

MANAGEMENT CONTROL SYSTEMS, STRATEGY AND PERFORMANCE: THE CASE OF A SLOVENIAN COMPANY

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Abstract

In the paper, we study the “management control systems-strategy-performance” relationship from a contingency theory point of view considering the way in which multiple aspects of control systems and dimensions of context combine in a variety of ways to enhance performance. Management Control Systems (MCS) are both affected by and affect the strategy process itself, thus tailoring the information that is judged relevant and important in terms of strategy development and implementation. In this paper, our purpose is to investigate the relationship among MCS, strategy and organisational performance in a particular company. In the paper, implications of MCS in the formulation, implementation and monitoring of strategies are investigated. The study’s basic conclusion is that MCS influence the implementation and monitoring of strategies, providing feedback for learning and information to be used interactively to formulate strategy further. This study upgrades the existing theory in that it not only establishes a relationship between contextual (in our case strategy) and MCS variables, but also considers how this relationship impacts the organisational performance. The research shows that the combination of performance-driven behaviour and regular use of MCS leads to improved results.

Key words:

Case study, contingency theory, management control systems, performance, strategy

1. Introduction

In the paper, we study the “management control systems-strategy-performance” relationship from a contingency theory point of view, considering the way in which multiple aspects of control systems and dimensions of context combine in a variety of ways to enhance performance (see also: Chenhall & Langfield-Smith 1998; Drazin & Van de Ven 1985; Selto *et al.* 1995). Contingency theory suggests that the design and use of management control systems (MCS) is influenced by – or contingent upon – certain factors which are internal (*e.g.* strategy) or external (*e.g.* environment) to the company (Hickson *et al.* 1969; Lawrence & Lorsch 1967; Woodward 1965). The basic argument underlying the contingency theory is that the organisation neither functions in isolation of the external environment (*i.e.* level of uncertainty may change) nor does it remain static or constant with respect to its internal environment, as for example, size or technology may change (Otley 1980). As one or more of these factors change, they are likely to cause the company to redesign at least some aspects of its MCS. Early studies applied the contingency theory approach to the design of organisational structures. Later, this approach was expanded to the design and use of management accounting and performance measurement systems as in this study.

Management control systems are both affected by and affect the strategy process itself (Langfield-Smith 1997; Simons 1995), thus tailoring the information that is judged relevant and important in terms of strategy development and implementation. In this paper, our purpose is to investigate the relationship among MCS, strategy and organisational performance in a particular company. In this study, MCS are defined broadly as systems conveying useful information to assist managers in their jobs and decision-making to efficiently and effectively achieve the desired organisational goals. Hence, from this viewpoint and also taking into account the recent developments of MCS, (see: Peljhan 2005), the proposition is that the use of more comprehensive MCS practices and information results in improved company performance. The case study company is a large Slovenian manufacturing company, Trimo Trebnje, d.d. (hereafter Trimo) which was investigated during the period 1992 – 2004. Trimo has been, for many years, the leading Slovenian company for the production and assembly of pre-fabricated steel constructions and one of the most important European manufacturers of pre-fabricated buildings and living containers. Trimo is a Slovenia-based company and has achieved its business vision of becoming the leading European company offering complete solutions in the area of steel buildings.

The paper is divided into six sections. Section 1 is the introduction. Section 2 presents the literature review regarding the research area of the paper and therefore sets out the theoretical foundations for the research. Section 3 is the methodological section, introducing case study research methods used in the study. The research results are presented in section 4. Further discussion and interpretation of the research results then follows in section 5. A final chapter concludes the paper, summarising the findings and introducing avenues for future research.

2. Literature review

Contingency-based research has approached the study of MCS assuming that managers act with the intent to adapt their organisations to changes in contingencies in order to attain fit and enhanced performance. Many studies, included in Chenhall’s (2003) review, focus on contemporary aspects of the environment, technologies and structural arrangements. They draw on the original organisational theorists to develop arguments that help explain how the effectiveness of MCS depends on the nature of contemporary settings. Also, research has

considered the relevance of additional contextual variables to the design of MCS. Chenhall (2003, p. 128), for example, notes: “*Perhaps the most important new stream of literature has been that related to the role of strategy*”. Dent (1990), Langfield-Smith (1997), Samson *et al* (1991), and Simons (1987a, 1990) suggest that MCS have to be tailored explicitly to support the strategy of the business to lead to competitive advantage and superior performance. Underlying most accounting research is the assumption that MCS contribute to the successful operation and profitability of the company (Merchant & Simons 1986). Also, there is evidence (Govindarajan 1988; Govindarajan & Gupta 1985) that high organisational performance results from the matching of an organisation’s environment, strategy and internal structures and systems.

