awareness on the part of SMEs on the need for management accounting information and the accompanying benefits.

According to Gorton (1999) the proper management accounting technique had been exposed to SMEs for quite some time. For the SMEs accounting information is one of the avenues for enhancing their profitability. In relation to this budgetary planning and control is one of the popular techniques in management accounting.

In the budgeting process, decision makers would be able to get the information required for making planning and control decisions for the organization. This is so as in budgeting performance standards are set and feedbacks are provided by means of the variance reports, (Henderson, 1997).

Base on Wheelen and Hunger (2010) budgetary information incorporate the financial information needed to implement a program once a strategy is agreed upon. The information provided by a budget would assist a firm to evaluate the feasibility of a strategy. In this sense a budget will determine the practicality to carry out a strategy. The financial pro forma statement will be able to gauge the financial impact of implementing a chosen strategy. Using budget in this manner will be able to weed out strategies that do not fulfill the financial objective of a firm.

Budget provides accounting information for control purpose, Rothaermel (2013). Before programs are defined and carried out, managers would set the amount available for the respective programs. In this way the information gained from the budget acts a form of control for employees to define and carry out a certain program.

For David (2013), budget does not only provide information on the on funds are obtained and used, it also spells out what need to be done to implement a strategy successfully. Instead of limiting the expenditure to be used budget should be construed as a mean to obtain the most productive and profitable use of organization's resources.

In general budget is a tool for firms to make strategic decisions and to ensure growth of a business venture. Budget allows firms to set priorities and maintain the financial and nonfinancial objectives. Standard costing is the management system which employs the budgeting concepts to control business operations. Therefore budgets with its standard costing is one of the key tools management have at their disposal that help to organize, implement and informs plans throughout the firms, (Hilton, 1999; Horngren, Harrison & Bamber, 1999).

Johansson & Samuelson (1998) conducted a research on the sample of 242 SMEs from Sweden. Their study shows that 75% of sampled companies prepared budgets. Additionally 56 percent of the SMEs that participated in the study also prepare product costing information.

de Waal, Bilstra, and Ottens (2004) describe budget as an agreed upon plan, expressed in financial terms, against which performance to be realized in the future is measured and compared (in de Waal, Hermkens-Janssen, and van de Ven, 2011). Taking budget in such a manner, budget then actually represent the operating plan of an organization in the form of financial statement. The budget also a manifestation of an organization long term objective in the form short term action

In making a budget effective, top management emphasis on the budget is very important. This coupled with good characteristics of the budget system would further enhance its effectiveness, (Anthony and Govindarajan, 2007). In addition the authors also exhort that budgetary objectives can be achieved with proper employee motivation.

For firms in general there are several major advantages associated with budgeting, (Horngren, Harrison, and Robinson, 1995). While preparing budget for the firm, managers need to come up with practical goals. At the same time managers have to consider detail plan in order to achieve the goals. Second, in preparing budgets a manager must take into consideration the implication of their goals. This forced them to do forward thinking. Third, in the preparation of budget enhance coordination and communication. This is so as coordination is required for the various parts of an organization need to agree upon on a particular budget. Further the coordination can only be achieved through proper communication among the different parts in

achieving the agreed upon budget. Fourth, budget can assist performance. Budget can assist performance as the actual performance can be compared to the budget which had taken into consideration any changes in circumstances, instead of comparing with past performance. Finally, budgeting can also be a form of encouragement for the employees. This is particularly so when employees strive to achieve challenging goals.

2.1.3 Strategic Management Accounting Information

According to Cadez and Guilding (2012) SMA is a management accounting subset that emphasizes on how accounting information facilitate strategic decision and the strategic management process. SMA is relatively new and there not much consensus as to what it constitute. Regardless the researchers in their study focuses on what constitute strategically oriented accounting as the major element of SMA. The two elements are (1) the adoption of strategically oriented management accounting techniques; and (2) accountant's participation in strategic management processes.

Based on Cinquini and Tenucci (2010) the term “strategic management accounting” (SMA) was introduced by Simmonds (1981). The idea for using the term is to emphasize the need to expand conventional management accounting functions. For Simmonds (1981) it is important to gather and evaluate data on consumers and also competitors, thus introduces a strategic dimension into the concept of management accounting (Hoffjan and Wömpener, 2006).

SMA is different from conventional management accounting in a number of ways. The tools and technique employed in SMA are different from conventional management accounting.

The tools and technique which are used in SMA are such as value chain costing (Porter 1980), activity-based costing (Hoffjan and Wömpener, 2006), cost allocation based on product attributes (Bromwich and Bhimani, 1994), target costing (Hoque, 2006), just-in-time concepts (Hoque, 2006), and accounting for competitive positioning, or also known as competitor accounting (Roslender and Hart, 2003).

Further, Cadez and Guilding (2012) highlight that strategically oriented management accounting techniques can be distinguished from conventional management accounting techniques. The differences lie with the emphasis on two factors. Strategic management accounting techniques emphasized greater focus on their environmental (outward-looking) and long-term (forward-looking). Cadez and Guilding (2008) identified 16 such techniques which are consolidated into five underlying themes:

- (1) strategic costing;
- (2) strategic planning, control and performance management;
- (3) strategic decision making;
- (4) competitor accounting; and
- (5) customer accounting.

In an attempt to describe what constitute SMA from the strategic management perspective, Brouthers and Roozen (1999) highlighted the following information as strategic function provided by SMA to support strategic management:

environmental analysis
strategy alternative generation
strategy selection
planning implementation
strategy implementation; and
control aspect of the strategic management process.

In terms of the information it should have the following characteristics:

non-financial
future focused
covers internal and external dimensions
reliable projections of the future.

Despite, Langfield –Smith (2008) highlights that there is no one agreed upon definition of SMA. While SMA connotes a more externally focused management accounting, the notion of what is ‘external’ can be construed in various ways.

While emphasizing the external aspect and advancing the idea of SMA, Roslender and Hart (2002) devised a framework to integrate management accounting and marketing. In the process the researchers were able to differentiate the framework that integrates management accounting and strategy from those that integrate management accounting and marketing.

The external dimension of SMA, according to Guilding, Cravens, and Tayles (2000) is the management accounting information which covers the external constituents of a firm. In this

respect the external constituent refers to information on competitors, suppliers and customers. Additionally the literature shows that under the external dimension SMA attempts to capture various information relating to the external constituents in different form which include cost, prices, market share, competitive benchmarking, financial statement, competitive analysis and position monitoring, and product attribute cost.

However for Shank and Govindarajan (1992, 1993) both internal and external information are beneficial to a firm. This is so as both type of information would enhance a firm to understand their customers, suppliers and other participants in the value adding process. In other words both the internal and external information would enhance a firm to fully realize the benefits of the value chain in achieving competitive advantage. The researchers exhort the need to incorporate both the internal and external information by taking into considerations cost elements as well.

