



Strategic Perspective in Management Accounting: Field-Based Evidence

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Abstract

The aim of this research project is to describe Strategic Management Accounting (SMA) techniques, to explore the relationship between business strategy and SMA techniques and to integrate the survey through interviews for assessing some relevant assertions related to SMA practices to support strategic processes. The paper presents the empirical results of a field-based investigation on SMA practices employed in large companies in Italy.

The questionnaire results reveal that relatively few (large) companies use SMA techniques and this is quite consistent with the literature. The companies that use strategic costing consider all the set of techniques for providing information to support strategy. Target, value chain and quality costing are prevalent strategic costing techniques used. In the set of competitor information, competitor position monitoring is used widely. In addition, among the studied companies, competitor cost assessment is used by 36.4%, whereas competitor appraisals based on published financial statements are employed by more than half the large companies. Finally, examined companies were found to consider organizational performance in evaluating strategies (balanced scorecard and risk management) highly important as SMA techniques.

The interview results, that complement the survey, suggest that analyses of SMA information tend to be formal and structured. Further, in large companies the importance of strategic cost and competitor information analyses for strategic development and implementation activities is influenced by competitive strategies, but could also be a function of k factors that are contingent on the specific organizational context.

Keywords: Business Environment, Strategy, Strategic Management Accounting, Survey, Interviews.

1. Introduction

This paper reports the results of a questionnaire- and interview-based study on strategic management accounting practices employed in large companies in Italy. The researchers intended to identify the Strategic Management Accounting (SMA) techniques used by the examined companies and to provide evidence concerning the relationship between business strategy and SMA techniques. In addition, the researchers wished to extend knowledge through a statistical questionnaire analysis involving interviews with representatives from 7 large international companies working in different industries. The purpose of these interviews, which empirically assesses some key assertions, was to provide additional insight into SMA practices to support strategic processes.

Several authors have demonstrated considerable interest in this topic, perhaps because investment in

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SMA techniques can support business strategies that create or (sustain) competitive advantages¹. The literature on SMA can be divided into two major strands.

First, there is a rich body of literature that presents several possible *theoretical models* such as those of Simmonds (1981) for the U.S.A. and Bromwich (1990) for the U.K. Simmonds, who coined the term SMA to provide a strategic perspective on management accounting, noted that profits arise not only from how efficiently a firm operates internally, but especially from strategic advantages over their competitors and consequently from a given firm's competitive position over time. Bromwich developed a working definition of SMA (1990, p.28): "The provision and analysis of financial information on the firm's product markets and competitors' cost and cost structures and the monitoring of the enterprise's strategies and those of its competitors in these markets over a number of periods". Thus, Bromwich and Bhimani (1994, p. 127) argue that: "providing a strategic perspective in management accounting requires the role of accounting to be extended in two directions. It first requires that costs are integrated into strategy using a variety of strategic cost analyses. The aim is to align costs with strategy. The second element of strategic management accounting is to discover in a fairly general way the cost structure of competitors and to monitor changes in these over time".

Shank and Govindarajan (1992, 1993), in reference to the U.S.A., are proponents of the strategic cost analysis approach. Their approach serves as a new accounting tool that relies on the work of strategist scholars and Porter (1985) in particular. Further, their innovative proposal is of considerable practical significance, especially as it connects accountants with strategy and can consequently contribute to business strategy formulation. Perhaps the most important finding presented by Shank and Govindarajan, who mainly use the case study method, is that traditional cost accounting methods cannot be expected to significantly aid managers in strategic areas.

A second strand of research has generated insight through *surveys of practice*. Some field-based studies have focused on cross-country comparisons made for large companies (e.g., Guilding *et al.* (2000) in New Zealand, the United Kingdom and the United States). Several surveys of practices have also focused on individual countries (e.g., Cinquini and Tenucci (2010) on Italy, Noordin *et al.* (2009) on Malaysia, Cadez and Guilding (2007) on Slovenia, Guilding and McManus (2002) on Australia, and Cravens and Guilding (2001) on the United States). These studies have especially examined the relationship between business strategy and SMA techniques through questionnaires and results testing, but few have also employed interviews to empirically assess relevant questions on SMA practices. However, Bhimani and Langfield-Smith's studies stand as exceptions. These scholars, for example, note: "The prescriptive SMA literature has presumed strategic activities to be largely formal and structured and has advocated the balanced deployment of financial and non-financial information in the development and implementation of strategy (2007, p. 9)".

The present study, through a statistical analysis based on a web questionnaire, has the following objectives:

O1: to describe, based on the existing literature, the use of SMA techniques across a variety of large companies in Italy;

O2: to explore the relationship between business strategy and SMA techniques, which is measured using three strategy-based groups (Porter, 1980, 1985) and 10 SMA techniques classified into 3 categories.

We think that the data coming from web questionnaire are not sufficient to explain adequately companies SMA practices. For this reason the study integrated the survey through interviews that empirically assess the following assertions:

A1: Large companies use formal and structured analyses of SMA practices for strategy development and implementation activities.

A2: The use of SMA techniques based on strategic cost analyses is as important as the use of

¹ A first special issue was dedicated to SMA in the journal *Management Accounting Research* (1996)

strategic competitor analyses for strategy development.

A3: The use of SMA techniques based on strategic cost analyses is as important as the use of strategic competitor analyses for strategy implementation.

The purpose of these assertions, in particular, is to ascertain whether strategic information is fully integrated into enterprise management accounting systems and whether such information is reported in formal and structured ways to reinforce strategic activities.

The paper is structured as follows. The following section briefly reviews business strategy literature with a focus on the approach presented by Porter (1985) and on major approaches to SMA. Following this, a description of the research design and data collection method is presented. Subsequent sections present the empirical results (questionnaire and interview results), conclusions in regards to the findings, and the study's limitations.