We argue that strategy represents a very important contingency variable (see also: Langfield-Smith 1997; Simons 1995). Miles and Snow (1978) suggest that the strategy choice the company makes will affect its MCS, meaning that different types of organisational plans and strategies will tend to cause different control system configurations. Many scholars (Govindarajan & Gupta 1985; Hope & Hope 1995; Miles & Snow 1978; Simons 1987b, 1990, 1991, 1995; Whittington 1995) suggest that there is an important link between strategy and MCS and that a congruent match of the two variables is essential to performance. According to performance measurement literature, the appropriate performance measurement system encourages actions that are congruent with organisational strategy (Kaplan & Atkinson 1998; Kaplan & Norton 1996; Simons 2000; Whittington 1995).

According to Chandler (1962, p. 13), strategy is “*defined as the determination of the basic long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals*”. Under a contingency view, in past research work (Chenhall & Langfield-Smith 1998; Dent 1990; Dermer 1977; Govindarajan 1988; Govindarajan & Gupta 1985; Otley 1980; Samson *et al.* 1991; Simons 1987a, 1990) it has been suggested that the MCS should be tailored (designed and used) explicitly to support the strategy of the business to lead to competitive advantage and superior performance. Also, there is evidence (Govindarajan & Gupta 1985; Govindarajan 1988) that high organisational performance may result from the matching of an organisation’s environment, strategy and internal structures and systems.

Langfield-Smith (1997, p. 207) states that, “*the MCS should be tailored explicitly to support the strategy of the business*”. For example, Young and Selto (1991, p. 270) observe that strategy influences “*... the choice of accounting techniques and the manufacturing practices*”. Ittner and Larcker (1997, p. 295) say, “*a key assumption in the strategic control literature is the need to align specific control practices with the organisation’s chosen strategy*”. Therefore, strategy is an important factor in the design and use of MCS. Accounting scholars have argued that MCS have to be modified in accordance with the strategy of a company (Simons 1987a). Otley (1999) notes that the strategy and objectives that a company decides to pursue, represent a central contingency variable. Strategy is somewhat different from other contingency variables. In a sense it is not an element of context, rather it is the means whereby managers can influence technologies, the structural arrangements and the MCS (Chenhall 2003).

Early studies in contingency research have found that there is a match between a company’s strategy and its MCS (*e.g.* Govindarajan & Gupta 1985; Miles & Snow 1978; Miller & Friesen 1982; Simons 1987a). These studies have proved useful in recognising that there are systematic differences in the MCS of companies pursuing differing strategies. They have

highlighted the importance of achieving a fit between a company's MCS and its strategy to enhance performance (e.g. Dent 1990; Langfield-Smith 1997; Samson *et al.* 1991; Simons 1987a, 1990). Furthermore, literature on the role of strategy as a specific contingent variable, has developed (see, for example, Langfield-Smith 1997; Simons 1995). This suggests that different types of organisational plans and strategies will tend to cause different control system configurations. Notwithstanding the strategic direction selected by the company, contingency-based research predicts that certain types of MCS will be more suited to particular strategies.¹

There are several frameworks that show how companies react in a changing competitive environment (see: Peljhan 2005). Classifications of Miles and Snow (1978) and Porter (1980) appear to be referred to most in the literature. The typology developed by Miles and Snow (1978) is one of the more famous ones in strategy literature. Their typology is based on how companies respond to a changing environment and align environment with their company. They identified generic strategies which they labelled defender, prospector, analyser and reactor, where defender and prospector are assumed to be at the ends of the continuum (Miles & Snow 1978):

- *Defenders* are companies with a narrow business scope. Top managers are highly expert in their company's limited area of operation but tend not to search outside their domains for new opportunities. Consequently, they seldom need to make major adjustments in their methods of operations and their structure. They devote primary attention to improving the efficiency of their existing operations. Defenders operate in relatively stable product areas, offer more limited products than competitors and compete through cost leadership, quality, and service. They engage in little product/market development.
- *Prospectors* are companies that almost continually search for market opportunities and they regularly experiment with potential responses to emerging environmental trends. Because of their strong concern for product and market innovation, they are sometimes not totally efficient. Prospectors compete through new products and market development. Product lines change over time and this type of company is constantly seeking new market opportunities.
- *Analysers* are companies that operate in two types of product-market domain, one relatively stable, the other changing. In their stable areas, these companies operate routinely and efficiently through the use of formalised structures and processes. In the turbulent areas, top managers watch their competitors closely for new ideas and then rapidly adopt those that appear to be the most promising.
- *Reactors* are companies in which the top management frequently perceives change and uncertainty occurring in their organisational environments but is unable to respond effectively. According to Miles and Snow (1978), these companies lack a consistent strategy-structure relationship and therefore seldom make adjustments of any sort until environmental pressures force them to do so.

Prospector and Defender companies are similar to strategic types identified in other empirical studies (Miller & Friesen 1978; Mintzberg 1973; Porter 1980; Utterback & Abernathy 1975). Analysers are intermediate hybrid, combining parts of both Defender and Prospector strategies. Reactors are companies which fail to follow one of the other three strategies. Miles and Snow (1978) suggest that successful companies have to ensure that their MCS are properly and differentially designed to take account of their strategy. They argue that Defenders will emphasise cost control, trend monitoring and efficiency rather than scanning

¹ Langfield-Smith (1997) provides a summary of research into MCS and strategy.

the environment for new opportunities. Prospectors, by contrast, will use comprehensive planning and measure performance more subjectively.

