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MANAGEMENT CONTROL SYSTEMS AND THEIR EFFECTS ON STRATEGY FORMATION AT MIDDLE-MANAGEMENT LEVELS: EVIDENCE FROM A U.K. ORGANIZATION

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The relationship between management control systems (MCS) and the strategy process is a largely unexplored area of strategic management. This paper reports the findings of an in-depth, longitudinal case study of a major British-based organization operating within the increasingly globalized telecommunications industry. Informed by Simons' (1991, 1994, 1995) theoretical model of the strategy process–MCS relationship, the study examines the nature and extent of this relationship at middle- and lower-management levels. Of particular interest were the effects that the design and use of three groups of MCS have on the development of new ideas and initiatives. Findings suggest that beliefs systems influence managers' initiation or 'triggering' decisions, the use of administrative controls affects the location of strategic initiatives and may lead to the polarization of roles, and simultaneous emphasis on a range of key performance indicators can create a bias towards one set of measures and against another. Copyright © 2002 John Wiley & Sons, Ltd.

INTRODUCTION

The effects that management control systems (MCS) have on the development of new ideas and initiatives within the firm are little documented or understood. While behavioral researchers in accounting have examined the dysfunctional side effects of using traditional feedback systems as tools of strategy implementation (e.g., Hopwood, 1972; Otley, 1978; Brownell, 1981, 1983; Brownell and Dunk, 1991), and while strategy researchers have focused on understanding how informal controls, such as management style, may shape emerging strategies (e.g., Mintzberg, 1987b; Mintzberg and Waters, 1982; Mintzberg and McHugh, 1985; Mintzberg and Quinn, 1996), no study has yet sought to explore the effects that formal MCS have on the strategy process. The objective of this paper is to address this important gap in our understanding of the MCS–strategy relationship by exploring how (and why) the design and use of different MCS may affect managers' 'autonomous strategy behavior' (Burgelman, 1983a, 1983b, 1991).

The present research was motivated by two recent organizational developments. The first is firms' increasing dependency on the creativity and innovations of middle-level managers to secure organizational survival (Bartlett and Ghoshal, 1993; Dutton *et al.*, 1997; Simons, 1995, 1999). The second is evidence to suggest that top management is seeking to control this dependence by directing 'grass-roots' activity through the management control process (Simons, 1990, 1991, 1994, 1995). Thus, understanding the effects that MCS have on managers' strategic activities is becoming imperative, not least because such knowledge will help firms develop more effective MCS to 'steer' the development of strategy and

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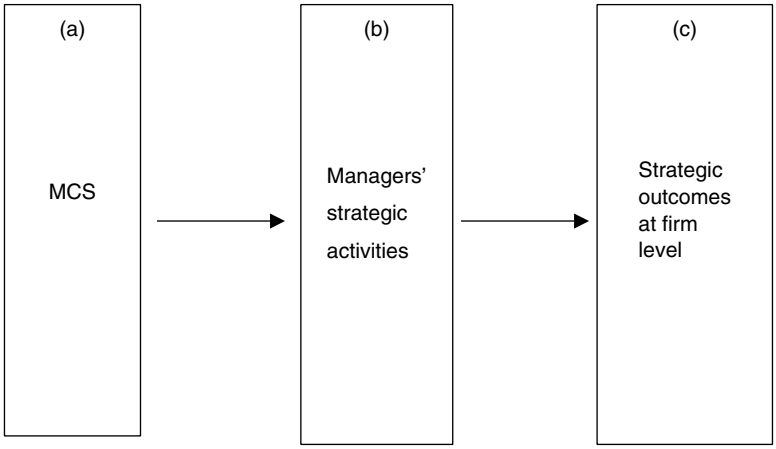

Figure 1. General relationship between MCS and strategy

thereby secure desired strategic outcomes. This interplay between MCS, managerial endeavor and strategy is depicted in Figure 1, which establishes the conceptual framework for the present work.

By examining the interplay between (a) and (b) of Figure 1, the paper complements the pioneering work of Simons (1990, 1991, 1994) in this area. Broadly speaking, Simons conceptualizes what (a) should comprise in order to direct (b), thereby leading to desirable outcomes in (c). The present work provides insight from (b), which enables an analysis of Simons' prescriptions. This provides the basis for the paper's overriding aim, which is to generate ideas and propositions for further research in an area of increasing importance.

The section that follows describes the research strategy, including how MCS were clustered for review and analysis. The second section also explains how the data were collected and analyzed. The third section describes the main findings of the study and develops several propositions for future research. The final section summarizes the research and discusses the wider implications of the study's findings.