2. Literature Support

Over recent years, firms have responded to challenges of global competition through different business strategies by implementing New Management Processes (Just-in-time manufacturing, Activity-based management, Total quality management, Time based management) and by investing in Advanced Manufacturing Technologies (Banker *et al.*, 1993).

To support these changes, management accounting has played a crucial role. However, many scholars are convinced that conventional (or traditional) management accounting does not provide information to support strategic decisions. As strategy processes take into consideration plans and the possible actions of competitors, management accounting supports strategic decisions when it provides managers not only with internal financial and non-financial information but also with financial and non-financial information on the environment and on firm competitors.

Consequently, the role of SMA in strategic decision-making processes must be understood, as the strategic perspective on management accounting must be extended to align this system with business strategies. It can be concluded that the importance of SMA is affected by the need for information to support strategic processes.

2.1 Business Strategies and Strategic Management Accounting

In this section, business strategy and SMA are briefly reviewed with a particular focus on the approach developed by Porter (1985).

As noted by Langfield-Smith (1997), the typologies presented by Miles and Snow (1978), Gupta and Govindarajan (1984), and Porter (1980, 1985) have attracted considerable attention in SMA research. Miles and Snow (1978), using the concept of *strategic patterns*, describe three typologies of strategy (prospector, defender and analyser strategies) according their rates of change in terms of products or markets. Gupta and Govindarajan (1984) use the concept of *strategic mission* based on the life cycle stage associated with the market and based on the product a firm will select from one mission to another. Fundamental *strategic missions* (build, hold, and harvest) involve using market-share and earning criteria to determine the balance between two variables. Porter (1985) states that each industry is influenced to varying degrees by five competitive forces: (1) the threat of new entry; (2) the threat of substitute products and services; (3) the power of buyers; (4) the power of suppliers; (5) the intensity of rivalries between competitors. Porter's five forces framework helps identify the attractiveness of an industry, and "these five forces together constitute an industry's structure which is typically fairly stable" (Johnson *et al.*, 2014, p. 41). The Author asserts that the firm considering the five forces (industry attractiveness) and comparative advantages selects the business strategy. Thus, his essential conclusion is that the selection of business strategies is affected by the need to understand the firm's strategic cost drivers and to compare the firm's cost structure with that of its key competitors. For Porter, some of these drivers are not under a firm's

control, some are related to the structure of the industry involved, and some cost drivers can be influenced by internal firm actions. Principal strategic key drivers that influence cost behaviours of value-added (primary and support) activities identified by Porter (1985, pp. 70-83) are: economies (diseconomies) of scale, linkages (between a firm and its customers, suppliers and other firm units), learning and spillovers, patterns of capacity utilization (which affect unit costs), integration (between units in an organization), interrelationships (within a business), timing, discretionary policies (independent of others), locations (of a business), and institutional factors (impinging on a firm). The identification of strategic key drivers can provide a useful starting point for determining value chains. For Porter, when a firm's value chain and competitor value chains are understood, the firm can identify a competitive business strategy. A business strategy supplies goods and services for distinct domains of activity by selecting an alternative approach that provides competitive advantages of the following three business strategy typologies: differentiation, cost leadership and focus strategies.

Differentiation strategies, which can vary between different markets, involve providing products/services that are perceived by customers to be unique and allow a price premium by offering high levels of quality, customer service, and brand reputation. When selecting a differentiation strategy, a firm must identify and monitor strategic customers and key competitors (Johnson *et al.*, 2014). In parallel, when sources of advantage include product designs and product and service attributes, a firm must identify factors (that influence firm cost structures). In addition, information on competitors can be critical to differentiation strategy success (Chenhall and Langfield-Smith, 1998).

Cost leadership strategies involve obtaining the lowest cost compared to costs provided by competitors (cost leaders should not neglect quality). Some key cost drivers can help deliver cost leadership, such as input costs, economies of scale, and product/process design. These elements basically determine the value chain, which emphasizes the total value of all operations and not only of operations that a firm carries out independently. A company, in choosing a cost leadership strategy, must adopt current MA and SMA techniques such as modern strategic cost analysis approaches, which involve identifying financial and non-financial information with greater (internal and external) attention to the empirical estimation of value chains, product attributes, and product life-cycles.

Focus strategies, according to the underlying sources of competitive advantage, compete in a specific segment (market) of industry through either cost leaders (cost focusers) or differentiators (differentiation focusers).

While Porter's approach has been criticized by a number of researchers (e.g., Mintzberg 1987), we focus on this approach to the strategic process because it has the potential to facilitate the aims of the present research project.

2.2 Approaches to Strategic Management Accounting

While different concepts of strategy and strategic management have been proposed by several strategy scholars (e.g., Hofer and Schendel, 1978; Andrews, 1980; Mintzberg, 1987; Coda, 1988; Whittington, 1993), accounting scholars have reported on the importance of the interface between strategic management accounting (SMA) (as a new approach to management accounting) and strategy only recently². Lord (2007, p. 137) suggests that: "there are several problems with trying to

² Mintzberg *et al.* (1998) identify 10 schools of thought through 2 approaches (outside-in and inside-out) to business-level strategy. As suggested by Invernizzi (2005), the outside-in approach mainly classifies the following: the configurational school (Chandler, 1962), design school (Andrews, 1980), and positioning school (Porter, 1980). The inside-out approach basically considers the following: the planning school (Ansoff, 1965), entrepreneurial school (Normann, 1977), cognitive and learning school (Quinn, 1978), and cultural political and environmental school (Peters and Waterman, 1982).

use traditional management accounting for strategic management [...] and several authors have discussed what should be used instead". She notes that there are almost four perspectives on components of SMA: the first emphasizes information on competitors; the second emphasizes different information on strategic positions assumed by a firm; the third employs a value chain perspective; the fourth focuses on products and market information³.

