

Linking Business Strategy to Management Accounting: A Study in Malaysian Service Organizations

(Hubungan Strategi Perniagaan dengan Perakaunan Pengurusan: Satu Kajian di Organisasi Perkhidmatan Malaysia)

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ABSTRACT

Despite being economically and socially important to Malaysia, little has been done to study the innovations in the administration of service organizations to maintain the survival of such organizations in the globalization era. The purpose of this paper is to examine the use of strategic management accounting (SMA), as an administrative innovation, by the service organizations operating in Malaysia. The literature suggested that business strategy is an important factor affecting the use of SMA techniques and, as a result, the use of SMA will differ with different strategic priorities. The SMA techniques studied are costing, competitor accounting and customer accounting, while business strategy includes cost leadership and differentiation strategies. Survey questionnaires were administered to managers yielding 62 usable responses. Using ANOVA, the present study finds that service organizations pursuing differentiation strategies place higher emphasis on competitor and customer accounting compared to service organizations pursuing cost leadership strategies. The results also reveal that the highest emphasis on all SMA techniques is found in service organizations that place high emphasis on both strategies. The study provides evidence regarding practices that place high emphasis on strategic issues that lead to a high usage of innovative information systems.

Keywords: Strategic management accounting; business strategy; service organizations; Malaysia

ABSTRAK

Walaupun organisasi perkhidmatan memainkan peranan penting dalam perkembangan ekonomi dan sosial di Malaysia, namun kajian terhadap inovasi dalam memastikan kelangsungan organisasi sedemikian dalam era globalisasi ini masih terhad. Kertas ini bertujuan untuk mengkaji penggunaan perakaunan pengurusan strategik (PPS) sebagai inovasi pentadbiran oleh organisasi perkhidmatan yang beroperasi di Malaysia. Strategi perniagaan dikatakan sebagai factor penting yang mempengaruhi penggunaan teknik-teknik PPS dan cara penggunaan PPS adalah berbeza mengikut keutamaan strategik yang berbeza. Teknik-teknik PPS yang dikaji adalah pengekosan, perakaunan pesaing dan perakaunan pelanggan manakala strategi perniagaan meliputi strategi kepimpinan kos dan strategi pembezaan. Soal selidik kajian diedarkan kepada para pengurus dan sebanyak 62 daripadanya dapat digunakan untuk analisis. ANOVA menunjukkan bahawa organisasi perkhidmatan yang menggunakan strategi pembezaan lebih memberi perhatian kepada perakaunan pesaing dan pelanggan berbanding yang mengamalkan strategi kepimpinan kos. Dapatan kajian juga menunjukkan bahawa penggunaan tertinggi semua teknik-teknik PPS adalah dalam organisasi perkhidmatan yang meletakkan penekanan yang tinggi terhadap kedua-dua bentuk strategi. Kajian ini memaparkan bukti bagi amalan yang member penekanan yang tinggi terhadap isu-isu strategik membawa kepada penggunaan yang tinggi terhadap sistem maklumat yang berinovatif.

Kata kunci: Perakaunan pengurusan strategik; strategi perniagaan, organisasi perkhidmatan; Malaysia

INTRODUCTION

The constantly changing business environment motivates firms to engage in administrative innovations, as well as technological innovations, as they strive to achieve sustainable competitive advantage. Concerns have been voiced regarding whether the traditional cost and management accounting practices are able to cope with contemporary technological changes. As firms begin to evaluate their strategies and management practices,

a number of scholars criticize the lack of detailed or accurate information to satisfy the information needs of management.

Traditionally, the term "innovation" has largely referred to technical innovations that relate to products, services and production process technology. However, in organizational innovation literature the term has been studied from a broader scope. The term extends to encompass administrative innovation, which involves organizational structure and administrative processes that

are indirectly related to the basic work activities of the organization but are more directly related to organizational management (Damanpour 1991). Accordingly, an administrative innovation in accounting was needed to respond to the call for more accurate information in light of the growing interest in strategic management accounting (Guilding et al. 2000). Strategic management accounting (SMA) is an integrated management approach that draws together all the individual elements involved in planning, implementing and controlling business strategy.

