Stimulating Strategically Aligned Behaviour Among Employees

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ABSTRACT Strategically aligned behaviour (SAB), i.e. employee action that is consistent with the company’s strategy, is of vital importance to companies. This study provides insights into the way managers could promote such behaviour among employees (who can be managers as well) by stimulating employee motivation, by informing employees, and by stimulating the development of their capabilities. The results of surveys conducted in three organizations suggest that, first, perceived efforts by management aimed at motivating and informing employees (both managers and non-managers), and at developing their capabilities, each are related to SAB. Second, among the perceived efforts to stimulate motivation among employees, providing a rationale for the strategy and an open communication climate have a stronger relationship with SAB than participation in decision making and supportiveness. Third, the perceptions of the different types of managerial effort are related to each other. For this reason, the efforts have direct as well as indirect relationships to SAB. Fourth, each of the perceived efforts seems to be complementary to the others, in the sense that the relationship of one type of effort to SAB is stronger when other types of effort are perceived to be higher.

INTRODUCTION

The successful implementation of an organization’s strategy is essential for the optimal performance of the organization (Noble, 1999). However, as several authors have argued (e.g. Mintzberg, 1978; Nutt, 1987), strategy implementation is often far from straightforward, with many strategies failing to be implemented or having to be substantially adjusted. In many cases, strategy implementation does not merely involve adjusting organizational structures and control systems, but requires complex interaction processes between managers and employees (Skivington and Daft, 1991). The complexity of strategy implementation has increased in recent decades as companies increasingly provide their employees with greater autonomy and flexibility in doing their jobs.
(Ichniowski et al., 1996). Reflecting this complexity, Noble (1999, p. 120) defines strategy implementation as ‘the communication, interpretation, adoption, and enactment of strategic plans’.

In this paper, we focus on the influence of employee perceptions of different managerial efforts on the degree to which employees take initiatives to implement the company’s strategic goals. Following Gagnon and Michael (2003), we term this latter type of behaviour ‘strategically aligned behaviour’ (SAB), which is defined as ‘on-the-job actions that are aligned with the strategy’ (p. 26). We mainly focus on the SAB of managerial employees, investigating the degree to which this behaviour is influenced by the perceived efforts of the managers above them in the hierarchy. SAB by managerial employees corresponds with what Nutt (1987) refers to as ‘implementation tactics’, and partially with what Mantere (2008) terms ‘middle manager strategic agency’. Previous studies have emphasized the importance of (middle-level) managers in strategy implementation (e.g. Burgelman, 1983; Wooldridge and Floyd, 1990). According to Schendel and Hofer (1979), SAB by managerial employees generally fall into two categories: (1) interpersonal behaviour aimed at ensuring that their subordinates take the strategy into account in their day-to-day work (such as communicating about the strategy); and (2) initiating specific projects that effectively implement the strategy, like developing new product lines. In addition to managers, we also look at SAB of non-management employees. SAB can be seen as a subset of two types of employee behaviours which have been discussed extensively in the literature: (1) task performance or in-role behaviour; and (2) contextual performance or organizational citizenship behaviour. Task performance refers to ‘activities that either supported or directly contributed to the transformation of the organization’s inputs to outputs’, while contextual performance refers to ‘activities that supported the social and psychological context in which the organization’s technical core was embedded’ (LePine et al., 2002, p. 53). The key characteristic of SAB is that both of these types of behaviour contribute to the realization of the strategy. However, Colvin and Boswell (2007) argue that behaviours by employees that are the most essential ones for implementing the strategy are not part of routine behaviour, and cannot be exactly prescribed. These activities involve discussing the strategy with others, coming up with initiatives that help implement it, and helping others to implement the strategy. These behaviours relate to contextual, rather than task performance. Therefore, in this study we focus on contextual types of SAB. Finally, SAB should be distinguished from employee involvement in the formulation of a strategy. In our study we consider the organization’s strategy a given, and focus on the contribution of employees (managerial and other) to its implementation.

