

# Strategic Management Accounting: *State-of-the-Art*

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## Abstract

The current paper presents the *state-of-the-art* of strategic management accounting (SMA) information usage among organisations. Despite SMA claimed importance to organisations operating in today's competitive environment, little is known about its current achievement. In Malaysia in particular, the subject is almost absent. Thus, motivated by the scant attention given to SMA, the current paper attempts to present the current development of the subject. Specifically, inherited by the disparate concepts put forth by its various advocates, the current paper presents a review of its development and result of a pilot research carried out on manufacturing companies operating in Malaysia. It is interesting to note that despite the doubts cast by some advocates, organisations used strategic management accounting information to greater extent. The current finding enriches the limited knowledge on organisations' extent of SMA usage which explicitly rejecting doubts about the subject's rhetorical states, and reveal the potential of SMA to further progress. However, inherited by the exploratory nature of the current findings generalisation is to be cautioned. More robust future study is suggested.

**Keywords:** strategic management accounting, competitive market, competitor information analysis, customer information analysis, product-related information analysis

## 1 Introduction

Well into the eighties, the efficacy of management accounting information has been questioned particularly on its ability to fulfil contemporary companies' information requirements (Johnson & Kaplan, 1987). Some had called it as crisis in management accounting (e.g. Bromwich & Bhimani, 1989). It is claimed that its traditional information had failed to provide the information requirement for organisations' strategic purpose (Bromwich & Bhimani, 1989; Johnson & Kaplan, 1987; Roslender & Hart, 2003). The argument was on its ability to fulfil the information requirement that could contribute to organisations' competitiveness, and long-term performance (Hiromoto, 1988; Johnson & Kaplan, 1987; Kaplan, 1984). As a result, strategic management accounting emerged in the literature in about the same time claimed as a new development that could remedy the shortcoming of the traditional management accounting information (Simmonds, 1981).

However, it is rather daunting that the development of SMA has not received much publicity by fellow academia even until recently. Review of literature reveals that only a handful of published work could be found, and mostly were conceptual in nature. As a consequence, limited is known about its achievement. Some had even cast doubts on its practicality and assumed it as another figment of academic imagination (e.g. Lord, 1996). Nevertheless, previous researches had evidenced that SMA has made progress though it varies among organisations (e.g. Cravens & Guilding, 2001; Cadez, 2006; Guilding, 1999; Guilding et al., 2000). In contrast, Langfield-Smith (2008) considers that SMA is lacking in success. Notwithstanding, the current paper argues that SMA has made a tremendous progress that academia failed to recognised. Perhaps, the problem could be attributed to the emphasis made by the previous researchers that had been narrowed to searching for specific techniques that they claimed as SMA's proxy.

Thus, motivated by the potential of SMA to serve organisations' information requirement and the limited attention given by academia, the current paper presents its conceptualisation about how SMA information could be captured through a detailed review on the current progress of SMA. In addition, the progress of SMA information usage in Malaysia is also presented based on the result of a pilot study carried out on manufacturing companies.

The paper will be organised as follows. Inherited by the paucity of SMA in the literature, a detailed review on the subject will be presented in the first following section. The origin and the need for SMA is then discussed in the following section. Subsequently, result of a pilot study portraying a general scenario on SMA information usage amongst manufacturing companies is also presented. Finally, the paper ends with a section on discussion and conclusion which highlighted the implication to theory and practice, and suggestion for future research.

## **2 Literature Review**

### **2.1 Strategic Management Accounting (SMA)**

The term SMA has emerged in the accounting literature in the early eighties parallel with the development of strategic thinking in business (Simmonds, 1981). It is the move towards changing cost and management accounting systems to capture and provide information that are pertinent to organisation's sustainable competitive advantage (Spicer, 1990). However, its development is considered by many as '*slow*' and '*ill defined*', and consequently '*what constitute SMA*' is left tentative (Carr & Tomkins, 1996; Coad, 1996; Langfield-Smith, 2008; Lord, 1996). This is rather daunting despite being first made apparent for more than two decades now, coupled with the criticisms

and calls for a serious thought on the role of traditional management accounting in providing information for organisations operating in today's furious competitive business environment (Bromwich, 1990; Bromwich & Bhimani, 1989; Guilding et al., 2000; Johnson & Kaplan, 1987; Roslender & Hart, 2003; Simmonds, 1981).

To date, the SMA development has been '*conceptually descriptive*' while only a dearth of empirical evidences is available. Nonetheless, a handful of notable attempts have shed some lights on the broad '*elements*' of management accounting information that deemed to be of strategic essentials, and consequently paved some directions of how the subject could be further developed (e.g. Cadez, 2006; Cadez & Guilding, 2008; Coads, 1996; Cravens & Guilding, 2001; Guilding, 1999; Guilding et al., 2000; Palmer, 1992; Roslender, 1995; Tillman & Goddard, 2008). These studies found that organisations have used some elements of SMA information (within their definition) for decades for various purposes that academics fail to recognise (Collier & Gregory, 1995; Hiromoto, 1988; Simmonds, 1981). For example, information about competitors which is one of SMA information elements were found to be widely used by companies as a mean to manage their market competition (pricing competition, cost management) and strategy implementation (Collier & Gregory, 1995; Cravens & Guilding, 2001; Guilding, 1999; Guilding et al., 2000; Palmer, 1992). In addition, Tillman and Goddard (2008) found that company uses strategic management accounting information to understand its strategic situations.