The present study considers the four views on the relationship between business strategy and SMA presented by Lord (2007), characteristics of SMA proposed by Wilson (1995), features of information proposed by Brouthers and Roozen (1999), and approaches to SMA with an emphasis on: (i) costs based on strategic cost analysis; (ii) competitors based on strategic competitor analysis; and (iii) organizational performance in evaluating strategies. Each of these approaches is briefly examined and considered in the questionnaire.

- *Costs in strategic cost analysis*

Bromwich and Bhimani (1994, p. 126) suggest that SMA "helps to focus managerial efforts more on their markets, where customers have to be won and retained and competitors repulsed, and on the costs of these markets activities [...] and to ascertain the enterprise's cost positioning relative to its rivals". From the above suggestion it is clear that it is necessary to recognize that, from a strategic point of view, a firm must integrate costs into strategies through a variety of strategic cost analyses. Principal proponents of strategic cost analysis are Shank and Govindarajan (1988), and their work is based primarily on Porter's strategic competition model. Here, the view is that components of SMA stress the need to collect (in formal and structured ways) cost data that allow comparisons between a firm and its competitors. Costs in strategic cost analysis involve the following main costing techniques: value chain costing (Shank and Govindarajan, 1988); attribute costing (Bromwich, 1990); life cycle costing (Atkinson *et al.*, 1997); target costing (Hasegawa, 1986); and quality costing (Mackey and Thomas, 1995).

- *Competitors in strategic competitor and market analyses*

Bhimani and Langfield-Smith (2007, p. 6) suggest that: "the prescriptive strategy literature considers strategy as a formalised statement of intent or plan which identifies objectives and intended actions". In this sense, Porter's framework (1980, 1985) views strategy as a company's competitive position in its competitive environment and in parallel involves developing tools for analysing and determining a firm's positioning in the competitive market. Here, the aim is to select alternative strategies that help firms yield a sustainable competitive advantage over their rivals by selecting optimal strategies based on competitive forces and a firm's comparative advantage.

In parallel, this presupposes the preoccupation that management accountants have with recording, analysing and presenting formal strategic information. The literature addressing the link between strategy and SMA has been recent. Here, major contributions show how SMA can be undertaken (See, for example, Simons, 1987; and Lord, 2007). According to this approach, SMA involves collecting competitor information to include in management reports to facilitate comparisons between firms and their competitors. Strategic competitor and market analyses, which mainly advocate for outward-looking information, involve employing the following SMA techniques: (i) competitor cost assessment (Simmonds, 1981); (ii) competitor position monitoring (Wilson, 1995); and (iii) competitor appraisals based on published statements (Coad, 1996).

- *Organisational performance in evaluating strategies*

³ See Langfield-Smith (2008) for a review of the origins of strategic management accounting (SMA).

Criteria and techniques that can be used to evaluate organizational performance have been discussed in the strategy literature (See, for example, Johnson *et al.*, 2014). Some accounting and finance works (See, for example, Bhimani, 2013) have extended knowledge on performance measurement techniques in managerial accounting and finance. Here, the focus moves from strategies (choices) to strategy implementation to assess the performance outcomes (economic performance and organizational effectiveness) of different strategies. Applying a strategic perspective in management accounting requires that the role of accounting extends in two directions. It first requires that a firm collects formal and structured performance measures that can facilitate comparisons with strategic objectives. The second element of SMA involves estimating the organizational performance of competitors in a fairly generalized way (performance comparisons) and monitoring changes in such performance over time. A broad range of techniques must be applied to integrate organizational performance into strategies and to produce a detailed analysis of firm performance. Here, the emphasis used in evaluating strategies (adopted) involves two relevant and complementary approaches: balanced scorecards (Kaplan and Norton, 1992; Davila, 2012) and risk management (CoSO, 2004; Simons, 2000).

3. Research Design and Data Collection

The data used in this research project were collected through two methods: a web questionnaire and interviews (held with a subset of questionnaire respondents). The web-based questionnaire was designed to describe the use of SMA techniques and to explore the relationship between business strategy and SMA techniques. The purpose of interviews was to integrate survey for assessing some assertions on SMA practices to support strategic processes.

3.1 Questionnaire and description of the responding companies

A web questionnaire consisting of four sections was formulated: company characteristics, business environments, business strategies and strategic management accounting techniques. The questionnaire was pilot tested on 8 Chief Financial Officers (CFOs) and Chief Executive Officers (CEOs) working in 4 different sectors and as a result some questions were revised. Pilot testing involved sending out the questionnaire and meeting with 6 of the respondents. The survey considered an initial sample of 223 large companies (with annual revenues exceeding €100 million) randomly selected from the dataset obtained from the Italian Industrial, Commerce and Agriculture Confederation (CCIAA). During the first phase, letters were sent to the CEOs of the 223 companies to present the objectives of the research project and to solicit participation. Overall, 74 companies agreed to participate. In the second phase, an e-mail with a cover letter and a link to the web questionnaire was sent to the 74 firms. Fifty-five complete and usable questionnaires were returned, resulting in a response rate of 24.7%. The respondents were mainly CFOs.

3.2 Interview questions and companies involved

The empirical part of the study, which also draws on interview data, focuses on the formalities and structures of strategic activities and draws from a balance of strategic cost and competitor analyses to determine strategic processes. Interview questions used included the following:

- Q1. What is the principal sector in which the company operates?
- Q2. What are your business strategies and the company's main strategic orientation?
- Q3. Does the company apply formal and structured analyses to SMA practices for strategic development and implementation activities?
- Q4. Is the use of SMA techniques based on strategic cost analysis as important as the use of strategic competitor analysis for strategy development?

Q5. Is the use of SMA techniques based on strategic cost analysis as important as the use of strategic competitor analysis for strategy implementation?

