

**The use of management control and performance measurement systems in  
SMEs: A levers of control perspective**

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## **ABSTRACT**

**Purpose:** This paper responds to recent calls for understanding how multiple management control and performance measurement systems are used simultaneously for managing performance, particularly in the context of SMEs.

**Design/methodology/approach:** Data are collected during an in-depth case study of management control and performance measurement and management practices in a Dutch SME using multiple data sources and elicitation methods, including interviews and participant observations.

**Findings:** This study identifies managerial practices that enable the interplay of the four control systems - beliefs, boundaries, diagnostic and interactive – helping the organization manage organizational tensions in relation to short- and long-term focus, predictable goal achievement and search for new opportunities, internal and external focus, and control and creativity.

**Research implications/limitations:** This article advances the research on integrating multiple aspects of performance management, particularly technical and social. This research is based on a single case study; future qualitative and quantitative studies could explore the interplay between the four control systems in other settings and explore the relationship between control systems and leadership style.

**Practical implications:** Managing performance requires active and continuous use of all four control systems. This is particularly salient in SMEs where less formal controls play a key role and where balance needs to be ensured despite the lack of managerial processes and capabilities.

**Originality/value:** The findings advance performance measurement and management theory and practice in the context of SMEs.

**Paper Type:** Research paper.

**Keywords:** Performance measurement, performance management, management control, SME, levers of control.

## **Introduction**

Over the past two decades, the focus of research in management control (MC) and performance measurement (PM) has shifted from exploring the design and implementation of MC and PM systems to understanding how these systems are used and what their effects are (Hudson et al., 2001; Franco and Bourne, 2003; Pavlov and Bourne, 2011; Bititci et al., 2012). Various empirical studies have demonstrated that these systems can help organizations implement strategy, promote positive behaviours, and improve performance both in the short and in the long term (Franco-Santos et al., 2012; Koufteros et al., 2014; Micheli and Mura, 2017). On the other hand, when consideration is mainly given to technical issues, such as the design of targets and measures, and social aspects are neglected (e.g., individuals' understanding of the roles of measures and uses of performance information), effects of MC and PM systems tend to be negative (Smith and Bititci, 2017).

Importantly, the majority of empirical studies have been conducted in large companies and evidence is lacking in relation to how MC and PM systems are used in small and medium-sized enterprises (SMEs) (Bourne et al., 2000; Garengo et al., 2005; Brem et al., 2008; Bititci et al., 2012). This is problematic, not only because SMEs make a considerable contribution to economic growth and employment, but also because they display specific characteristics that differentiate them from large firms. For example, SMEs tend to be more flexible and capable of innovating, but they are bound by more stringent human resource and financial constraints, and rely on less formal managerial processes and systems, including MC and PM ones (see, e.g., Ghobadian and Gallear, 1997; Nandan, 2010). Nonetheless, they still need to foster behaviours that are consistent with the company's aims and values, create sufficient organizational alignment, and understand and

improve performance (Hudson-Smith and Smith, 2007) – the very tasks that are often enabled by formal control systems in large firms (Kaplan and Norton, 2008).

SMEs' success also depends on their capacity to *balance* short- and long-term objectives, internal and external focus, control and creativity, and the implementation of the current strategy and the development of a new one (Simons, 2000; Frow et al., 2005; Tuomela, 2005; Henri, 2006; Mundy, 2010; Speklé et al., 2017). However, various authors have emphasized that SMEs' underdeveloped management processes and capabilities as well as lack of resources prevent them from achieving such balance (Garengo et al., 2005; Fuller-Love, 2006; Hudson-Smith and Smith, 2007). Moreover, although empirical studies have described various frameworks and high-level processes, what these organizations can actually do to measure and manage performance remains poorly understood (Ates et al., 2013; Bianchi et al., 2013).

SMEs' economic relevance and specific characteristics, the importance of balancing different organizational demands, and the dynamic interplay of formal and informal systems make these organizations an ideal context to investigate fundamental issues in performance measurement and management theory and practice, such as how technical and social controls can be combined (Bititci, 2015). This study therefore sets out to understand how SMEs can use multiple control systems to effectively measure and manage their performance.

Specifically, we conducted an in-depth, case-based study of MC and PM practices at a small-sized Dutch company - Superior Manufacturing Group Europe (SMGE). Data were collected over a period of 17 months, using multiple data sources and data elicitation methods, including interviews and participant-observations. Given the importance of balancing both technical and social forms of control in SMEs, the conceptual framework employed in this study is the levers of control (LOC), which argues that organizational performance is managed through

a set of four systems (beliefs, boundary, diagnostic and interactive), and which has at its core the notion of balance (Simons, 1991, 1995, 2000). Specifically, Simons (1995) argued that, to achieve balance, organizations should use the four systems simultaneously, as they are interdependent and complementary. Because of its explanatory power, the LOC framework has played a prominent role in studies of MC and PM in management accounting research (Tuomela, 2005; Widener, 2007; Mundy, 2010; Henri, 2006; Kruis et al., 2016) and in operations management (e.g., Koufteros et al., 2014), but rarely in the context of SMEs (Heinicke et al., 2016; Massaro et al., 2017).

This research makes four main contributions to theory and practice. Firstly, it provides an insight into how MC and PM systems are used in an SME and how these systems can help this type of firms deal with challenges specific to them. Secondly, it explores interdependences among the four levers of control and identifies specific practices through which different levers of control are jointly used to manage organizational tensions. Thirdly, by employing the LOC framework as a theoretical perspective, the study responds to recent calls for integrating both technical and social aspects of managing performance. This is particularly important for the study of MC and PM in SMEs, as formal and informal, technical and social, and organizational and managerial issues are closely intertwined in such organizations. Finally, although many previous studies have focused on the tension between two levers of control – diagnostic and interactive – this study extends this conversation to consider all four LOCs and elucidate the interactions between them.

The paper is organized as follows. The foundational literature and the conceptual framework of the study are presented in the next section. Subsequently, we describe the research design and methods employed. These are followed by the findings. The discussion of

contributions, the limitations of the study, and the suggested avenues for further research are presented in the final section.

## **Literature review**

### *Research on MC and PM*

Management control and performance measurement are fundamental organizational processes, which have attracted the attention of academics and practitioners alike in the fields of operations management, management accounting and strategy (Franco-Santos et al., 2007; Melnyk et al., 2014). Management control has been defined as “the formalized routines and procedures that use information to maintain or alter patterns in organizational activity” (Simons, 1991, p. 49); performance measurement as a formal process, which aims to obtain, analyze, and express information about an aspect of a process, an activity or a person (Micheli and Mari, 2014). Thus, both MC and PM are processes related to the acquisition and use of information that aim to guide and influence behaviours and actions. In some cases, PM systems have been characterized as a type of management control system (Koufteros et al., 2014).

Research on MC and PM has progressively shifted from the design and implementation of MC and PM systems to their uses and impacts (Widener, 2007; Pavlov and Bourne, 2011; Bititci et al., 2012; Melnyk et al., 2014). Empirical studies have found that effects can be positive, for example in terms of employee engagement and performance improvement (Franco-Santos et al., 2012); however, they depend on the way these systems are used and how they interact with each other (Henri, 2006; Pavlov and Bourne, 2011), as in the case of budgeting and performance measurement systems (Malmi, 2001; Wiersma, 2009). Moreover, scholars have recognized that PM systems need to be seen as both technical and social mechanisms and have called for more

research into the relationship between PM systems, organizational culture, and management style (Bititci et al., 2012).