Much of the empirical research in the “MCS – strategy” area involves a search for systematic relationships between specific elements of the MCS and the particular strategy of the company (Govindarajan & Gupta 1985; Simons 1987b). According to Govindarajan (1986), the prospector and defender classifications of Miles and Snow closely parallel the differentiation and cost leadership strategies of Porter. Simon’s (1987b) research evidence suggests that companies following different strategies employ control systems in different ways. According to Simons (1987b), high performing Prospector companies seem to attach a great deal of importance to forecast data in control systems, setting tight budget goals and monitoring outputs carefully. For Prospectors, cost control is reduced. In addition, large companies appear to emphasise frequent reporting and the use of uniform control systems which are modified when necessary. Defenders, particularly large companies, appear to use their control systems less intensively. They emphasise bonus remuneration based on the achievement of budget targets and tend to have little change in their control systems.

Simons’ (1987b) observations are in accordance with previous studies. Tushman and Nadler (1978) argue that companies facing high uncertainty will utilise their control systems to a high degree. Khandwalla (1972) concluded that companies engaged in continual product development and the search for new market segments become differentiated and require elaborate controls, including budgeting techniques, for purposes of integration. Chenhall (2003) summarises that strategies characterised by conservatism, defender orientations and cost leadership are more associated with formal, traditional MCS focused on cost control, specific operating goals and budgets and rigid budget controls, than entrepreneurial and product differentiation strategies. Furthermore, low cost and differentiation strategies imply different managerial mindsets and involve different perspectives for the MCS. Companies that have adopted a low cost strategy use a set of measures to control costs and to compare the standard with actual costs. On the other hand, companies following a differentiation strategy develop other types of measures concerning quality and efficiency of promotional operations, *etc.* Measurement systems have to contribute to the implementation of the strategic orientations in guiding the action by ensuring short- and long-term performance evaluation. Therefore, strategy, actions and measures have to continuously work in harmony. Looking for consistency between strategy-actions-measures implies the use of financial and non-financial performance measures. If quality and time become essential strategic criteria, financial performance measures are less effective to manage a company in the long run. This does not mean that accounting data are not useful, but they have to be complemented by non-financial performance measures.

The extent to which discussed models, which were developed in the 1970s and 1980s, maintain their relevance to contemporary settings is partly questionable, (Kotha & Vadlamani 1995; Shortell & Zajac 1990) as today, strategies are being complicated by the need for most companies to be both low cost producers and to provide customers with high quality, timely and reliable delivery. Therefore, we will attempt to explain this contrast by the use of in-depth explanatory longitudinal case study. The ability of the management to anticipate and respond to opportunities and pressures for change is critical for organisational survival. A number of scholars (Dent 1990; Hopwood 1987) have provided strong theoretical support for the idea that MCS can serve an active role in shaping organisational change. There is, however, little broad-based empirical research examining how these systems are used in companies facing strategic change, and with what consequence (Shields 1997). Much of the empirical research

studying the links between MCS and strategy has been limited to identifying variations in control system design in companies facing different strategic priorities (Govindarajan 1988; Govindarajan & Gupta 1985; Simons 1987a). Moreover, the results of this research have been inconclusive or in some cases, contradictory (for example, compare Govindarajan 1988; Miller & Friesen 1982; Simons 1987a).

Simons (1990) offers one possible explanation for the apparent inconsistencies in the literature. He argues that prior research has been preoccupied with studying the extent to which differing strategic priorities influence the importance of MCS in their traditional role of performance evaluation, or what he refers to as their “diagnostic” role (Simons 1990, 1991). By contrast, few studies have examined how the role of accounting might change, depending on the strategic setting (Chapman 1997). It is entirely possible that the reliance on accounting forms of control will not necessarily diminish in importance in different strategic circumstances, but that their role or use will be different. In particular, what is ignored by much of the research is the potential for MCS to be used much more actively as a tool for formulating and implementing changes in strategic direction, or what Simons (1994) refers to as the “interactive” use of MCS. The question of how companies use MCS to facilitate and support the strategic change process is largely unexplored (Shields 1997). Therefore, we will use an in-depth explanatory longitudinal case study to explore and explain this, at the moment insufficiently researched area, of how companies use MCS to facilitate and support the strategic change process in more detail. We argue that MCS are implicated in the implementation and monitoring of strategies, providing feedback for learning and information to be used interactively to formulate strategy. Few studies in MCS have investigated these issues (see: Simons 1987b, 1991, 1994). On the contrary, most have been restricted to identifying MCS that are appropriate for different strategic models (Abernethy & Brownell 1999; Chenhall 2003).