The next section presents some important developments in management accounting that leads to the need for SMA information. Specifically, it attempts to answer the question of '*why?*', '*what?*', and '*how?*' with regards to SMA. This is warranted due to '*what it is?*' is still being debated and questioned. Apparent gaps seem to be attributed to its disparate conceptualisations and too broad a concept entails by the subject. Therefore, to better understand and appreciate the emergence of, and the requirement for SMA, a brief review on the evolution of management accounting is presented. Moreover, the underlying themes and concepts embedded in SMA advanced by its advocates are unravelled, and the elements of SMA information are put forward.

## **2.2 The Emergence of Strategic Theme in Management Accounting**

Management accounting system is recognised as providing a most important source of formal information in an organisation (Hopwood, 1972). It plays a vital role in helping the managers of complex and hierarchical organisations by providing the information that enables them to plan, to organise, and to control (Kaplan, 1989; Horngren, 1996). As a control mechanism, it enables organisation to ensure that its sub-units act in a coordinated and cooperative fashion (Lebas & Weigenstein, 1986), and subsequently

serves as a catalyst for achieving organisations' overall objectives (Lowe, 1971; Ouchi, 1979; Otley, Broadbent, & Berry, 1995).

In a more contemporary business environment, management accounting's role is found to be extended to provide information that enables an organisation to pursue their strategic objectives successfully, and competitively. To a certain extent, management accounting information provides a strategic mean that essentially used by an organisation to execute plans and monitor their superiority relative to its competitors. For example, Mia and Clarke (1999) had found that management accounting information was used by organisations to facilitate them to adapt and implement plans in response to their competitive environment through its benchmarking information relative to other companies, and have consequently contribute positively to performance.

This development has shown the changing role of management accounting information. Parallel to the view, Roslender et al. (1998) commented that management accounting role itself has shifted from serving mere factory purposes to aiding directly meeting new market challenges through focusing information which is externally focused on the final goods market where companies make profits and encounter their competition. In line with the development, Bhimani & Keshtvarz, (1999) found a great involvement on the part of management accountants in strategic planning activities via providing data or analysis of different elements of strategic planning. The learning orientation of management accounting information is emphasised.

As a result of these development, today's management accounting system has been called to change its emphasis from 'narrow' and 'internal' orientated towards more 'management' and 'strategic' in nature to commensurate with the new information requirement (Bromwich & Bhimani, 1989; Johnson & Kaplan, 1987). Nixon and Bruns (2005) reiterated that the control needs of current environment are significantly different from those developed in the earlier period and improvements are urgently required as companies must today compete on several bases simultaneously, whereby knowledge, competence and intangible assets (reputation, customer loyalty, and relationships) have become relatively more important drivers of competitive advantage.

In retrospective, formal management accounting has approximately been practised as early as mid 1800 (Solomon, 1968). The emergence and rapid growth of railways in the mid-nineteenth century was the major driving force in the development of management accounting system which was later adopted and extended in other business sectors due to the need to closely evaluate and monitor the efficiency of internal processes (Johnson & Kaplan, 1987). Nonetheless, the initial development phase bound to emphasis on the determination of product costs which stressed on cost allocation and absorption costing. Control was performed through surveillance

of direct labour, direct materials, and overhead costs (Ezzamel & Hart, 1987). Scientific management movement influenced much of this phase where organisations concentrated on improving the efficiency of the production processes by simplifying and standardising the operations and consequently need to refine their techniques for determining standards for cost control (Drury, 1996). Hence, inherited by the nature of its use, the emphasis was on '*mere costing*' and efforts were devoted towards costs accuracy. This phase was marked as the pursuit of '*absolute truth*' or the search for '*true costs*' (Horngren, 1975).

However, when business expanded and decentralisation became essential, the former approach was criticised. It was argued that there was no such thing as '*true*' cost applicable to every situation. As a consequence, the emphasis of management accounting has changed to incorporate the concept of '*different costs for different purposes*' where '*cost relevance*' (Ezzamel & Hart, 1987), or '*conditional truth*' (Horngren, 1975) prevail. In this second phase, management accounting advocates argued that the cost of a product cannot be viewed as a unique unambiguous figure on which to base managerial decisions relating to such matters as pricing, product profitability, product mix, and management control. It depends on the purpose which the cost is meant for.