In terms of empirical contexts, many studies have focused on large private firms, often to assess the design, implementation and use of popular frameworks such as the Balanced Scorecard (BSC) (Kaplan and Norton, 1992; 2008; Malina and Selto, 2001; Micheli and Mura, 2017). Some have concentrated on SMEs and argued that scorecards can be equally useful in small and large companies (Monk, 2000; Laitinen, 2002; Gumbus and Lussier, 2006; Giannopoulos et al., 2013; Basuony, 2014). For example, Basuony (2014) suggests that the main benefit of using the BSC in SMEs is to promote a focus on the company's vision and strategic objectives, as well as initiating discussion about underlying assumptions of the business model. However, this study stops short of explaining in sufficient depth how SMEs could actually use this kind of PM system. Similarly, Gumbus and Lussier (2006) conduct three case studies, but do not provide a clear depiction of how the BSC was implemented and used. Wiesner et al. (2007) explore the adoption of high performance management practices – for instance in relation to PM, compensation and strategic planning - in SMEs, but do not explain how these should be tailored to the specific needs of these firms. On the basis of research carried out in 15 small Finnish companies in financial distress, Hakola (2010) suggests that the BSC can be used as a comprehensive tool to recognize and improve the most critical performance aspects during the process of reorganization, thus increasing the companies' chances of survival. This is in line with the case study undertaken by Bianchi et al. (2013), which concludes that adequate design and use of PM systems can lead to the identification of strategic resources driving performance and sustainable development in SMEs. On the other hand, neither study appears to take sufficiently into account the specific features of small and medium-sized enterprises. Indeed, the majority of articles that have investigated the role of MC

and PM in SMEs have been either descriptive or prescriptive, but not sufficiently explanatory. In particular, they have rarely discussed in depth how specific characteristics of SMEs could enable or hinder the introduction of PM systems, and why they might require an approach and a set of practices different from the ones adopted in large firms. In the next section we first review SMEs' most significant characteristics and then introduce the levers of control as the main theoretical framework for this study.

### *Characteristics of SMEs' management practices*

SMEs are critically important contributors to economic growth through innovation, job creation and formation of new industries. For example, within the EU-27, SMEs account for about 60% of the GDP, while their contribution to value added and share of employment are 58% and 67%, respectively (European Commission, 2013). SMEs are often successful thanks to their flexibility, dynamism and capacity to innovate (Laforet, 2013). However, about half of start-ups fail in the first five years and many struggle to grow, partly because of SMEs' limitations in terms of both managerial abilities and resources (Fuller-Love, 2006). Indeed, SMEs tend to be severely constrained in terms of management, manpower and financial resources; struggle to formulate coherent strategies and plans; focus on short-term priorities, which in turn trigger reactive behaviours and a fire-fighting mentality; and often rely on tacit knowledge that is rarely shared (Garengo et al., 2005; Hudson-Smith and Smith, 2007; Brem et al., 2008; Bianchi et al. 2013; Ates et al., 2013; Saunila, 2016).

The lack of advanced management practices and tools has been identified as a major barrier to growth (Leach and Kenny, 2000) and a key cause for SMEs' failure (Fuller-Love, 2006; Ates et al., 2013). In this context, research indicates that MC and PM systems could play a considerable

role in supporting the development of SMEs and in helping them pursue both short- and long-term goals (Garengo and Bititci, 2007). However, these systems, while promoting organizational alignment, should still enable SMEs to retain their agility, flexibility and capacity to adapt to changing circumstances (Andersen et al., 2003).

#### *The levers of control framework*

To study the role of MC and PM in the context of SMEs, which have to balance multiple business demands without relying on either overly formal or excessively informal controls, we adopt the levers of control (LOC) framework, originally developed by Simons (1991, 1995, 2000). We do so, as this framework makes it possible to consider different management control systems jointly, to identify their main roles in an organization, and to examine in depth the concept of ‘balance’ (for similar but alternative approaches, see Marginson, 2002; Ferreira and Otley, 2009; Merchant and Van der Stede, 2012).

Simons (1995) suggested that four types of management control systems – beliefs, boundary, diagnostic, and interactive – work together to benefit a firm. Beliefs systems, such as mission and vision statements, communicate and enhance core values that should inspire employees for creative and entrepreneurial thinking and guide them in their search for opportunities and new solutions. Beliefs systems are needed to ensure clear guiding principles that define the patterns of desirable behaviour in relation to the core elements of an organization (e.g., values, purpose and direction), the level of performance the organization strives for, and the expectations for managing internal and external relationships (Simons, 1995).

While beliefs systems embody an underlying positive attitude and thinking, boundary systems follow a somewhat opposite logic. These systems, which include codes of conduct,

threshold targets and risk registers, communicate which behaviours are considered undesirable, which minimum levels of performance must be ensured, and set the limits to the search for new opportunities.

Diagnostic control systems aim to promote the attainment of goals. For example, budgets and performance indicators can be utilized diagnostically to help organizations monitor their processes and results, to track progress towards goals, and to establish whether the desired levels of performance are being achieved (Tuomela, 2005; Koufteros et al., 2014). Diagnostic systems provide feedback and act as a mechanistic type of control (Pavlov and Bourne, 2011) that is aligned with the notion of ‘single loop’ in organizational learning (Argyris and Schön, 1978).

While performing an essential function, diagnostic control systems, with their focus on understanding and monitoring current performance, can also discourage managers from pursuing innovation in their processes, products or services (Henri, 2006). Therefore, various scholars have emphasized the importance of interactive control systems that are used to initiate strategic dialogue, identify opportunities and trigger change (Bisbe and Otley, 2004; Marginson et al., 2010; Pavlov and Bourne, 2011). Managers use indicators, targets, and plans interactively by involving themselves in the decisions of subordinates, focusing employees’ attention on critical areas, and actively engaging in dialogue and discussion (Simons, 1991; Widener, 2007), thus activating a feedforward mechanism (Pavlov and Bourne, 2011) aligned with a more organic type of control and ‘double loop’ learning (Argyris and Schön, 1978). When used interactively, MC and PM systems can help develop and renew strategy (Abernethy and Brownell, 1999; Simons, 1991; Mundy, 2010), rather than simply support the implementation of the existing one, as in the case of diagnostic control. The main artefacts, roles and intended outcomes of the four LOCs are summarized in Table 1 (see also Marginson (2002) and Mundy (2010)).