In the interviews, respondents were encouraged to describe each question to clarify the information provided. Data were collected from group CFOs, group controllers and investment analysts. The 7 companies involved in the interviews are large international organizations operating in different hypercompetitive industries through a variety of activities that reflect different competitive strategies: differentiation, cost leadership and focus strategies. Table 1 presents information on the large companies involved in the interviews.

TABLE 1 ABOUT HERE

4. Results

4.1 Classification of responding companies

Responding companies were classified by business strategy: cost leadership; differentiation, focus on costs; focus on differentiation. Table 2 shows that focus strategies were most prevalent while cost leadership was the least common strategy. This classification, which is based on the Porter model (1985), allowed us to operationalize the independent variable (business strategy) for three groups of companies: differentiation companies (those adopting differentiation strategies), cost leadership companies (those adopting cost leadership strategies), and focus companies (those adopting focus strategies on costs or differentiation).

TABLE 2 ABOUT HERE

4.2 Questionnaire results and discussion

We first investigated differences in the use of various SMA techniques across a variety of large companies. To understand these differences, company representatives were asked whether they use 10 different SMA techniques to support strategic development and implementation. The responses are listed under three categories (costing, competitor, organizational performance) in table 3.

TABLE 3 ABOUT HERE

The reported results on costing reveal varying degrees of strategic cost analysis use. Target costing is the main technique used (49.1%) by the studied companies. In regards the competitor information, there is a strong preference for competitor position monitoring (81.8%). However, this is not the case for competitor cost assessment (36.4%), whereas competitor appraisal based on published financial statements is used by roughly half of the studied firms. Finally, organizational performance results reveal that balanced scorecard (67.3%) and risk management (61.8%) approaches are considered central as SMA techniques for evaluating strategies.

While in the above analysis we list differences in terms of SMA technique usage among the three categories, here we examine the relationship between business strategy and the use of SMA techniques. The data were analysed using a Chi-Square test to study the association between the use of various SMA techniques and the three groups of companies previously defined.

Table 4 presents the percentage of various SMA techniques used by the three groups of companies (differentiation, cost leadership and focus companies) and the Chi-Square test results (χ^2 statistic and p-values).

As one can see, SMA techniques used across the three groups of companies vary. The use of costing

techniques among differentiation companies ranges from 23.6% (quality costing and life cycle costing) to 35.3% (target costing). For focus companies this value ranges from 22.6% (attribute costing and life cycle costing) to 54.8% (target costing). Finally, for cost leadership companies, this value ranges from 28.6% (attribute costing) to 57.1% (target costing). The Chi-Square test results reveal no significant differences (at the 10% level) among the three groups of companies in regards to costing.

The use of competitor approaches among differentiation companies ranges from 35.3% (cost assessment) to 88.2% (position monitoring). Further, their use among focus companies ranges from 29.0% (cost assessment) to 83.9% (position monitoring). Finally, their use among cost leadership companies ranges from 57.1% (appraisals based on public financial statements and position monitoring) to 71.4% (cost assessment). The Chi-Square test shows no significant differences (at the 10% level) among the three groups of companies in regards to competitive position monitoring and competitor appraisals based on public financial statements. However, this is not the case for competitor cost assessments (p-value of 0.10).

The results show that differentiation companies use of organizational performance in evaluating strategies ranges from 64.7% (risk management) to 76.5% (balanced scorecard). Their use among focus companies ranges from 58.1% (risk management) to 64.6% (balanced scorecard). Finally, their use among cost leadership companies ranges from 57.1% (balanced scorecard) to 71.4% (risk management). The Chi-Square test results reveal no significant differences (at the 10% level) between the three groups of companies.

TABLE 4 ABOUT HERE

As a summary of the questionnaire results, for the surveyed companies, the following comments are structured based on the three categories of SMA techniques.

Costing - The use (in percentage) of target, value chain and life cycle costing techniques is higher than attribute costing and quality costing in the cost leadership companies. Further, the use (in percentage) of the five costing techniques considered to support strategic cost analyses is non negligible also in differentiation companies and focus companies.

The questionnaire results reveal that relatively few (large) companies use SMA costing techniques to support strategic cost analysis. In general, with different degree of usage, this finding is consistent with those of Cadez and Guilding (2007) for Slovenia, Cinquini and Tenucci (2010) for Italy, and Guilding *et al.* (2000) for New Zealand, the U.K., and the U.S.A.

Competitor - Competitor position monitoring is used extensively by differentiation and focus companies examined. In contrast, competitor cost assessment is used more in cost leadership companies. Competitor appraisals based on published financial statements are important, but to a relatively lesser degree than competitor position monitoring. Overall, strategic competitor analyses are used widely across all three groups of companies (differentiation, cost leadership and focus strategies). In general, with different degree of usage, the results of our analyses are consistent with those of Cadez and Guilding (2007) for Australia, Cinquini and Tenucci (2010) for Italy, and Guilding *et al.* (2000) for New Zealand, the U.K., and the U.S.A.

Organizational performance in evaluating strategies - The use of organizational performance in evaluating strategies, such as balanced scorecard and risk management measures, is fundamental in all the three groups of companies (differentiation, cost leadership and focus strategies). In particular, rate of usage is higher for balanced scorecards especially in differentiation companies. In contrast the rate of usage is higher for risk management practices in cost leadership companies. The prior research studies on SMA techniques do not include risk management. However, considering balanced scorecard, as SMA technique, our findings are quite different. In fact, the rate of usage in the study of Cadez and Guilding (2007) is ranging from moderate (Slovenia) to low (Australia), while the results of Cinquini and Tenucci (2010) for Italy reveal a quite low level of usage.