The focus on cost based techniques in SMA is not new. Hoque (2001) emphasize that many of the tools and techniques in SMA are cost based. This is so as much of the past and recent development in cost management allows management accounting information to support strategic decision making, (Cinquini and Tenucci, 2010; Maher, 2005). Accordingly the popularity of activity based costing had given rise to other cost based techniques in SMA including customers, product attributes and unused capacity, has been allowed

In relation to activity based costing, there are a number of studies that had been carried out. Shields (1995) carried out a study on the relationship between activity based costing and

business strategy and noted that activity based costing is vital for strategic success. Baines and Langfield-Smith (2003) discovered that there is a relationship between the focus on differentiation strategies the increased employment of advanced management accounting practices. The study by Abu Mansor, Tayles, and Pike (2012) on the relationship between information usefulness and usage in business decision-making from the activity-based costing perspective revealed that activity-based costing provided better information in areas of budgeting and planning and opportunities for improvement in other business areas.

The greater focus of costing in SMA had contributed to the development of information based on cost- related application to aid in the formation of competitive advantage. Thus according to Cinquini and Tenucci (2010) information on cost can have an external implication to the extent that it is able to provide support to strategic decision making. In the literature cost related information of SMA which support strategic decision to create competitive advantage can be observed in the area such as resource usage and product positioning,

Another dimension of focus in SMA has been the non-financial information. The relevance of non-financial information is the idea of performance prediction. The appropriate use of non-financial information can assist a firm to predict its strategic and operational performance, (Ittner and Larcker, 1998). Following this there has been increased research in the studies on the use of balance scorecard and integrative performance measurement system and the relationships with the said information on performance measures and other factors such as market position, strategy communication, and management control device, (Chenhall, 2005; Hoque and James, 2000; Kaplan and Norton, 1996a, b, 2000).

Annual financial reports are used as the source for different financial ratios that assists in making strategic decision and useful for purposes of explaining and predicting performance, (Devine and Seaton (1995/95). The authors suggest using ratios to assists with the financial analysis so that in order to benefit from the internal financial reports.

For Dodd and Turner (2000), ratio analysis comprised the activities such as inter firm comparison and industry analysis. Both of these activities fall under the aspect of benchmarking in accounting information. Benchmarking is the process of enhancing performance through continuous effort to identify, understand and adapt excellent practices from other organization as well as inside the organization itself.

Additionally Dodd and Turner (2000) exhort that benchmarking is beneficial to SMEs though it is usually associated with large corporations. Further the authors maintain that benchmarking is a tool when employed properly would yield numerous improvements in performance for SMEs. Thus in the context of SMEs benchmarking is a tool to be explored though SMEs might incur some cost in implementing it.

According to Hayes (1997) breakeven analysis is another management accounting information. In order to achieve effective pricing and costing decisions, firms need to assess their breakeven points. One of the serious mistakes often done by SMEs is the failure to gauge the breakeven points.

In another study Hilton (1999) considers accounting information such as manufacturing statement and production reports as information related to production in the manufacturing process. Other process such as job costing is also considered part of the management accounting

information as well. Job costing entails producing goods in batches with significant differences among the various batches.

Based on the current literature on SMA, Cinquini and Tenucci (2010) identified 11 SMA techniques which based on four categories, costing, customer, competitor, and performance. The 11 SMA techniques are given as follows:

Table 2.1:

SMA category and technique based on Cinquini and Tenucci (2010)	
SMA technique category	SMA technique
Costing	Activity based costing
	Life cycle costing
	Quality costing
	Target costing
Value chain costing	
Customer	Customer accounting
Competitor	Competitive position monitoring
	Competitor cost assessment
	Competitor performance appraisal based on public financial statements
Performance	Benchmarking
	Integrated performance measurement and BSC

2.2 Accounting Information Usage and Performance

Management accounting information in SMEs can be associated with the performance of SMEs. The absence of management accounting information can lead to failure while the proper application of management accounting information can lead to improve in SMEs performance, (Holmes & Nicholls, 1989).

Financial reporting can influence the conditions in which financial institution will extend credit facilities to a firm but at the same time can also affect the strategic position of a firm in a given industry, (Beaver, 1998)

In order to assist firms achieve their objectives activities need to be prioritized. To achieve this end there is much agreement in the management accounting literature that the appropriate management accounting systems should support the firm's strategic priorities. In doing so the management accounting systems facilitate firms to enhanced their performance, (Cadez and Guilding, 2008; Hammad, Jusoh, and Yeen, 2010; Carr, Kolehmainen, and Mitchel, 2010)

The study by Cadez and Guilding (2012) suggest that different strategy dimensions and structural alternatives allow firms to achieve performance. In their study the researchers used three strategy dimensions

- (1) strategic type (prospector/defender);
- (2) degree to which strategy is deliberately formulated; and
- (3) degree of market orientation.

The strategic management accounting dimensions are

- (1) strategic costing;
- (2) strategic planning, control and performance management;
- (3) strategic decision making;
- (4) competitor accounting; and
- (5) customer accounting.

The performance measures consist of three dimensions

- (1) return on investment;
- (2) development of new products; and
- (3) market share.

The study carried out by King et al. (2010) on the Australian SMEs indicates that there is a relationship between the accounting information usage specifically budget and performance. King et al. (2010) noted that among the SMEs in the study there is a positive relationship between the preparation and usage of budget and their performance.

The literature suggests that there are relationships between a firm's management accounting information, strategy and performance. Based on Chenhall (2003) most of the research that investigate the relationships between the three constructs employed the contingency approach. Using the contingency approach, the proper alignment between management accounting, especially the control aspect and strategy may result in enhanced performance.

In a study on target costing and financial success of firms, Ansari, Bell, and Okano (2007) suggested that the strategic management accounting component is being increasingly adopted by a number of leading firms throughout the world, including some application in India and Malaysia. The researchers pointed out that some leading companies in the USA, like Chrysler and Caterpillar, attributed their financial success in the mid-1990s to the adoption of target costing. Further the researchers mentioned that target costing had long been adopted among Japanese assembly industries, though it is fairly new in the United States and Europe. As such some of the managers underestimated the potential of target costing, and this may be one reason for low adoption in some of the countries in the west at that time.

Al Mawali, Zainuddin, and Ali (2012) conducted a study on customer accounting information usage and performance. The population of firms in their studies consisted service companies listed in Amman Stock Exchange 2009 while the respondents were Chief Accounting Officer (CAO), or Chief Marketing Officer (CMO) of the firms. Among others the results of their study indicate that the customer accounting information usage among the Jordanian service firms were above average, and customer profitability analysis had a significant impact on organizational performance. Interestingly a significant impact of customer profitability analysis on organizational performance suggests that the higher customer profitability analysis usage the higher is the organizational.

As mentioned earlier ABC is another technique that falls under the SMA umbrella. The benefit of ABC was the subject of a study carried out by Abu Mansor, Tayles, and Pike (2012). The objective of their study is to investigate the perception of managers on ABC and how

beneficial it is in providing information for better decision making. The inputs for their study were obtained from 181 users of activity based costing who are mainly executives at a large telecommunication company in South East Asia. The results of their study showed that ABC can provide with better information especially in the areas of budgeting and planning. There is also a tendency for ABC to create opportunities for improvement in other business areas.

Hoque and James (2000) examined the relationship between organization size, product life-cycle stage, market position, balanced scorecard (BSC) usage and organizational performance. The researchers used the four dimensions of BSC, customers, financial (or shareholders), learning and growth, and internal aspects based on financial and nonfinancial measures. Their study covered 66 Australian manufacturing firms. The results of their study showed that larger firms tend to make more use of a BSC. The result of their study also suggest that that greater BSC usage is associated with improved performance, however the relationship does not depend significantly on organization size, product life cycle, or market position.