Table 1: Main artefacts, roles and intended outcomes of the levers of control.

| <b>Levers of control</b> | <b>Main artefacts</b>  | <b>Roles</b>  | <b>Intended outcomes</b>  |
|--------------------------|--|---|---|
| Beliefs systems          | Mission, vision, and value and credo statements  | To communicate and strengthen core values and priorities related to different stakeholders and financial success  | Shared vision and values; the workforce is inspired, motivated and committed  |
| Boundary systems         | Codes of conduct, risk registers and indicators, threshold targets, activities explicitly categorized as off-limit, existence and enforcement of sanctions | To limit behaviours, identify minimum levels of performance, and to communicate risks that must be avoided or minimized   | Employees operate within defined constraints  |
| Diagnostic systems       | Budgets, performance indicators and targets, rewards   | To monitor and evaluate the progress towards goals, and indicate corrective actions   | Achievement of critical success factors; implementation of deliberate strategy  |
| Interactive systems      | Strategic plans, scenarios, performance indicators and targets   | To trigger face-to-face discussion and dialogue about performance; to continuously examine and challenge the assumptions underpinning the current strategy; and to allow for a new strategy to emerge | Managers and employees identify strategic uncertainties and opportunities, develop an alternative strategy, and modify existing MC and PM tools |

Although different, the four levers are interdependent and appear to have a more positive effect on performance when considered together than when developed and utilized separately (Widener 2007; Bellora and Gunther, 2011; Speklé et al., 2017). For instance, empirical studies suggest that, if effectively deployed, beliefs systems positively influence the other three, as they provide broad

guidance and help motivate individuals to improve current performance and search for opportunities (Widener, 2007). Also, interactions between levers should be carefully considered as they may otherwise create tensions between ensuring the achievement of an organization's goals (the traditional "controlling use"), and the search for new possibilities and ways to improve and innovate current practices (the so-called "enabling use") (Simons, 1995; Chenhall and Morris, 1995; Bisbe and Otley, 2004; Henri, 2006; Marginson et al., 2010; Mundy, 2010; Kruis et al., 2016).

For example, Mundy (2010) found that managers achieve balance between predictable goal achievement and creativity through the simultaneous use of MC systems in controlling and enabling ways. Importantly, balance does not imply equal weighting for the four levers, as decisions over which ones to emphasize depend on strategic and contextual factors. Also, balance can mean different things to different organizations and can be achieved in diverse ways. Indeed, in their study of MC practices, Kruis et al. (2016) identified four distinct patterns of balance, which appear suitable to different strategic intents (vigilance, exploitation, responsiveness, and stability).

While insightful, extant research has two main limitations. First, while some authors have empirically investigated how balance can be achieved effectively, they have not examined how balance can evolve over time and be open to managerial intervention, as strategic objectives and environmental conditions change (Mundy, 2010; Speklé et al., 2017; Kruis et al., 2016). An exception is Sandelin's (2008) exploration of a relatively small, but growing, entrepreneurial owner-managed company. Results suggest that an effective combination of controls depends not merely on contingent factors (lifecycle phase, history, managerial preferences and institutional environment), but also on the managerial response to those contingencies. The author suggests that

future research should be carried out on the management challenge of balancing conflicting interests and demands as well as understanding the very act of balancing (Sandelin, 2008).

Secondly, while some authors have considered the entire LOC framework into account (Tuomela, 2005; Widener, 2007; Mundy, 2010; Kruis et al., 2016), many have chosen to focus only on the diagnostic and interactive systems (see, e.g., Abernethy and Brownell, 1999; Bisbe and Otley, 2004; Henri, 2006). While this is potentially appropriate in the context of large firms, neglecting the roles of beliefs and boundary systems can be problematic in the case of SMEs, as the latter are likely to have fewer formal MC and PM tools that are used in diagnostic and interactive systems (e.g., strategic plans, budgets, performance targets and indicators, and financial rewards). Instead, values and vision (often communicated by the owner-manager) and the explicit identification of requirements and constraints are likely to be present and to play significant roles.

In sum, on the basis of the literature reviewed, it is clear that understanding the interplay between MC and PM systems is important, and that the levers of control framework constitutes a suitable theoretical lens for studying this phenomenon, especially in the context of SMEs. However, despite findings drawn in past research, the question of how SMEs measure and manage performance remains open. In particular: how are MC and PM systems used to deal with SMEs' specific management challenges? How do SMEs utilize different MC and PM systems simultaneously to manage the identified organizational tensions?

### **Research design and methods**

This study adopts an action research approach based on a single qualitative case study. The need for qualitative work on SMEs has long been recognized (Garengo et al., 2005; Ahrens and Chapman, 2006). In particular, case studies are especially appropriate for answering the “how”

type of questions and gaining insight into complex phenomena in their natural settings (Voss et al., 2002). This aligns with the focus of this research on understanding how the interactions between different control systems enable SMEs to manage performance effectively. Although case studies were originally employed for theory building (Eisenhardt, 1989), their use extends beyond pure induction and includes theory elaboration (Ketokivi and Choi, 2013), making them appropriate for this study, which draws on an existing but underdeveloped theoretical base.

The study was conducted using an action research method (Westbrook, 1995), which involved a series of interventions in the case organization over an extended period of time. This allowed the researchers to adopt multiple roles and collect data through various sources, such as semi-structured interviews, participant observations, and documents. The intensity of researcher involvement required by the action research approach and the focus on gaining an in-depth understanding of the tensions involved in managing performance in SMEs limited the sample to a single case. This is consistent with the literature, which has relied on single case studies for maximizing learning about similarly complex phenomena where prior knowledge was limited (e.g., Naor et al., 2015; Pellinen et al., 2016; Beer and Micheli, 2017).

#### *Case selection and company profile*

This study was conducted in 2014-2015 in Superior Manufacturing Group Europe (SMGE), a small-sized company located in Barendrecht, the Netherlands. The company was initially approached due to its reputation for achieving and sustaining positive financial results and for its approach to measuring and managing performance. Garengo and Bititci (2007) suggest that the development and use of PM systems in SMEs is shaped by four factors: the governance structure, the strategy or business model, the management information systems, and the

organizational culture and management style. The review of these factors obtained during initial visits at SMGE suggested that the number and diversity of control systems within the company provided a rich context for studying the tensions inherent in managing performance in SMEs. Moreover, the management team was willing not only to share information, but also to develop their approach further.

SMGE operates on the basis of a Business-to-Business (B2B) model, selling commercial and industrial floor matting for professional use. The company was established in 2000 as a subsidiary of Superior Manufacturing Group, Inc., a privately held company headquartered in Chicago, USA. By 2014, SMGE had grown its customer base to over 1,000 customers located in more than 40 countries, employed 27 people, and generated revenues of €10 million with an EBIT of 20%. The company was run by a management team consisting of the Managing Director, Financial Controller, Marketing Manager, Sales Manager, Operations Manager, and Knowledge Manager.

Despite being a subsidiary, SMGE operates as an independent “managerial company” (Garengo and Bititci, 2007), with a separate business model and a top management team that has the freedom to decide on strategy, set objectives and run the operations, providing the parent company with a short summary of business results. Under the leadership of this team, SMGE developed a complex set of mechanisms for managing performance. In the early years, the Managing Director emphasized the core values of continuous improvement and knowledge sharing, which, coupled with a strong interest in the needs of end users, led to the development of a culture of learning and innovation. This was supported by implementing appropriate systems and changing the physical design of the office. The company developed an electronic repository of documents and required all sales representatives to upload their customer-related notes onto the

system in order to grow the knowledge base and support knowledge sharing. The physical layout of the premises was also changed, eschewing traditional offices in favor of a design that enabled spontaneous interactions between individuals.

However, following initial success, in 2008 the Managing Director recognized the need for a more structured approach to understanding and managing the drivers of performance, and in 2010 the Balanced Scorecard (BSC) was introduced. Although technically a formal PM system derived from strategy (Kaplan and Norton, 2008), the BSC was developed in a bottom-up fashion, reflecting the collaborative and collegiate culture of the company. Each employee was consulted about the objectives within the four perspectives of the BSC, and the process was driven by questions such as: what is the unique value that we offer to our clients? How do we differentiate from our competitors? How can our success be sustained and increased?