3. Methodology

To investigate the “MCS-strategy-performance” relationship, we have followed a case study methodology (Eisenhardt 1989; Yin 2003) as the strength of this method is the likelihood of it resulting in a new or upgraded theory (Eisenhardt 1989). Case studies were undertaken in the past to investigate the role of the MCS in supporting and influencing the strategic processes within companies (see: Simons 1990). Chenhall (2003) argues that the generation of propositions concerning novel relationships concerning MCS, processes and their contextual setting are often best identified and elaborated by using case study methods. This is also one of the reasons we decided to use an in-depth explanatory case study method to investigate the relationship among MCS, strategy and organisational performance that is grounded on the contingency theory framework of MCS. When undertaking the case study, multiple sources of evidence were used, establishing a chain of evidence. Data was gathered from formal and semi-formal interviews and observations during site visits and through the participation in Trimo’s strategic conferences, from the study of internal and external documents and from professional literature. This enabled us a systematic and comprehensive analysis.

Data on Trimo’s MCS were collected from various sources, including interviews with top and middle managers, company documents and archival records. The use of multiple sources of evidence enabled verification through triangulation, which is the strength of case research (Noda & Bower 1996). A major concern of the present study was to triangulate managers’ views and opinions with ‘harder’ evidence, such as that obtained from documents and archival records. An interview protocol ensured that the same themes were covered with each

interviewee. Construct validity of the interview data was pursued through an “action-research” approach. Eden and Huxham (2002) have argued that an action research setting increases the possibility of being able to access respondents ‘theory-in-use’, which in itself aids validity in this type of research. The questionnaire used and the semi-structured interviews were carefully constructed and contained questions to elicit information required to investigate research questions and as such, it is assumed that construct validity is high. Interview data were continually cross-referenced with other data sources and cross-checked with the chronology of activities and events that took place during the course of the study. This form of triangulation enhanced the internal validity and reliability of the case study material. Finally, a draft research report was prepared and sent to all interviewees for comment. These were evaluated in order to ensure that reported ideas and propositions aligned with managers’ experiences. This increased the construct validity of our research (*cf.* Atkinson & Shaffir 1998; Yin 2003).

4. Results: “MCS – strategy – organisational performance” relationship in a case company

Trimo’s history began in 1961 when the company “*Kovinsko podjetje Trebnje*” was founded, as a socially-owned enterprise. The next year saw the beginning of another new company, this one called “*Kovinooprema*”. In 1971, both companies and some smaller companies merged to form “*Trimo Trebnje*”. The main activity of the new company was the production of metal elements and equipment made of stainless steel. In the following years, the former Yugoslavia and third world countries had many infrastructure and other projects, creating a high demand for Trimo’s products. The 1980s, however, brought crises in the export markets and the company faced its first major challenge. It responded with the modernisation of its production line and the introduction of new fireproof products.² For a short time, it seemed that the company had overcome its problems, but in 1991 Slovenia became independent and the former multi-ethnic state of Yugoslavia fell apart. As Trimo lost the majority of its domestic (former federal) market it had to suddenly re-orientate towards more competitive foreign markets, especially in the European Union and the emerging central and eastern European markets (see: Šević 2005).

As Trimo encountered many problems at the beginning of the 1990s, a true company turnaround was needed and that also meant the need for a new vision and a different approach to developing and implementing a business strategy. The major turnaround of the company was achieved in 1992 when new top management was appointed. Today, Trimo is a joint-stock company with €34,000 value added per employee, internationally-oriented with 70 per cent of exports, mainly in Europe, operating in 40 countries. Their main products include pre-fabricated steel buildings, steel structures, façades, roofs, containers and sound-isolating systems. Trimo’s pre-fabricated steel buildings represent endless possibilities of use since they are suitable for office buildings, commercial buildings, sports facilities, warehouse facilities and industrial and other facilities. Trimo’s main product is called “complete solutions” and includes a mix of all the products and services Trimo offers, from an idea and draft to the finished building. When looking into Trimo’s production programme, there is no similar company in Slovenia. Trimo is the market leader in the area of roofs and façades from mineral wool panels in west and central Europe and in the area of steel constructions in Slovenia (Kranjec 2003). With its business orientation towards offering complete solutions

² Before modernisation, Trimo used polyurethane as the filling for the building panels. After modernisation, they have used environmentally friendlier fireproof mineral wool that enables them to penetrate more demanding markets.

and with a broad production programme, Trimo cannot be directly compared to any of its competitors that are all manufacturers with relatively focused production programmes (Trimo 2005c). Trimo builds its strategy of long-term growth of the company on internationalisation (Trimo 2004). As a result of a successfully implemented turnaround, Trimo has made significant improvements in the way it runs its business that results in the performance increasing year by year. In the period from 1992 to 2004 revenues and value added per employee grew seven times, export grew eight times and the number of employees decreased by 21 per cent (Trimo 2005a).

