ABSTRACT

Although strategy formulation and performance measurement have received much attention in the literature, relatively little research has been done on how they relate to each other in practice. Can performance measurement be used to assist strategy implementation? Based on an empirical study of strategy implementation in a large construction organization, this paper discusses ways in which an IT-mediated performance-measurement tool may attune employees to the organization’s strategies. However, more attention needs to be paid to aligning strategies with performance measures and with the local organizational contexts.

Keywords: Communication, Information system, Performance measurement, Strategic management

1. INTRODUCTION

The world in which we live and work is changing rapidly, driven by information technology and globalisation. New management practices, increasingly sophisticated customers, growing competition, more complex product differentiation and the current emphasis on intellectual capital are putting pressure on companies to improve their performance (e.g. Atkinson 2006; Hope and Hope 1997). Improved performance is influenced by realistic corporate strategies and by an effective performance-measurement framework that can communicate those strategies. Yet, achieving a coherent view and understanding of corporate strategies down the chain of command is no simple matter. For example, Samuelsson et al. (2006) found differences in perspectives between high and low-level managers in a large construction company due to misalignment between
strategies at the corporate level and the operational objectives in the units. For lower-level management, fulfilling strategic objectives could mean bad business for their own units.

This paper focuses on the linkages between performance measurement and corporate strategies in a large construction organization. It examines the communicative role played by a new IT-based performance-measurement tool and to what extent the tool was able to raise employees’ awareness of strategic objectives at corporate level. Drawing on the balance-scorecard framework, the system was designed as a means of communicating and evaluating performance within the whole organization.

2. COMMUNICATION AND PERFORMANCE MEASUREMENT

Researchers maintain that communication is vital to the successful strategy-implementation process (Alexander 1985; Miniace and Falter 1996; Raps 2004), but we need to pause a while and ask ourselves what is meant by communication. Communication in organizations is usually equated with the conduit metaphor of transmission (Reddy 1979), where an idea is coded into words and transmitted along a conduit to a hearer, who lifts the idea intact from the words (e.g. Johansson 2003). However, communication is highly context-dependent; what makes sense in one context may not do so in another, where different knowledge, beliefs, attitudes, assumptions and experiences prevail. Thus, members of an organization have to understand the meaning of the strategies, or at least, the implications of the strategies for their daily work in order to make decisions that will contribute to the successful fulfilment of those strategies (Porter 1996).

A critical factor for successful implementation of corporate strategies is therefore an effective information system that can fill abstract concepts with situated meaning. One such system is performance measurement (PM) since the performance indicators communicate to the members of the organization what is important (Kaplan and Norton 1996). Moreover, performance measurement is currently “on the agenda” of a number of researchers within various economics fields (Neely 2002). The challenge has been to devise a performance-measurement framework that encompasses both tangible and intangible performance factors. Several models have emerged: e.g. the balanced scorecard (Kaplan and Norton 1992), the performance pyramid (Lynch and Cross 1995), and the performance prism (Adams and Neely 2000) (c.f. Samuelsson 2006) for a discussion of these models).

Although the balance scorecard (or similar frameworks) has been widely used and makes broad claims of being able to facilitate communication, clarify roles and priorities, improve coordination across functional boundaries and enable the transformation of managerial intent
into organizational action, research is needed to corroborate these assertions (Atkinson 2006). For performance measurement to facilitate strategic implementation, the performance indicators must enable the alignment of the organization’s strategies to the organization’s operations.

There is also an inherent risk in using measurements to guide an organization. The focus, brought about by measuring can lead to over-optimization and the loss of a holistic view on the business. Therefore the choice of indicators is critical (Kaplan and Norton 2001). Furthermore, the problem of basing strategic decisions on hard data, especially concerning intangible aspects such as customer satisfaction, is that hard data need time to “harden” which can make the data obsolete by the time a decision is made (Mintzberg 1994).

One way to diminish the lag time for the data to harden and to make the results of measurements more easily accessible to a large part of the organization is through the use of information-communication technology (ICT). The medium offers a number of affordances, such as enabling the data to be stored in one place, being frequently updated and easily accessed, and being intelligibly structured. ICT can have further positive effects such as empowerment, where employees gain control over their own work and information management.

However, developing and implementing an ICT tool also means a number of constraints, such as information overload, increased work pressure and lower job satisfaction (Ducatel 1994). The benefits from using ICT based tools are not automatic, they require careful design and sensitivity to organizational and social practices (Bouwman 2005).