RESEARCH STRATEGY

A case study approach

The aims of the present study were addressed through the case study method of empirical enquiry. The reasons for this are several. First, exploratory fieldwork is essential in 'new' areas of research which lack an extant body of both theory and data (Glaser and Strauss, 1967, 1970; Eisenhardt, 1989; Noda and Bower, 1996). Second, qualitative studies are necessary where organizational processes, such as the interplay between MCS and strategy, are involved which do not lend themselves easily to quantitative measurement (Ahrens and Dent, 1998; Strauss and Corbin, 1990; Van Maanen, 1979; Yin, 1993). Third, in view of the subject matter, there is a need to 'get inside' the organization in order to observe how the dynamics of the relationship between MCS and grass-roots activities unfold through the firm. Fourth, distinguishing the effects of one set of MCS from another requires a level of analysis not available through survey-based research (Yin, 1983). Finally, the use of exploratory case research enables ideas and propositions to be developed for further study (Noda and Bower, 1996).

Case study company

The case study company, Telco plc, was drawn from the U.K.'s telecommunications industry and provides a potentially valuable research site for three reasons. First, it is a leading player in an industry which is fast-moving, highly competitive and increasingly globalized. Second, Telco seeks to maintain this leading position by drawing on the creativity and innovations of middle-level managers. Third, initial investigations confirmed that Telco's top management seeks to 'control' strategic activity within the firm through a range of MCS. In short, the case study company provides a prime example of a 'modern' enterprise (Bartlett and Ghoshal, 1993; Simons, 1995).

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Telco is organized into five strategic business units sited throughout the U.K., but concentrated in and around the capital. The company supplies and maintains a range of communication-based products and services to the private and business sectors. Contracts with several large private enterprises and public corporations provide the company with its main source of revenue. Telco employs approximately 13,000 people and operates with four to five levels of management (including the most senior), depending on the size of the strategic business unit. At the time the study was undertaken, the company had a turnover in excess of U.S. $4 billion.

Clustering of MCS

MCS are systems for influencing human endeavor within the firm (Flamholtz, Das, and Tsui, 1985; Langfield-Smith, 1997). Commonplace examples include planning systems, budgeting systems, human resource systems, career planning systems, project monitoring systems, and cost accounting systems. Given the number and range of MCS, it is important to cluster these into manageable groupings for review and analysis. Simons' (1994) approach is to cluster MCS according to (1) their relationship to strategy and (2) how top managers use them. In this paper, MCS are clustered according to:

1. the concepts and clusters as developed by Simons (1991, 1994, 1995);
2. similarities in the role or function performed by MCS (e.g., performance measurement systems are clustered together);
3. the degree of 'directness' of the MCS, i.e., whether it is used by top management and directed at the company's workforce as a whole (e.g., beliefs and boundary systems) or whether the MCS is used across multiple levels of the firm by 'multiple gatekeepers' and directed at the individual manager. Examples here include management-by-objective schemes and performance appraisal systems.[1]

[1] This third criterion was applied in order to embrace commonplace MCS, such as MBO systems, which operate through the management hierarchy. Application of this criterion also enables diagnostic systems (Simons, 1995) to be distinguished according to whether they operate at firm level with single gatekeepers (e.g., key performance indicators monitored by top management) or whether they operate throughout the firm (e.g., budget and cost accounting systems) with multiple monitors/gatekeepers.

Three groups of MCS were established using these criteria. The first group comprises the set of procedures which top management may use to prescribe and proscribe the firm's overall strategic purpose or 'vision' (Bartlett and Ghoshal, 1993). Simons (1995) conceptualizes these as 'beliefs systems' and 'boundary systems.' A beliefs system is 'the explicit set of organizational definitions that senior managers communicate formally and reinforce systematically to provide basic values, purpose, and direction for the organization (Simons, 1995: 34). Boundary systems, on the other hand, 'delineate the acceptable domain of strategic activity for organizational participants' (Simons, 1995: 39). Both systems may be established and reinforced through a set of communication channels, including formal mission statements, credos, statements of purpose, email, and meetings. Boundary systems may also be created and communicated through mechanisms such as strategic planning systems, (un)written codes of conduct, and formal rules and procedures. Formal beliefs systems and boundary systems are relatively recent organizational developments (Bartlett and Ghoshal, 1993; Simons, 1995), a trend which is explained by reference to the growing complexity and diversity of firms. This makes it increasingly difficult for participants to comprehend overall organizational purpose and values (Simons, 1995). Beliefs and boundary systems are meant to impart this purpose. They may also be used to overcome organizational inertia (Simons, 1994).