In the early 1990s Trimo pursued a defender strategy (Trimo 2005c) as defined by Miles and Snow (1978). It was a company with a relatively narrow production-oriented business scope. They paid primary attention to improving the efficiency of their existing operations and offered more limited products than their competitors and competed especially through costs. They engaged in little product and market development. At the beginning of the turnaround, the company looked at the fundamental question: “*What are we really about? – the essence of Trimo*”, as they strived to set up their vision, mission and strategy in 1993. Today, the emphasis is on the learning organisation. The mission of the company is to facilitate original and complete solutions in the area of steel buildings. The mission reflects itself in the following stakeholder approach directions:

- To assure customers of an increase in effectiveness by the successful accomplishment of solutions.
- To develop the potential of each individual within the company.
- To build a financially strong company that delivers adequate ROE growth of the company to the shareholders.
- To be sensitive to the environment and aware of the need to protect it for future generations and to support different social and environmental activities.

On the other hand, in the second half of the 1990s, especially since 1998, Trimo has begun to pursue a prospector strategy, continually searching for market opportunities and regularly experimenting with potential responses to emerging environmental trends. They have become strongly focused on product and market development, but still considering costs, as prices of their inputs, especially raw materials, vary a lot. Trimo’s strategy can be characterised as a differentiation strategy focusing on creating a product or service that is perceived by customers as something unique. When Trimo was at the defender stage, it used control systems less intensively than in the prospector stage, where they attach a great deal of importance to forecast data in control systems, setting tight budget goals and monitoring outputs carefully.

In 1998, Trimo achieved a breakthrough in its internationalisation (see: Peljhan 2005) causing the business to expand. They stated a new vision in 1998 very ambitiously: “*To become the leading producer of pre-fabricated buildings in Europe by 2010*”. In 2001, they redefined it even more ambitiously to “*...become the leading European company offering complete solutions in the area of steel building*”. Since 2001, the product that differentiates Trimo from its competitors has been called the “complete solutions’ that Trimo provides to its customers. Although Trimo is a manufacturing company, services (design, projecting, technical service) play a very important part in providing the complete solution to their customers. In 2002, Trimo’s decision to transform itself from a simple (production) company to a highly technological and engineering company began to show results. The share of low-educated employees has been falling, while the share of highly educated people has been rising. In 2002, each employee had around 50 hours of education and training. Further, in 2002, Trimo

began to implement the Balanced Scorecard (BSC) and upgraded Total Quality Management (TQM) programme, which has been an important part of the strategic directions of the company since 1992. The main novelty was the introduction of “Key Files” as the tool they use for facilitating process improvements. Annually, they invest around 3 per cent of revenues in new products’ development. In 2003, Trimo launched a new production line for fireproof façade panels to expand the existing selection of façade panels with a new environmentally-friendly product. In 2004, the European Foundation for Quality Management (EFQM) recognised Trimo for its excellence. Also in 2004, production capacities were increased and production flexibility improved, to accommodate the enormous product range, which prompted the construction of a new warehouse for raw materials.

There was a huge effect of strategic change on the decision context in Trimo. The change process created a context where decision-making by top management became increasingly complex and unpredictable, as new opportunities altered strategic objectives and changed the priorities placed on those objectives. Abernethy and Brownell (1999) argue that in this situation, top management redefines goals and objectives. This can create a level of uncertainty or ambiguity for subordinates as to the priorities or preferences on which to focus their attention. In addition, the technological and production changes associated with changes in product mix and with new product development required that new routines be learned. As Galbraith (1973) notes, these conditions impose additional demands on the organisation’s information processing capabilities. That also was the case in Trimo.

At its 2005 Strategic Conference, the Managing Director briefly sketched the company’s background, examining the turnaround of Trimo from 1992 to the present. The basic business concepts of continuous improvement, quality and customer satisfaction were key strategy components for the company’s turnaround. The drivers of change for renewal from 1992 on were manufacturing excellence (*e.g.* productivity and flexibility), responsive product development - the result of an all-pervasive close-to-the-customer philosophy - and extensive “building” of its sales network. Trimo’s turnaround is a result of the following (Trimo 2004, Trimo 2005d): dedication of each employee to the continuous improvement of the business; development of the highest quality product possible and the improvement of both internal and external relationships to maintain customer satisfaction. These are simple principles, the most significant of which is each employee’s dedication to the concept of continuous improvement, because it is the foundation for other two concepts. Dedication to continuous improvement means never being satisfied with the status quo. It means working every day to improve upon the prior day’s performance.

To summarise, the key elements of Trimo’s transformation process from 1992 onwards were the clear vision and business strategy set at the beginning. This vision and strategy have been successfully communicated to all employees. Clearly defined values and norms as building blocks of Trimo’s organisational culture helped to shape employee behaviour to fit the new business philosophy of customer orientation, continuous improvements and TQM. The formalised processes of continuous improvements, TQM key files and care for company property gave employees clear tasks and responsibilities. Consecutive strategic change, following the successful turnaround, was the change from defender to prospector strategy (see: Miles and Snow, 1978). On the contrary, when turnaround was unsuccessful, it would manifest itself in a strong resistance to change and that was not the case in Trimo. As changes usually induce rational and emotional reactions, due to ambiguity felt by the participants in the change process, Trimo could not avoid problems of resistance to changes, especially at the beginning (1992-1995) when employees wondered why they needed to change the old ways of doing things if they all knew the processes very well. Top management has managed to

spread the need to change through constant communication and employee training. This awareness of the need to change is a necessary condition for a successful implementation of changes (Kotter 1996).