Once in place, the BSC was used in multiple ways. As a PM system, it supported the budgeting process and provided ongoing information about the key dimensions of performance. More importantly, however, the BSC formed the basis for the weekly Monday Morning Management Meeting (the so-called '4M') attended by the entire management team and chaired by the Managing Director. The purpose of the 4M was to review the performance of the previous week and to coordinate the activities for the current week. Each manager prepared and delivered a report, which was structured around the objectives of the BSC. The presentation of reports was followed by opening up a free-flowing dialogue and collective reflection on the performance information. Although the data were available in the reports, the 4M was considered to be indispensable for sharing perspectives, making sense of the operational and market reality, and informing subsequent actions. In this sense, the BSC provided the structure for an ongoing conversation about performance.

### *Data Collection*

The research involved an in-depth participative immersion in the research site, which took more than 17 months, resulted in approximately 62 hours spent in the company, and was conducted in two phases. The aim of the first phase (January - April 2014) was to examine the existing management practices and provide the basis for designing a subsequent intervention. At this stage, data were collected through semi-structured individual and group interviews with the management team and through non-participative observation of the management team meeting, resulting in a total of 26.5 hours of data collection spread over six non-consecutive days. All managers were interviewed more than once for two main reasons: first, new topics and questions emerged during data collection and required further investigation; second, repeated conversations helped verify the insights drawn from previous interviews. This iterative approach aided reflection on the part of the researchers and enabled the introduction, questioning and refinement of the research protocol, as multiple rounds of interviews supported the development and adjustment of the initial theoretical framework. In particular, repeated mentions of the relationships between formal control systems and the company strategy, culture and capacity to innovate led to a broader scope of research than originally envisaged.

This phase concluded with a case study that was written and presented to the management team in September 2014. The case raised a number of questions about performance management at SMGE, and the company decided to conduct a formal in-depth review of the existing PM system.

The second phase of the study (September 2014 - May 2015) involved the researchers designing and carrying out a number of interventions. In this phase, the first author facilitated 11 workshop sessions for a total of 32 hours with the management team, focusing on the identification

of strategic objectives and the corresponding indicators, targets and initiatives, and helped develop the company's Strategy Map (see Appendices 1 and 2). The data were collected through participant observation, interviews, and documents, which included internal files, e-mail correspondence, and multiple reports and studies conducted at SMGE in the past.

### *Data Analysis*

A dynamic interplay between collection, analysis, and interpretation of data characterized the entire research process, as initial insights were continuously discussed and validated with the management team. In practice, the interviews were transcribed and the documents and notes from each meeting and session were organized to enable analysis. The main analytical procedures involved coding the text from multiple sources into the categories of an *a priori* theoretical coding framework (Miles and Huberman, 1994; King, 2004) grounded in the literature on the levers of control and summarized in Table 1. Throughout the coding process, the codes were iteratively compared against the main artefacts, roles, and intended outcomes of the four levers of control identified in the literature. However, in order to examine the tensions between the levers of control and thus enable theoretical development, the coding process also allowed new categories to emerge through the traditional combination of open and axial coding (Strauss and Corbin, 1998).

The long time spent with the company, the participative nature of the research design, and the diversity of data collection methods improved the reliability and trustworthiness of data analysis in several ways. First, the data were triangulated across multiple sources and methods to reduce bias (Denzin, 1978). Second, the emergent findings were continuously validated through conversations with the respondents. For example, the case study written at the end of the first phase was presented to all members of the management team and their feedback informed subsequent

analysis. Finally, the deep involvement in the decision making of the case company allowed the researchers to improve their knowledge of SMGE, its organizational culture and dynamics, thus building an interpretive base for analyzing the findings.

## **Findings**

We begin this section by providing an overview of MC and PM systems at SMGE using the levers of control framework. Subsequently, we present two in-depth illustrations of how these systems are used: the first examines the use of MC and PM systems at the management team level; the second one describes how these systems are utilized to empower and direct employees in the sales department. Lastly, we show how MC and PM systems are used at SMGE to address the management challenges inherent in SMEs and balance various organizational tensions.

### *Management control and performance measurement at SMGE*

Beliefs systems are extensively used at SMGE. The company strives to be the leader in its industry and expresses its main organizational values as: focus on quality, superior service, exceptional buying experience and customer support. Strong values also guide the way individuals are expected to manage external and internal relationships. Externally, the company wants to engage and provide a personal touch to the relationship with the client. Internally, the main values include open and sharing culture, low power distance, sharing success and failures. As the Managing Director stated: *“employees feel safe to speak up. If there are problems, people talk about it. This is the culture where people are not afraid to stick out their neck and express what happens within the team.”*

The Managing Director embodies and constantly emphasizes these core values, as they are a fundamental part of a beliefs system that defines and guides desired behaviour. Managers also engage with this system informally: while eating or traveling together, they mention the core values, relate them to current targets, and sometimes discuss the potential need for changes. In these conversations, the core values take concrete shape, become part of the company's folklore, and get disseminated through storytelling.

Boundary systems are in place mainly to ensure a minimum level of performance in relation to specific activities. For example, requirements include: maintaining on-time shipment (delivery within 24 hours after ordering); responding to clients' complaints within 24 hours and offering a solution within five days; and responding to clients' questions and inquiries within the same day. These requirements are used consistently and service excellence is regarded as a major driver of success.

In terms of diagnostic systems, until 2008 SMGE had relied on budgeting and a set of performance indicators to track and report its performance. Key performance indicators, utilized weekly or monthly, were mainly financial (e.g., liquidity, profitability, inventory turnover) and operational (e.g., backlogs). Over time, to ensure real-time monitoring of performance, screens showing real time and cumulative sales data were installed throughout the offices and corridors.

Following the introduction of the Balanced Scorecard in 2010 – accompanied by the Strategy Map in 2015 – interactive control systems have gained more prominence. While budgets and a list of selected KPIs are still utilized to monitor and control performance, the use of the BSC at 4Ms helps structure the dialogue around the organization's performance and its main drivers. Even more, as the Managing Director argued: *“the introduction of the BSC created focus on those*

*[strategic] elements ... that are easy to remember and easy to create excitement on. In this way BSC created magic.”*

Although the managers tend to receive most performance data before the meetings, the discussion of what is included in the BSC enables them to consider different perspectives and to discuss relevant aspects in relation to the company's processes, results, clients and markets. Performance information is also considered from the perspective of the core values of the business (and the derived rules that are in place) to help interpret the events, but also to give meaning to core values and boundaries themselves, i.e., to probe, strengthen and share them.

At the company level it is also possible to notice how different levers interact. For instance, SMGE has very well developed information systems, and uses ERP and CRM systems to support the diagnostic use of budgets and KPIs. However, the display of information also helps increase employees' involvement and commitment and trigger a more interactive use of information. Similarly, since SMGE decided to work through distributors rather than to sell directly to the end customers, it has limited contact with the users of its products, thus potentially limiting learning and subsequently undermining the core value of innovation embodied in its beliefs system. However, this is counteracted by a boundary system rule that stipulates that all clients who spend more than €50,000 must be visited at least once a year.

#### *Simultaneous use of different levers of control*

We now provide two salient illustrations of how SMGE used different LOCs simultaneously to manage organizational performance. In order to denote the interactions between the individual LOCs we observed, throughout this section we abbreviate the terms beliefs (Bf), boundary (B),

diagnostic (D), and interactive (I) and show the effect of one system on another in pairs; for example, the effect of the beliefs system on the diagnostic system is shown as BfD.

