

Effects of Strategic Change from Defender to Prospector on the Use of Management Control Systems

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Our purpose is to study effects of strategic change on the use of management control systems in a particular company. According to Miles and Snow's (1978) typology, we propose that defenders use contemporary MCS techniques to a lesser extent than prospectors. We find out that in the defender period the company focused on traditional basic MCS' information. Then, it made a very distinctive shift from a defender strategy to a very prospector-oriented strategy. In these phases MCS changes followed strategy changes. As company has pursued prospector strategy it has been using external and internal environment-oriented and future-oriented MCS information in addition to the traditional MCS information. The paper incorporates a wider range of controls, including informal mechanisms (e.g. leadership style, organisational culture), to provide a more comprehensive analysis, as opposed to the majority of prior studies focusing on a more limited range of controls. Therefore, this study argues, that current MCS theory has to be refined in considering more informal controls as catalysts of efficient formal controls.

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1. Introduction

Management control systems (MCS) have to be modified in accordance with the strategy of a company (Simons 1987a). Early studies in contingency research (e.g. Govindarajan & Gupta 1985; Miller & Friesen 1982; Simons 1987a) have found that there are systematic differences in the MCS of companies pursuing differing strategies. Authors (e.g. Fleming 2009; Koberet al. 2007) have highlighted the importance of achieving a fit between a company's MCS and its strategy to enhance performance. This suggests that different types of strategies will tend to cause different control system configurations.

Our purpose is to examine effects of strategic change on the use of MCS in a particular company. In this paper, Miles and Snow's (1978) definition of strategy is adopted. They characterise a company's product market stance as a continuum with 'defenders' (a strategic stance focusing on maintaining market leadership in a limited and relatively stable range of products and services) at one end and 'prospectors' (companies whose strategy involves frequent changes and quick responses to new market opportunities) at the other. Strategic change is defined as the extent to which a company is moving along the defender/prospector continuum (Shortell & Zajac 1990). We propose that defenders use contemporary MCS techniques (e.g. integrated

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performance measurement systems, informal controls) to a lesser extent than prospectors.

Our study contributes to the existing theory on what combinations of management control features are and which combinations are most effective in which circumstances. We have looked especially at tensions and balances among types of control systems (formal vs. informal) to enhance understanding of overall control packages (Sandelin 2008). Our study's contribution is that it incorporates a wider range of controls, including informal (social) mechanisms, to provide a more comprehensive analysis as opposed to the majority of prior contingency studies focusing on more limited range of controls. As such, the results of the majority of prior studies were not representative of the breath of controls used by a company, and do not capture the interactive effects of the broad range of controls.

The paper is divided into six sections. Section 1 is the introduction. Section 2 presents the literature review. Section 3 is the methodological section. The research results are presented and discussed in section 4. A final chapter concludes the paper, summarising the findings and introducing avenues for future research.

2. Literature Review

“Management control is the process by which managers assure that resources are obtained and used effectively and efficiently in the accomplishment of the organisation’s objectives.” (Anthony, 1965). Anthony and Govindarajan (2007) defined management control as the process by which managers influence other members of the organisation to implement the organisation’s strategies. According to Horngren et al. (2007), management control system is an integrated technique for collecting and using information to motivate employee behaviour and to evaluate performance. Management control systems (MCS) have the purpose of providing information useful in decision-making, planning and evaluation (Widener 2007; Merchant & Otley 2007). The focus of MCS is not only on one form of control like performance measures but on multiple control systems working together (Widener 2007; Otley 1980). MCS are intended to help managers to motivate employees to make decisions and to take actions which are in the organisation’s best interest (Chow et al. 1999). MCS thus have two main purposes: providing information useful to management and helping to ensure viable patterns of employee behaviour to achieve organisational objectives.