Using a contingency model, Cadez and Guilding (2008) investigated the effect of strategic choices, market orientation, and company size on two distinct features of SMA. They also examined the mediating effect of SMA on firm performance. The results of their study suggest that the employment of SMA systems is not necessarily related to superior performance. According to the researchers, superior performance is a result of proper alignment between the contingent factors; business strategy, degree to which adopted strategy is deliberately formulated, market orientation and firm size, and the application of SMA system.

Chenhall (2005) noted that information characteristics which form the basis of integrated strategic performance measurement system (SPMS) may be able to explain how the system can be effective. From a study that was carried out on 80 strategic business units the researcher is able to identify the integrative information which is important for assisting managers to make decision. The study also identified three other dimensions of integrative SPMS. First the linkage between strategy and operations which include the value chain activities. Second, is the customer linkages which include financial and customer measures. Third is linkage to suppliers which includes business process and innovation measures. Finally based on the findings the researcher develop a model which predictor ability of SPMS to enhance an organization strategic competitiveness.

2.3 Conclusion

This chapter reviewed the theoretical and empirical literature on accounting information usage and performance of SMES as related to this study. Based on the literature this chapter showed that accounting information usage is essential for organizations. There are different users of accounting information. There are also various features of accounting information that are prepared by the SMEs. Basically there are three categories of accounting information which are statutory accounting, budgetary accounting and strategic management accounting. Additionally the literature suggests a relationship between accounting information usage and performance of SMEs.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter explains the research methodology used in this research in five sections. The first section describes the sampling frame and this is followed by the second section that explains the research framework used in the study. The third section highlights the research variables employed in the study while the fourth section covers the questionnaire. Finally the last section is the conclusion for the chapter on research methodology.

3.1 Sampling Frame and Sample

The population in this study comprised SMEs that are operating in the states of Pulau Pinang, Kedah and Perlis. In the context of this study, the SMEs are defined as firms which employed not more than 300 employees. The sampling frame for the study is the list of SMEs that are registered with Small and Medium Industries Development Corporation (SMIDEC) branch office for the Northern Region. The list consisted of 1464 SMEs operating in the northern area. A total of 500 firms were identified and selected to participate in the study. The 500 firms selected formed the sample for the study

Postal survey was used to collect the data from the sample firms. Structured questionnaire with self-addressed envelope and stamp were mailed to the owners and managers of the 500 selected firms. Of the 500 firms, 70 firms responded. However of the 70 responses only 61 firms completed the questionnaires, yielding a response rate of 12 percent.

3.2 Relationship between Accounting Information Usage and Performance

The literature on strategic accounting information tends to suggest that there is a relationship between accounting information usage and performance of firms. For example the study by Cadez and Guilding (2012) suggest that different strategy dimensions and structural alternatives allow firms to achieve performance. In another study, King et al. (2010) on the Australian SMEs indicates that there is a relationship between the accounting information usage specifically budget and performance. Likewise there are quite a number of studies that suggest a relationship between accounting information usage and performance.

According to some of the literature that supports the idea of the relationship between accounting information usage and performance, there are several ways in which performance can be achieved with the availability of a number of accounting information usage in a firm. The preparation and usage of accounting information may create the awareness to achieve higher performance. This is especially so when one refers to the strategic accounting information. In the strategic accounting information the focus had been on the external factors such as customers and competitors. Without much doubt a firm which is in a state of readiness by updating and monitoring of its competitors and customers information would be in an advantage position to reap the benefit from the accounting information presented.

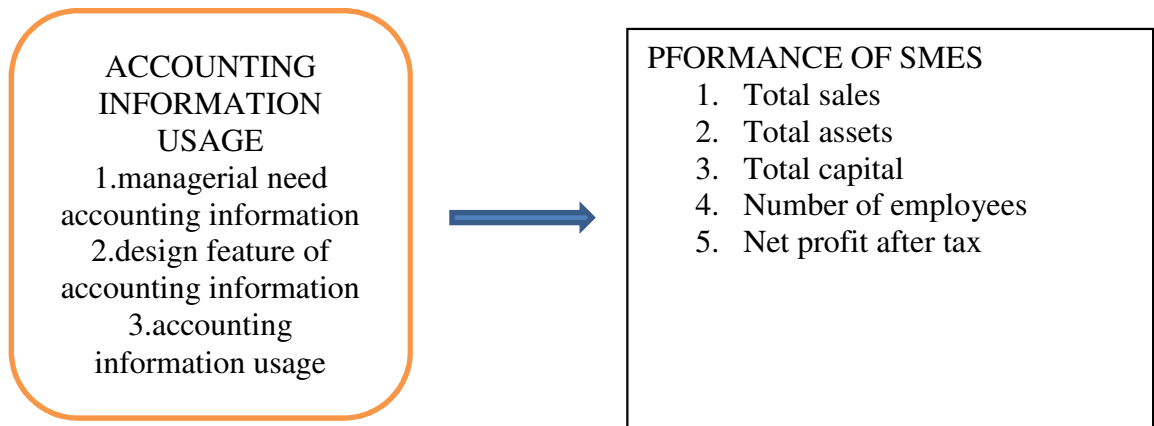


Figure 3.1: Research Framework

Based on the above explanation on accounting information and performance, the main hypothesis of the study is:

There is a relationship between accounting information and performance of SMEs.

More specifically the hypotheses in the study are:

- a. **There is a relationship between managerial need for accounting information and performance of SMEs.**
- b. **There is a relationship between design features of accounting information and performance of SMEs.**
- c. **There is a relationship between accounting information usage and performance of SMEs.**

3.3 Research Variables

The research variables in this study consist of managerial need for accounting information, design features of accounting information, the usage of accounting information, and performance of SMEs. The three accounting information variables were adapted based on Briciu, Groza, and Gânfălean (2009) and Pervan (2005) while the performance variables were developed based Zakaria (2010).

3.3.1 Research Variables Measurement

The measurement of the research variables; managerial need for accounting information, design features of accounting information, usage of accounting information, and performance of the SMEs are discussed in the following subsections.

3.3.1.1 Managerial Need for Accounting Information

Managerial need for accounting information was assessed by using 8 items. The items were accounting information that are normally required by firms. The 8 items were measured by using a five-point response scale ranging from (1) “not likely” to (5) “most likely”. The respondents were requested to select and indicate the extent to which their firms emphasize their needs the each accounting information.

3.3.1.2 Design Features of Accounting Information

A number of 7 seven items were used to capture the design features of accounting information variable. This variable attempts to capture whether the accounting information incorporate the needs of accounting information users. The 8 items on the design features of accounting information was assessed by using a five-point response scale ranging from (1) “not likely” to

(5) “most likely”. The respondents were requested to select and indicate the extent to which their firms emphasize design features of accounting information.

3.3.1.3 The Usage of Accounting Information

The usage of accounting information captured the frequency in which accounting information are prepared in a year. The variable comprised three dimensions which are statutory accounting, budgetary accounting, and additional accounting. The frequency of the firms prepared their accounting information were assessed based on 15 items. The respondents were required to indicate the frequency of their firms in preparing the accounting information from (1) “once a year” to (5) “more than 4 times a year”.