There are series of development on the SMA framework in the literature (e.g., Bromwich 1990; Roselander & Hart 2002; Shank & Govindarjan 1992). Most studies are either exploratory in nature and employ field study approaches or have primarily examined manufacturing industries (Bhimani & Langfield-Smith 2006; Cadez & Guilding 2008; Roslender & Hart 2002). The link between innovation and technological advancement most likely contributes significantly to the great interest among researchers in manufacturing industries, resulting in the neglect of an equally important sector: the service sector. Among the few studies that examine the service sector, specific industries serve as the focal point, for example the hotel industry, and employ a case study method (Collier & Gregory 1995). As a broad range of service industries exist, limited generalizations can be drawn from such an approach.

The service sector is economically and socially important to Malaysia. It is the largest contributor to the Malaysian economy, contributing 57.6 percent to the GDP (Economic Report 2010/11). In terms of employment, the service sector accounts for 53 percent of total employment for all industries in 2010/11. While limited consensus exists regarding which industrial sector characteristics are conducive to SMA application, industries noted as possessing characteristics conducive to SMA application include industries that face high degrees of competition; high degrees of regulation; and resource scarcity (Cadez & Guilding 2008). With the liberalization and globalization of services, service industries in Malaysia are expected to face more intensive competition than ever before. To survive and progress, service organizations have taken steps to adopt advanced management accounting techniques such as Activity-based Budgeting, Activity-based Costing, Benchmarking and Balanced Scorecard (Zubir & Abdul-Rahman 2008). As high usage of SMA reflects increasing competition globally, one of the principal objectives of the present study is to examine the administrative innovations in service organizations operating in Malaysia. Referring to Cadez and Guilding (2008), the service industry presents an interesting setting to understand the application of SMA.

Competitive innovations are also argued to force firms to pay attention to strategic integration of internal processes and resources, such as the SMA usage, to improve firms' competitiveness and performance. Understanding the relationship between accounting and strategy has been the focus of many extant contingency-based studies

(Chenhall 2003). Empirical evidence demonstrate that the business strategy that organizations adopt affect their management accounting and control systems (MACS). Furthermore, Shneider and Meyer (1991) highlighted that differences in national cultures might cause different interpretations and responses to the same strategic issues. Although existing literature examines the relationship with MACS in great detail, SMA techniques have only recently become object of surveys and contingent research (Cinquini & Tenucci 2010). This provides a motivation to understand the SMA practice in Malaysia in the presence of different strategic priorities.

The purpose of this paper is to examine the use of SMA by service organizations operating in Malaysia and the link between SMA and organizational business strategy. The remainder of this paper is organized as follows. In the next section, a conceptual framework for this study is presented followed by a brief review of the literature on SMA and strategy. A set of testable hypotheses is formulated in the next section. In subsequent sections, the research method is described, the findings are outlined and finally the conclusions drawn.

CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW

While the formulation of clear strategic priorities is necessary, prior studies contend that it is not sufficient to achieve competitive advantage and high organizational performance. The strategic direction should be supported with appropriate control and management information system (Jermias & Gani 2004). Cadez and Guilding (2008) suggest that business strategy is an important factor affecting the use of SMA techniques and an appropriate combination of business strategy and SMA usage will enhance performance. In the present study, a contingency approach is adopted so that the hypothesis explored regarding SMA usage is contingent on the strategy adopted by the organization. Rational managers would strive to achieve effectiveness and, therefore, seek to attain a "fit" between the strategy pursued and the SMA techniques used. The framework for this study is presented in Figure 1.