For example, the approach such as '*transfer pricing*' was part of this development whereby it was in line with the concepts of responsibility centres (cost, profit, and investment centres). It was in this phase management accounting incorporates a '*user-oriented*' or '*user decision*' model approach to cost accounting and the element of '*management*' was emphasis. Other examples, such as the concepts of '*contribution*', '*analysis of cost behaviour*', '*overhead allocation*', emerged in the literature during this era. It was notable that emphasis of management accounting in the earlier phases was to fulfil organisation's information requirement for meeting their optimisation and efficiency endeavour (Hiromoto, 1988) – or rather operational purpose.

In addition, during these earlier phases management accounting was mainly developed by engineers and practitioners (Scapens, 1990, in Abdul Khalid, 2003). As a consequence, the advocates advanced what they thought to be '*the best way*' to do things. One notable drawback was the cost of information or the benefits that may be generated from alternative courses of action was neglected. As a remedy, the third phase adopted an '*information-economics*' approach which influenced much of the development of management accounting techniques. Demski and Feltham (1976) in Ezzamel and Hart (1992) the pioneer of the approach asserted that due consideration must be given to available opportunities and prevailing tastes and beliefs. In other words, the desirability of information dependent on the purpose of the information and on the cost of producing more accurate measures (cost and benefits). The costs involve

in producing such information should not exceed the benefits. The concept such as *opportunity cost* was introduced in the course of decision making. It was during this phase that the application of mathematical modelling became apparent.

Nevertheless, inherited by its normative and prescriptive nature of earlier development, it is not surprising that limited appreciation was evidenced on the techniques suggested for financial decision making. This phenomenon was attributed to the failure of methods to meet the needs of decision-makers in a cost-effective way and the inappropriateness of competitive market assumptions (Scapens, 1991). As a result, theory and practice of management accounting found to be incongruent, where theory includes the various mathematical and statistical techniques while simpler techniques were preferred in practice (Scapens, 1991). Academics have been criticised as not addressing the practical aspects of practices and techniques they portray as useful for organisation (Otley, 1995), and worse of all claimed as irrelevant (Johnson & Kaplan, 1987).

Concern with the shortcomings of earlier development, researches in management accounting had changed in emphasis to a '*positive*' approach to explain observed practices (Ezzamel & Hart, 1987). This view quite naturally prompted the search for reasons underlying observed practices. Management accounting researchers strive to understand the determinants of management accounting information usage. From this perspective, it rejected the notion of '*universalistic*' way of setting up the management accounting systems, and recognising the context in which it operates (Hopwood, 1976). Perhaps, the birth of '*Accounting, Organizations and Society*' journal in 1976 reiterated that management accounting should be seen in a broader perspective rather than exerting effort on its technicality. Hopwood in his editorial note express this concern as saying (Hopwood, 1976, p.1):

*'...Accounting has played important formal means of collecting, analysing and communicating information on the financial activities and performance of all forms of organisation...however, although recognised as important, all too often accounting has been seen as a rather static and purely technical phenomenon...'*

It was during this era that management accounting has become increasingly conscious of the changing technological and organisational context of its operation (Ashton, Hopper, & Scapens, 1995). Greater emphasis was given on the control process (Ezzamel & Hart, 1987). Researchers incorporate organisational theory to explain the reasons behind certain practices and information requirements. For instance, contingency theory has been widely used by management accounting researchers since 1980s to explain that no one universal accounting system applicable to all organisations – it all depends on the context in which the organisation operates (e.g. Chenhall &

Morris, 1986; Gordon & Miller, 1976; Gordon & Narayanan, 1984; Khandawalla, 1972; Otley, 1980). Earlier researchers investigated the implication of contextual variables where technology and environment being the main on management controls system (MCS) design and use.

Thus far, the review reveals that the early development of management accounting has emphasised on operational control to achieve organisation's objectives. Organisation measures their success purely on '*bottom-line*' figure. As a consequence, management accounting information was extensively used to meet standards that were set during organisation's planning stage. For example, standard costing was widely used to enable organisation to monitor their progress towards meeting budget through variance analysis. Moreover, attempts were devoted towards 'accuracy of cost allocation' to ensure cost assigned were accurate and reflective of the actual portion of cost. Implicit was its '*short-term*' orientation. It was believe that concentration on efficient production through good cost control is sufficient to ensure good profits (Simmonds, 1981).

As a consequence, control system developed was based on '*efficiency and optimisation*' theme whereby emphasis was given on ensuring that employees work towards organisation's goals (Hiromoto, 1988). Thus, management accounting information was made available to fulfil this requirement of manufacturing control environment which concerned on optimisation and efficiency. Therefore, '*output control*' and '*behaviour control*' approach was commonly applied amongst manufacturer. In turn, management accounting information were characterised by internally driven, historical, and financial in nature. This has eventually been discovered as insufficient to serve the information requirement for organisation strategic achievement (Chenhall, 2003; Johnson & Kaplan, 1987; Roslender & Hart, 2003; Scapens, 1991). The criticisms become more appealing when strategy gain its prevalent in the 1980s for organisation to compete in the much intensified business environment (Langfield-Smith, 1997).