According to the proportions of use found, uses of the three categories of SMA techniques (costing, competitor and organizational performance in evaluating strategies) vary by business strategy type. Furthermore, according to the p-value of the Chi-Square test, an insignificant relationship exists between the three groups of companies (differentiation, focus and cost leadership firms) and the proportions of use for all five costing techniques. There is also evidence that a significant association exists between business strategy and the use of competitor cost assessments (p-value = 0.10). In particular, cost leadership companies present a larger use of competitor cost assessments. These findings are consistent with those of Shank and Govindarajan (1993), which stress the importance of competitor cost analyses for cost leadership companies.

4.3 Interview results and discussion

As previously suggested, the survey results are not sufficient (for us) to explain some relevant companies SMA practices. Therefore, here we report some highlights on the interview results.

- Responses on formal and structured analyses in SMA practices

Q3 addresses formal (structured) analyses employed in SMA practices for strategy development and implementation activities. For Langley (1990), formal analysis refers to the systematic study of issues. In reference to SMA issues, Bhimani and Langfield-Smith (2007) indicate that in the U.K. “strategy development and implementation activities tend to be structured and formal [...]”. (See also Bruggeman and Slagmulder, 1995). Our results for Italy, focusing on strategic cost and strategic competitor analysis, show that most of the 7 interviewed companies use formal (and structured) analyses in SMA practices for strategy processes. Table 5 shows that 6 companies (A, C, D, E, F, G) use formal and structured analyses for both strategic cost and competitor analyses as SMA practices.

TABLE 5 ABOUT HERE

However, company B uses informal and unstructured analyses for strategic cost and strategic competitor analysis.

Here we briefly discuss the evidence on formal and structured analyses conducted as part of SMA practices for strategy development and implementation activities based on the responses to Q3.

For example, company D is entirely formal and structured. The group CFO notes:

“SMA information on costs and competitors are discussed and formally analysed, especially with reference to product development and pricing. They are collected and appropriately reported to managers who are encouraged to pay attention to them. These information are obtained on a regular basis by means of comprehensive datasets produced by a specialized strategic consulting firm”.

In contrast, company B is entirely informal and unstructured. Its group CFO reports:

“Historically, our firm has operated in business-to-business markets in which rivalries are limited and cost control is motivated more by efficiency and profitability targets than by competitive pressures. Business turnaround processes, which started in 2007, led the firm to enter new and more competitive markets where information disclosure is partial (with the exception of listed firms, whose mandatory disclosure requirements do not

include details on production cost calculations). Thus, SMA information was never collected formally in a structured way”.

In summary, the interview results, which are related to question Q3, suggest that our SMA assertion regarding formalities and structured strategic processes broadly aligns with responses provided by the interviewed CFOs. This is consistent with the results of Bhimani and Langfield-Smith (2007) for the U.K.

- Comparisons on the importance of strategic cost analysis and strategic competitor analysis for strategy development and implementation

Q4 stated: “Is the use of SMA techniques based on strategic cost analyses as important as the use of strategic competitor analyses for strategy development”? Q5 stated: “Is the use of SMA techniques based on strategic cost analyses as important as the use of strategic competitor analyses for strategy implementation”?

Invernizzi (2005) suggests that SMA can prove useful in providing information that supports strategic activities in a number of ways. Further, Bhimani and Langfield-Smith (2007, p. 4) highlight that “information in different forms can influence strategy development and implementation activities”. For Italy, our findings present different results on the use of SMA techniques for strategy development and implementation activities.

Table 6 shows the responses to questions Q4 and Q5 in regards to the importance of SMA techniques based on strategic cost analysis and strategic competitor analysis for strategy development and implementation.

TABLE 6 ABOUT HERE

For Q4, the results indicate that for most of the interviewed companies (A, B, C, D) SMA techniques based on strategic cost analysis are as important as strategic competitor analysis techniques for strategy development. Nevertheless, for Q4, the empirical evidence indicates that there are the following two variants about strategy development: companies F and G report that strategic cost analysis techniques are more important than strategic competitor analysis techniques, in contrast company E mainly focuses on strategic competitor analysis.

For Q5, on the other hand, the findings indicate that for three companies (A, C, D) SMA techniques based on strategic cost analysis are as important as strategic competitor analysis techniques for strategy implementation. Additionally, for Q5, the evidence indicates that there are two variants about strategy implementation: companies B, F, and G report that strategic cost analyses are more important than strategic competitor analyses, in contrast company E places more emphasis on strategic competitor analysis.

Responses are discussed for each company below.

- Company A

Company A is a large international company that manages several automotive brands in different countries. Its strategic orientation tends towards product differentiation by geographical area, high technological performance and competitive pricing with a focus on low costs. Its strategic activity focuses equally on strategic cost and strategic competitor analyses for strategy development and implementation. SMA costing techniques used include: life cycle costing, quality costing and target costing. Competitor information used includes: (a) competitor position monitoring, such as prices, volumes, market shares, and the product life cycles of main competitors; and (b) competitor

appraisals based on published financial statements, such as earnings and financial and valuation ratios. The company's group CFO notes that:

“In the highly competitive global market in which our different business units operate, strategic cost information and on-going comparisons with competitor positions, which are formally analysed, are fundamental drivers in the definition of medium- and long-term strategic targets”. Further, in regards to competitor analyses, the group CFO states: *“We collect this type of information to the extent what is included in public reports on our major competitors. Volume and share information is collected by leveraging industry publications such as the IHS”.*

- Company B

Company B focuses on the manufacturing of machines for getter technologies. Its strategic orientation focuses on (product) differentiation by process innovation to realize patents used in many industrial and scientific applications that are of high quality. Strategic activity focuses equally on strategic cost analysis and strategic competitor analysis for strategy development. SMA techniques based on strategic cost analysis are more important than strategic competitor analyses for strategy implementation. Target costing is used as an SMA costing technique. Competitor information used includes: (a) Competitor position monitoring, such as costs and prices and (b) competitor appraisals based on published financial statements, such as profitability and activity ratios. The group CFO, in describing strategy formulation and implementation, notes:

“The formulation of organizational objectives is supported by the analysis of market evolution and the identification of potential outlets for new products that are the result of R&D activities. However, an appropriate introduction of these new products into new markets may become profitable only with particular attention to cost control from the development stage to pricing decisions”.