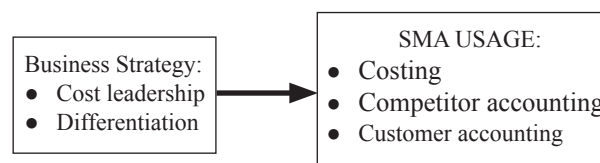


FIGURE 1. Conceptual Framework

STRATEGIC MANAGEMENT ACCOUNTING FOR SUSTAINABILITY

"Sustainability accounting is the term used to describe new information management and accounting methods that attempt to create and provide high quality, relevant

information to support corporations in relation to their sustainable development” (Schaltegger & Burritt 2010: 377). Sustainability accounting can be manifested in organizations through the use of various SMA techniques, such as Activity-based Costing Management and Balanced Scorecard (Ferreira et al. 2009). SMA techniques present an innovation to management accounting with environmental (outward-looking) and/or long-term (forward-looking) orientations (Cadez & Guilding 2008: 838), acknowledging costing information; competitor information and customer information as vital elements of the sustainability of businesses.

Literature documents a wide range of innovative costing techniques or cost management techniques, such as Attribute Costing; Life Cycle Costing; Quality Costing; Target Costing; and Activity-based Costing Management (ABCM). The aforementioned techniques are among the techniques developed due to the fact that management in contemporary organizations no longer perceive the managerial accounting system as being relevant solely for the purpose of determining the cost of products. Cost management is perceived contemporarily to play a proactive role in planning, managing and reducing costs (Berliner & Brimson 1988). In service organizations, where the provision of service is inseparable from its consumption, traditional costing techniques become problematic if costs are largely unrelated to volume. ABCM is proposed to overcome this problem where more appropriate cost drivers are identified based on resource consumption rather than merely volume-based.

An important feature of service organizations is the significant level of human participation in the production process (Auzair & Langfield-Smith 2005). Even as advances in technology replace personnel with machines (as in the case of ATM machines or online services in banks) there will be greater involvement of customers in operations through self-service. Accordingly, accounting perspectives acknowledge that establishing a financial value for competitors and customers are elements of “new management accounting”. Having the appropriate management accounting system is no more a viable option for businesses if they are to sustain in the long term. Furthermore, a more strategically oriented management accounting system integrates customers with internal processes as a reaction to more competitive and uncertain market environments (Cadez & Guilding 2008). The customer related accounting evident in extant literature as part of the SMA approach includes the customer profitability analysis (Roslender & Hart 2002), which involves the application of activity-based costing principles designed to identify the costs of doing business with specific customers more accurately. Consequently the information leads to the identification of ways in which customers may be made more profitable, information claimed to enable businesses pursue the quest for superior performance.

The importance of competitor analysis in strategic management on the other hand, has been indicated much

earlier by Simmonds (1981) as he defines SMA as “the provision and analysis of management accounting data about a business and its competitors, for use of developing and monitoring business strategy” (Simmonds 1981: 26). Competitor cost assessment, competitive position monitoring and competitor appraisal based on published financial statements were found to represent competitors’ accounting techniques (see Guilding, Cravens & Tayles 2000). Table 1 summarizes the costing, competitor accounting, and customer accounting techniques.

TABLE 1. Classification of Strategic Management Accounting Techniques

SMA technique categories	SMA techniques
Costing	<ul style="list-style-type: none"> ● Attribute Costing ● Life Cycle Costing ● Quality Costing ● Target Costing ● Value Chain Costing
Competitor accounting	<ul style="list-style-type: none"> ● Competitor cost assessment ● Competitive position monitoring ● Competitor performance appraisal
Customer accounting	<ul style="list-style-type: none"> ● Customer profitability analysis ● Lifetime customer profitability analysis ● Valuation of customer as assets

Source: Cadez&Guilding (2008: 839)

BUSINESS STRATEGY

Business strategy is concerned with how businesses can achieve a competitive advantage (Slater & Olson 2001). Langfield-Smith (1997) suggests that the management control system (MCS) should be tailored explicitly to support the strategy of the business to lead to superior performance. Porter (1980) proposes that organizations can choose from one of three generic strategies to compete at the business level irrespective of the industry context: cost leadership; differentiation; and focus strategies. Cost leadership requires the aggressive construction of efficient-scale facilities; the vigorous pursuit of cost reductions from experience; tight cost and overhead control; avoidance of marginal customer accounts; and cost minimization in various areas, including R&D, service, sales force and advertising.