The second group of MCS comprises those hierarchically based administrative controls (Hopwood, 1976; Johnson and Gill, 1993) which facilitate the devolution of role responsibilities through the firm (Ouchi, 1977). They enable managers to establish specific role expectations of the subordinate and to monitor and evaluate the subordinate's performance against these expectations (Machin, 1979; Dermer and Lucas, 1986). These systems also help to establish an inventory of skills and management potential (Simons, 1991).

Finally, the third group of MCS comprises those performance measures or KPIs (key performance indicators) which enable top management to monitor *organizational* performance against important dimensions of a given strategy. Previously restricted to largely accounting-based measures, such as ROI and Return on Sales, firms' performance measurement systems now often encompass a broad range of 'metrics,' many of which

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are aimed at establishing minimum performance standards in key areas of the business. These include finance, customer service, internal operations, and innovation (Kaplan and Norton, 1992, 1996).

Simons (1995) argues that formal performance measurement systems may be used in either a diagnostic or interactive manner. The difference lies in the amount of personal attention they receive from top managers. Interactive control systems are systems which top managers 'use to involve themselves regularly and personally in the decision activities of subordinates' (Simons, 1995: 95). By contrast, diagnostic control systems operate simply as feedback or 'error-based' controls, and are monitored by subordinates or staff personnel, such as the accounting function. The purpose of interactive controls is to direct managers' attention towards current strategic uncertainties (Simons, 1999). The purpose of diagnostic control systems is to ensure the implementation of existing or intended strategies (Simons, 1995). Figure 2 extends the relationship depicted in Figure 1 to show how the three groups of MCS encompass the four 'levers of control' as conceptualized by Simons (1995). Figure 2 also demonstrates the likely cyclical nature of the relationship between MCS and strategy, and illustrates, by way of question marks, the focus of the present study.

For the purposes of this paper, managers' strategic activities (as depicted in column 3 of Figure 2) are taken to represent their involvement in the detection of new ideas and in mobilization of resources around these new ideas (Kanter, 1983; Dutton *et al*., 1997). Discharge of this role involves a stream of strategically oriented decisions (Mintzberg, 1987a, 1987b; Burgelman, 1991) such as: which ideas should be pursued/discarded, which projects should be supported, what changes should be made to the project, and should we continue with this idea? Burgelman (1983a, 1991) conceptualizes these decision processes as 'strategic building' and 'strategic forcing.' They may also be referred to as 'triggering,' 'filtering,' and 'championing' type decisions (King, 1975; Simons, 1994). By indulging in such 'autonomous strategic behavior' (Burgelman, 1983a, 1983b, 1991), middle-level managers provide important contributions to a firm's strategic agenda and rate of strategic adaptation (Kanter, 1983; Dutton, 1996; Dutton and Duncan, 1987). They contribute to the process of strategy formation (Mintzberg and Quinn, 1996).

Data collection

Data on Telco's MCS were collected from various sources, including interviews with senior personnel