Previous research has suggested that the degree of success in implementing a company’s strategy is influenced by several factors controlled by managers (see Noble, 1999). These factors can be broadly distinguished into ‘hard’ factors, related to organizational systems and structure (like roles and incentives), and ‘soft’ factors, related to interactive processes between managers and employees (Dell et al., 2003; Noble, 1999). Regarding ‘hard’ factors, research has shown that the company’s internal reward and control systems determine the degree to which employees attach importance to the company’s strategic objectives (Strahle et al., 1996), are motivated to behave in accordance with them (Gottschalg and Zollo, 2007), and are more likely to actually do so (Besser, 1995; McMullen and Shepherd, 2006). Studies on ‘soft’ factors have focused on aspects such as
management support for the strategy, employee training and development, communication, and participative decision making. For example, research has shown that the degree to which senior management supports the company’s strategy is related to the degree to which individual employees accept the strategy (Caldwell et al., 2004) but not to the performance of individual employees in implementing the strategy (Noble and Mokwa, 1999). Furthermore, Schneider et al. (2003) showed that employee training and development enhances employee understanding of the organization’s strategy, while Lee and Miller (1999) showed that training and development can enhance the effectiveness of strategy implementation at the aggregate firm level. Previous studies have also shown that the amount and accuracy of information concerning the strategy affects the degree of strategic consensus (Rapert et al., 2002) and the overall success of strategy implementation at the firm level (Hambrick and Cannella, 1989). Finally, studies by Sagie and Koslowsky (1994) and Ye et al. (2007) provided evidence that allowing employees to participate in decision making regarding strategy implementation leads to increased employee performance with respect to the strategy. On the other hand, in Noble and Mokwa’s (1999) study, participation in decision making did not have a significant effect on the strategy implementation performance of managerial employees. Together, these studies suggest that different types of ‘hard’ and ‘soft’ managerial actions can influence the degree to which employees understand their organization’s strategy, the degree to which they accept the strategy, as well as the degree to which they actually take initiatives to implement the strategy (i.e. SAB).

In the present paper, we focus on the relationships of three sets of perceived ‘soft’ variables with SAB: (1) perceived management efforts to stimulate motivation; (2) perceived management efforts to stimulate capability development; and (3) perceived management efforts to inform employees. We focus on ‘soft’, rather than ‘hard’, factors, because soft factors are generally more important in determining implementation success (Dell et al., 2003). Furthermore, we chose these specific variables because they cover most of the ‘soft’ factors discussed in previous research, and also because they correspond to three broad types of variables postulated as antecedents of employee job performance, namely ‘willingness’, ‘capacity’, and ‘opportunity’ (Blumberg and Pringle, 1982; Mitchell and Larson, 1987; Peters and O’Connor, 1980). In this paper, we focus on employee perceptions of these managerial efforts instead of the actual efforts themselves, because these perceptions are more proximal antecedents of employee behaviour (e.g. James and Jones, 1974). That is, what matters to SAB are primarily employee perceptions of managerial practices, rather than the actual practices themselves.

Our research extends previous work on strategy implementation in three ways. First, we focus on the behaviour of individual employees, whereas the majority of previous studies on strategy implementation have examined strategy implementation success at the firm level (see Noble, 1999). Second, our research primarily seeks to explain employee behaviour, namely, the degree to which employees take initiative to implement their organization’s strategy. Most studies that investigate employee responses to their organization’s strategy focus on either the attitudes of employees toward the strategy, i.e. strategic commitment (Caldwell et al., 2004; Gagné et al., 2000; Gottschalg and Zollo, 2007), or on employee understanding of the strategy, i.e. strategic consensus (Bowman and Ambrosini, 1997; Kellermanns et al., 2005). However, it is important for companies to
know whether employees will actually take initiatives to implement the company’s strategic initiatives. Employee consensus about, and commitment to, the company strategy is unlikely to automatically translate into a successful implementation. As is often demonstrated in social psychology research, people do not always behave in correspondence to their attitudes (e.g. Fazio and Zanna, 1981). Third, we include multiple types of antecedents of SAB, including not only motivation-related variables (perceived efforts to stimulate employee motivation), but also variables related to capabilities (perceived efforts to stimulate employee capability development) and opportunities (perceived efforts to inform employees). Most of the previous studies that focused on the link between perceived management actions and SAB have looked at only one type of antecedent, especially at antecedents related to motivation (e.g. Noble and Mokwa, 1999; Piercy et al., 2006). We specifically examine whether these three types of antecedents are complementary in their effects on SAB, that is, whether the effectiveness of one type of perceived action is enhanced when the other types are perceived to be utilized to a sufficient degree. Such a phenomenon might explain some of the contradictory findings in the literature regarding particular types of motivating efforts like participative decision making (e.g. Noble and Mokwa, 1999; Ye et al., 2007).

HYPOTHESES DEVELOPMENT

The theoretical model for this study is shown in Figure 1. Based upon past theorizing and research, we argue that the perceived efforts of managers to (1) stimulate motivation among employees to contribute to the implementation of the company’s strategy, (2) stimulate the development of employee capabilities necessary to execute the strategy, and (3) inform employees about the strategy and their role in its implementation, influence the degree to which these employees behave in a way that supports the strategy (i.e. SAB). This is indicated in Figure 1 by the bold lines. We also propose that these types of efforts influence each other, indicated by the regular-styled lines labelled with letters ‘A’ to ‘D’. Through these mutual influences, we expect that the types of efforts also have indirect effects on SAB. Finally, we propose that the different types of effort are complementary in their effects on SAB. This implies that the efforts interact with each other, in the sense that the effectiveness of one type of effort depends on whether the other two are present. These interactive effects are indicated by the dashed lines.[2] We elaborate on our model, and the hypotheses flowing from it, in the sections below.