In reference to implementation, the CFO suggests: *“In our core-business (getter technologies) and in secondary activities (medical devices) we spend a lot of time with our customers because it is strategically relevant to meet customers' needs and to optimize costs to achieve and maintain a competitive advantage [...]. Despite some differences among our different business models, SMA techniques focused on strategic costing are used to support strategy implementation to realize organizational objectives”.*

- Company C

Company C is a manufacturer of machines and plants for the ceramics, packaging, food and automation industries. Its strategic orientation tends towards a focus on product differentiation, operating on international markets with innovative technologies, high-quality post sales services, and competitive prices. Its strategic activities focus equally on strategic cost and strategic competitor analysis for strategy development and implementation. SMA costing techniques used include: value chain, quality and target costing. Competitor information used, as provided by consulting companies, includes: (a) competitor position monitoring (prices and market shares), (b) competitor cost assessments (comparative forces and firm comparative advantages), and (c) competitor appraisals based on published financial statements (financial ratio analysis of main competitors). The group Controller states:

“The evaluation of our financial performance, focusing on strategic cost analysis, and

the comparative analysis of competitors position contribute to the identification of guidelines in order to set target levels during the planning process and to undertake appropriate actions for target achievement”.

- Company D

Company D is a manufacturer of tractors, harvesting machines, engines and agricultural machines. It distributes an extensive range of products through different brands worldwide. The company's strategy focuses on low costs. Furthermore, the company stresses its international orientation in expanding its sales network to traditional and emerging markets to meet customer needs through the improvement of products and service quality levels.

Its strategic activities focus equally on strategic cost and strategic competitor analyses for strategy development and implementation. In particular, target costing is used as a SMA costing technique. Competitor information used includes: (a) competitor position monitoring (pricing policies of competitor) and (b) competitor cost assessments (e.g., comparing costs and prices with those of rivals). The company's group CFO suggests that:

“SMA techniques based on strategic cost analysis and competitor analysis are ascribed the same degree of importance for strategy development and implementation. They are complementary and have close links to evaluate and allow for the achievement of strategic objectives. An on-going and balanced use of these SMA techniques is fundamental and managerial actions should aim to assure it and to obtain strategic objectives”.

- Company E

Company E is a multi-utility company that is mainly involved in the following sectors: production; sales and the distribution of electricity; sales and the distribution of gas; the production, distribution and sale of heat; and waste and water management. The company pursues a differentiation strategy. The company aims to supply services of higher quality than those of its competitors by planning investments in growth markets in the utility industry and by training synergistic managers that facilitate cooperation to enhance business unit value. Strategic activities focus on strategic competitor analyses for strategy development and implementation. Value chain costing is used as an SMA costing technique. Competitor information used includes: (a) Competitor position monitoring, especially market shares and (b) competitor cost assessments (e.g., estimating costs, comparing prices, and considering the effects of change in business environment on competitive forces and on the firm's comparative advantage). The company's group Controller explains:

“Given the characteristics of the businesses in which the firm operates (public utility services), SMA techniques, based on the collection of outward-looking competitor information, focus on competitor position prevailing in the strategy development process. Competitor position analyses are used to gain market shares involving the identification of eligible targets in terms of new customers and geographical areas. Also for strategy implementation competitor information are more important than strategic cost information. The competitor information tend to monitor changes in market shares and levels of target achievement. However, the collection of costing information is useful for improving profit margins and profitability ratios over time. Costing information is periodically (monthly or quarterly) monitored”.

- Company F

Company F is a global manufacturer of electrical appliances for houses and professional settings. The company's efforts are directed towards innovations in meeting the needs of consumers and professionals through different brands made available in many different countries. The company's strategic orientation focuses on lowered costs. In parallel the company pursues high levels of automation, inventory reduction, quality and competitive pricing. Its strategic activity focuses on strategic cost analysis for strategy development and implementation. Target costing is used as an SMA costing technique. However, the corporation formally considers, during annual planning, the macro-environment and industry dynamics. In particular, competitor position monitoring include: market shares, price policies and pressures from each business environment as elements of comparative advantage. Furthermore, the company's annual plan defines, for each business unit, four strategic financial and non-financial objectives: generate shareholder value, provide customer satisfaction, generate operational efficiency, and develop product innovations and people skills. The company's group Controller notes:

“Strategy development is based on general market information and on firm business plan. Deployment of plans emphasize expected product costs, period costs and profit margins. Consequently, manager privileges during strategy implementation strategic cost analysis. However, the management team is encouraged to estimate and compare market shares, prices, sales evolution patterns of business units and geographical areas as competitor information during strategy implementation”.

- Company G

Company G is an international company focused on the design and production of hi-tech systems and components for the automotive sector that supplies to all principal carmakers. The company pursues a cost leadership strategy. This strategy focuses also on quality, growth, and competitive pricing. The company's strategic activity stresses strategic cost analysis for strategy development and implementation. SMA costing techniques used include: life cycle, target and quality costing. Annual competitor information used includes: (a) competitor position monitoring on movements in market shares to determine whether the firm is maintaining or losing its competitive position and (b) competitor appraisals based on published financial statements (e.g. earnings and financial ratios of main competitors provided by consulting companies reports). The company's investment analyst claims:

“SMA practices based on strategic cost analysis are more important than the collection and analysis of competitor information. Target and quality costing play a fundamental role in strategy development. Also, for strategy implementation purposes, managers emphasize, as SMA techniques, target and quality costing”.