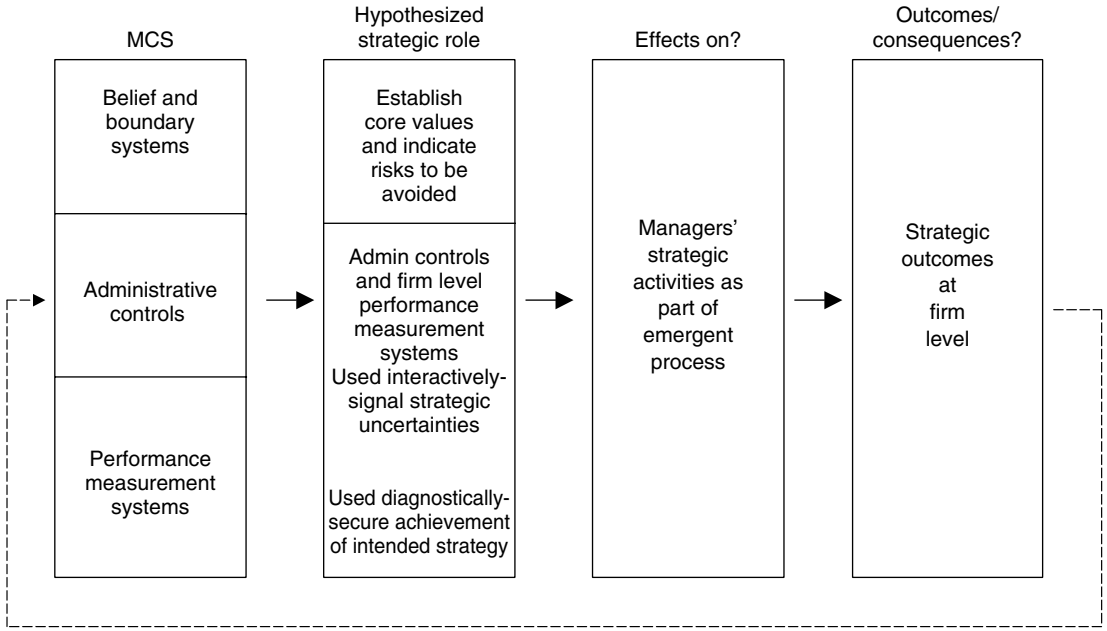

Figure 2. Specific relationship between MCS and strategy incorporating Simons' 'levers of control'

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from both HRM and finance departments, company documents,[2] and archival records.[3] Data on their effects were again collected from various sources (including management meetings), but primarily from interviews with 'line' managers.[4] The aims of these interviews were threefold: to identify which MCS influence managers' strategic endeavors, to understand how and why the influence might occur, and to gain insight into the nature of the effect and its potential impact on the strategy process. An indicative list of interview themes and interview questions is presented in Appendices 1 and 2 respectively.

The objective of the analysis was to investigate effects that transcend functional boundaries. To this end, a series of semistructured interviews were conducted with 26 managers from two middle-management levels in four different SBUs which spanned a broad cross-section of Telco's activities. The same 26 managers were reinterviewed some 12–15 months later. The rationale for a second round of interviews was to build up a composite picture of the effects that the company's MCS had on managers' strategic endeavors by observing the issue over a period of some 30 months.

Interviews with managers lasted between 45 minutes and 2 hours, with a median time of 80 minutes. An interview protocol ensured that the same themes were covered with each interviewee. Construct validity of the interview data was pursued through an 'action-research' approach similar to that employed by Argyris (1985), Argyris, Putman, and McLain-Smith (1985) and Manzoni (1994). A list of interviewees is presented in Appendix 3.

[2] Examples include: departmental performance reports, budgetary reports and other financial information, hard copies of internal e-mail messages, including those sent by the chief executive to the managerial workforce, written memoranda, bulletins, internal brochures, and the company's main strategy document as drafted/sanctioned by the chief executive.

[3] Periodic meetings also took place with four senior managers. These were used to gain an understanding of the rationale for the design and use of these MCS.

[4] The use of multiple sources of evidence enabled verification through triangulation, which is the strength of case research (Noda and Bower, 1996). A major concern of the present study was to triangulate managers' views and opinions with 'harder' evidence, such as that obtained from documents and archival records. Overall, the study sought to comply with the suggestions and recommendations for conducting case study research (see Eisenhardt, 1989; Yin, 1983; 1993; Vaughn, 1992).

Analysis and interpretation

Standard practices for qualitative data analysis were employed, following the guidelines of Miles, Huberman, and Huberman (1984) and Glaser and Strauss (1967, 1970). Interview data were collated and summarized, and detailed written descriptions prepared for each interviewee under the subheadings illustrated in Appendix 2. Inductive codes were established to identify 'common' influences on managers' strategic activity created by each of the three clusters of MCS described above. A particular control system was deemed to exert a particular influence only if this effect could be traced to at least three-quarters of respondents.

Interview data were continually cross-referenced with other data sources and cross-checked with the chronology of activities and events that took place during the course of the study. This form of triangulation enhanced the internal validity and reliability of the case study material. Finally, a draft research report was prepared and sent to all interviewees for comment. Responses were received from 18 interviewees. These were evaluated in order to ensure that reported ideas and propositions aligned with managers' experiences.

RESEARCH FINDINGS

The main findings of the study are summarized in Appendix 4.[5] Each group of MCS and its observed effect on an emergent strategy process is discussed below.

Value systems

The first cluster of MCS comprises those which senior management may use to imbue the workforce with a set of 'company values' so that these values will underpin organizational activity (Simons, 1995, 1999). At Telco a value system was invoked to instill a different strategic 'thrust' throughout the company. Instead of competing primarily on the basis of price, which had been the basis of the company's strategy 'for some considerable time,' the company should aim to be 'radically differentiated in each of its chosen markets,' as the then chief executive explained. This

[5] Please note how the information provided in the latter two columns of Appendix 4 relates to the questions raised in the latter two columns of Figure 2.

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move was in response to recent developments in the industry, including a steady decline in industry costs, rapid technological advancements, and a 10-fold increase in the number of competitors.