*Management meeting.* As described earlier, a core element in managing performance at SMGE is the Monday Morning Management Meeting (4M), which is chaired by the Managing Director and where individual managers' reports are followed by a dialogue that enables collective sensemaking. The reports usually contain financial and non-financial indicators, and the discussion revolves around topics such as sales (to investigate important inquiries that can turn into orders), supply chain and logistics (to organize the incoming supplies), operations (to handle the incoming containers), knowledge management and marketing (to reuse the existing materials in order to supply relevant information to clients) as well as significant orders and the resolutions of customer complaints. The 4M creates a positive environment where the tensions between multiple LOCs are managed simultaneously with an eye towards improving organizational performance.

For example, the yearly budget, which informs all managers' reports, is consistent with SMGE's vision, mission and long-term strategic objectives, contains specific targets, and supports the implementation of the intended strategy (BfD). Similarly, the 4M emphasizes the discussion of budget variance figures, particularly about sales, but also about inventory levels and costs. The whole management team is involved in the discussion about the reported results and events, and therefore the issues are considered from different functional perspectives, taking into account market trends and feedback received from clients (DI): *"the estimation of the sales for the future period is really a team effort as it is about knowing your market, following trends in different geographical segments we operate in and also knowing dynamics of exchange rates"* (Managing Director).

The dialogue that emerges during the 4M is structured around the strategic objectives defined in the BSC: *“the information that we share during the meeting and that we [voluntarily] report to the parent company is all organized around the BSC that provides the structure”* (Managing Director). The insights from this discussion become the input for the formulation of performance targets for the following year (ID).

During the discussion, individual views are communicated, exchanged and compared until a shared understanding is reached. This dialogue gives fresh meaning to the core values, verifying, sharing and strengthening or adjusting them (IBf). When considering specific issues in the reports, the assumed relationships between strategic objectives and performance standards are challenged to test if they still hold (e.g., is fast delivery really what makes our clients happy and is that likely to continue in the future?) (IB). Superior achievements are also observed from the perspective of the company’s chosen strategic approach, thus reinforcing the core values (DBf). Likewise, during the 4M, the existing rules are challenged and put into broader perspective. Very often stories about past events are told, which give more meaning to the rules that are in place (IB): *“everyone knows the story of IKEA. ... by responding to their repeated complaints and requests to solve their problem we came up with a new product line”* (Managing Director).

The performance data are also used to support non-negotiable standards. For example, one of the promises the company gives to its clients is that the orders will be delivered within 24 hours. For that reason, backlogs are monitored and discussed daily and reported regularly (BD). Backlog figure variances and the reasons behind them are also discussed with the aim to learn from the mistakes and make improvements in the future (DI): *“during the meetings we celebrate success. We also talk about mistakes, and we try to see how we can learn from them”* (Managing director).

Through the dialogue at the 4M, the company's core values are used to inspire and guide the search for new opportunities. By doing that, the beliefs system is used as a powerful lever of control. The ideas exchanged at the 4M are themselves clearly influenced by SMGE's values: take care of the client, discuss and cooperate in order to find the best solutions, share both success and failure and learn from them (BfI). Moreover, the nature of the dialogue at the 4M is shaped by the open and low power culture, where people are encouraged to voice their views and are not afraid to question, to share, or to suggest alternative perspectives (BfI): *"I have trust in my management team. If someone makes a comment or observation, they probably had a good reason to do so. So I really try to understand what they meant and why they said it"* (Managing Director).

*Managing the sales department.* The simultaneous use of multiple LOCs is also evident in the way SMGE manages its sales department. Every Monday, following the 4M, a sales meeting takes place. It is chaired by the Sales Manager and attended by all sales representatives and the Managing Director. As in the case of the 4M, the sales representatives prepare a short report showing the previous week's data, including most significant orders, promising prospects and significant issues (e.g., complaints, inquiries). An open discussion follows, where the sales representatives provide valuable insights into the clients' behaviours and needs, and the senior managers help the sales force interpret the data in the broader context of strategic uncertainties and critical success factors. The interactive use of the data stimulates the process of exchange, collective thinking and reflection through dialogue. While managers implicitly use the BSC to define the structure for both reporting and discussion and to determine priorities in specific situations, it is the continuous and open dialogue in the meeting that enables collective learning (DI). An interesting feature of the

sales meeting is that rules, such as responding to clients' inquiries, are treated as thresholds and monitored through the reporting system (BD).

The simultaneous use of multiple LOCs extends beyond the meeting. For example, the core values have been translated into specific rules that explicitly guide the activities and communicate what is expected from the sales representatives (BfB). The Managing Director emphasized this point: *“if we want to be become a leader, we need to start to behave like a leader. We want to convey the perception of quality through marketing materials and every form of communication. Further, the product finishing, packaging, labeling, handling and shipping are all important aspects that should reflect an image of quality.”*

However, one of the issues in managing the sales force is that in the short run the responsibilities of sales representatives can be conflicting. For example, they need to follow the professional norms and the company procedures while at the same time fit the culture that emphasizes creativity. SMGE recognizes this challenge and looks to recruit people who can balance this tradeoff (BBf and BfB): *“For this task you need a particular profile of a person that can comply with the rules, but is also comfortable with having freedom. In other words, we are looking for a sales person who can accept the rules, but can, within these rules, perform a task in a different, creative way. These ways are different because we are really international and for each region the sales person is a native and knows exactly how to talk to a client from that region and what makes them tick. It is all about setting boundaries but also giving freedom”* (Sales Manager).

Similarly, sales representatives are responsible for achieving targets while being required to contribute to the attainment of strategic goals formulated in the BSC such as *improve the quality of experience* and *responsiveness to inquiries and leads*. Such tensions are also managed by the

simultaneous use of multiple LOCs. For example, in order to contribute to the improvement of the quality of service, sales representatives are expected to respond promptly to the client's complaint. Dealing with the complaint, however, slows down the progress towards reaching the sales targets. In order to manage this tension, SMGE explicitly incorporates its core value of customer centricity in the design of the sales report, requiring the sales representatives to report both on the generation of new business and on the quality of service in the same document (BfD): *"I use several control elements.... Some of them are very explicit, such as a sales target or a request to respond to the complaint within 24 hours. Further, sales personnel has to report, prepare a weekly highlight every week. The headings [i.e., topics] for the weekly highlight are set by me and they completely correspond to the BSC objectives. So, when they report they need to touch on new clients, new products, responsiveness to inquiries and leads, and improving the quality experience of clients. So they are all aware that this is what matters and they need to contribute to it"* (Sales Manager).

Moreover, the exploration of the reasons for complaints gives insight into a particular use of the product. When this information is shared and discussed back at SMGE, it stimulates the search for product improvement and new product development (DI).

The *responsiveness to inquiries and leads* objective, similarly to the investigation of complaints, is considered critically important for exploring new possibilities and developing new products. Sales representatives have a responsibility to record and provide specific information about the products requested by clients. In most cases, this is a routine task that takes time away from current sales. As in the example above, SMGE uses the beliefs system to motivate sales representatives to evaluate customer inquiries and discuss them with management in an interactive process. SMGE clearly communicates the core values of learning and innovation and emphasizes that the company needs to capture the leads and to gather and record all information about end

users' experience. Every remark that end users make about the use and performance of SMGE products is considered valuable, and sales representatives are encouraged to record them both in their individual reports and in the CRM system, and to discuss them with management and in the sales meeting (BfI). As a result of this process, some of those inquiries have become sources of product improvements and innovations as well as sales to new clients.