3.3.1.4 Performance

There are five performance measures employed in the study. The performance measures were total sales volume, total assets of the company, total capital of the company, number of fulltime employees, and net profit after tax. The respondents were requested to provide the performance measures for three years 2010, 2011, and 2012

3.4 Questionnaire

The structured questionnaire that was used in this research comprised five sections and 65 items. The first section of the questionnaire consisted of 9 items used to enquire on general information relating to the background of respondents and the second section which comprises 9 items covered firms’ characteristics. The third section consisted of 5 questions on the preparation of accounting information by each firm.

The fourth section covered the items on accounting information usage. All together there are 30 items on accounting information usage. The last section comprised items on the financial resources of the firms. This section covered the financial resources during startup and the extent of shortage of financial resources. There were a total of 12 items in the last section of the questionnaire.

3.4.1 Reliability Analysis

Reliability analysis was carried out to test the reliability of the three accounting information variables. The Alpha Cronbach score for the reliability test ranged 0.855 to 0.930. The Alpha Cronbach score is summarized in Table 3.1. The Alpha Cronbach score in the range of 0.6 to 0.7, and 0.7 to 0.8 indicate moderate and good strength of association respectively, (Hair,Jr., Babin, Money, and Samouel, 2003).

Table 3.1

Reliability Test	
Accounting Information Usage	Cronbach's Alpha
Managerial Need For Accounting Information	.855
Design Features Of Accounting Information	.889
Usage Of Accounting Information	.930

3.3 Data Analysis

In this research, a number of statistical analyses were carried out based on the objectives of this research given earlier. First descriptive statistics, frequency scores and descriptive analysis were undertaken to probe into the background of the respondents and the participating firms. Second,

inferential statistics were carried also undertaken to determine the relationship between accounting information usage and the performance of SMEs. More specifically correlation analysis was carried out to test the relationship between accounting information usage and the performance of SMEs.

3.5 Conclusion

This chapter explains the method used to obtain the data and the analysis of data that were used in the study. The data obtained from the respondents were analyzed and the results were discussed in the following chapter.

CHAPTER FOUR

RESULTS

4.0 Introduction

This chapter on the results of the study consists of seven sections. The first section and second sections respectively show the background of the respondents and the firms that participated in the study. The third, fourth and fifth sections provide the various results of the variables in the study in the order; accounting information, performance and financial resources during start up and shortages. The sixth section shows the results of the correlation between accounting information and performance while the last section is the conclusion of chapter four.

4.1 Background of Respondents

The background of the respondents who participated in this study is shown in Tables 4.1 and 4.2. Table 4.1 shows the background of respondents in terms of how respondents become owner/manager, reason for joining the firm, position in the firm, gender and marital status.

From the table, it can be seen that 2 respondents (3.3 percent) initiated their present firms, followed by 6 respondents (9.8 percent) who inherited their present firms from their family, 53 respondents (86.9 percent) are either hired or promoted by existing firms.

A number of respondents or 31 of them (50.8percent) are employed with the firms, 12 respondents (19.7 percent) started business because of the opportunities to develop own or someone's ideas, 8 respondents (31.1 percent) did not like the previous work, 6 respondents (9.8)wanted to be own "boss", and finally 4 respondents (6.6 percent) intended to make money.

Table 4.1

Background of Respondent-How did you become owner/manager, reason for joining the firm, position in the firm, gender and marital status

How did you become the owner/manager of this firm?	Frequency	Percent
Cofounder	2	3.3
Inherited or purchase from family	6	9.8
Hired or promoted by the company	53	86.9
Primary reason for joining the firm		
Work for the company	31	50.8
Did not like the previous work	8	13.1
Wanted to be own boss	6	9.8
Opportunity arose to develop own or someone's idea	12	19.7
Wanted to make money	4	6.6
Position in the firm		
Owner	4	6.6
CEO	4	6.6
Manager	29	47.5
Supervisor	14	23.0
Others please specify	6	9.8
Gender		
Male	40	65.6
Female	21	34.4
Marital status		
Single	17	27.9
Married	44	72.1

Table 4.1 also showed that 29 respondents (63.9 percent) are managers of their present firms, followed by 14 respondents (23 percent) who are employed as supervisors, and 4 respondents each (6.6percent) who are owners and managers of the firms. The remaining 6 respondents (9.8 percent) are regular staff and also assistant managers

In terms of gender, most of the respondents who participated in this survey are male (40 respondents or 65.6 percent), and female (21 respondents or 34.4 percent) while those who are married (44 respondents or 72.1percent) and single (17respondents or percent 27.9 percent)

The following Table 4.2 shows the background of respondents in terms of level of education, years with firm, age, and years of experience before joining the firm.

Table 4.2

Background of Respondent- Level of education, years with firm, age, and years of experience before joining the firm

Level of education	Frequency	Percent
School certificate	2	3.3
Diploma	5	8.2
Bachelor's degree	42	68.9
Master's degree	12	19.7
Years with firm		
1-10	33	54.1
11-20	20	32.8
21-30	6	9.8
>30	2	3.3
Age		
21-30	21	34.4
31-40	32	52.5
41-50	8	13.1
Years of experience before joining the firm		
1-5	25	41.0
6-10	20	32.8
11-15	10	16.4
16-20	4	6.6
>20	2	3.3

As for the level of education, 42 respondents (68.9 percent) possessed bachelor's degree, followed by 12 respondents (19.7 percent) with masters' degree, 5 respondents (8.2 percent) with diploma and the remaining 2 respondents (3.3 percent) with school certificate.

Majority of the respondents i.e. 33 respondents (54.1 percent) has been with the firms for less than ten years. This is followed by 20 respondents (32.8 percent) who have been with the firm between 11 to 20 years, 6 respondents (9.8 percent) have been with the firms between 21 and 30 years, and 2 respondents (3.3 percent) have been with the firm for more than 20 years.

As regards the number of years of previous experience, 25 respondents (41 percent) had less than 5 years of experience, followed by 14 respondents (23 percent) with 6-10 years of experience, 13 respondents (21.3 percent) with 11-15 years of experience, 4 respondents (6.5 percent) with 16-20 years of experience, and 5 respondents (14.6 percent) with more than 20 years of experience.

In terms of age, 32 respondents (52.5 percent) are between 31 to 40 years of age, 21 respondents (34.4 percent) are within the 21-30 and 8 respondents (13.1 percent) who are 41 to 50 years of age.

A number of 25 respondents (41 percent) had less than 5 years of experience before joining the firm. This is followed by 20 respondents (32.8 percent) with 6-10 years of experience, 10 respondents (16.4 percent) with 11-15 years of experience, 4 respondents (6.6 percent) with 16-20 years of experience, and 2 respondents (3.3 percent) with more than 20 years of experience.

4.2 Background of Firms

The background of the firms that participated in this research in terms of business entity, age of firm, age, location, and business activity is shown in Table 4.3. The firms are mainly incorporated as private limited company (48 firms or 78.6 percent) while the remaining firms are either in the form of sole proprietorship (4 firms or 6.6 percent) or partnership (9 firms or 14.8 percent).