The value system, or 'change program' as it was referred to at Telco, was undertaken with the aid of a major business consultancy firm, and comprised a series of events, including 3- or 5-day 'strategy briefings,' 'roadshows,' and mock award ceremonies. The change program also involved the redrafting and circulation of mission statements and credos, and regular communiqués from the chief executive officer, via email, reminding managers of the company's 'new' strategic thrust. A number of level 2 managers from each of the company's business units were given responsibility for ensuring that organizational participants in their area of the business 'lived the Telco values.' Although varying in format, frequency, and intensity, the activities associated with the program continued for approximately 10 months.

Effects

The change program had an emancipating effect on strategic activity within the firm; it changed the 'climate for doing things' or 'strategic conditions.' Informants referred to this in the context of an increase in the diversity of ideas and initiatives that were 'deemed acceptable' and, thereby, 'able to see the light of day.' A typical remark was that: 'There's a more open approach to new ideas these days. So long as they are seen to be broadly in line with the company's strategy, they will see the light of day. I can put an idea to people without fear that it will get shot down in flames. This is so much better than it used to be. Before, if the thing wasn't going to reduce costs, then it didn't get a look in.'

The change program appeared also to increase the competitive nature of project activity. Several managers discussed how the focus on 'value-adding' resulted in 'rivalry among teams because each one was trying to produce the better idea.' 'There was now a lot more kudos to be had from being associated with successful ideas and being first to market with a new product,' as one manager remarked. 'It's become all about PANS, which means coming up with Pretty Amazing New Stuff. Doing work on POTS (Plain Old Telephony Systems) is out of fashion. It just doesn't score the same.'

Not unsurprisingly, perhaps, given the above comments, informants also indicated that the change program had deflected their attention away from more routine, but no less important day-to-day tasks, including customer relations for a period of time. The consequences of this appeared to be deterioration in performance against key customer-focused indicators. This issue was one of the first to be addressed by the new chief executive on his appointment.

Discussion

Evidence on Telco's change program both supports previous research and offers extensions for further research. The study confirms the findings of several recent studies, which have found greater use of value systems among companies as they seek to maintain organizational coherence in the face of increasing complexity and uncertainty (Bartlett and Ghoshal, 1993; Simons, 1995). The way that Telco operated its value system also supports prior suggestions (Simons, 1995). First, the program was implemented via a range of formal and informal communication channels, particularly mission statements, 'strategy days,' and team briefs. The aim was to generate dialogue and discussion among managers on the issues presented by top management. Second, the use of the system was periodic rather than continual (Simons, 1995). Finally, the change program was deployed to engineer organizational change and overcome organizational inertia (Trice and Beyer, 1991), which Simons (1994) argues is a crucial role of beliefs systems.

The potential for further work derives from the effects that beliefs or value systems appear to have on the strategy process. Evidence from the present study suggests that these systems, through their impact on the firm's strategic climate, strike at the very genesis of strategy making. They influence which ideas and initiatives managers will champion and, more importantly perhaps, given problems of information asymmetry, which are discarded at the outset. Dutton *et al*. (1997) observed similar 'reading' of the strategic climate among managers of a U.S. telecommunications company. However, results here suggest that the crucial issue is not whether the climate is conducive to innovation per se, but whether or not managers believe that the current climate is conducive to *their* particular idea.

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More work needs to be done, not only towards understanding the role that value systems play in shaping the search for new ideas and initiatives, but also in understanding how these systems interact with other MCS to affect managers' strategic endeavors. Evidence from Telco suggests that value systems may undermine the role of performance measurement systems, in particular by altering the amount of attention certain metrics receive. Such interactions hold implications for the effectiveness of performance measurement systems.

With further research in mind, the following propositions are presented:

Proposition 1a: Top management uses beliefs systems and boundary systems to engineer organizational change.

Proposition 1b: The use of beliefs systems affects a company's strategic climate.

Proposition 1c: Strategic climate acts as a 'filter of ideas' by influencing which ideas are championed and which are discarded.

Hierarchically based administrative controls

The second cluster of MCS comprises the administrative controls which operate through the organization. Evidence from Telco suggests that the way these systems are used impacts upon both the location and magnitude of 'grass-roots' activity.

Telco's administrative controls were designed to encourage the generation of ideas from below, albeit tempered with direction from above. In principle, middle-level managers could decide how they might best be able to *contribute* to top management's strategic agenda. This process operated as follows: each member of Telco's senior management team would commit him or herself to achieving one or more 'accountabilities.' For example, one of the Network's director's accountabilities was to ensure the implementation of an 'invisible' network within 18 months. Each of his immediate subordinates would be asked to consider how he or she could contribute to this accountability. The process was repeated at each subsequent level.