In sum, the illustrations of the simultaneous use of multiple LOCs reported above provide an insight into how SMGE uses all four LOCs to manage performance. Successful strategy implementation at SMGE is ensured by maintaining the focus on the budget and the KPIs supported by a powerful use of the beliefs system. At the same time, a focus on innovation is ensured through an interactive use of the BSC within clearly defined standards of service and behaviour, particularly with respect to customer relations. Using the BSC as a core PM system, the management continuously balances the diagnostic and the interactive systems. The former is enacted through the use of budgeting and performance reporting; the latter through continuous dialogue (formal and informal) around BSC objectives. The beliefs system, in the form of strong values and a clear vision, is used to inspire and guide the search for new opportunities so that the company can remain responsive to strategic uncertainties. Formal reports, the 4M and the sales meetings provide the structure, and the behavioural norms and performance thresholds set the boundaries within which interactive control can usefully operate. In other words, the diagnostic, beliefs and boundary systems set an appropriate context for the necessary dialogue to evolve. It is this dialogue, supported by an open and low power culture, that enables the interactive use of the BSC and ensures that the scorecard triggers creativity and innovation. The identified interactions between multiple LOCs are graphically represented in Figure 1, and the practices employed by the

company to enable these interactions are reported in Table 2, where the intersection of the LOCs in the rows with those in the columns refers to the effect of the former on the latter.

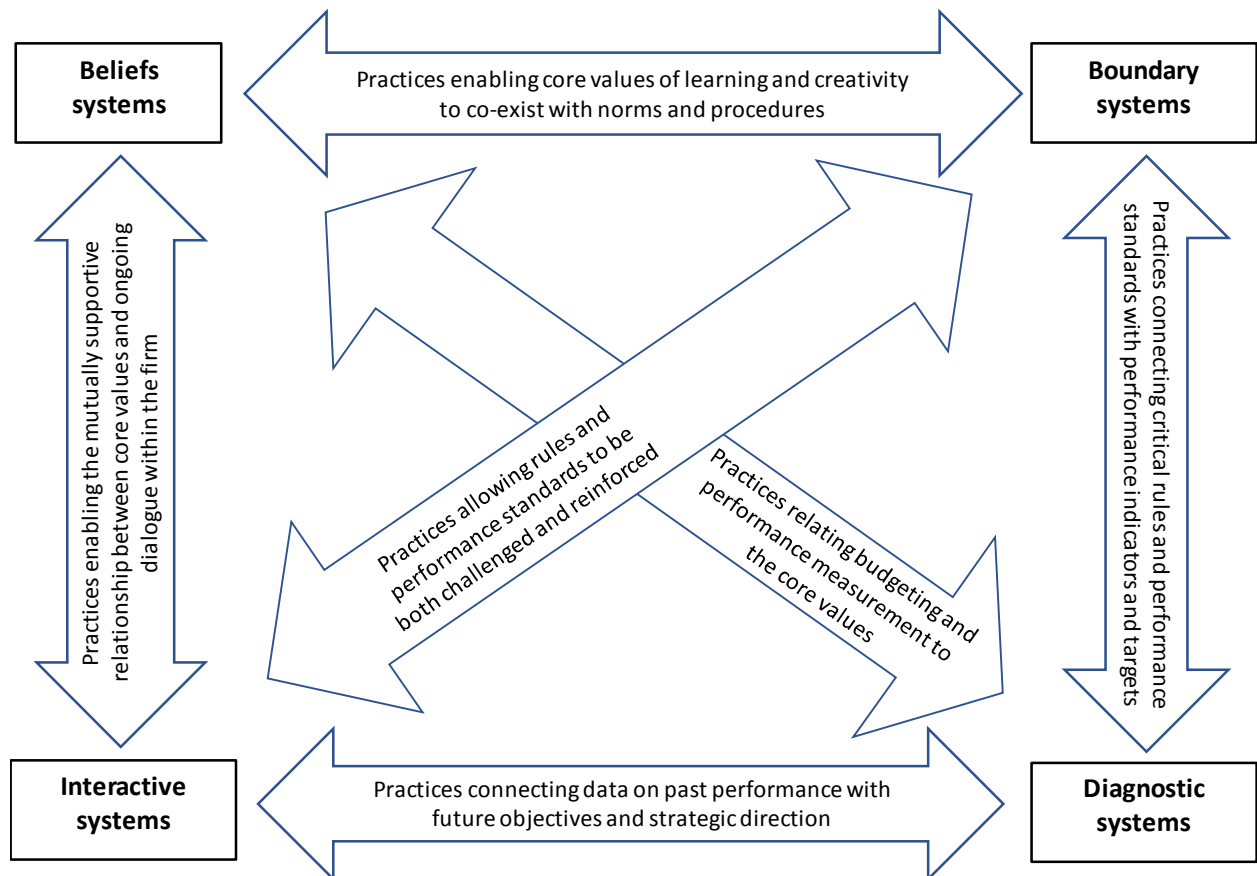


Figure 1. The interactions between the four levers of control in SMGE

Table 2: Practices enabling the interactions among the four levers of control at SMGE.

|                           | <b>Beliefs systems</b>   | <b>Boundary systems</b>  | <b>Diagnostic systems</b>   | <b>Interactive systems</b>   |
|---------------------------|--|--|---|--|
| <b>Beliefs systems</b>    |  | <p>Core values are translated into specific rules for sales representatives.</p> <p>Recruiting individuals who can observe norms and procedures while engaging in innovative and proactive behaviours.</p> | <p>Vision, mission and long-term strategic objectives inform the budget.</p> <p>The core value of customer centricity is incorporated into the design of the sales report</p>   | <p>The company values and culture shape the ideas and the flow of the discussion on strategic planning in the management meeting.</p> <p>Sales representatives are encouraged to capture and discuss all customer enquiries to support the core values of learning and innovation.</p> |
| <b>Boundary systems</b>   | <p>Recruiting people who can observe norms and procedures while engaging in innovative and proactive behaviours.</p> |  | <p>Performance against defined standards is regularly monitored and evaluated.</p> <p>Rules (e.g., to respond to clients' inquiries) are converted into performance targets and monitored through the reporting system.</p> | <p>Boundaries set the limits for the search of new opportunities. Some solutions are not accepted if they do not fit with promises made to clients.</p>  |
| <b>Diagnostic systems</b> | <p>Achievement of performance objectives is interpreted as reinforcing the core values.</p>                          | <p>Performance data are used to support non-negotiable standards.</p>  |   | <p>Market trends and customer data are fed into open debates.</p> <p>Budget variance figures used for future looking discussions.</p> <p>BSC categories are used to structure the discussion at the</p>  |

**Interactive systems**

Continuous dialogue is used to give fresh meaning to the core values.

During meetings the assumed relationships between strategic objectives and non-negotiable standards are challenged to test if they still hold.

Discussions and stories are used to give meaning to rules.



Insights from discussions are used to formulate the following year's performance targets.

meetings and enable sharing, reflection and learning.  
Collective exploration of the reasons for complaints promotes search for product improvement and innovation.



## **Discussion and Conclusions**

This study provides an in-depth examination of management control and performance measurement practices in a small firm. In doing so, it addresses recent calls for research that takes into account the specific characteristics and challenges of SMEs and considers both technical and social aspects of PM (Smith and Bititci, 2017).