Differentiation refers to creating products or services that are perceived industry-wide as unique. Some of the differentiation approaches include the quality of the product; the wide availability of product offerings; product flexibility; technology; and customer service. Focus strategies involve the use of cost leadership or differentiation approaches to concentrate on a particular buyer; a specific segment of a product line; or a geographic market, thus servicing its narrow strategic target more effectively or efficiently than competitors who are competing more broadly. According to Langfield-Smith

(1997), competitive advantage is based on the cost leadership or differentiation strategy. In the present study, the contrast between the two strategies is examined.

HYPOTHESIS FORMULATION

Different strategy has different focus of competitive priorities which require different SMA practices in providing relevant information about sources of competitive advantages of the company. For example, a cost leadership strategy which aims to become lowest cost producer requires information on cost reduction with a heavy use of strategic cost management practices such as target costing and supplier costing. In contrast, to pursue a differentiation strategy a range of reliable information about customers and offerings is required. SMA practices that direct towards customers and competitor such as customer costing, benchmarking, brand valuation and portfolio theories will assist companies tremendously in positioning themselves to be different from others competitors. Cadez and Guilding (2008) found that SMA usage is positively affected by the adoption of a prospector strategy, which is comparable to differentiation strategy. No attempt was made in their study to compare between different types of SMA techniques and their relationship with different business strategies.

Nevertheless, Chenhall and Langfield-Smith (1998) suggest that the effectiveness of a business strategy depends on the appropriate combination of management accounting practices. A management accounting systems (MAS) that measures customer satisfaction and strategic planning (type 1) enhances the abilities of companies to differentiate their products, while a MAS that consists of activity-based costing (type 2) is more suitable for companies adopting a low cost strategy. According to Jermias and Gani (2004), MAS type 1 is more common among firms pursuing differentiation strategies. Based upon the discussion above, the relationship between business strategy and SMA usage in this study is predicted as follows:

- H₁ Service organizations pursuing differentiation strategy will emphasize more on customer and competitor accounting compared to organizations pursuing cost leadership strategy.
- H₂ Service organizations pursuing cost leadership strategy will emphasize more on costing technique compared to organizations pursuing differentiation strategy.

Notably, the findings of the extant research discussed above are undertaken mainly in the manufacturing sector. While the unique characteristics of services are acknowledged to potentially cause differences in the Management Accounting Control System (MACS) utilized by different firms, the present study argues that the shared goal of profitability will make profit oriented service organizations implement and utilize SMA in a similar fashion as their counterparts (see Auzair & Langfield-Smith 2005).

METHODOLOGY

SAMPLE AND SURVEY PROCEDURE

Survey questionnaires were administered to service organizations within the professional and mass services process type classification. Silvestro et al. (1992) argue that placing service organizations into these classifications represents the spanning continuum of service process type and strategic insights between the classifications can be clearly distinguished by focusing on the end of the continuum. Characteristics of professional service organizations include relatively few transactions; highly customized services; and process oriented businesses with relatively high contact time, where most value-added activities are in the front office and considerable judgment is applied in meeting customer needs. Such professional services include consulting, legal and accounting services. On the other hand, characteristics of mass service organizations include a significant number of customer transactions; involve limited contact time and little customization of service; where most value is added in the back office; and little judgment is applied in meeting customer needs by the front office staff. Transportation companies generally fall into this category.

The lack of a single directory of service companies operating in Malaysia forces the sample to be drawn from several sources, including internet websites, yellow pages and *Yolk Malaysia*. The effort to include companies from several industries within professional and mass service categories results in a sample comprised of 477 companies.