Effects

Whether intended or not, the way in which administrative controls are used appears to shape the nature and extent of individual contributions to a company's strategic agenda. Eighteen interviewees remarked on how their manager's 'liberal use' of Telco's administrative controls afforded them the scope to develop their own ideas and initiatives, even if these did not necessarily support their superior's accountabilities. Eight felt that they were sufficiently 'empowered' to 'leave their day jobs' and form teams of their own to develop ideas they may have, so long as (1) whatever was being contemplated aligned with top management's current strategic agenda, and (2) the person's 'regular' duties could be reassigned elsewhere. By contrast, a further eight interviewees commented that their superior used the contribution management system to restrict their role responsibilities to existing activities and tasks for that area of the business. These managers appeared to be the ones to whom the regular duties of others were being reassigned. This, they felt, limited their scope for 'championing' their own ideas and initiatives, and for supporting others' strategic activities. They saw their role as 'enablers' rather than 'entrepreneurs' and acted accordingly.

Discussion

'Grass-roots' activity is crucial to the survival of the modern enterprise (Simons, 1999). It helps to ensure strategic adaptation and change in the face of fast-moving environments (Dutton *et al*., 1997). Evidence from the present study suggests that individual contributions to this activity are shaped by the use of administrative controls to an extent not previously appreciated. Extant research assumes a randomness to 'autonomous strategic behavior' unencumbered by MCS (Burgelman, 1983a, 1983b, 1983c). It appears, however, that middle-level managers behave according to how they perceive their role within the firm, and that the design and use of the firm's administrative systems shape these perceptions. If the manager believes that he is afforded a 'boundary-spanning' strategic role, he is likely to act accordingly, whereas a role that is restricted to line responsibilities is seen in 'enabling' terms.

This apparent polarization of roles, from entrepreneur to enabler, requires further research, not least because it appears *deliberate* not random. It also appears to be driven by the increasing need to balance the tension between innovation and control throughout the firm. At Telco, superiors 'selected'

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entrepreneurs, while seeking to ensure sufficient cover for the more routine tasks. However, examining the basis of the selection process was beyond the scope of the present study. Consequently, the following are proposed:

Proposition 2a: The location of 'grass-roots' activity is shaped by administrative controls.

Proposition 2b: The greater the manager's strategic domain, the more likely he/she is to champion his/her own ideas.

Proposition 2c: Below top management levels, superiors use administrative systems to manage the tension between creative innovation and goal-related activity.

Performance measurement systems

The third and final cluster of MCS examined in this paper comprises the KPIs that are used by top management to monitor organizational performance in key strategic areas. At Telco, a 'balanced scorecard' comprising 20 KPIs was used. Measures included: average network utilization, percentage of provisioning deadlines met, fault resolution time, gross turnover per employee, and return on investment. These were grouped under one of two headings, operating effectiveness and financial performance.

Despite a comprehensive set of measures, the study found an imbalance in how top management used the resulting information. Certain measures would be prioritized at different periods in time, while others were merely 'noted.' Moreover, top managers confirmed that particular ones, such as percentage provisioning times, would be discussed frequently with managers, while others, such as return on investment, were rarely raised. This 'prioritizing of measures' was achieved through meetings, team briefs, and weekly emails from the chief executive. As one top manager explained: 'There is a constant need to prioritize issues that need addressing. There is never sufficient time or resources to see all the issues simultaneously. So, some of the messages that we (the senior management team) send to the rest of the organization are really meant to indicate current areas of importance.'

Effects

Given the claims about the power of performance indicators to influence behavior (e.g., Kaplan and Norton, 1996; Otley, 1999), it is perhaps appropriate to begin by discussing what the design and use of Telco's performance measurement system *did not* appear to affect. There was no evidence that emphasis on accounting-based targets deterred either the instigation or development of new ideas and initiatives. There was little evidence that top management's use of KPIs as interactive controls helped to guide strategic activity within the firm. Performance measurement systems do, however, appear to create considerable tension within the process of strategy *development*. As one informant commented: 'You can always play games with KPIs by, say, taking functionality out. So if I am creating a widget size X, I know I can create a widget minus a certain percentage, and do it a bit earlier. So, if the times-scales are getting a bit iffy, I can take some of the functionality out and deliver it on time. That's one way around it. If you're developing something, you're always making trade-offs and compromises. So, if the deadline is the most important thing, or the budget is the most important thing, as it is at the moment, then the trade-off you make is to take functionality out. If the functionality is the most important thing, then the trade-off you make is to push in more money and hire a bunch of external staff to make sure it gets delivered.'