In Trimo, they monitor the achievement of strategic goals every six months, while the implementation of annual plans is controlled weekly. Corrective measures are taken as soon as negative deviations are reported. Employees are informed about the company's results in weekly or bi-weekly departmental meetings, in weekly newsletter (on one page), in a quarterly company's magazine and at annual education days where the Managing Director (MD) presents last years' results and future plans. Trimo modifies its strategy according to the changes in its business environment. They have very good experience with flexible actions, as they managed to continually reach or even exceed short- and long-term goals in the last decade. They remain focused on their customers' needs.

Critical success factors that have to be addressed for achieving competitive advantage are people, customers, value added and environment. These factors are considered in the company as follows (Trimo 2002):

- *People*: Employees are the key strength of Trimo. The company's power depends on management and all its employees. Values are team work, goal orientation, creativeness, innovativeness and individual talent.
- *Customers*: Enthusiastic and satisfied customers are the measure of company success. Trimo develops and improves original and complete product and service solutions for its customers.
- *Value added*: Profit and value added growth and cash flow available enable quicker company development.
- *Environment*: They take care to have an orderly factory and are environment-friendly. Employees' health is a value which is accomplished through healthy living.

Trimo measures its performance with respect to the key elements of its strategy. Therefore, it uses a strategic performance management system (cf. Ashton 1997, de Haas & Kleingeld 1999, Ittner *et al.* 2003, Kaplan & Norton, 2001, Nilsson & Olve 2001, Simons 2000). Trimo began implementing strategic performance management in the prospector period when it realised the importance of aligning all levers of control in the company, so that what is critical to the company's success is regularly evaluated and rewarded by using key performance indicators (KPIs). KPIs are used by top management to monitor organisational performance in key strategic areas, as defined by key processes in the company. There are 62 KPIs (cf. Peljhan 2005). 28 of them are included in BSC. In Trimo, managers consider KPIs once a week at the Management board meeting. In diagnostic control, managers use a management-by-exception approach when discussing the reports at the weekly Management board meetings. As its Quality Assurance Director (Trimo 2005b) says: "*Reports contain explanations for KPIs variances and whether they present problems or not*". Only problems (*i.e.* deviations) are discussed and appropriate actions taken. That the changes trigger revised action plans is reflected in the following Quality Assurance Director statement (Trimo 2005b): "*In the weekly meetings in which we discuss KPI for each organisational unit (sector), specific decisions are made about what actions we have to take in case of deviations*". Based on observations, we argue that they have been using a strategic performance management system systematically since 2002. In the following years, they will enhance the capabilities of their system by upgrading it to an ERP system, enabling them to monitor key performance information in real time. Trimo's main performance indicator is

value added per employee. This clearly shows that Trimo is focused on its future development and growth.

Trimo uses balanced measurement systems as a means of communicating to their employees what is important and where the business is heading. Performance measurement systems assist managers in tracking the implementation of business strategy by comparing actual results against strategic goals and objectives (*cf.* Simons 2000). They have used BSC since 2002, although they have measured their performance from a financial and non-financial perspective before. At the moment, they are striving to form efficient functional BSCs. They want to focus especially on reducing the number of measures they are currently using. Although the system is well organised, it has not yet received the full “buy-in” of some managers, as they are still using parallel systems designed in the past. As this is maybe allowed during the “transition” period of applying new performance measurement systems, it must not be tolerated when the new ERP system is fully implemented.

One of the major conclusions with regard to Trimo’s strategy is that the MD’s leadership style is a very important determinant of Trimo’s successful implementation of the strategy. She is very charismatic and capable of mobilising employees towards achieving common goals. In literature, there are discussions about different types of leaders. When looking into the classification that distinguishes transactional and transformational leadership styles (*e.g.* Bass 1990; Bass & Avolio 1994; Tracey & Hinkin 1998; Tucker & Russell 2004), we conclude that she is a true transformational leader with the following characteristics:

- She is a leader of innovation (King 1994).
- She creates new pathways in an organisation (Mink 1992).
- She motivates people to work for a new and greater good and to create change (Davidhizar & Shearer 1997). She appeals to higher motivation and adds to the quality of life of the people and the organisation. She uses authority and power to inspire and motivate people to trust and follow her example (Tucker & Russell 2004).
- She has energy-producing characteristics that generate new changes for the organisation (Tucker & Russell 2004).
- She formulates an inspiring vision, facilitates the vision, encourages short-term sacrifices and makes pursuing the vision a fulfilling venture (Ackoff 1999).