Our findings contribute to the advancement of performance measurement and management theory and practice in several ways. First, this study provides an in-depth illustration of the range and diversity of conflicting goals and tensions that organizations can manage through the simultaneous use of multiple MC and PM systems. In the case company, the interdependence and complementarity of these systems helped the organization balance several competing perspectives: short- and long-term focus, predictable goal achievement (strategy implementation) and search for new opportunities (development of a new strategy), internal and external focus, and control and creativity. Specifically, in SMGE, different time horizons were simultaneously taken into account by viewing current events in connection with longer term strategic objectives, market trends and risks. To implement the current strategy and at the same time allow a new one to emerge, KPIs and budgets were often used to understand and drive performance while consideration of customer feedback and continuous monitoring of strategic uncertainties encouraged the creation of future strategy. Focus on both internal and external factors was ensured by complementing the attention paid to internal practices and processes with the use of externally focused core values and service quality targets. A clear focus on innovation, an open and sharing culture, and specific recruitment practices on one hand and concentration on achieving expected results and controlling deviations from targets on the other enabled the company to balance creativity and control. Importantly,

balancing different organizational demands also helped trigger both single and double loops of learning, so that the continuous improvement of processes and products was interspersed with the introduction of new offerings.

Secondly, this study extends prior work by using the LOC framework to identify and organize a set of practices, summarized in Table 2, that the case organization deployed to measure and manage its performance. Indeed, earlier research has made important advances in developing frameworks to describe multiple control systems (Simons, 1995), theorizing the importance of maintaining balance (Henri, 2006), and identifying various contingencies affecting such balance (Mundy, 2010). However, this discussion has often remained on a relatively high level, and the question of which specific practices organizations could actually deploy to balance multiple control systems in pursuit of better performance is still poorly understood (Ates et al., 2013; Bianchi et al. 2013). The set of practices identified at SMGE illustrates the interdependencies between the four LOCs and provides the foundation for future research into specific managerial actions required for ensuring the balance between different forms of control.

Thirdly, the findings highlight specific aspects related to performance measurement and management in SMEs. While our results resonate with those of previous studies conducted in large companies (see, e.g., Henri, 2006; Mundy, 2010; Koufteros et al., 2014; Kruis et al., 2016), SMGE, similarly to most SMEs, adopted less technical and formal mechanisms to manage performance (Garengo et al., 2005) and the Managing Director played a critical role. Indeed, a strong reliance on the beliefs and interactive systems was a prominent feature of its approach. The use of such systems emerged as a fundamental – and arguably less costly and controversial than more formal mechanisms such as rewards (Franco-Santos et al., 2012) – means to motivate employees and stimulate commitment, creativity and innovation. However, it was not simply a matter of

communicating and reinforcing the company values, nor was this a task undertaken exclusively by the Managing Director. The positive role played by the beliefs and interactive systems was ensured by two mutually reinforcing factors: (1) the beliefs systems were constantly enacted by all senior managers and aligned with the management style and the organizational culture; (2) beliefs and interactive systems were mobilized through dialogue and discussion and were tightly linked to the boundary and diagnostic systems (see Table 2). Indeed, the technical and social controls at SMGE were continuously and purposefully connected.

The results of this study thus demonstrate that ensuring an active interconnection between all four LOCs is essential. As such, the study extends the current debates on technical and social controls (Smith and Bititci, 2017) by moving beyond the identification of structural relationships between individual systems (e.g., Heinicke et al., 2016) and instead showing that the deployment of a full range of controls is a multifaceted, ongoing and purposeful process requiring active involvement on the part of the management. Moreover, by providing an in-depth empirical analysis of the simultaneous use of all four levers of control (Widener, 2007; Mundy, 2010), this research extends earlier work (see, e.g., Abernethy and Brownell, 1999; Bisbe and Otley, 2004; Henri, 2006) that tended to consider two levers only (typically diagnostic and interactive). In the case organization studied here, the achievement of balance and the positive interplay between different MC and PM systems could only be explained by considering all four levers together.

This research also has implications for performance measurement and management practice. In particular, the identified complementarity of the four levers indicates that managers should consider them together when designing or reviewing their approach to managing performance. This is particularly salient in the context of SMEs where less formal controls, such as beliefs and interactive systems, are likely to play a key role (Heinicke et al. 2016), and where

balance should be ensured despite the lack of managerial processes and capabilities. More generally, various combinations of control systems should depend on the particular strategic and contextual circumstances in which an organization operates (Kruis et al., 2016). Importantly, as these combinations are difficult to imitate (Mundy, 2010), they may constitute a unique organizational capability and thus a source of sustainable competitive advantage.

This research also speaks to the body of work that considers the design, implementation and use of performance measurement systems (Bourne et al., 2000; Kaplan and Norton, 2008; Ferreira and Otley, 2009; Melnyk et al., 2014). More specifically, we found that the BSC “created magic” – as stated by SMGE’s Managing Director – when there was a clear connection between objectives and KPIs, and when performance information was utilized interactively, rather than simply diagnostically. In other words, employees’ engagement with the PM system increased when data were used to contextualize and shape future actions and longer-term objectives, rather than simply to understand current and past performance. When used interactively, the BSC also functioned as a framework for organizing verbal and mental thought processes for examining the relevance of basic assumptions of the company’s objectives, strategy and operations. Moreover, echoing earlier research (Martinez et al., 2010), PM meetings seemed to be the central element that linked performance information and action and enabled the BSC to be closely tied to the belief and boundary systems, thus making it a fundamental tool that employees would extensively use.

This study has limitations, which provide potential avenues for future research. The findings are based on a single case study, and, despite this not being unusual in PM and MC research (see, e.g., Tuomela, 2005; Mundy, 2010; Naor et al., 2015; Pellinen et al., 2016; Beer and Micheli, 2017), larger qualitative as well as quantitative studies are needed to understand whether the interplay between the four levers of control is similar in other contexts. Such studies could also

compare various configurations of LOCs and evaluate their effects on performance. While we expect similar patterns in both SMEs and large firms, future quantitative research could consider salient organizational characteristics (e.g., managerial capabilities, formalization of organizational processes, and size) and examine their effect on companies' capacity to use multiple LOCs simultaneously and thus to measure and manage performance more effectively. Moreover, SMGE was selected on the basis of its positive financial performance and its deployment of various MC and PM practices. Contexts characterized by less sophisticated approaches may display different dynamics and less successful outcomes.

Finally, the prominent role of the Managing Director, and more broadly the management team at SMGE, suggests that another interesting direction for future studies is the examination of the relationship between control systems and leadership style, especially in SMEs where the founder or Managing Director plays a fundamental role (Hudson-Smith and Smith, 2007). It has already been indicated that a manager's strategic awareness (Hannon and Atheron, 1998) background and experience (Lucas et al., 2013) and individual temporal orientation (Sternad, 2014) have an impact on his or her leadership style and, ultimately, the company's performance. It is possible that firms balance their control systems differently depending on the type of leadership style (Collier, 2005; Speklé et al., 2017) and future studies could provide a useful insight into the nature of this relationship.