Discussion

The study's findings on how performance measures are used support Simons' (1995) notion of interactive and diagnostic control systems. Telco's top managers would involve themselves personally in some measures, while treating others as 'error based' or management-by-exception controls. Moreover, the choice of interactive control system was based on perceived strategic uncertainties rather than reported variances. For example, considerable attention was paid to 'provisioning times,' as top management felt that delivery periods and other time-related issues were becoming the key competitive variables in a increasingly fast-moving environment.

Evidence that the use of KPIs creates considerable tension within the developmental stage of the strategy process demands further attention. Subsequent studies should examine how these

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tensions are addressed at levels below that of top management. Decisions about, for example, whether to persist with existing plans or whether to modify ongoing projects in the light of new information appears difficult enough. However, findings from the present study suggest that pressure to achieve several performance measures simultaneously may lead to 'grass-roots' decisions as to which measures should be prioritized. Although not unexpected, perhaps, such behavior may not be in the best interests of the company. Opinions within Telco appeared to crystallize in favor of achieving innovation milestones and against securing budgetary targets. The general feeling was that, as many activities were 'being done for the first time,' it was 'only right that we give the activities chance to "bear fruit".' 'We need a climate that embraces heroic failure, not one that forces out of date and unattainable budgets on us' was a typical remark.

The paper's final propositions are:

Proposition 3a: Top management's use of KPIs creates tension and the possibility for trade-off between them during the execution of innovation, i.e., during the actual development of new ideas and initiatives.

Proposition 3b: Tensions and the possibilities for trade-offs created by the simultaneous use of several organizational performance measures may lead to an organizational bias in favor one or more measures and at the expense of others.

CONCLUSIONS

The results of this exploratory study offer a rich portrait of how MCS might affect the development of new ideas and initiatives within the firm. The data confirm the growing use of a range of MCS to control the strategy process (Simons, 1995). First, beliefs or value systems may be used as mechanisms for strategic change. Second, administrative controls may be used across multiple levels of the firm to secure strategy implementation. Finally, a range of KPIs may be used to ensure minimum performance standards in key areas of the strategy process.

The results of this exploratory study also indicate the need for further work into the effects that MCS have on the development of new ideas and initiatives within the firm. The present study observed how value systems influence managers' 'triggering' decisions, how the use of administrative controls may lead to the polarization of roles, and how the simultaneous emphasis on a range of KPIs can create a general bias towards one set of measures and against another. Overall, the study's findings suggest that managerial perceptions of MCS are a crucial factor in determining the effects that MCS may have on managers' strategic activities. For each cluster of MCS, it was not so much the specifics of how each particular system was designed and operated, but more how managers interpreted its use strategically (e.g., encouraging entrepreneurship or suggesting of an enabling role) which determined the influence it exerted on managers' strategic endeavors.

Several cautions are necessary in interpreting the findings of this exploratory study. First, I have reported the views and reactions of managers in relation to the use of a limited number of formal MCS. The role of informal controls, such as informal dialogue and social forces was not intentionally investigated. Second, the research design relies heavily on managers' descriptions of the actions they took in response to particular MCS and the espoused reasons for those actions. Finally, the data and analysis are largely descriptive: any inference about desirable MCS design and use can be made only after considerably more research. Not withstanding these limitations, however, the present analysis suggests that exploring the effects that MCS have on the strategy process should be considered a significant research area in the field of strategic management.

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APPENDIX 1: INTERVIEW THEMES

- Background of the interviewee
- The role the interviewee held within the company
- Current strategy of the business as interviewees understood this to be
- The nature and extent of interviewees' involvement in project-related work and other strategic initiatives
- Specifically, interviewees' desire/ability to search for and champion new ideas and initiatives
- Interviewees' views as to the nature of the effect that each group of MCS may/do have on their and their colleagues' strategic activities, including their opinions as to how and why they believed these effects have occurred/might occur
- Interviewees' use of the various (in)formal control procedures at their disposal
- Interviewees' perceptions of the importance of these various control procedures and processes to themselves, their superior and subordinate(s), including allocation of time to various systems, frequency, and intensity of data review
- To hear some of the organizational gossip, the unwritten public knowledge of the company

APPENDIX 2: INTERVIEW QUESTIONS—AREAS OF INQUIRY

Role within the company

Could you tell me something of your role within the company as you perceive it to be—domain, mission, expected results, resources?