In summary, the interviews results regarding questions Q4 and Q5 suggest that our assertions regarding the equal importance of strategic cost and strategic competitor analysis for strategy development broadly align with responses provided by CFOs from the majority of companies studied. However, strategic cost analysis is more prevalent during strategy implementation than during strategy development. In particular, strategic cost analysis is used in companies that develop and implement cost leadership strategies, confirming Shank's (1996) assertion. Key aspects of strategic approaches employed in the 7 international companies studied are summarized in Table 7.

TABLE 7 ABOUT HERE

4.4 Summary of the survey results and interviews

The survey results and interviews suggest that it is clear, from a strategic perspective, that many large companies in Italy integrate costs as a basis for competitive advantage into strategies using a variety of strategic cost analysis approaches.

Here, management accounting (MA) perspectives assume that components of SMA, as part of MA, allow companies to collect strategic cost information and several competitor information in order to compare a company with its rivals to support strategic processes. In parallel, larger companies stress organizational performance measures in evaluating strategies.

The interview results show that use of strategic cost and strategic competitor analysis is influenced by competitive strategy but also by specific organizational contexts (e.g. environments, industry and competitor forces, markets and managerial cultures).

For example, company A which focuses on low-cost, uses life cycle, target and quality costing as strategic costing techniques. In contrast, company F which also focuses on low cost, uses only target costing as a strategic costing technique.

Furthermore, in company A, SMA techniques based on strategic cost analysis are as important as strategic competitor analyses for strategy development and implementation. In contrast, in company F, SMA techniques based on strategic cost analysis are more important than strategic competitor analyses for strategy development and implementation.

5. Discussion and Conclusions

The aim of this study was to describe SMA techniques and to explore the relationship between competitive strategy and strategic management accounting techniques employed in large companies in Italy through a survey. Furthermore, we conducted interviews that posed relevant questions on SMA practices that support strategic processes.

1. The questionnaire results reveal that relatively few (large) companies use SMA techniques and this is quite consistent with the literature. The companies that use strategic costing consider all the set of techniques for providing information to support strategy. Within this category of SMA techniques, the use of target costing is prevalent (49.1%) among the large companies investigated. Companies with differentiated product are more likely to use competitor SMA techniques extensively. In the list of competitor information, competitor position monitoring (81.8%) is used widely. In addition, among the studied companies, competitor cost assessment is used by 36.4% whereas competitor appraisals based on published financial statements are employed by more than half the large companies (50.9%). Finally, large companies were found to consider organizational performance in evaluating strategies highly important as an SMA technique: balanced scorecard (67.3%) and risk management (61.8%).

In conclusion, the SMA techniques described based on the questionnaire data reveal some differences in terms of degree of SMA technique use across the 3 categories examined.

When we explore the relationship between competitive strategies and SMA techniques, the statistical analysis based on a Chi-Square test (χ^2 statistic and p-values) shows that there is little evidence of a significant association between these variables. This result is consistent with that of Cinquini and Tenucci (2010, p. 250) for Italy. In fact, through a different analysis, they found loose coupling between SMA technique typologies and business strategies and found that “the same SMA technique is able to support different strategic approaches”.

2. The interview results integrate the questionnaire findings. There is evidence that from a strategic perspective in management accounting, many large companies integrate costs as a basis for competitive advantage into strategies using a variety of strategic cost analysis techniques. In

addition with SMA techniques and practices companies collect competitor information in order to compare a given company with its rivals to support strategic processes.

Furthermore, the interviews results, which focus on strategic cost and strategic competitor analyses, show that large international companies involved in the study mostly use formal and structured analyses for strategy development and implementation. This was indicated by some interviewees who assumed that strategic accounting tends to focus on the structuring and formalities of strategic activities. However, one of the companies studied uses entirely informal and unstructured analyses for strategic cost and strategic competitor analysis.

The assertion that the use of SMA techniques based on strategic cost analysis is as important as strategic competitor analysis for strategy development was proved by most of the interviewed companies. Only a few interviewees mentioned the following two variants on strategy development: two interviewees reported that strategic cost analysis is more important than strategic competitor analysis, and one of the examined companies mainly focuses on strategic competitor analysis.

Thus, the assertion that the use of SMA techniques based on strategic cost analysis is as important as the use of strategic competitor analysis for strategy implementation was proved by three large companies. This indicates that there are two variants of strategy implementation: three interviewees reported that strategic cost analysis is more important than strategic competitor analysis and one company representative reported placing more emphasis on strategic competitor analysis.

What is also evident from the interview responses is that the use of strategic cost and strategic competitor analysis is influenced by the competitive strategy employed but also by the specific organizational context involved.

3. The results show that, as a research implication, managers and CFOs use SMA practices and techniques, such as strategic cost and strategic competitor analyses and organizational performance in evaluating strategies to support strategic activities in large international companies. These study results, according to specific company contexts, can prove useful when designing strategic management accounting methods.

However, various limitations and avenues for future research must be considered.

A main limitation is associated, from a statistical point of view, with the number of observations included in the sample. This limitation is mitigated through interviews with seven large international companies that are competitive leaders in the market. Future studies should recognize that the use of different SMA practices and techniques is not related to a single common factor, such as the type of competitive strategy employed, but could also be a function of k factors (e.g., environment, industry and competitor forces, markets, and managerial cultures). Furthermore, future studies should consider cross national investigations.