Based on a review of the ICT literature, McCreadie and Rice (1999) distinguished six types of accessibility: physical, economic, political, cognitive, affective and social. In this paper we will concentrate on two of these types, namely physical and affective accessibility. Physical accessibility is not only a question of a user’s direct access to a service, but whether or not the technology can be easily learnt. Affective accessibility refers to the user’s attitude toward a system and the motivation for using it.

Kraut et al. (1998) found that social influence can explain why people use a certain system. They identified two related ways that social influence operates: 1) The normative dimension is when socially shared beliefs about the system’s value are developed and reinforced; and 2) the utility dimension reflects the effects of a highly populated system which becomes self reinforcing.

3. RESEARCH PROCEDURE

A qualitative case study using three iterative approaches was carried out in a large construction organization. The first approach consisted of 32 semi-structured interviews of which 5 were follow-up interviews. The group of interviewees consisted of the CEO, 3 top managers, 1 business manager, 1
development manager, 3 regional managers, 1 HR manager, 5 district managers, 2 project managers and 3 production managers, as well as the six in-house project members who developed the PM framework and tool. The interviews, lasting between 40 min and 3 hours were audio-recorded and transcribed in full. The second approach consisted of field observations of 6 strategy meetings at one business unit. A seventh meeting was audio-recorded. The third approach was an analysis of relevant documents, business plans, power-point presentations and texts resulting from the meetings.

4. CASE DESCRIPTION

The organization, which is part of a large global construction corporation, is the largest domestic contractor in Sweden with approximately 12,000 employees and a turn-over of 2,420 Million Euros. During the fall of 2002 the organization changed CEOs. As often in such circumstances, a new CEO entails new ways of doing business and a reorganization of some kind. With this CEO, an entire managerial level of the company was eliminated in an attempt to make the organization more transparent by closing the gap between the line organization and top management.

The underlying idea of the change was centralization of previously distributed entities, enabling better use of economies of scale and standardized work processes. The new organizational pyramid consisted of the top-management team and the activity-development team, 26 regions and 107 districts. The districts were the operational units, directing the business in local markets, while the regions each supported and coordinated bundles of four to eight districts.

A feature of this “new” organization was the implementation of a new framework for measuring and assessing performance, which included systematic and frequent evaluations of tangible as well as intangible assets. The novelty lay in the priority ascribed to the latter, manifested in frequent measurements. Thus, although focus on profit prevailed, the path to profit had been re-conceptualized. This path was rhetorically represented by a simple iconic causal chain, inspired by the Balanced Scorecard concept (Samuelsson 2006). In the shape of four successive arrows directed toward a circle representing “Predictable Profitability”. The slogan was that “Sound Leadership” (arrow 1), “Engaged Co-Workers” (arrow 2), “Quality and Efficiency” (arrow 3) and “Satisfied Customers” (arrow 4) would lead to “Predictable Profit”. The CEO wanted to implement performance measurement as a tool to improve performance and lift the organization “to become a role model in Swedish industry”.

Accordingly an IT tool, called the Pathfinder, to facilitate communication and evaluation of the organization’s performance was designed and implemented (Samuelsson 2006). As these kinds of tool were
considered an important influence system, and therefore, had to be clearly linked to the organization's strategies (Galpin 1998).

The tool was inspired by theories such as Total Quality Management, Organizational Effectiveness, and drew on models such as the Balanced Scorecard. The Pathfinder was developed in-house and consisted of a number of key performance indicators presented through a web-based interface.

In the organization, strategies are reviewed annually by top management and sent out via email to the regional managers. For the year 2006 the document included 30 strategies grouped under three headings: “Customer”, “Way of working” and “Co-workers”. Instead, each regional manager together with the district managers then rank the strategies according to their relevance for the context and activities of the region and districts, and devise short-term action points for each ranked strategy.

5. FINDINGS

We found that the performance measurement framework and tool did play a role in raising employees' awareness of the organization's strategies, especially among higher management levels. One explanation could be that in determining the performance indicators, the development team set up three criteria: 1) They should be relevant to the organization; 2) They should be connected with the strategies; and, 3) They should be easy to measure.

The first requirement was determined by interviews with line managers, where these were asked to rank indicators from a list of 50. The first criterion, as witnessed by several respondents, created a participative feeling among line managers, on which the development team later capitalized. The second requirement was determined by comparing indicators to the strategies developed by the management team. The third criteria was derived from previous studies on self-assessment (Samuelsson and Nilsson 2002). The result was a list of 12 performance indicators sorted under 4 headings “Finance”, “Customer”, “Procedures” and “People.”