It can be said that most of the firms have been in business for less than 15 years (39 firms or 64 percent), while 6 firms (9.8 percent) have been operating between 16 to 20 years and 16 firms (26.2)

Table 4.3

Background of Firm- Business entity, age of firm, age, location, and business activity		
Business entity	Frequency	Percent
Sole proprietor	4	6.6
Partnership	9	14.8
Private limited company	48	78.6
Age of firm		
1-5	12	19.7
6-10	13	21.3
10-15	14	23.0
16-20	6	9.8
>20	16	26.2
Location		
Perlis	10	16.4
Kedah	17	27.9
Penang	34	55.7
Business activity		
Basic Iron & Steel	6	9.8
Chemicals/Fertilizer	5	8.2
Electronic & Electrical	15	24.5
Fabricated Metal Product	5	8.2
Food Processing/Canning	4	6.5
Machines & Equipment	6	9.8
Paper Products/Printing Works	2	3.2
Plastic & Plastic Products	7	11.4
Processing of Agricultural Products	3	4.9
Textile & Garments	4	6.5
Transport Equipment	4	6.5

As shown in Table 4.3, 34 firms (55.7 percent) are located in Penang, followed by 17 firms (27.9 percent) in Kedah, 10 firms (16.4 percent) in Perlis.

The firms are active in a variety of business activities, ranging from basic iron and steel to transport equipment. Among the more frequent activities are electronic & electrical (15 firms or 24.5 percent), followed by plastic & plastic products (7 firms or 11.4 percent), basic iron & steel and machines & equipment, both (6 firms or 9.8 percent). The rest are fabricated metal product (5 firms or 8.2 percent), food processing/canning, textile & garments, transport equipment (4 firms or 6.5 percent) for each category and finally processing of agricultural products (3 firms or 4.9 percent).

Table 4.4 shows some items on the accounting activities in the participating firm. As shown 18 firms (29.5 percent) outsource their accounting function. Of the 43 firms that carry out in house accounting activities, 33 firms (76.7 percent) have their own accounting department. A number of 29 firms (67.4 percent) generate their accounting information through software and 14 firms (32.6 percent) generate their accounting information through manual ledger.

Most of the firms (19 firms or 46.3 percent) employ between 5 or less accounting staff, 14 firms (29.3 percent) employ from 6 to 10 accounting staff and 10 firms (24.4 percent) employ more than 10 accounting staff. Finally 33 firms (76.7 percent) employed those with accounting degrees to conduct accounting works.

Table 4.4

Background of Firm- outsourcing accounting function, separate accounting department, production of accounting information, accounting staff employed, and hiring of staff with accounting with accounting degrees

	Frequency	Percent
Do you outsource your accounting function?		
Yes	18	29.5
No	43	70.5
Do you have separate accounting department to prepare accounting information?		
Yes	33	76.7
No	10	23.3
How does your company generate its accounting information?		
Manual ledger	14	32.6
Software	29	67.4
How many accounting staff does your firm employed?		
1 -5	19	46.3
6-10	14	29.3
>10	10	24.4
Does your firm hire those with accounting degrees to prepare accounting information?		
Yes	33	76.7
Not necessarily	10	23.3

4.3 Accounting Information

The responses on accounting information are shown in Table 4.5, 4.6 and 4.7. Table 4.5 shows the responses on the managerial needs for accounting information. There are 8 items that measure the managerial needs for information. The three items with the highest mean score are 'As a decision making tool' (4.2131), 'To assess income/expenses' (4.0656), and 'For owners managers to assess cash' (3.8631). The three items with the lowest mean score are 'For tax purpose' (3.6557), 'Owners/managers prefer to have financial information made by accountant like auditor/advisor' (3.6066), and 'To compare with other companies' (3.4754)

Table 4.5

Managerial Need For Accounting Information		
Items	Mean	Std. Deviation
As a decision making tool	4.2131	.85858
To assess income/expenses	4.0656	.81382
For owners managers to assess cash	3.8361	1.03570
To compare between reporting periods	3.7377	1.03121
Owners/managers prefer to have financial information for internal use	3.7049	1.10067
For tax purpose	3.6557	1.01465
Owners/managers prefer to have financial information made by accountant like auditor/advisor	3.6066	1.22853
To compare with other companies	3.4754	1.20563

Table 4.6 shows the responses on the design features of accounting information. There are 7 items that measure the design features of accounting information. The three items with the highest mean score are ‘Users have the capacity to produce financial statements’ (3.8689), ‘Users have the knowledge and skills to analyze financial statements’ (3.8525), and ‘Users have ongoing access to training to overcome lack of financial statements understanding’ (3.8361). The three items with the lowest mean score are ‘Users are able to manage financial statements reporting because they understand financial statements’ (3.7377), ‘Users receive adequate training before financials statements are produced’ (3.4918), and ‘Users need simplified financial statements’ (3.3934)

Table 4.6

Design Features Of Accounting Information		
Items	Mean	Std. Deviation
Users have the capacity to produce financial statements	3.8689	.80572
Users have the knowledge and skills to analyze financial statements	3.8525	.89137
Users have ongoing access to training to overcome lack of financial statements understanding	3.8361	.93417
Users are involved in recording and accounting transaction	3.7541	.72240
Users are able to manage financial statements reporting because they understand financial statements	3.7377	.89259
Users receive adequate training before financials statements are produced	3.4918	1.11987
Users need simplified financial statements	3.3934	.98790

Table 4.7 shows the frequency of preparing accounting information. The accounting information prepared is categorized into statutory accounting information, budgetary accounting information and managerial decision accounting information. As shown in the table, for the statutory accounting information category, 35 firms (57.4 percent) prepared tax return once a year, 20 firms (32.8 percent) prepared profit and loss once and 4 times a year, and 22 firms (36.1 percent) prepared cash flow statement and balance sheet 4 times a year.

Table 4.7

Frequency of Accounting Information Usage										
Accounting Information	Once a year		2 Times a year		3 Times a year		4 Times a year		>4 Times a year	
	N	%	N	%	N	%	N	%	N	%
Statutory Accounting										
Tax Return	35	57.4	11	18	4	6.6	8	13.1	3	4.9
Profit & Loss Statement	20	32.8	4	6.6	7	11.5	10	16.4	20	32.8
Cash Flow Statement	20	32.8	4	6.6	2	3.3	13	21.3	22	36.1
Balance Sheet	18	29.5	8	13.1	2	3.3	11	18.0	22	36.1
Budgetary Accounting										
Budgeted Profit and Loss	18	29.5	16	26.2	7	11.5	10	16.4	10	16.4
Budgeted Cash Flow	18	29.5	20	32.8	9	14.8	2	3.3	12	19.7
Standard Costing	18	29.5	15	24.6	6	9.8	10	16.4	12	19.7
Strategic Management Accounting										
Ratio Analysis	12	19.7	10	16.4	13	21.3	18	29.5	8	13.1
Manufacturing Statement	12	19.7	8	13.1	8	13.1	23	37.7	10	16.4
Inter firm Comparison	14	23.0	16	26.2	8	13.1	17	27.9	6	9.8
Industry Trends	12	19.7	10	16.4	8	13.1	21	34.4	10	16.4
Break Even Analysis	12	19.7	8	13.1	11	18.0	20	32.8	10	16.4
Production Report	10	16.4	4	6.6	9	14.8	16	26.2	22	36.1
Job Costing Report	8	13.1	10	16.4	9	14.8	14	23.0	20	32.8
Product Pricing	10	16.4	10	16.4	6	9.8	15	24.6	20	32.8

For the budgetary accounting information category, 18 firms (29.5 percent) prepared budgeted profit and loss account once a year, 20 firms (32.8 percent) prepared budgeted cash flow twice a year, and another 18 firms (29.5 percent) prepared standard costing once every year.