The MD’s characteristics of a transformational leader were essential during the period of strategic change from defender to prospector strategy. As a transformational leader (and of course by the help of whole top management team) she managed to alter the existing structure of the early 1990s and influenced people to buy into a new vision and new possibilities. Based on observations, it is concluded that her primary focus since 1992, when she took on the managing director position, has been to create a change process, continually causing people within the organisation to learn and grow. She builds shared vision and goals and implements them through teamwork and high commitment. Trimo’s management believes that fast and open flow of information, ideas and efficient problem-solving are of key importance in order to follow new trends in business and for implementing all the necessary changes. In order to do that, employees had to change their approach and accept teamwork principles. These principles are used both in managing the company and in actual execution of work.

Information and knowledge from management is transferred to co-workers at weekly meetings. From there, information and knowledge is transferred to different work areas and to other employees. This kind of organisational structure also enables different forms of group work. Teamwork also allows for a better specification of the problems and a faster solution.

Most of the Trimo's practices are congruent with those usually described at prevailing best practices: extensive training and communication, decentralised decision making, teamwork and employee involvement in problem-solving, as well as high job security and fair compensation. These practices help Trimo to build their competitiveness through their people, which is also the underlying principle of Trimo's organisational culture. As such, their approach is difficult to imitate and thus presents a true sustainable source of competitive advantage.

5. Discussion

In the literature review, we have found that strategy plays a key role within MCS, yet this role is not fully understood, although a growing body of literature has examined the impact of strategy on MCS (*e.g.* Chenhall & Langfield-Smith 1998; Chong & Chong 1997; Dent 1990; Dermer 1977; Gosselin 1997; Govindarajan 1988; Govindarajan & Gupta 1985; Ittner & Larcker 1997; Miles & Snow 1978; Miller & Friesen 1982; Otley 1980, 1999; Samson *et al.* 1991; Simons 1987a, 1990, 1995; Young & Selto 1991; for a review see also Langfield-Smith 1997). This study adopts Miles' and Snow's (1978) typology of strategy with four strategy patterns: defender, analyser, prospector and reactor. Considering that many contemporary MCS techniques, such as the BSC, appear to be better equipped for dealing with the information requirements of highly innovative companies, a positive relationship between the strategy type and the extent to which contemporary MCS techniques are used in Trimo was expected. It was postulated that defenders use contemporary MCS techniques (*e.g.* BSC, informal controls) to a lesser extent than prospectors.

The early 1990s represented a defender period for Trimo. The company focused on traditional basic MCS' information (this corresponds to previous findings on defenders, *e.g.* Gupta & Govindarajan 1984; Govindarajan & Gupta 1985; Shank & Govindarajan 1993). Trimo made a very distinctive shift from defender strategy in the period 1992-1998 to a very prospector-oriented strategy in the period from 1998 onwards. In these phases, MCS changes followed strategy changes. This confirms theoretical propositions from section 2. As Trimo has pursued a prospector (*i.e.* differentiation) strategy it has been using external and internal environment-oriented and future-oriented MCS information - in addition to the traditional MCS information - as suggested also in literature (Chenhall & Morris 1986; Chong & Chong 1997; Langfield-Smith 1997; Shank & Govindarajan 1993).

Trimo's managers need this kind of information as the company's strategic mission is to increase market share and pursue strong growth for its operations. Moreover, there was a huge effect of strategic change (from defender to prospector) on the decision context in Trimo. The change process created a context where decision-making by top management became increasingly complex and unpredictable as new opportunities altered strategic objectives and changed the priorities placed on those objectives. Abernethy and Brownell (1999) argue that in this situation, top management is redefining goals and objectives. Also in Trimo, they stated a new vision in 1998 and in 2001 they redefined it even more ambitiously. This was interrelated with more technological and production changes associated with changes in product mix and with new product development and required that new routines be learnt. As Galbraith (1973) notes, these conditions impose additional demands on the organisation's information processing capabilities. That was the case also in Trimo.

When looking at the entire 1992-2004 period, the study's results suggest that Trimo's strategic change from defender to prospector resulted in improved organisational outcomes, as

they responded to changed business conditions by altering structural arrangements within the organisation. We argue that MCS is an intervening variable between company strategy and performance. Also prior results of Chong and Chong (1997) propose that MCS has an intervening role between a company's strategy and performance and other empirical studies (*e.g.* Gul 1991; Gul & Chia, 1994) report that MCS affect a company's performance. The study tested the intervening role of the use of comprehensive MCS between strategy and performance in Trimo during the period 1992-2004. More specifically, the study looked at how the relationship between the strategy moving from defender to prospector and the use of comprehensive MCS evolved during the researched period. It was found that strategy change had a positive relation to Trimo's performance. In addition, as discussed above, strategy change has had a positive relation also to the use of MCS. Trimo has been growth-oriented during the entire researched period (and still is). Also, it has been increasing the use of more comprehensive MCS practices year by year. Furthermore, this use of MCS seems to assist them to perform better year by year. This result also supports the empirical evidence Chong and Chong (1997) have found among larger Australian businesses.