As a consequence, inherited by its importance in providing organisation information requirement the evolution in management accounting continues until recent years. Among others, it was prompted by the debate on the '*relevance*' of management accounting which (traditional) struck quite considerable attention amongst academics. In the mid eighties Johnson & Kaplan provocatively criticised that management accounting information were irrelevant for managers' planning and control decisions (Johnson & Kaplan, 1987). The main essence of their critics were management accounting as an information systems that should provide valuable inputs to managers for planning and control purpose has been tailored to suit external financial reporting requirements. The repercussion being, this system reported mere historical

data, financial, internal, and within organisation's reporting period which is of less valuable for long-term planning and control purpose. Johnson and Kaplan (1987) also reiterated that management accounting has not changed, and fails to respond to the challenges posed by the changing business environment.

Further criticism put forward was traditional management accounting system has failed to report information that formed the elements of competitive advantage such as quality, reliability, lead times, flexibility and customer satisfaction, despite the fact that those represent the strategic goals of world-class manufacturing companies (Drury, 1992). It is claimed that under the global environment, competitive advantage is of ultimate concern and companies' management accounting could contribute mightily (Hiromoto, 1988). The traditional information characteristics claimed to have less relevance to inform managers on their organisation's future survival (Hiromoto, 1991), and the most uncomfortable is the claimed that it may lead to inferior decisions (Asthon et al., 1995). Otley (2008) in concurring about the fact reiterates that the role of traditional management accounting is diminishing.

Notably, most of the concerns were claimed to be attributed to globalisation and market liberalisation which have made the market place to be open for entrants and exits of players with relax restriction, and thereby caused the market place to be unpredictable and uncertain, and competition intensified. Under this condition the business environment turns out to be characterised by escalating competition, changing competitive strategy, and product life cycle shorten (Morrow, 1992). In addition, because of the availability of choices and alternatives, the market turns out to be a buyer's market, and further characterised by sophisticated, not loyal, and demanding customers, thereby product price, quality, and functionality become the key success factors (Cooper, 1996). Hence, this has posed great challenges to managers to consider more effective ways of achieving competitive advantage and improving organisational performance (Baines & Langfield-Smith, 2003), and management accounting information is no exceptions (Chenhall & Langfield-Smith, 1998b).

Therefore, most of the above developments have led to some crucial development claimed as remedies to the shortcomings of the previous development. For example, Simmonds (1981) advanced his concept of strategic management accounting which extends the traditional information to a more externally emphasis. In particular, he suggested for the inclusion and provision of competitor analysis in organisation's management accounting system, i.e. important aspect of being competitive. Bromwich (1990) concur the concept and further emphasis on the importance of analysis of market information with regards to products. Roslender (1995) in turns calls for accounting for strategic positioning whereby management accounting is designed to assist senior management to secure, and subsequently to sustain competitive advantage as opposed



to its traditional function as scorekeeping, attention directing and relying on historical data which have little impact on organisational performance as they claimed.

Thus, management accounting system as an integral part of organisation information system has been called to undergo a radical departure from its internally, optimisation ridden, and historically based information towards more externally focused (Bromwich, 1990; Roslender, 2003; Simmonds, 1981) and market-driven (Bromwich, 1990; Drury, 1992; Hiromoto, 1988) in order to provide and serves the information requirements for meeting the 'emerging challenges'. In particular, management accounting is called to provide information that enable organisation to evaluate the progress of their chosen competitive strategy (Simmonds, 1981; Bromwich, 1990). It is essential if competitive advantage is to be sustained (Drury, 1996).

Under this condition, organisations adopt a '*market control approach*'. Embedded in the approach are a form of comparative analysis and emphasis on continuous learning (Lebas & Weigenstein, 1986; Ouchi, 1979) that enabled strategic decision maker to evaluate their current achievement. The role of management accounting system under this perspective is to provide an on going information and analysis regarding organisation's achievement (a reflection of its strategy success) relative to its rivals to enable decision maker to evaluate changes in their strategic position (Simmonds, 1981). For example, organisation practices competitor focused accounting to enable them to evaluate whether they are better off as compared to its core competitors in terms of costs, cost structure, and technology which will have a long term implication on performance sustainability (Guilding, 1999).

To sum up, this section has briefly presented some important developments in the field of management accounting which attempts to answer '*why?*' strategic management accounting information is required. It is apparent that management accounting has evolved quite significantly if not radical since its earlier existence. Review of literature reveals that the role it plays in an organisation has commensurately changed with business environment, technological advancement, and the rise to prominence of strategy in recent years generally. In particular, the requirement for SMA exists due to the inability of traditional management accounting to serve the information requirement for organisation's strategic purpose. Its traditional emphasis on short-term orientation (optimisation) and internal information (historical) claimed to be insufficient for organisation's long term competitiveness, where long-term orientation (future oriented) and external information is more crucial for organisation's sustainability (value creation) in current market environment.