In the strategic management accounting information category, the highest number of firm which is 23 firms (37.7percent) prepared manufacturing statement 4 times a year while the least number of firms which is only 4 firms (6.6 percent) prepared production report twice yearly.

4.4 Performance Measures

The mean and standard deviation score for the performance measure; sales, assets, capital, number of workers, and earnings after tax for the SMEs are shown in Table 4.8. The mean score for all of the measures except for the number of workers ranged from a low of \$ 2.17 million for earning after tax to a high of \$5.51 million for total assets.

Table 4.8

Mean and Std. Deviation of the Performance Measures

Performance Measures	Mean	Std. Deviation
Total Sales	4,639,267	6,074,389
Total Assets	5,516,284	14,778,670
Total Capital	2,534,631	5,524,934
No. of workers	123	90
Total earning after tax	2,170,412	4,518,750

4.5 Financial Resources during Start Up and Shortages

Table 4.9 and 4.10 shows the financial resources during startup and extent of shortage of financial resources faced by the responding firms. As shown in Table 4.9 the three main financial resources during startup for the firms that participated in this study are bank loan owners' personal savings, and funds from business partners.

Table 4.9

Financial Resources During Start Up	
Items	No. of firms
Bank Loan	35
Owners personal savings	23
Funds from business partners	15
Funds from venture capital	13
Funds from external parties	13
Borrowing from friends and relatives	8
Funds from internal employees	6

The three main shortages of financial resources are working capital, funds for purchasing new building and equipment and funds for technology improvement, as depicted in Table 4.10

Table 4.10

Extent Of Shortage Of Financial Resources	
Items	No. of firms
Working capital	35
Funds for purchasing new building and equipment	28
Funds for technology improvement	21
Funds for market expansion	13
Funds for training staff	13

4.6 Correlation between Accounting Information and the Performance of the SMEs

The results of the correlation analysis between the accounting information variables and the performance of the SMEs are shown in Table 4.11. The results show significant correlation between managerial need for accounting information and managerial decision accounting information and the performance variables. Four items under the managerial need for accounting

information registered significant relationships at the .032 to .42 levels while six items under the managerial decision accounting information registered significant relationships at the .02 to .42 level.

Table 4.11

Correlation Results between Accounting Information and Performance		
Managerial Need For Accounting Information	Performance	R
To assess income/expenses	Total Assets	.261(0.42)
To compare between reporting periods	Total Assets	.294(0.22)
To compare with other companies	No. of workers	.264(0.40)
Owners/managers prefer to have financial information for internal use	Total Capital	.276(0.03)
<hr/>		
Strategic Management Accounting Information		
Manufacturing Statement	Total Capital	.264(0.40)
Manufacturing Statement	Total Sales	.264(0.40)
Industry Trends	Earning After Tax	.267(0.03)
Breakeven Analysis	Earning After Tax	.255(0.04)
Job Costing Report	Total Sales	.285(0.02)
Product Pricing	Earning After Tax	.284(0.02)

4.7 Conclusion

This chapter presents the results of the data on accounting information collected and analyzed in this study. In addition to the background information of the respondents and their respective firms, the mean and standard deviation score for the variables and the results of hypotheses testing are also presented. The correlation analyses that were carried out indicate some significant results which provide support for the hypotheses.

CHAPTER FIVE

DISCUSSION AND CONCLUSION

5.0 Introduction

This chapter comprises four sections. The first section discusses the findings on accounting information as related to the study while the second section provides the conclusion of the study. The third and fourth sections highlight some of the limitations and implications of the study, and finally the fifth section presents some suggestions for future research.

5.1 Discussion

As mentioned earlier, this study is an attempt to examine the accounting information usage among Malaysian SMEs. First this study examines what are the managerial needs of accounting information and the level of the managerial needs for accounting information. Second this study tries to examine what are the design features of accounting information preferred by the accounting information users in SMEs. Third, the study attempts to identify the frequency of accounting information prepared in SMEs. Finally, the study investigates whether there is any relationship between accounting information and the performance of the SMEs.

5.1.1 Accounting Information

This study starts by examining two features of accounting information. The two features are managerial needs of accounting information and design features of accounting information. The two accounting information features would shed some lights on the kind of information required by the users of accounting information particularly the owner/manager. At the same time the design features of accounting information indicates the kind of accounting information design preferred by the users.

5.1.1.1 Managerial Needs of Accounting Information

The results of the study showed that there are a numbers of uses of accounting information. The result showed the uses ranged from a lowest mean score for comparing results with other companies to a highest mean score for using the accounting information for decision making. The three major uses of accounting information are for assisting managers to make decision, to gauge income and expenses, and finally to assess the cash position of a company. The findings of the study concurs with other studies (Briciu, Groza, and Gânfălean, 2009; Pervan, 2005) particularly on the use of accounting information to assess the income and expenses. The findings on the other uses of accounting information paralleled with other studies mentioned above. However the preferences tended to differ. This can be due to the different environment settings and preference of the users.

5.1.1.2 Design Features of Accounting Information

This study also attempts to identify the design features of accounting information. The design features of accounting information take into account the interest and the background of the users. In the study there are 7 items that measure the design features of accounting information. The results of the study showed that most important when preparing the information on accounting to consider the users capacity to produce financial statements. It is also vital that the level of the users' knowledge and skills to analyze financial statements be considered as well.

In addition the users too must have the access to ongoing training to overcome the lack in understanding financial statements. Besides these three, other factors are also required when preparing accounting information such as the level of simplicity, adequate training for users,

ability of users to manage statements, and the involvement of users in recording accounting transactions. The results of the study partly concur with the comparative study between Canadian and Romanian SMEs carried out by Briciu, Groza, and Gânfălean (2009)

5.1.2 Accounting Information Usage

The study also examined the accounting information usage among the SMEs. The three accounting information prepared by the SMEs and examined in the study are statutory accounting, budgetary accounting and strategic management accounting.

5.1.2.1 Statutory Accounting Information

The results of the study showed that for statutory accounting, the most frequent accounting information prepared is the balance sheet and cash flow statement, followed by profit and loss and finally tax return. In other studies too such as Pervan (2005) it is found that cash flow is given much focus by the SMEs. The results of the study indicate that SMEs provide much emphasis on the preparation of statutory accounting. This may not be such a surprise as the accounting information is legally required to be prepared.

However what is interesting is the focus on the cash flow statement. It seems that the SMEs tended to focus on the preparation of cash flow statement as evidenced in the study and also other study as mentioned. One possible explanation is that cash plays a very important role for firms, big and small. The ability to properly manage cash will ensure a firm to operate. Failure to manage cash will derail a firm from its operations, and should the problem persist it will affect the firm over the long haul. A firm cash flow position is the basic condition for any

firm to operate. Therefore, the SMEs are focused on the usage of the cash flow accounting information.