Considering the diffusion of the use of MCS in Trimo, the conclusion is drawn that this company does not fit into the frames of recent research results in Slovenian companies that traditional management tools are dominating the more recently developed and more strategic-oriented practices (*e.g.* Peljhan *et al.* 2005; Tekavčič & Peljhan 2003). Also, when considering the 1992-2004 period, the trend seems to be towards increasing use of the latter type. The findings of the present study indicate that Trimo systematically uses comprehensive MCS information and practices. Some advocates of more sophisticated MCS practices (*e.g.* Chenhall & Langfield-Smith 1998; Dent 1990; Govindarajan 1988; Govindarajan & Gupta 1985; Otley 1980; Samson *et al.* 1991; Simons 1987a, 1990; Kaplan & Norton 2001) have emphasised that the elements of a company's MCS have to be fitted to their special needs. Implicitly, this also means that all MCS information and practices are not necessary and beneficial for every single company, although MCS should be comprehensive enough in order to function as excellent radars. Therefore, lower adoption and usage rates among some of the contemporary alternatives (*e.g.* ABC, ABB) in Trimo may not necessary indicate its poor MCS. Thus, the findings should be interpreted as indicators of MCS diffusion, rather than suggesting the 100 per cent adoption or the systematic use for every single MCS information or practice is an objective and the best solution. Trimo's last 13 years have shown that information technology with various application possibilities, as well as the many developments that have been occurring in the business environments, have had a very positive impact on the use of more comprehensive MCS information and practices.

This study upgrades the existing theory in that it does not only establish a relationship between strategy and MCS, but also considers how this relationship impacts on organisational performance. It is argued that managers and other employees need to display performance-driven behaviour (*i.e.* goal-oriented behaviour) for efficient and effective management control to be achieved. This research shows that the combination of performance-driven behaviour and regular use of MCS leads to improved results. The following factors were identified to influence positively performance-driven behaviour and can be used by other companies:

1. *Employees³ understand the performance management:*
 - Employees understand the meaning of KPIs, so they have an insight into the (possible) consequences their actions have on the results of their KPIs. Here, the most important

³ By employees we mean all organisational members.

thing is the right communication, facilitated also by organisational culture and the leadership style of managers.

- Employees have an insight into the relationship between business processes and KPIs, so they understand that the results they achieve on their KPIs are important to the continuity of the company. It is important to present employees with this process-KPIs relationship at least once a year, *e.g.* in the form of special education days and keep reminding them periodically *e.g.* at departmental meetings.

2. *Employees have a positive attitude towards performance management:*

- Employees recognise and acknowledge the need for performance management, which makes them willing to co-operate during its implementation.
- Employees realise the importance of KPIs to their performance, so performance management becomes part of their daily activities.

3. *Performance management matches the responsibilities of employees:*

- Employees' KPI-sets are aligned with their responsibility areas, so they can be used for the steering and control of those areas.
- When employees influence the KPIs assigned to them, the acceptance and use of those KPIs increases. For example, in the annual appraisal of employees, they must have the possibility to express their attitude to particular KPIs and to influence which KPIs are assigned to them.
- Employees holding management positions use their KPIs for managing their subordinates, which increases regular use of performance management.

4. *Organisational culture is aimed at using performance management to continuously improve:*

- Each organisational unit's results on KPIs are openly communicated, so everyone is aware of the status of the company and performance knowledge can be shared.
- Employees trust the performance information, which increases the acceptance of the information.
- Employees clearly see (top) management using performance management, so they understand the importance of performance management to management and the company as a whole.

5. *Performance management has a clear management control focus:*

- Employees find performance management relevant because it has a clear control purpose and can therefore facilitate their activities.
- Employees find performance management relevant because only those stakeholders' interests that are important to the company's success are incorporated and performance management stays aimed at the continuity of the company.

6. Conclusion

In the paper, implications of MCS in the formulation, implementation and monitoring of strategies were investigated. Ideally, the role of strategy is dynamic, involving managers in continually assessing the way combinations of environmental conditions, technologies and structures enhance performance. MCS has the potential to aid managers in this process by assisting them in formulating a strategy related to markets and products, required technologies and appropriate structures. This study's basic conclusion is that MCS influence the implementation and monitoring of strategies, providing feedback for learning and information

to be used interactively to formulate strategy further. Few studies in MCS have investigated these issues (see: Simons 1987b, 1991, 1994), rather, most have been restricted to identifying MCS that are appropriate for different strategic models (Chenhall 2003). Therefore, the findings of the paper fill this void. This study upgrades the existing theory in that it not just establishes a relationship between contextual (in our case strategy) and MCS variables, but also considers how this relationship impacts organisational performance. The research shows that the combination of performance-driven behaviour and regular use of MCS leads to improved results.

Directions for future research stem from the paper's findings as well as from missed opportunities that indicate opportunities for future research. It would be worthwhile to conduct a longitudinal study on a wider sample of companies to study how and why they change their strategic orientation and the use of MCS and how this has impacted their decision-making, actions and performance management. This study can combine case-study as well as survey methods. The advantage of the present study is that it provides an impetus for future researchers to address these issues and to move beyond existing models of control and begin to systematically explore the different roles served by accounting in the management of change.

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