One of the prerequisites of the measurement tool was that it would create a virtual representation of the organisation’s reality. Thus the organization’s performance would be visible and transparent, triggering motivation for improvement and align units with the organization’s goals. Another prerequisite was that the framework was simple. Therefore the indicators had to be kept to a minimum. As one of the top managers aptly put it: “To achieve depth in the endeavour, the concept has to be very easy to grasp.” One of the devises to achieve simplicity was through colour coding, which the respondents described as extremely effective. There was not mistaking “being in the red.”

During the development phase, the technical functionality of the measurement tool and the indicators were tested in pilot tests involving the upper management levels. The pilot tests also served another purpose,
namely to gain supporters for the tool before it had been launched company wide. The performance indicators were also presented and explicated at management meetings prior to their implementation. Respondents at the regional level felt that they had been able to voice their opinions in the development of the framework, which made it easier to justify its use to their subordinates.

Thus, in the strategy meetings, after the implementation of Pathfinder, we observed that the units’ current performance results were used as a base for ranking the strategies. The performance figures were evaluated and the participants discussed what actions could or should be taken to improve negative results, as these related to their own contexts. However, there were 30 strategies, some of which were so abstract that it was difficult for the participants to link them to their activities and to their performance.

Using an IT-system as the medium for performance measurements enables the results to be readily availability to the managers, for whom computers are a common work tools. For them the tool had a high degree of physical accessibility, but this is not so for all the employees. The fact that the system stores and organizes the information in user-friendly chunks reduced managers’ workload and directed their attention to what was being prioritized at organizational level. Prior to the Pathfinder, performance measurement results were spread in a system of binders, which made them difficult to find and to synthesize. Their link to the corporate strategies was rather diffuse.

The question of a system’s affective accessibility refers to the users’ motivation to use the system or their attitudes toward the system. This in turn will have an effect on the system’s ability to raise employees’ strategy awareness. To enhance motivation, the performance-measurement framework was designed as a continual internal benchmarking process, catering to the inherent competitive culture of the organization. As one of the respondents put it:

*We are always competing. We do not receive a silver medal when we come in second place in a tendering process.*

As a further motivation, incentives such as bonuses and awards were tied to the system, which further stimulated the competitive mindset. Not all the managers, however, were happy having their performance results advertised throughout the company, especially not when these were negative.

Even though the new performance measurement tool was generally perceived as successful by the development-project members and by higher-level managers, this was not the case among lower-level management. Here there was markedly less physical and affective accessibility. Access to performance-measurement results was limited to line-management levels. Project members, despite the fact that projects were the core activity of the construction organization, did not have physical accessibility. This seems strange for a system that professes to be
transparent, and in turn, influenced motivation. Lower-level management and the project members had been less involved in the development process and therefore had difficulties appropriating the framework. As a result many of them simply ignored it; they became non-users.

6. DISCUSSION AND CONCLUSIONS

Meaning is highly context-dependent and constructed through talk and action, where interlocutors make sense of a situation from their own frame of reference. By tailoring the performance-measurement framework and tool to the particular contingencies of the organisation, rather than adopting an established framework, the development team ensured that the beliefs about the system’s value were shared (Kraut et al. 1998). Involving members from the organization in the development of the system, as well as paying heed to the organizational culture and norms ensured that the system would have advocates, which greatly increased the chances of successful implementation.

However, these chances were curtailed in this case by the lack of involvement of the lower managerial levels (Björnström and Räisänen 2006). This is, perhaps, not surprising since strategies are formulated by top-management, as are performance measures. The lower echelons were left outside the information loop, which increases an already well-entrenched gap. It is difficult for employees to be motivated about measurement results and strategies that are only viewed once a year, and which they may not even understand. For this reason, performance measurement does not seem to help empower employees.

The choice of IT-medium, which may seem obvious for many other types of organizations, is nevertheless not so obvious for a purportedly conservative construction industry. The choice facilitated access to updated information on the current status of the units’ performance. According to Mintzberg (1994) one of the problems of relying on hard data as a tool for strategic management is that they may have lost their relevance when the final strategic decisions are made. Having access to current up-dates does not only enhance information management, but it also has positive effects on motivation. It is therefore of the outmost importance that the system continues to be maintained. Some of the respondents complained that both access and maintenance was problematic, which rendered them less willing to use the system.

The results from this study of one construction organization show that a performance-measurement tool that is developed in-house does raise awareness of corporate strategies. They can form the basis for a focused dialogue concerning a unit’s performance and the linkages to overriding strategies. This focus on priorities at both local and organizational levels mitigates conflicting actions.
To conclude, performance measurement can be an effective method of communicating corporate values and strategies. However, measurement should not be the only criteria for evaluation that an organization communicates since, as the saying goes: How can you improve what you can’t measure? But how can you measure what you can’t describe? (Kaplan and Norton 2004) People also have to make sense of the measures!

7. REFERENCES

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