5.1.2.2 Budgetary Accounting Information

As for the budgetary accounting information, the results of the study showed that the two most frequently prepared budgetary information are the budgeted cash flow and standard costing. This is followed with budgeted profit and loss. In another study on accounting information usage among SMEs in Libya, Elhodari (2006) observed that the two most frequently prepared accounting information, are the budgeted cash flow and profit and loss. The finding of the study is similar with to the findings of Elhodari (2006) for SMEs in Libya in terms of budgeted cash flow preparation. Setting aside the difference, it seems that the SMEs are focused on the preparation of cash flow statement. This can be due to the importance of maintaining a stable cash flow position for the SMEs to be operational.

5.1.2.3 Strategic Management Accounting Information

In the strategic accounting information category, there are several items that are considered as significant by the respondents. These items are frequently prepared by the respective firms. The items that received much attention from the respondents are production report, job costing report, and product pricing.

The findings in particular, information on job costing and production report are similar to other studies such as by Cadez and Guilding (2012) which found that costing as one of the

dimensions of strategic accounting information. The study by Cinquini and Tenucci (2010) also showed that information on costing is one of the dimensions of strategic accounting information. As in other studies for example Al Mawali, Zainuddin, and Ali (2012), Cadez and Guilding (2012), Cinquini and Tenucci (2010), and Pervana (2012), product pricing is another dimension which is given much emphasis in strategic management accounting information. In this study too product pricing which can be considered under the general dimension of customer accounting information had recorded rather high mean score.

There are other dimensions of strategic management accounting information in the study as shown in the result section. However in this discussion only the three items with the highest mean score are discussed.

5.1.3 Accounting Information and the Performance of SMEs

The question whether there is link between accounting information usage and performance of firms has always been an interesting one for researchers. The literature seems to indicate that there is no agreement among the scholars on this issue. However there are several studies that suggest relationship between accounting information usage and performance, (Holmes & Nicholls, 1989; Beaver, 1998; Cadez and Guilding, 2008; Hammad, Jusoh, and Yeen, 2010; Carr, Kolehmainen, and Mitchel , 2010).

In the study a number of accounting information usage variables are found to have relationships with some of the performance measures. The accounting information usage variables include manufacturing statement, industry trends, breakeven analysis, job costing

report, and product pricing, while the performance measure are total capital, total sales and earnings after tax. The findings of the study suggest that there is a link between accounting information usage and performance of the SMEs. The findings of the study also concur with other empirical studies which were conducted on similar basis.

In addition to the performance measure this study also attempts to examine the relationship between managerial need for accounting information and the performance of the SMEs. From the results of the study it seems that there is also a relationship between and managerial need for accounting information and performance of the SMEs. The relationships can be seen for accounting information, to assess income/expenses, to compare between reporting periods, to compare with other companies, and owners/managers prefer to have financial information for internal use. There are three performance measures that are related with the managerial need for accounting information; total assets, number of workers, and total capital.

5.2 Conclusion

There are several conclusions that can be drawn from the results of the study. First, there are many uses of accounting information, and this can be among others for comparison with other companies, for purpose to attract investors, for securing bank loan, etc. At the same time there are also many different users of accounting information such as managers, bankers, investors and a host of other users.

Second, the accounting information features should take into considerations its' users. Put it differently the accounting information should consider the interest and the background of

the users. The idea is to facilitate the users to understand what the figures of the accounting information means for them.

Third, the SMEs that participated in the study prepared the three type of accounting information which are statutory accounting information, budgetary accounting information and strategic accounting information. The readiness to prepare the three type of accounting information indicates that the modern SMEs are not far apart from their large business counterparts.

Fourth, as for the statutory accounting information, the preparation of cash flow statement seems to be given high priority by the SMEs in this study and some other studies in foreign countries as well. This can be due to the implication of cash flow statement for the SMEs and the perception of both the internal and external users of accounting information.

Fifth, in terms of the budgetary accounting information, the two accounting information that are deemed important by the SMES in the study are the budgeted cash flow and standard costing.

Sixth, production report, job costing report, and product pricing are strategic accounting information that received intense focus from the SMEs in the study. Nevertheless other strategic accounting information is given much focus by the SMEs also.

Finally, the findings of the study suggest that there is a link between accounting information usage and performance of the SMEs. There are a number of significant relationships between accounting information usage and the performance of the SMEs.

5.3 Limitations of the Study

This study is limited due to a number of reasons. First, it is limited in terms of sample size. The number of firms which were identified earlier for the study was 500, however only 61 firms provide their responses. Second, the study only focused on the SMEs that operate in the northern area. In particular the study only covered the SMEs that operate in the state of Perlis, Kedah and Pulau Pinang only. Third, the study is also limited in terms of the accounting information and performance variables that were utilized. More comprehensive variables would be able to capture a wider information base. Finally the study is limited by the data collection method which is the survey. Survey normally lacks depth in terms of the data obtained.

5.4 Implications of the Study

This study is an attempt to examine the accounting information usage among SMEs in the northern area. It also tried to gauge whether there is any relationship between accounting information usage and performance of the SMEs. Based on the analyses that were carried out, the results of the study can have several implications.

First, the study would able to contribute to the current understanding of accounting information prepared by the SMEs. The study showed the different types of information as prepared by the SMEs.

Besides, the study also shows the accounting information that are most frequently prepared by the SMEs. In this respect the accounting information that are frequently prepared are those that received greater attention from the SMEs

Third, the study also indicates the type of accounting features required by the accounting information users. This information would be very helpful for SMEs when preparing their accounting statements

Fourth, the study also indicates the relationship between accounting information usage and performance of the SMEs. The finding would be of interest the academicians in particular and the SMEs in general. These finding would further add to the current literature on strategic accounting, strategic management, and SMEs.

Finally, the findings of the study may be useful to the SMEs supporting agencies. The supporting agencies can stress the importance for SMEs to prepare accounting information. The accounting information is not limited to the statutory accounting information, but more important for the SMEs is the strategic management accounting information. The strategic management accounting information can provide the kind of information that is required for the SMEs to survive. The proper and regular updating of accounting information would lead the SMEs to achieve more effective performance. The accounting information usage would have strategic implication for the SMEs.

5.5 Suggestions for Future Research

The accounting literature shows that studies on accounting information usage had received serious attention in the last several years. The studies on accounting usages vary with the different perspectives used by individual researchers. At the same time, strategic accounting information too as a branch of management accounting had stimulate much attention from researchers on both sides of the globe. More research is being carried out to further confirm existing knowledge and to add more knowledge to the present one. In generating the knowledge more studies are required.

Further research in accounting information usage may take into account several factors. First, future studies on accounting information usage can be carried out among different organizations. Organizations such as Government Link Companies (GLCs), start-up firms and family firms would be of interest.

Further research should also consider investigating the differences on the usage of accounting information among large firms, SMEs, and micro firms. The results from such studies would further add our understanding on the difference in performance among the firms.