The questionnaire was constructed based on existing literature and refined following the feedback from a pre-test with five managers of service companies and five members of academic staff. To increase the response rate, surveys were mailed to companies, as well as being administered by enumerators at some companies in Klang Valley. Each company received a survey package consisting of a cover letter explaining the purpose of the research; a copy of the survey; and a postage-paid reply envelope.

A total of 64 responses were received and 62 were found usable for analysis. This represents a 13 percent response rate, which is considered rather low. Nevertheless, based upon findings in previous research (Auzair 2011) and feedback from fellow colleagues utilizing the same method, an average response rate of 10 to 15 percent is considered normal. Table 2 presents the respondents' profile.

As demonstrated in Table 2, the majority of respondents are from the education sector (43.5%), followed by the health care industry (22.6%). Companies employing less than 50 employees represent almost half of the respondents, with the majority of the companies reporting an annual turnover of over RM5 million (46.9%). Respondents principally hold managerial and top management positions with less than 10 years of experience.

TABLE 2. Respondents' Profile

Profile	N	Percentage
<i>Industries</i>	9	14.5
Transportation	14	22.6
Health care	27	43.5
Education	10	16.1
Professional service	2	3.2
Others		
<i>Number Employees</i>		
Less than 50	31	52.5
50 – 100	9	15.3
101 – 200	6	10.2
201 – 500	6	10.2
Above 500	7	11.9
<i>Turnover</i>		
Less than RM100,000	3	6.1
RM100,001 – RM500,000	9	18.4
RM500,001 – RM1 million	1	2.0
RM1 million – RM5 million	13	26.5
Above RM5 million	23	46.9
<i>Respondents position</i>		
Top management	16	25.8
Middle management	37	59.7
1 st supervisor/junior management	9	14.5
<i>Length of services in current position</i>		
Less than 3 years	24	40.7
3 to 10 years	26	44.1
More than 10 years	9	15.3

MEASUREMENT OF VARIABLES

SMA Usage

The degree of SMA technique usage is adapted from Cadez and Guilding (2008) and modified to include descriptions of each technique in the body of the survey instead of providing respondents with a glossary including the definition of each technique. Respondents were asked to indicate the extent to which each of the practices are utilized in their organizations using a 7-point Likert scale, ranging from “1” (not at all) to “7” (to a great extent). The

results of the factor analysis indicating factor loadings and variance explained are summarized in Table 3.

The loading matrix is a matrix of correlations between observed variables and factors. The sizes of the loadings reflect the extent of relationship between each observed variables and each factor. As a rule of thumb, only variables with loadings of .32 and above are interpreted and thus retained in the analysis (Tabachnick & Fidell 2001: 625). Comrey and Lee (1992) in Tabachnick and Fidell (2001) suggest that loadings in excess of .71 are considered excellent. As can be seen from Table 3, only “activity-based costing” loads less than .71 but still above the cut-off point of .32. Items measuring costing, competitor accounting and customer accounting techniques are summated for subsequent analysis.

Cost Leadership and Differentiation Strategies Survey instruments utilizing Porter’s (1985) competitive strategy have repeatedly been developed and refined in prior MCS studies (see for example, Chenhall & Langfield-Smith 1998). In this study, the instrument to measure cost leadership and differentiation strategies is adopted from Auzair and Langfield-Smith (2005), as they provide measures that are used in service organizations. To measure for cost leadership strategies, respondents were asked to indicate, on a 7-point scale, the degree of emphasis on the following activities:

1. Achieving a lower cost for services than competitors;
2. Making services/procedures more cost efficient;
3. Improving the cost required for the coordination of various services; and
4. Improving the utilization of available equipment, services and facilities.