## Appendix

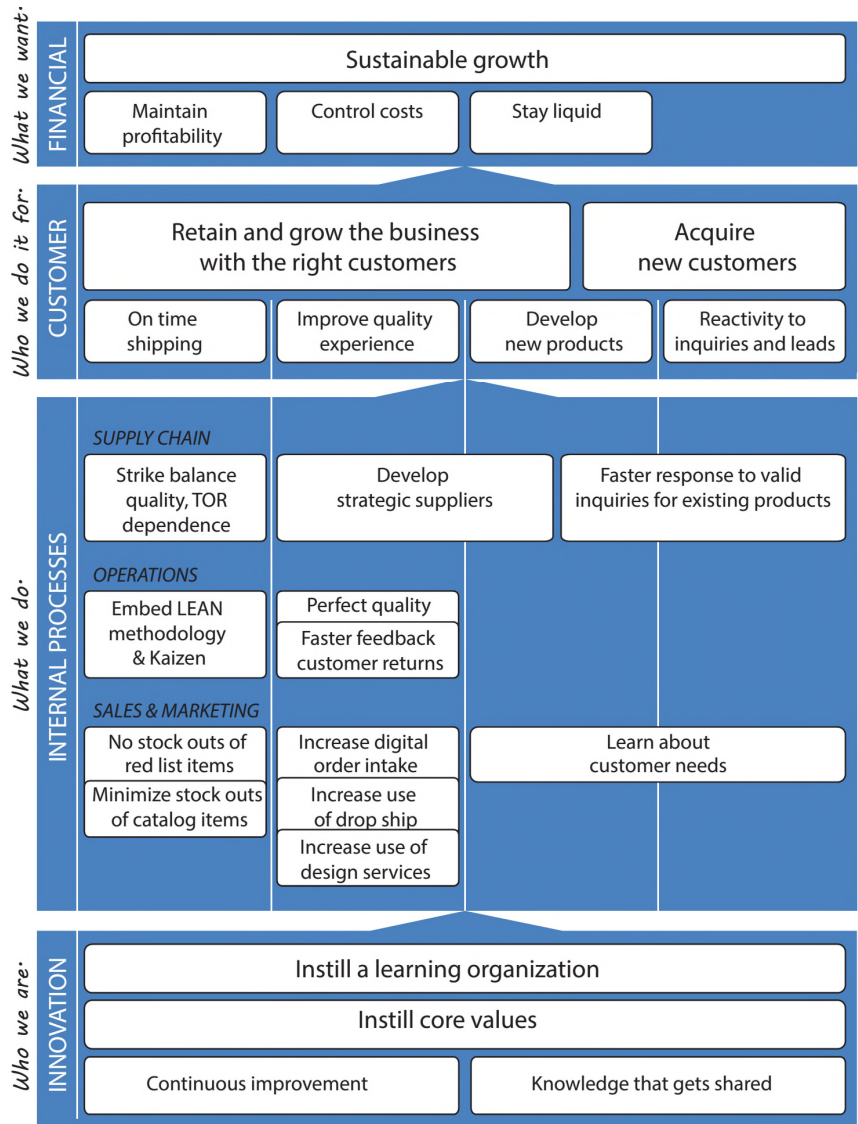
### Appendix 1: Summary of the workshops focused on the BSC review

| <b>Date</b><br><b>Participants</b><br><b>Topic</b>                             | <b>Topics discussed</b>  |
|--|--|
| 22.09.2014<br>Management team<br>Customer perspective, 1 <sup>st</sup> session | <p>The review of the existing Balanced Scorecard (BSC) started with the customer perspective. Conversations aimed at clarifying the value proposition of the company; the objectives included in the customer perspective motivated managers to share their perspectives and views. The researcher moderated and guided the discussion, but the managing director played a central role, as he was genuinely interested to hear and understand department managers' perspectives and to see how these could complement each other. The main objectives (retain existing and acquire new customers) and their drivers (on time shipping, customization, quality of the experience, and capacity to respond to inquiries and leads) were identified. These drivers encapsulate the promise SMGE makes to its clients and differentiate SMGE from its competitors. Some indicators were also discussed.</p> |
| 03.10.2014<br>Management team<br>Customer perspective, 2 <sup>nd</sup> session | <p>Continued discussion of the objectives in the customer perspective, mainly from a strategic point of view, e.g., who are the right customers? What does the company stand for? Members of the management team were encouraged to openly present their ideas, to validate them and to contribute to building a shared understanding. Sharing views also helped break barriers between different departments and positions, especially supply chain, marketing, sales and finance. This process, facilitated by the BSC review, was also perceived to enable a shift from an operational to a strategic focus.</p>  |
| 10.10.2014<br>Management team<br>Customer perspective, 3 <sup>rd</sup> session | <p>The customer perspective was finalized, also by checking that the identified objectives would lead to sustainable growth. This question led to a discussion about the company's values and beliefs: understanding the needs of clients; developing loyalty and trust; showing interest in clients; and keeping a personal touch. The conversation then evolved into a dialogue on whether the rules (boundaries) in place were clear and justified. The meeting concluded by examining the objectives in the internal business perspective.</p>   |
| 21.11.2014<br>Management team<br>Internal perspective, 1 <sup>st</sup> session | <p>Critically important activities and operations were discussed. The achievement of required performance in these areas is ensured by rules that are instituted and known to everybody as well as elements of the beliefs system. The rationale behind the main rules was probed. The session concluded with a discussion on the relationship between SMGE and its suppliers, and a story was told about cooperation with a Thai supplier.</p>  |

|  |   |
|--|---|
| 20.02.2015<br>Management team<br>Internal perspective, 2 <sup>nd</sup> session | Discussion about objectives and indicators in the internal business perspective. In this session the conversation was about the importance of quality, including what quality means to different departments and what is expected from them. A shared understanding of quality and critically important aspects that affect it was reached; these include relationships with suppliers, which could be improved through greater communication and cooperation.  |
| 06.03.2015<br>Management team<br>Internal perspective, 3 <sup>rd</sup> session | In the third session devoted to the internal perspective, the discussion centered on the contribution of the sales and marketing departments to improving quality, as perceived by the client. Continued attention to service and product quality demonstrates the importance of this topic for the company. Discussions about it allowed different views to be exchanged and taken into account. The main outcomes of this process were the agreement over a shared view of quality and the identification of main responsibilities in the business. This was followed by a meeting with the MD to capture the key stories illustrating the company's values and identity. |
| 13.03.2015<br>Management team<br>Internal perspective, 4 <sup>th</sup> session | This session was devoted to discuss the rules (boundaries) in place and verify that they are still valid and relevant. Indicators were also reviewed to ensure that they captured key aspects related to the attainment of the most important objectives.   |
| 20.03.2015<br>Management team<br>BSC review                                    | Review of the whole scorecard to verify that it encapsulates the most important objectives and that cause and effect links are present. Agreement of all managers was sought and the dialogue, which had taken place in the previous sessions, contributed to better understand the other departments' perspectives, interdependencies and challenges.  |
| 10.04.2015<br>Two senior managers<br>BSC review                                | Review of all the existing performance measures.  |
| 17.04.2015.<br>Management team<br>Learning and Growth                          | During the last session the focus was on how to ensure people's motivation and enthusiasm. The beliefs system was seen as critically important to motivate employees and to get their buy-in. Continuous dialogue, both formal and informal, was regarded as a key means to ensure that all employees accept and understand the importance of the core values and rules for the success of the company.   |
| 12.05.2015.  | Review of the financial perspective: objectives, measures and initiatives.  |

|  |  |
|--|--|
| Management<br>team<br>Financial<br>perspective |  |
|--|--|

Appendix 2: SMGE – Strategy map



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