Furthermore, the requirement emerges due to the need for organisation to closely monitor the performance of its strategy in achieving its organisational strategic

goals and objectives (Hoque, 2003). Today's contemporary business environment is characterised by escalating global competition, demanding customers and short product life-cycle (Morrow, 1992). As a consequence, quality, costs, and continuous innovation are becoming more important strategic priorities and being the main strategic pursuit among organisation (Bromwich, 1992). Thus, SMA is claimed to be important mean to successfully achieve strategic goals through the provision and analysis of the strategic information provided by organisation's management accounting system.

### **2.3 Strategic Management Accounting – Concepts and the Underlying Theme**

The preceding section reveals that management accounting has evolved parallel with the development of technology and business environment. It is apparent that management accounting information has changed in emphasis in order to serve today's organisation purpose. Earlier development has neglected the strategic information requirement. As a result, strategic management accounting is claimed one of the emerging developments that may restore the relevance of management accounting in its organisational settings (Bromwich & Bhimani, 1989). It is portrayed as a crucial means for organisation to achieve superior performance via its provision and analysis of strategic information relating to strategy formulation and implementation (Bromwich, 1990; Roslender, 1995; Simmonds, 1981). This section attempts to dwell on '*what is SMA?*' recognising the apparent scarcity of documented work on the subject.

Noteworthy, review of literature further reveals that SMA development is still at its infancy stage and slow in pace, and what it should constitute is debatable. It is interesting to note that though SMA has been coined for more than two decades ago, only limited disjointed researches are available in the literature. Various perspectives have been put forth which attempt to define SMA, and pave some ways on how the matter may progress and further develop. As a consequence, SMA has also been interpreted and approached in different perspectives by respective researchers. There remains ample confusion regarding what SMA entails (Nyamori et al., 2001). Nevertheless, these advocates have implicitly highlighted some common themes and characteristics they claim as best featuring SMA.

The term SMA was first formally coined in accounting literature in the early 1980s. Simmonds, whom have much influenced the requirement for SMA has conceptually put forth the potential of management accounting in aiding organisation to sustain their competitiveness (Simmonds, 1981; 1982; 1986). He criticises the traditional management accounting such as internal cost-volume-profit (CVP) as being inadequate for strategic purpose and calls for externally focused management accounting that can aid managers in formulating and monitoring their organisation's strategy (Simmonds, 1981). He conceptualises SMA as the provision and analysis of

management accounting data about a business and its competitors which is used for developing and monitoring business strategy. It is apparent that he emphasises on the importance of learning about competitor information in dealing with organisation's strategic pursuit.

Quite apparently that Simmonds's concern is on organisation's competitive positioning in its industry which is the basic determinant of future profits and organisation's value. Competitiveness is an outcome of organisation distinct capability relative to its competitors through creating competitive advantage (Barney, 1991). According to Simmonds (1981) this could be achieved through the provision of competitor's information and analysis relating to costs and costs structure (prices and market share) whereby an organisation will be able to make comparison with its main competitors. He has also emphasised on the continuous monitoring on these information so that an organisation could ensure its long term survival by being superior relative to its competitors.

Inherited by the broad notion of SMA, the response amongst academic were not encouraging. Bromwich (1990; 1992) amongst the earliest who responded to the subject extends that SMA is crucial because of its ability to help managers to focus their efforts more on their markets (economics goods attributes) and ascertain cost positioning relative to its rivals (theory of contestable market). He argues that accounting has a role in providing management accounting information that enable an organisation to monitor its performance in the market place through optimum combination of product attributes and continuous monitoring its cost structure relative to competitor using a whole range of strategic variables over a decision horizon sufficiently long for strategic plans to come to fruition. In addition, concurring with Simmonds, Bromwich further reiterates on the need for organisation to know about its competitors.

In general, Bromwich has gone a step further by emphasising the importance of market factors in dealing with competition (Bromwich, 1990). It is apparent from the preceding discussion that today's customer become sophisticated, disloyal, and demanding. This has forced organisation to concentrates on the matters pertaining to the product market to maintain its existing share or to attract new customers. Bromwich argues that organisation's market share depends on the match between the attributes provided by its products and consumer's tastes and on the supply of these attributes by competitors (Bromwich, 1992). Looking from this perspective, SMA is closely associated with marketing function. It emphasises that organisation should not only match their product and customers' taste but also it should offer product that is distinct from their competitors. It might be distinct in terms of costs or attributes of the product offered.

It could be linked that the two advocates are in line with the concepts of competitive strategy postulated by Porter (1980; 1985). Bromwich in particular, very much assimilates Porter's concept of cost leadership (i.e. emphasis on competitors' costs structure) and product differentiation (i.e. emphasis on competitors and product attributes) in his argument. Porter (1980; 1985) postulated that organisation's could compete either being the lowest costs producer (cost leadership), or by offering unique products (product differentiation) for creating a defensible position and outperforming competitors in a given industry.