To measure for differentiation strategies, respondents were asked to indicate, on a 7-point scale, their degree of emphasis on the following activities:

1. Introducing new services/procedures quickly;
2. Providing services that are distinct from that of competitors;

TABLE 3. Factor Analysis – SMA Techniques

Items	Costing Loadings	Competitor Loadings	Customer Loadings
Attributes costing	.713		
Life cycle costing	.663		
Target costing	.786		
Quality costing	.758		
Activity-based costing	.660		
Competitor cost assessment		.922	
Competitor position monitoring		.945	
Competitor performance		.931	
Customer profitability			.890
Lifetime customer			.871
Valuation of customers			.840
Variance explained	52 percent	87 percent	75 percent

3. Offering a broader range of services than competitors;
4. Improving the time it takes to provide services to customers;
5. Providing high quality services;
6. Customizing services to customer needs; and
7. Providing after-sale service and support.

The items measuring cost leadership and differentiation are consequently tested for construct validity using factor analysis. Table 4 summarizes the results. As can be seen in Table 4, all items load well (above 0.71) and are considered excellent (Tabachnick & Fidell 2001). The items are summated for subsequent analysis.

TABLE 4. Factor Analysis - Cost Leadership and Differentiation Strategies

Items	Cost Leadership Loadings	Differentiation Loadings
Lower cost than competitors	.840	
Cost efficient	.922	
Improving coordination cost	.941	
Improving utilization	.871	
Introduce new service quickly		.724
Distinct service from competitors		.804
Broader range of services		.711
Time to provide services		.827
High quality services		.818
Customizing		.856
After-sales service		.744
Variance explained	79.10 percent	61.65 percent

FINDINGS

Table 5 presents the descriptive statistics for all variables. The Cronbach's alpha values for all variables are well above the generally accepted level, between .60 and .70 (Nunnally 1978).

TABLE 5. Descriptive Statistics

Variables	Mean	Median	S.D.	Alpha
1. Costing	4.84	5.00	.99	.76
2. Competitor Accounting	4.35	4.67	1.45	.93
3. Customer Accounting	4.58	5.00	1.30	.77
4. Differentiation Strategy	5.27	5.29	.93	.89
5. Cost Leadership Strategy	5.21	5.25	.91	.92

Table 6 displays the correlation matrix for all variables. Of the 10 relationships reported in the correlation matrix, 9 are statistically significant. Notably, all SMA techniques are significantly correlated with business strategies except between customer accounting and cost leadership strategy. The examination of these correlations also indicates that there is no correlation greater than 0.9 among the variables. Thus, there is strong

reason to believe that multicollinearity is unlikely to be a problem (see Tabachnick & Fidell 2001).

TABLE 6. Pearson Correlations

Variables	1	2	3	4
1. Costing				
2. Competitor Accounting	.634*			
3. Customer Accounting	.755**	.659**		
4. Differentiation Strategy	.333*	.354**	.327*	
5. Cost Leadership Strategy	.317*	.275*	.209	.788**

Note: *p < .05 (2-tailed), **p < .01 (2-tailed)

The present study hypothesizes that service organizations pursuing differentiation strategies would place more emphasis on competitor and customer accounting compared to service organizations pursuing cost leadership strategies. On the other hand, service organizations pursuing cost leadership strategies would place more emphasis on costing techniques compared to service organizations pursuing differentiation strategies. Since business strategy is measured on the two separate scales of cost leadership and differentiation, the samples gathered consists of firms that (1) place a high degree of emphasis on both strategies; (2) place a low degree of emphasis on both strategies; (3) place a high degree of emphasis on differentiation and a low degree of emphasis on cost leadership; and (4) place a high degree of emphasis on cost leadership and a low degree of emphasis on differentiation. Given the continuous scale of the strategy variables, a median split was undertaken to separate high and low strategies.