Have there been any changes to your role in the last few months? To the way you are expected to approach your tasks and responsibilities?

Strategic perspective

What sort of company do you see Telco to be? What do you see its underlying purpose as being? What should its purpose be in your opinion?

Why do you see Telco in this way?

Beliefs systems/cultural change program

What do you understand the cultural change program to be about?

Has it affected your role in any way? What about your strategic activities?

Involvement in strategic initiatives/developments

Do you see your role enabling you to have a say in the strategic direction of the company, and changes to that direction? If so, could you explain how? If not, why not?

Do you discuss strategic-related issues/activities with your superior/peers/subordinates?

To what extent are you involved in project-related activity?

If yes, what is the nature of your involvement?

If no, are there any reasons why not?

Are you currently involved in any other sort of strategic initiative? In what way are you involved? Where did the idea come from?

Are changes to company strategy brought to your attention, and if so, how?

Administrative controls

What tools/controls are at your disposal in order to help you perform your hierarchical control duties?

Do you pay particular attention to any of these and, if so, why?

What role does budgetary and other financial information play in the setting/monitoring of your

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performance (formal or informal)? What role do you believe budgetary information plays in the monitoring of the department's performance?

What are the major or most important information items that reach you and what are the major or most important information items that are generated by you?

Could you tell me something about the way your responsibilities/accountabilities are established?

How do you know when you've done a good job? How do you know when your subordinates have done a good job?

Performance measurement systems

Which of the company's key performance indicators impact on your area?

What are the critical success factors for your unit/department? Who is responsible for establishing these?

To what extent are you involved in ensuring achievement of these targets?

Do you pay attention to any in particular? If yes, why?

Are any changes made to these at any stage (e.g., in terms of level of performance required, type of factor, etc.)? What is/are the reasons for such change/modification?

Other lines of inquiry

What are the major meetings or encounters (formal or informal) that you have in the course of a normal working week/month? What are the topics of these meetings or encounters? Who are the participants at these meetings? Are the meetings regular or ad hoc?

What qualities do you look for in an applicant with regard to the recruitment and promotion of personnel?

What kind of continuing education or training programmes do you recommend for your subordinates? What kind of continuing education or training programmes do you attend?

What sort of changes do you believe are occurring within the company at the moment? Are you involved in any of these, and, if so, how?

Is there any aspect of your involvement in strategic activities and/or your role within the company that we have not discussed, which you feel is of relevance to my line of inquiry?

APPENDIX 3: DESCRIPTIVE DETAILS OF INTERVIEWEES (LINE MANAGERS)

Interviewee	Job title	Level	Age	Gender
1	Network Capacity Planning Manager	3	42	M
2	Customer Services Manager	3	53	M
3	Engineering Director	3	48	M
4	Customer Marketing Manager	3	40	M
5	National Customer Director	3	43	M
6	Customer Director	3	44	M
7	Network Provisioning Manager	3	48	M
8	Network Development Manager	3	44	M
9	Services Processes Manager	3	35	M
10	Strategic Development Manager	3	37	M
11	Automation Manager	3	45	M
12	Info. Systems Operations Manager	3	42	M
13	Program Manager	4	47	F
14	Principle Planner	4	34	M
15	Software Engineering Manager	4	43	M
16	Software Engineering Manager	4	29	M
17	Market Manager	4	35	M
18	Development Manager	4	31	F
19	CAFO South Manager	4	33	M
20	Networks Operations Planning Manager	4	28	M
21	Project Support Manager	4	36	F
22	Platform Products Manager	4	38	M
23	Customer Systems Manager	4	37	M
24	Accounts Manager 1	4	44	F
25	Accounts Manager 2	4	40	M
26	Sales Support Manager	4	32	M

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APPENDIX 4: SUMMARY OF KEY FINDINGS

Type of MCS	Used by	Predicted effect on strategy process[a]	Effect desired by Telco's top management	Observed effect	Main consequence for strategy process
Beliefs/ boundary systems	Top managers	Comm. of values and purpose; est. strategic domain	Change of mindset	Change to strategic climate	On initiation decisions/ alters nature of project activity
Firm-level performance measurement systems	Top managers	Goal-related activity	Implementation of strategic agenda	Goal-related activity	Tension during strategy development
Firm-level performance measurement systems used interactively	Top managers	New strategic initiatives	Improvement of performance in specific areas	Grass-roots bias towards certain measures	Trade-offs
Admin. control systems	Managers and top managers	No prediction	Establish account-abilities	Polarization of strategic roles	Location of 'grass-roots' initiatives

[a] As hypothesized by Simons (1994, 1995).

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