Influence of Perceived Efforts to Stimulate Motivation on Strategically Aligned Behaviour

One key antecedent of employee behaviour and performance is the degree to which employees are motivated to perform the tasks assigned to them (e.g. Blumberg and Pringle, 1982). What types of efforts can managers undertake in order to stimulate employee motivation to implement their organization’s strategy? Several authors have discussed such efforts (see Mitchell and Larson, 1987, for an overview). For example, Locke’s (1978) goal setting theory posits that providing employees with clear, difficult
goals increases their motivation and performance, because such goals give employees the feeling that management trusts their expertise. However, later empirical studies regarding goal setting established that it is not only the goal that is important, but also the manner in which it is ‘sold’ to employees (Latham et al., 1988). Nutt (1987, 1998, 2008) has shown that when a clear rationale for a strategic goal is provided, implementation success is higher than when the goal is explained without any justification. This is presumably so because explaining the rationale assures employees that the goals are worthwhile and attainable.

In addition to communication about the strategy as such, several studies have examined the influence of the more general construct of communication climate on employee
motivation. Communication climate is defined in terms of three dimensions (Smidts et al., 2001, p. 1053): ‘openness and trust (candor) in communication, perceived participation in decision making (or the feeling of having a voice in the organization), and supportiveness (or the feeling of being taken seriously)’. Smidts et al. (2001) showed that a stimulating communication climate increases employee identification with their organization. This occurs because openness, participation, and supportiveness increase employees’ sense of belonging to the organization as they give employees the feeling that management regards them as a true member of the organization (Smidts et al., 2001). Furthermore, openness, participation in decision making, and supportiveness enhance the benefits of being a member of the organization, because they give employees the feeling that they are valued (Smidts et al., 2001). When employees perceive membership in the organization as more beneficial, they also identify stronger with it. In turn, employee identification can lead to greater employee efforts to implement the organization’s strategy (Lee and Miller, 1999). Consistent with these findings, research has demonstrated that allowing employees to participate in important decisions affecting the organization (e.g. through discussion sessions or problem solving teams) leads to a greater employee commitment (e.g. Argyris, 1957; Sagie and Koslowsky, 1994), to a better employee performance (Ye et al., 2007) and to a more successful implementation of the decisions (Nutt, 1987, 1998, 2008). On the negative side, research on organizational silence has shown that when management does not stimulate employee participation and does not acknowledge employee opinions, a ‘climate of silence’ is created, in which employees feel reluctant to speak out on important issues (Morrison and Milliken, 2000). This in turn leads to a decrease in employee motivation and commitment (Bowen and Blackmon, 2003; Morrison and Milliken, 2000). Some studies have directly linked communication climate to SAB. Specifically, Edmondson (2003) found that communication climate positively influenced employee motivations to speak up to their superiors about problems that occurred while using a new work procedure. Gibson and Gibbs (2006) established that a good perceived communication climate motivates employees of firms focusing on innovation to come up with actual innovations. Mantere (2008) showed that respect by top management for the capabilities of middle managers is important for these middle managers to make an effort to implement the organization’s strategy. Therefore, we propose the following hypothesis:

**Hypothesis 1**: The higher the perceived efforts by management to (1) provide a rationale for the company’s strategy, (2) stimulate openness in communication, (3) enable employee participation in decision making, and (4) stimulate supportiveness, the higher SAB by employees will be.

**Influence of Perceived Efforts to Stimulate Capability Development on Strategically Aligned Behaviour**

In addition to motivation, a widely recognized antecedent of employee behaviour is the degree to which employees are capable of performing their jobs (e.g. Peters and O’Connor, 1980; Vroom, 1964). These capabilities may include skills, habits, and tacit or explicit knowledge (Schmidt et al., 1986). Naturally, the degree of SAB displayed by
employees (both managerial and non-managerial) is also dependent on whether they have the capabilities necessary to carry out the required behaviour. These capabilities might include leadership and communication skills, planning skills, and knowledge and expertise in the disciplines to which the strategy relates (e.g. new product development or customer relationship management). Efforts by managers to stimulate the development of such capabilities may include formal or informal training programmes aimed at providing knowledge and skills that are needed to implement the strategy, or providing resources that are needed to implement the strategy, such as information systems and service facilities (Heskett et al., 1997, 2003).[3] Colvin and Boswell (2007) argue that such efforts lead to more SAB, and Mantere (2008) provides empirical evidence that these efforts indeed stimulate SAB by middle managers. Therefore, we posit:

**Hypothesis 2**: The higher the perceived efforts by management to stimulate employee capabilities to execute the organization’s strategy through providing training and resources, the higher SAB by employees will be.