Thus, two notable points emerge from Simmonds and Bromwich contentions about SMA. First, the importance of information and analysis of competitor costs, and costs structure as a means of creating competitive advantage is emphasised. With such information organisation could devote their effort towards creating their cost advantage compared to their core competitors which consequently leads to superiority in terms of pricing. Secondly, the importance of the information and analysis that reflects the value that market willing to accept. This perspective recognises marketing capability as the determinant of firm's sustainable performance. SMA information serves as a mean of achieving competitive advantage (marketing capability) via continuously providing the management with comparative information and analysis on the strategic indicators which are external to the organisation, and future oriented in nature. Nonetheless, earlier advocates have been conceptual and how it could be crystallised is a matter of concern, and left too abstract a subject.

Other conceptual perspectives have been offered by Shank (1989) and a series of Shank and Govindarajan works (1988; 1989; 1992) through their concept of strategic cost management (SCM). Different from the former view, these authors incorporate accounting inputs to value chain analysis the concepts put forth by Porter (1980). For example, Shank and Govindarajan (1992) illustrated how value chain analysis using strategic cost analysis would result in different decisions compared to using traditional management accounting techniques. Shank (1989) argues that traditional management accounting often adopts a focus which is largely internal to the firm whereas SCM emphasis on managing cost for the entire value chain. The focus is external to the firm whereby individual organisation is seen in the context of the overall chain of value-creating activities of which it is only a part – from basic raw material components to end-use consumers.

Embedded in this concept is its continuous improvement on organisation processes throughout the value chain which subsequently has an implication on its costs structure. It recognises that cost information plays a role at each of business management cycle (Shank, 1989). Under SCM, organisation use the cost information explicitly directed at one or more of the four stages of the strategic management cycle

(strategy formulation, communicating strategy, develop and carrying tactics, and develop and monitor success of strategy) carried out through value chain analysis, strategic positioning analysis, and cost driver analysis (Shank, 1989). The application of these analysis notably reflects the emphasis on strategic costs information where apparently traditional management accounting unable to fulfil these information requirements. It demands management accounting system information that is characterised by external and future oriented. For example, in monitoring the success of organisation's strategy, it will require organisation to be able to compare the outcome of its strategy in the market relative to its competitors i.e. the ultimate goal of every organisation in order to sustain its competitiveness and consequently protect their long term survival.

While the advocates were arguing on the need for management accounting information to fulfil organisation's strategic purpose, Hiromoto (1988) reveals that the key success factor of Japanese companies compared to their Western competitors was that they tailored their management accounting systems in such a way that support their continuous innovation through target cost management. It reinforces a top-bottom commitment to process product innovation by linking their management accounting system to their company's strategies for innovation. It emphasises on continuous strategic thinking and act among employees. Nevertheless, distinct from SCM it considers the final market demand and work backward on the allowable targeted costs that the organisation set earlier in the development process which is termed as 'market driven cost management' (Hiromoto, 1988) and promotes continuous product innovation during research and development phase.

Thus, in brief it is apparent that the concepts advanced by the respective advocates distinct quite considerably from one and another. It spans from forwarding the analysis of information that claimed as crucial to be incorporated in organisation's management accounting system to the individual techniques that could aid organisation to achieve their strategic pursuit. SMA being portray as competitive essentials. The review carried out reveals that three common themes emerge that can describe 'what?' SMA is. First is on the external orientation of SMA as opposed to internal oriented portrays by traditional management accounting. The respective advocates argue that management accounting system has to incorporate information and analysis on competitors, customers, and products to enable organisation to execute its strategic priorities especially with regards to cost management and their pursuit on product development. As been discussed somewhere in the preceding section, today's environment companies compete in terms of price and differentiation simultaneously (Adler et al., 2000). Thus, by continuously providing the management (strategic) with information that relates to competitors, customers, and product, they will be able to make improvement where necessary.

Secondly, to enable organisation to foresee their strategic direction, the SMA advocates emphasise on future oriented information, whereby the information will have a long term implication to company's future performance. Tillman & Goddard (2008) purport that organisation requires such information in its attempts to understand situations that may have occurred in the past, that might be occurring in the present, and that may also be anticipated for the future. In other words, the information (management accounting) feed for strategic purposes should not concern mere accounting period but reflect the achievability of organisation's long term plan (strategy implementation). For example, information and analysis about customers will ensure that organisation has, as far as possible reflected in their strategic decision, and ideally will met customers' preferences and generate future demand. This is also apparent when SMA put emphasis on learning elements of management accounting information (Coad, 1996).

Thirdly, it entails provision and analysis of information that are financial, non-financial, and qualitative in nature. This is apparent in line with the emphasis on SMA requirement for organisation's sustainable competitiveness. Langfield-Smith (2008) concurs that the non-financial information is an important component of SMA. SMA information provides a form of indicators, or rather signal that will alert organisation whether competitive advantage has been achieved according to plan, or more importantly superior than competitors.

Notwithstanding to the theme underlying the respective advocates, the concepts put forward were too general and how it could be empirically tested bound to be problematic. Furthermore, what element to be included as SMA is also open for debate and the term itself entails too broad a concept. This could explain the paucity of published evidence on SMA. Nonetheless, these notable works can be the basis for further research endeavour. The review presented above implicitly suggested that SMA could be approached in two ways.