TABLE 7. Mean Scores and ANOVA Results

Business Strategy	SMA Techniques		
	Costing	Competitor Accounting	Customer Accounting
Differentiation (N = 8)	4.9000	4.4167	4.7917
Cost Leadership (N = 9)	4.7333	3.7037	4.3333
High on Both (N = 24)	5.2870	5.0139	5.0694
Low on Both (N = 19)	4.2778	3.7544	4.0175
ANOVA	4.006	3.500	2.617
F-Value	(.006)**	(.001)**	(.030)*

Note: *p < .05 (1-tailed), **p < .01 (1-tailed)

As shown in Table 7, using ANOVA, the mean scores for competitor and customer accounting are significantly higher for differentiators compared to cost leaders. Therefore, the data provides support for Hypothesis 1. The mean scores for costing techniques on the other hand, is significantly lower in cost leaders compared to differentiators. Therefore, Hypothesis 2 is not supported. Notably, for the cost leaders, the mean for costing techniques used are still higher than the means for competitor and customer accounting. The ANOVA also

allows further insight into those firms with a high degree of emphasis on both differentiation strategies and cost leadership strategies. The mean scores for SMA usage are highest in all categories for such firms. Service firms with a low degree of emphasis on both strategies scores significantly lower in regards to SMA usage.

DISCUSSION AND CONCLUSION

The purpose of this study is to contribute to the limited body of knowledge concerning the practice of SMA among service organizations in Malaysia. The present study provides evidence concerning the use of SMA techniques; costing; competitor accounting; and customer accounting, as well as the link between the use of SMA techniques with the business strategy adopted by a service organization. The framework of this study extends Cadez and Guilding (2008) through the comparison of business strategy relationships with different SMA techniques. Bivariate correlation coefficient indicates both cost leaders and differentiators are significantly associated with SMA techniques. Differentiators are found to place higher emphasis on competitor accounting and customer accounting compared to cost leaders (Hypothesis 1). Service organizations pursuing cost leadership strategies, on the other hand, do not place a high degree of emphasis on costing techniques compared to service organizations pursuing differentiation strategies. The data supports Hypothesis 1, but does not provide support for Hypothesis 2. This result could be due to the fact that even though an organization may be adopting a cost leadership strategy, it still needs to increase, or at least maintain, its service performance level in order to sustain a competitive advantage. However, it was interesting to note that as service organizations place high emphasis on both strategies, the costing technique is emphasized higher than the other SMA techniques.

This study contributes to extant literature concerning contingency theory as it presents evidence that business strategy, as a contingent factor, provides insight into the use of SMA techniques. Prior contingency-based studies predominantly examine manufacturing firms or service organizations within a single industry. Furthermore, previous studies largely explore relationships in the area of MACS, rather than focusing on SMA usage. This study expands upon prior studies by focusing on costing, customer accounting and competitor accounting in service organizations from various industries (including transportation, healthcare, and professional services).

From a practical perspective, the current business environment places service organizations under continuous pressure to increase efficiency. As organizations invest a considerable amount of resources into information systems that enhance performance, the understanding of the alignment between strategic priorities and types of SMA provides valuable insight to managers. The findings of this study suggest that service organizations that aim to be

unique in their service offerings and place a high degree of emphasis on providing quality services should place priority on investing resources in customer accounting and competitor accounting techniques, such as customer profitability analysis and competitor cost assessment. The findings are especially valuable to service organizations that tend to customize their service offerings, such as consultancy firms.

In interpreting the findings, several limitations should be borne in mind. The findings of this study only focus on costing, competitor accounting and customer accounting, while SMA might also include several comprehensive performance measurement frameworks, including the balanced scorecard. Future studies may expand the SMA definition to include other techniques and investigate the interaction between the different SMA techniques. This study includes business strategy as the sole contingent factor affecting SMA usage, resulting in the framework being far from comprehensive. Contingency factors – such as technology, types of services and organizational culture – that are examined in management accounting systems research may be included in future studies to extend the findings of the present study. Furthermore, the present study does not intend to compare the effect of strategic choices to traditional management accounting techniques that might have been used by firms under study. This confines the sample only to firms that implement SMA techniques, thus limiting the sample size. Nevertheless, given the nature of SMA research, the findings are expected to provide better understanding of the use of SMA in the Malaysian context and highlight issues that require further attention.

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