Strategy is an important factor in the design and use of MCS. Chenhall (2003) argues that strategy is the means whereby managers can influence technologies, the structural arrangements, and the MCS. Institutional and market changes force many organisations to reconsider their strategic position and engage in strategic change (Naranjo-Gil & Hartmann 2007). The management literature has tended to treat strategic change synonymously with organisational change and has provided many diverse definitions and theories of organisational change (Abernethy & Brownell 1999). In our study, we follow the suggestion of Ginsberg (1988) and others (Wiersema & Bantel 1992; Kelly & Amburgey 1991), and define strategic change in the way in which strategy, itself, has been defined in the literature. We adopt Miles & Snow's (1978) definition of strategy (defender-prospecter continuum as discussed in the introduction).

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Strategic change is defined as the change of strategic stance from defender position to prospector position or vice versa in conformity with previous studies (Abernethy & Brownell 1999; Naranjo-Gil & Hartmann 2007). In the paper, we study the strategic change from defender to prospector in a particular company. Companies changing their strategy towards prospector positions typically change towards more flexible and customer-oriented forms, aimed at improving product and service quality to rapidly meet changing market demands (Bouwens & Abernethy 2000; Yin & Zajac 2004).

According to the literature (Miles & Snow 1978; Simons, 1987b; Chenhall 2003) defenders emphasise cost control, trend monitoring and efficiency rather than scanning the environment for new opportunities. They emphasise bonus remuneration based on the achievement of budget targets and tend to have little change in their control systems. They use formal, traditional MCS focused on cost control, specific operating goals and budgets and rigid budget controls. On the other hand, prospectors use comprehensive planning and measure performance more subjectively, attach a great deal of importance to forecast data, setting tight budget goals, and monitoring outputs carefully.

In our study, the following research question has been addressed: How does strategic change (from defender to prospector) affect the use of management control systems (from a holistic perspective)? This research question was not adequately answered by the past studies as the majority of past empirical management control studies focused narrowly on formal systems. Therefore, too few components have been studied at the cost of more comprehensive and integrative approaches (e.g. Merchant & Otley 2007; Ferreira & Otley 2009). It is apparent from the MCS literature that the notion of formal and informal controls provides a basis to elaborate on classifications of controls. Combining formal and informal controls has been important in understanding how MCS can be designed and implemented (Ahrens & Chapman 2004). Therefore, we have adopted a holistic perspective on management control (see: Sandelin 2008).

3. Methodology

To grasp the complexity of strategy-MCS relationship, we adopted a longitudinal case study approach (Yin 2003). The case study company is a large Slovenian manufacturing company, Trimo Trebnje, d.d. (hereafter Trimo) which was investigated during the period 1992 – 2004. The years chosen correspond to the strategic change from defender to prospector as explained in the next section. 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. The criteria for selection of the industry, research period and the research site included a dynamic competitive environment, an advanced technology base, the adoption of a TQM philosophy and its operationalisation through continuous improvement process, strategic and MCS' change, and management commitment for an in-depth field study. Trimo provides a valuable research site for the following reasons. First, it is a leading player in an industry which is highly competitive and increasingly globalised. Second, Trimo seeks to maintain this leading position by drawing on the creativity and innovations of its employees. Third, initial investigations confirmed that Trimo's top management seeks to control strategic activity within the company through a range of MCS.

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We chose the case study as its advantage is that it can 'close in' on real-life situations and test views directly in relation to phenomena as they unfold in practice. The proximity to reality, which the case study entails, and the learning process that it generates for the researcher will often constitute a prerequisite for advanced understanding (Flyvbjerg 2006). 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. Moreover, Henri (2006) indicates that qualitative methodologies would be particularly useful to provide further explanations and new insights into issues concerning relationships between MCS and strategy. Further, Ittner and Larcker (2002) argue that field-based research may be the only way to truly understand the antecedents and consequences of management accounting practices. These are the reasons we decided to use the case study method to investigate effects of the strategic change on the use of MCS and consecutively, to contribute to the improvement and refinement of the existing theory (cf. Eisenhardt 1989; Yin 2003).