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Table 1 - Information on large companies involved in the interviews

Companies	Industry	Revenue Range (million Euros)	Interviewee
A	Automotive: luxury cars, sports cars, economy cars, SUVs, and delivery vans.	$\geq 1,000$	Group CFO
B	Machine manufacturing for getter technologies	100-400	Group CFO
C	Ceramic machine and equipment manufacturing	$\geq 1,000$	Group Controller
D	Farm tractor manufacturing and component distribution	$\geq 1,000$	Group CFO
E	Energy distribution and utilities management water	$\geq 1,000$	Group controller
F	Electrical appliances: refrigerators, laundry appliances, kitchen appliances, and professional appliances	$\geq 1,000$	Group controller
G	Car system and component design and manufacturing	$\geq 1,000$	Investment analyst

Table 2 – Type of business strategies

Business strategy	No.	%
Differentiation companies	17	30.9
Cost leadership companies	7	12.7
Focus companies (either on cost or differentiation)	31	56.4
Total companies	55	100.0

Table 3 - Differences in the use of the various SMA techniques

SMA techniques	Non-users	Users	Use (%)
Costing			
Attribute costing	40	15	27.3
Life cycle costing	41	14	25.4
Quality costing	37	18	32.7
Target costing	28	27	49.1
Value chain costing	36	19	34.5
Competitor			
Competitor position monitoring	10	45	81.8
Competitor cost assessment	35	20	36.4
Competitor appraisal based on published financial statements	27	28	50.9
Organizational performance in evaluating strategies			
Balanced scorecard	18	37	67.3
Risk management	21	34	61.8

Table 4 – A comparison of SMA techniques used by the three groups of companies: Chi-Square association analysis results.

	Use (%)			χ^2 statistic	p- value
	Differentiation companies	Focus companies	Cost leadership companies		
Costing					
Attribute costing	35.3	22.6	28.6	0.90	0.64
Life cycle costing	23.6	22.6	42.9	1.29	0.53
Quality costing	23.6	38.7	28.6	1.21	0.55
Target costing	35.3	54.8	57.1	1.89	0.39
Value chain costing	29.4	35.5	42.9	0.42	0.81
Competitor					
Competitor position monitoring	88.2	83.9	57.1	3.42	0.18
Competitor cost assessment	35.3	29.0	71.4	4.45	0.10
Competitor appraisal based on published financial statements	58.8	45.2	57.1	0.94	0.62
Organizational performance in evaluating strategies					
Balanced scorecard	76.5	64.6	57.1	1.09	0.58
Risk management	64.7	58.1	71.4	0.52	0.77

Table 5 - Responses on formal and structured analysis in SMA practices

Interview responses	No.	%
Entirely formal and structured (Companies: A, C, D, E, F, G)	6	85.7
Entirely informal and unstructured (Company B)	1	14.3
Total interview responses	7	

Table 6 – Responses on the importance of SMA techniques based on strategic cost and strategic competitor analyses for strategy development and implementation

Interview responses	(Q4) Strategic development	(Q5) Strategic implementation
SMA techniques based on strategic cost analyses are as important as strategic competitor analyses.	A, B, C, D	A, C, D
SMA techniques based on strategic cost analyses are more important than strategic competitor analyses.	F, G	B, F, G
SMA techniques based on strategic cost analyses are less important than strategic competitor analyses.	E	E

Table 7 - Strategic approaches employed in the 7 companies involved in the interviews

Company (industry)	Competitive strategy	The use of SMA techniques	Formal analysis in SMA practices	The importance of SMA techniques for strategy development	The importance of SMA techniques for strategy implementation
Company A (automotive)	Focus on low costs	<p><i>Costing:</i> Life cycle costing Quality costing Target costing</p> <p><i>Competitor:</i> - Competitor position monitoring - Competitor appraisal based on published financial statements</p>	Entirely formal and structured	SMA techniques based on strategic cost analysis are as important as those based on strategic competitor analysis	SMA techniques based on strategic cost analysis are as important as those based on strategic competitor analysis
Company B (manufacturing of machines for getter technologies)	Focus on differentiation	<p><i>Costing:</i> Target costing</p> <p><i>Competitor:</i> - Competitor position monitoring - Competitor appraisal based on published financial statements</p>	Entirely informal and unstructured	SMA techniques based on strategic cost analysis are as important as those based on strategic competitor analysis	Greater emphasis on strategic cost analysis
Company C (manufacturing of machines for ceramics)	Focus on differentiation	<p><i>Costing:</i> Quality costing Target costing Value chain costing</p> <p><i>Competitor:</i> - Competitor position monitoring Competitor cost assessment - Competitor appraisal based on published financial statements</p>	Entirely formal and structured	SMA techniques based on strategic cost analysis are as important as those based on strategic competitor analysis	SMA techniques based on strategic cost analysis are as important as those based on strategic competitor analysis
Company D (manufacturing of farm tractors)	Focus on low costs	<p><i>Costing:</i> Target costing</p> <p><i>Competitor:</i> - Competitor position monitoring - Competitor cost assessment</p>	Entirely formal and structured	SMA techniques based on strategic cost analysis are as important as those based on strategic competitor analysis	SMA techniques based on strategic cost analysis are as important as those based on strategic competitor analysis
Company E (energy production and distribution)	Differentiation	<p><i>Costing:</i> Value chain costing</p> <p><i>Competitor:</i> - Competitor position monitoring</p>	Entirely formal and structured	Greater emphasis on strategic competitor analysis	Greater emphasis on strategic competitor analysis
Company F (electrical appliances for houses and professional settings)	Focus on low costs	<p><i>Costing:</i> Target costing</p> <p><i>Competitor:</i> - Competitor position monitoring</p>	Entirely formal and structured	Greater emphasis on strategic cost analysis	Greater emphasis on strategic cost analysis
Company G (design and manufacturing of car systems and components)	Cost leadership	<p><i>Costing:</i> Life cycle costing Quality costing Target costing</p> <p><i>Competitor:</i> - Competitor position monitoring - Competitor appraisal based on published financial statements</p>	Entirely formal and structured	Greater emphasis on strategic cost analysis	Greater emphasis on strategic cost analysis