First is through addressing the fundamental question of information requirements that portrays strategic concern. This could be carried out through investigating the element of information and analysis that claimed by respective advocates as crucial for organisation's strategic pursuit. Secondly, research can embark through looking at individual techniques that is claimed to constitute SMA. However, the issue of operationalisation in the latter is problematic due to the uncommon terms used among organisations (Guilding et al., 2000), and the generalisability is rather limited. In addition, it also recognised that it would seem unlikely that the adoption of any one specific SMA technique will meet the requirements of all contexts (Tillman & Goddard, 2008). As a result, the first approach is adopted in the current research simply attempting to unravel what SMA constitutes of and understanding the information usage by organisation.

To sum up, this section attempts to unravel ‘*what is SMA?*’. Briefly, SMA could be defined as management accounting information that is characterised by external, future-focused, and qualitative in nature used by organisation for their strategic pursuit. In particular, it could be further portrayed as information and analysis in relation to organisation’s competitor, customer, and product; the information that are crucial for organisation strategic achievement. Note that the elements are also claimed to be crucial for organisation’s strategy implementation and long term performance. However, the development has been conceptual and descriptive. To date, only a handful of documented empirical evidences are available with regards to SMA. As a consequence, much of the development can be considered as tentative and provide avenue for further research. Thus, the following section discusses and presents the findings of a pilot study carried out on manufacturing companies in Malaysia.

### **3 SMA’s Current Achievement – Malaysian Evidence**

To recap, the current paper has been motivated by the scant attention given to SMA development. As a result, little is known about organisations’ take-up. Based on the limited empirical studies carried out, wide variations of SMA practices were reported (e.g. Guilding et al., 2000; Guilding, 1999). However, despite the previous findings, and the claimed infancy development of SMA, the current paper had revealed a more promising finding which portrays great potential of the subject. The result of the pilot study carried out by the current paper is presented below.

#### **3.1 Sample**

The manufacturing companies were obtained from the directory of Federation of Malaysian Manufacturers (FMM) year 2007 as the sample of the current research. Data was collected using mail questionnaire sent to top managers of the manufacturing companies. A total of 30 questionnaires were sent to randomly selected manufacturing companies, and only 23 questionnaires were returned and all were usable and used in the data analysis. Most of the companies were multinational companies (87%) and had been in operation for more than seven years. 28% of the companies had an average annual sale of RM5mil – RM50mil in the past three years while the others (72%) marked an average annual sales in the past three years of more than RM50mil. In terms of their focus market, 4.3% cater local market only, 26.1% cater for export market only, and 69.6% focus both local and export market. All respondents were top managers.

### 3.2 Variable Measurements

Inherited by the limited interest shown on SMA, sourcing established measurement bound to be limited. To date, an instrument by Guilding et al. (2000) had paved direction on how SMA information could be captured. They had distilled twelve practices as SMA surrogate. However, preliminary interviews carried out prior to the current research found that practitioners did not appreciate the technical terms utilised in the original instrument. As a result, the current research has refined the instrument and came up with a modified version consist of 26 items scale. Each respondent was required to indicate the extent of their organisations' usage of SMA information for their strategic purposes which anchored by seven point Likert scales ranging from '1 = Not used at all' to '7 = Greatly used' followed by the 26 items scale of which the first 10 items measured competitor information analysis, 6 items measuring customer information analysis, and another 10 items measuring product-related information analysis. As mentioned in the earlier part, the current research had conceptualised SMA information as having three dimensions which are represented by competitor information analysis, customer information analysis, and product-related information analysis. The reliability statistics for each measurement is presented in Table 1. It can be seen that the Cronbach alpha of the three dimensions scored more that the suggested minimum coefficient of .60 which indicates the stability and consistency with which the instrument measures the concept and assess the goodness of a measure (Sekaran, 2003).

**Table 1** Reliability statistics (n = 23)

SMA elements	Cronbach's Alpha	No. of items
Competitor information analysis	.933	10
Customer information analysis	.805	6
Product-related information analysis	.922	10

### 3.3 Results and Findings

The current research reveals some interesting findings which shed some lights on the development of SMA information usage among organisations. Previous researches had reported that SMA information appreciation and level of usage by organisations were rather limited (e.g. Cadez, 2006; Guilding, 1999; Guilding et al., 2000; Guilding & McManus, 2002; Rickwood et al., 1990). The most widely utilised information was competitor information analysis, while other SMA information (e.g. customer information, product-related information) was rather negligible (Guilding et al., 2000). However, result of the current research shows an interesting progress about the level of SMA information usage among organisations.