In our study, the quality of the research is established using the following four tests common to all social science methods. First, to achieve *construct validity* we used multiple sources of evidence (Yin 2003), establishing a chain of evidence. Also, the draft case study report was reviewed by key informants to increase construct validity (Atkinson & Shaffir 1998; Silverman 1993). Validity of our study was undertaken largely through triangulation (Denzin 1978; Eden & Huxham, 2002; Hussey & Hussey, 1997) as a means to overcome potential bias from using a single method. In particular, we sought to achieve triangulation by using more than one method to answer the research question from several 'angles' as well as more than one source of data. Data were collected from different sources: formal and semi-formal interviews (39) with top and middle managers, observations during site visits, participation at two strategic conferences (2004, 2005), study of internal and external documents, and professional literature. An interview protocol ensured that the same themes were covered with each interviewee (participants' views related to their experiences and opinions on the strategic change and MCS to elicit information required to investigate research question). Notes were taken during interviews. Also, some of them were digitally recorded (and transcribed to ensure accuracy) when agreed with the interviewees. Where this was not permitted we took detailed notes during the interview which we wrote up on the same day. A database of indexes for key topical areas was maintained independently of the hand-written notes and comments on the researched topic to carefully distinguish between the factual information and the more interpretive use of the material in the research results.

In a number of cases, we did follow-up interviews with managers to develop further insights into how employees and the organisation responded to the changes that were occurring in the period from 1992 to 2004. We supplemented data from these interviews with informal conversations, e-mail correspondence, and extensive archival records (including access to internal MCS documents covering budgets, performance measurement documents, reports related to performance evaluation, Trimo's code of conduct and mission statements, and publicity material). Additionally we examined publicly-available data including information from the organisation's web site, other promotional material and evidence from secondary sources including newspaper articles and other media information. During visits to the organisation we were able to directly observe facilities, working conditions and to some extent the way in which interviewees conducted their work.

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Second, to increase *internal validity*, we assured the internal coherence of findings in the data analysis phase, which was achieved by cross-checking the results (Riege 2003). 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. We employed Eisenhardt's (1989) methods to conduct case research (see also Ahrens and Chapman, 2004). This involved arranging the data chronologically and identifying common themes and unique insights and also areas of disagreement or conflict. We then re-organized the original transcripts around key events and issues; and compared emerging findings from our study with existing research. Emerging findings and themes were noted, particularly for further discussion and clarification as part of our follow-up interviews with managers.

Third, the *external validity* test deals with the problem of knowing whether a study's findings are generalisable beyond the immediate case study and has been as such a major criticism in doing case studies. Case studies are generalisable to theoretical propositions and not to populations or universes. In this sense, our case study does not represent a sample, and in doing a case study, the goal is to expand or generalise theories (analytical generalisation) and not to enumerate frequencies (statistical generalisation) (Silverman 1993; Yin 2003). In analytical generalisation, we were striving to generalise a particular set of results to the broader theory.

Fourth, to increase the *reliability* of the study, we kept a detailed account of our activities in a research protocol, which included transcripts of the audiotape recordings from all of the interviews, transcripts of our field notes and observations, and transcripts of the secondary data. Because the goal of reliability is to minimise errors and biases in a study, we enlisted two researchers to conduct the interviews at the investigated companies.

4. Findings and Discussion

At 2005 Strategic Conference, the Managing Director (MD) briefly sketched the company's background examining the turnaround from 1992 to 2005 (Trimo 2005a). We decided to start with our analysis in 1992 as this was very important year for the company. In 1991 Slovenia became independent and the former multi-ethnic state of Yugoslavia fell apart. As a consequence, 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. The major turnaround of the company was achieved in 1992 when new top management was appointed. Today, Trimo is an internationally-oriented company with 77 per cent of exports, mainly in Europe, operating in 45 countries (Trimo 2010). 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. With its business orientation towards offering complete solutions 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 2005b). Trimo builds its strategy of long-term growth of the company on internationalisation (Trimo 2004; 2005a). 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 research period from

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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).