Third, further study should also incorporate other types of accounting information usage, particularly so with respect to the strategic management accounting measures. This is because there are many measures on strategic management accounting depending on the perspectives of the users.

Finally, it is suggested that future studies should employ research approach that allow for the testing of theory. Doing so would allow for generalizations and replication of studies in which several contextual variables such as organizational culture, organizational structure, and environment can also be included.

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Appendix I

Dear Sir/ Madam

Ref: Research on Accounting Information Usage among Small and Medium Size Enterprises (SMEs) in Malaysia

For your information, presently the undersigned and two other colleagues are doing a research on accounting information usage among small and medium size enterprises (SMEs) in Malaysia.

Your company has been selected to participate in this research. A questionnaire on accounting information usage is attached together with this letter. I hope that you would be able to spare about 15-20 minutes of your time to fill in the questionnaire. For your convenience I have also attached a self-addressed envelope together with stamp for you to return the completed questionnaire. Please be assured that your response will be treated as confidential and for the purpose of this research only.

The research is important in the sense that it will aid lecturers and students to understand accounting information usage within the context of SMEs. In addition, a better understanding of the issues would also be beneficial for business practitioners and owners of SMEs, and also policy makers.

Thus, the undersigned and fellow researchers at Universiti Utara Malaysia look forward for your kind participation in this research and take this opportunity to thank you in advance.

Should you need further assistance or a copy of the findings of this research, please do not hesitate to contact the undersigned:

Phone : 04-9284124
E-mail : z.mustafa@uum.edu. my
Hand phone : 012-4029003
Facsimile : 04-9285761

Thank you

Yours faithfully

(MUSTAFA ZAKARIA, PHD)
SeniorLecturer
Faculty of Business Management

Company Name (optional) : _____

Address(optional): _____

A. BACKGROUND OF RESPONDENT

1. How did you become the owner/officer of this company? Please tick one
- Founder
 - Co-founder
 - Inherited or purchase from family
 - Purchase business (not from family)
 - Hired or promoted by the company

2. What was your primary reason for joining the company?
Please tick one.
- Unemployed due to being laid off or dismissed
 - Did not like previous work situation
 - Wanted to be own boss
 - Opportunity arose to develop own or someone's idea
 - Wanted to make more money

3. What is your position in the business?
- Owner and CEO
 - Owner and manager
 - Manager, but not an owner
 - Owner, but not a manager
 - Others (Please specify) _____

4. How many years have you been with the company?
_____ years

5. What is your age? _____ years old

6. What is your gender?
- Male
 - Female

7. What is your marital status?
- Single
 - Married
 - Remarried
 - Divorced

8. How many years of experience in this field or industry did you have when you started or joined this business? _____ Years _____

9. What is your highest level of education completed?

- School certificate
- Diploma
- Bachelor's degree
- Master's degree
- PhD's degree

B. COMPANY PROFILE

10. What is the age of your firm ? _____ Years

11. Form of business

- Sole proprietor
- Partnership
- Private limited
- Public limited
- Other (Please specify) _____

12. Business Activity (Please tick)

- Basic Iron & Steel
- Chemicals/Fertilizer
- Electronic & Electrical
- Fabricated Metal Product
- Food Processing/Canning
- Furniture
- Handicraft Products
- Leather
- Machines & Equipment
- Non-Metallic Mineral Products
- Paper Products/Printing Works
- Plastic & Plastic Products
- Processing of Agricultural Products
- Textile & Garments
- Transport Equipment
- Others: Please specify _____

- 12a. Your firm location:
 Penang _____
 Kedah _____
 Perlis _____

Please provide estimation should the actual figures have not been finalized:

- | | 2010 | 2012 | 2013 |
|----------------------------------|------|------|------|
| 13. Total sales volume | | | |
| 14. Total assets of the company | | | |
| 15. Total capital of the company | | | |
| 16. Number of fulltime employees | | | |
| 17. Net profit after tax | | | |

C. PREPARATION OF ACCOUNTING INFORMATION

18. Do you outsource your accounting function **YES** _____
NO _____

IF YOUR ANSWER TO QUESTION 18 IS NO GO TO 19, IF YES GO TO QUESTION 23

19. Do you have a separate department to prepare accounts **YES** _____
NO _____

20. How does your company generate its accounting information?
 Manual ledger _____
 Software _____
 Others (Please specify) _____

21. How many accounting staff do you employed? _____

22. Do you hire those with accounting degrees to prepare accounting information? **YES** _____
NO NECESSARY _____

D. ACCOUNTING INFORMATION

INSTRUCTION: Please tick (/) the most relevant answer

MANAGERIAL NEED FOR ACCOUNTING INFORMATION	NOT			MOST	
	LIKELY			LIKELY	
23 As decision making tool	1	2	3	4	5
24 To asses income/expenses	1	2	3	4	5
25 To compare between reporting periods	1	2	3	4	5
26 To compare with other companies	1	2	3	4	5
27 For owners/managers to asses cash	1	2	3	4	5
28 Owners/managers prefer to have financial information made by an accountant like auditor/advisor	1	2	3	4	5
29 Owners/managers prefer to have financial information for internal use	1	2	3	4	5
30 For tax purpose	1	2	3	4	5

DESIGN FEATURES OF ACCOUNTING INFORMATION	NOT			MOST	
	LIKELY			LIKELY	
31 Users are involved in recording accounting transaction	1	2	3	4	5
32 Users have the capacity to produce financial statements	1	2	3	4	5
33 Users have knowledge and skills to analyze financial statements	1	2	3	4	5
34 Users have ongoing access to training to overcome lack of financial statements understanding.	1	2	3	4	5
35 Users are able to manage financial statements reporting because they understanding financial statements	1	2	3	4	5
36 Users receive adequate training before financial statements are produced.	1	2	3	4	5
37 Users need simplified financial statements	1	2	3	4	5

USAGE OF ACCOUNTING INFORMATION

Statutory Accounting	Once a year	Twice a year	3 Times a year	4 Times a year	> 4 Times a year
38 Tax Return					
39 Profit & Loss Statement					
40 Cash Flow Statement					
41 Balance Sheet					

Budgetary Accounting	Once a year	Twice a year	3 Times a year	4 Times a year	> 4 Times a year
42 Budgeted Profit & Loss					
43 Budgeted Cash Flow					
44 Standard Costing					

Additional Accounting	Once a year	Twice a year	3 Times a year	4 Times a year	> 4 Times a year
45 Ratio Analysis					
46 Manufacturing Statement					
47 Interfirm Comparison					
48 Industry Trends					
49 Break Even Analysis					
50 Production Report					
51 Job Costing Report					
52 Product Pricing					

E. FINANCIAL RESOURCES

Financial Resources During Start Up	
53 (A) Owner's personal savings	
53 (B) Borrowing from friends and relatives	
53 (C) Bank loan	
53 (D) Funds from business partners	
53 (E) Funds from external parties	
53 (F) Funds from internal employees	
53 (G) Funds from venture capital	

Extent Of Shortage Of Financial Resources	
54 (A) Working capital	
54 (B) Funds for purchasing new buildings and equipment	
54 (C) Funds for technology improvement	
54 (D) Funds for market expansion	
54 (E) Funds for training staff	

THANK YOU FOR PARTICIPATING IN THE SURVEY.