**Table 2** Descriptive statistics (n = 23)

	Min.	Max.	mean	Std. deviation	Theoretical range
<b>Competitor information analysis</b>					
Estimate competitor's costs structure	2	7	5.13	1.180	1 – 7
Estimate competitor's pricing	4	7	5.48	.994	1 – 7
Estimate competitor's profitability	2	7	5.09	1.311	1 – 7
Estimate competitor's market share	3	7	5.48	1.163	1 – 7
Estimate competitor's sales trend	2	7	5.30	1.222	1 – 7
Appraise competitor's R&D investment	2	7	5.04	1.492	1 – 7
Appraise competitor's tech investment	2	7	5.04	1.331	1 – 7
Appraise competitor's cost reduction	2	7	4.87	1.217	1 – 7
Appraise competitor's quality program	2	7	5.35	1.229	1 – 7
Appraise competitor's growth rates	3	7	5.35	1.301	1 – 7
<b>Customer information analysis</b>					
Tracks customers warranty claims	2	7	5.74	1.356	1 – 7
Forecast customer future profits	3	7	5.43	1.237	1 – 7
Customer profitability analysis	4	7	5.61	.891	1 – 7
Forecast revenue streams	4	7	5.61	1.033	1 – 7
Forecast on cost of servicing	4	7	5.61	1.076	1 – 7
Forecast profit earned from customer	1	7	5.09	1.443	1 – 7
<b>Product-related information analysis</b>					
Monitors value creating activity	3	7	5.39	1.118	1 – 7
Cost management during R&D	4	7	6.09	.900	1 – 7
Track internal failure related costs	4	7	5.87	1.058	1 – 7
Track external failure related costs	4	7	5.87	1.014	1 – 7
Tracks prevention costs	3	7	5.48	1.082	1 – 7
Tracks quality assurance related costs	3	7	5.74	.864	1 – 7
Tracks product positioning related costs	3	7	5.26	1.322	1 – 7
Tracks market penetration related costs	3	7	5.22	1.278	1 – 7
Appraises cost across product life-cycle	3	7	5.48	1.082	1 – 7
Appraises product attributes	3	7	5.61	1.158	1 – 7

Table 2 above presents the descriptive statistics of manufacturing companies' extent of usage of respective elements of SMA information. The level of most of the SMA information elements was highly used by the manufacturing companies. Most items scored a mean value above midpoint of the measurement scale of the seven point Likert scale. Mean usage of all SMA information elements ranging from 4.87 to 6.09. This finding contrasted with previous researches which suggested that the SMA information level of usage was rather limited (e.g. Cadez, 2006; Guilding et al., 2000; Guilding & McManus, 2002). The current research reveals that organisations (manufacturing in particular) had started to appreciate the importance of SMA information for their strategic purposes, which mainly to manage their market competition and strategy implementation. Thus, the importance of SMA information elements such as competitor information analysis, customer information analysis, and product-related information analysis are indisputable for organisation to craft their long-term achievement.

## 4 Discussion and Conclusion

As been highlighted in the earlier section the progress of SMA has been slow and rather daunting compared to its claimed importance by its advocates. To date, our knowledge on SMA has been conceptually descriptive while only a dearth of empirical evidences is available. In the light of this progress, the current research has enriched our knowledge on the current states of SMA information usage among organisation. Apparently, the current finding has rejected the notion that '*SMA is just another figment of academic imagination*' posed by Lord (1996) who questions whether SMA is useful and applicable at all. The current finding reveals that SMA information does had great value to organisation.

To sum up, at least two apparent contributions by the current research that worth highlighting. First is from methodological perspective. Inherited by the limited source of measurement, the current research has advanced a set of 26 item scales for measuring SMA information elements. Guilding et al. (2000) found that there was negligible use of the term 'strategic management accounting' in organisation, and appreciation of the term amongst practicing accountants is somewhat limited. Thus, having use technical terms as their measurement of SMA in their study might have contributed to the wide variation reported. In addition, the result of a preliminary interview carried out prior to the current research has also reiterated the problem.

The second contribution is on the knowledge about the current state of SMA usage among organisation. As been reported in the earlier section, most of the samples were MNC with an average annual turnover of RM50mil. Though generalisation is limited due to the small number of sample ( $n=23$ ), a general scenario could be set forth. The finding of the current research shows that organisation operating in today's competitive market widely used SMA information elements which the current research has conceptualised as consisting of information analysis on competitor, customer, and product-related. This finding highlighted the importance of the information. Otley (1994) has reiterated that the key goal of contemporary organisation centres on the need for survival by adaptation and only those organisations which match their capabilities to the changing needs of the market place will survive in the long-term. Thus, the current finding may imply that the manufacturing companies have used SMA information to adapt the needs of the competitive market.

Inherited by the nature of the current research, the study's findings should be interpreted in light of some limitations. Firstly is due to the small sample size ( $n = 23$ ). Future researches should extend the sample size to a bigger sample size to be able to have a better variation and reveal sensible insights. Secondly, the current research was an exploratory study with the main objective to seek the level of SMA information

usage among organisation. Future research could consider designing a study that frame within a theoretical standing which perhaps could understand the antecedent and outcome of SMA information usage amongst organisation. This could offer better understanding on SMA related issue and could be used as a basis for further refinement of strategic management accounting system design by organisation.

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