As follows, we provide answer to our research question (How does strategic change affect the use of MCS?). Trimo's MD characterised Trimo's strategic change as follows (Trimo, 2005b): "*Trimo made a very distinctive shift from defender strategy in the period 1992-1997 to a very prospector-oriented strategy in the period from 1998 on.*" In the early 1990s (defender period), Trimo pursued a defender strategy. They paid primary attention to improving the efficiency of their existing operations and offered more limited products than competitors, and competed especially through costs. They engaged in little product and market development (they were more local than global company). At the beginning of the turnaround (1992-1993), they strived to set up their vision, mission and strategy. In this period, Trimo was using traditional MCS information (formal MCS that were based on financial performance measures, mainly traditional budgeting).

In 1998, Trimo achieved the breakthrough in its internationalisation causing the business to expand. 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. From 2001, the product that differentiates Trimo from its competitors has been called 'complete solutions' that Trimo provides to its customers. Although Trimo is a manufacturing company, services (design, projecting, technical service) play very important part in providing the complete solution to their customers. In 2002, Trimo started to implement Balanced Scorecard (BSC) and upgraded Total Quality Management (TQM) programme, which has been the important part of strategic directions of the company from 1992 on. The main novelty was introduction of 'Key Files' as the tool they use for facilitating process improvements. They are facilitated by TQM promoters. Each process improvement is monitored and evaluated through a 'key file' with preset targets and savings estimations.

MD pointed out (Trimo, 2005b): "*Trimo measures its performance with respect to the key elements of its strategy.*" Based on observations and interviews, it is argued that they have been using such strategic performance management system quite systematically from 2002 on. Furthermore, they have enhanced the capabilities of their system by upgrading it to 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. The case study provided us with a very important finding, i.e. the leadership style and organisational culture as informal control systems (that constitute the 'control package' together with formal MCS) present a very critical determinant of Trimo's successful implementation of the strategy, especially in the prospector phase.

To summarise, the strategic change from defender to prospector in Trimo resulted also in MCS' changes. As Trimo has pursued prospector strategy, it upgraded its MCS to holistic MCS combining formal (e.g. accounting systems, BSC, internal controls, profit plans) and informal controls (transformational leadership style, organisational culture),

and balancing financial and non-financial performance measures. MD's characteristics of transformational leader were essential in the period of strategic change from defender to prospector strategy. By the help of the 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. Therefore, we have to emphasise that also MCS (especially informal MCS) played a very important role in facilitating the strategic change. Hence, we see the contribution of our case study in its potential to refine management control theory about the relationship between strategy and management control packages (Keating 1995).

5. Conclusion

Our purpose was to study effects of strategic change on the use of MCS in a particular company. We found out that in the defender period the company focused on traditional MCS' information. Then it made a very distinctive shift from defender strategy in the period 1992-1998 to a very prospector-oriented strategy in the period from 1998 on. In these phases MCS changes followed strategic change. When the case company has pursued prospector strategy it has been using external and internal environment-oriented and future-oriented MCS information in addition to the traditional MCS information.

Moreover, the evidence suggests that appropriate management control packages are not based on a single control element (such as informal or formal MCS), but are focused on combinations of control elements that can support a particular strategic orientation. The results of the majority of prior studies were not representative of the breadth of controls used by a company and do not capture the interactive effects of the broad range of controls. In this respect, this paper contributes to the literature in terms of examination of the broader components of MCS than was previously done. We conclude that leadership style and organisational culture as informal controls have been overlooked in many MCS studies. Therefore, this study argues, that current MCS theory has to be refined in considering more informal controls as catalysts of efficient formal controls. Implications of the strategy for MCS can be properly explored and explained only when paying regard to both, formal and informal controls as a 'control package'.

Our study is subject to the following limitations. First, only one company was studied due to depth and breadth of the research project. Second, both the industry and site were selected based on the preset criteria for selection. In the future, it would be worthwhile to conduct a longitudinal study on a wider sample of companies to investigate 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 and has to include a comprehensive range of controls, including informal (social) mechanisms to further refine the MCS theory, especially the theory on 'control packages' and their relationship with strategic change that is currently lacking.

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