**Influence of Perceived Informing Efforts on Strategically Aligned Behaviour**

As argued by Blumberg and Pringle (1982), employees not only need to be motivated and capable, but they also need to be provided with the opportunity to perform a desired behaviour. Empirical studies have demonstrated that this opportunity is an important determinant of employee behaviour and performance (Kane, 1997; Stewart and Nandkeolyar, 2006). One important type of managerial action that provides this opportunity is the efforts by managers to inform employees about the company strategy (Colvin and Boswell, 2007). Peters and O’Connor (1980) show that a lack of the necessary information required to perform an assigned job is a common problem that impedes employee performance. According to Boswell (2006), two types of information are relevant in terms of implementing a company’s strategy: (1) information about the strategy itself; and (2) information about the employee’s role in the ‘big picture’ of the strategy. That is, in order to stimulate SAB, managers should inform employees about what the strategy entails on an abstract level and about the way in which they can contribute to its implementation. Mantere (2008) showed that both types of informing efforts are important in stimulating middle managers to engage in strategy implementation efforts (i.e. SAB). These informing activities are distinct from efforts to provide a rationale for the strategy, as discussed under ‘motivating efforts’ (because the latter focus on ‘selling’ rather than ‘telling’; see Latham et al., 1988), and also from efforts to provide employees with knowledge and skills that are necessary to implement the strategy, discussed under ‘capability development’. We hypothesize:

**Hypothesis 3**: The higher the perceived efforts by management to provide employees with information about the organization’s strategy (in general and regarding the role of employees in strategy implementation), the higher SAB by employees will be.
Indirect Effects of Perceived Efforts to Motivate, Stimulate Capability Development, and Inform

Besides the effects we discussed so far, we expect the different types of perceived managerial efforts also to have indirect effects on SAB. Specifically, we reason that a particular type of perceived efforts may not only directly stimulate or facilitate SAB, but can also enhance the degree to which employees perceive that management performs other types of efforts. That is, a particular type of perceived efforts may also influence SAB because it influences the employee perceptions of other types of effort.

First, management’s attention to the development of employee capabilities may increase employees’ feelings that the organization cares about their well-being (Lee and Miller, 1999). In turn, these feelings may stimulate employee motivation. A perceived effort to develop capabilities can give employees the feeling that management is truly committed to actually implementing the strategy (Carter et al., 1999), which can also increase employee motivation. Furthermore, Bandura’s (1997) self-efficacy theory suggests that the degree to which people perceive themselves to be capable of executing a task can be an important motivating factor because it stimulates them to persevere in the face of difficulties. A large number of empirical studies have confirmed that perceived capabilities, independently of actual capabilities, indeed influence people’s performance on several tasks (see Judge et al., 2007). Therefore, we expect that perceived management efforts to stimulate capability development will increase employee perceptions that managers try to motivate them regarding the strategy (see the arrow labelled ‘A’ in Figure 1).

Second, efforts to develop capabilities related to an organization’s strategy are likely to increase employee understanding of the strategy, and of their role in implementing it. Formal training and other activities aimed at stimulating the development of the employee capabilities to implement the organization’s strategy (e.g. mentoring) are likely to make that strategy more salient, thereby increasing employee understanding of it (Schneider et al., 2003). These types of activities can also function as socialization mechanisms helping new employees to become familiar with organizational values (Chatman, 1989; Louis et al., 1983), thereby facilitating understanding of strategic objectives. Therefore, we expect that perceived efforts to stimulate employee capability development will also increase perceptions of managerial efforts to inform employees about the strategy (see the arrows labelled ‘B’ in Figure 1).

Third, information about the organization’s strategy, besides providing employees with sufficient opportunity to perform the desired behaviours, can also reduce employees’ feelings of uncertainty regarding their jobs (Bordia et al., 2004; Schweiger and Denisi, 1991). When employees feel less uncertain, they are more likely to feel committed to the organization and more likely to perform better in their jobs (Hui and Lee, 2000; Schweiger and Denisi, 1991). In addition, research on goal setting showed that giving employees information about organizational goals stimulates their motivation to achieve these goals, because it stimulates their confidence that managers trust their expertise (Latham et al., 1988; Locke, 1978). Therefore, we expect that perceived efforts to inform employees about the strategy, and about their roles in implementing the strategy, will lead to more perceived motivating efforts (see the arrows labelled ‘C’ in Figure 1).
Finally, we also expect that perceived management efforts to inform employees about the strategy in general will increase perceived efforts to inform employees about their roles in implementing the strategy (see the arrow labelled ‘D’ in Figure 1). The reason for this is that employees who have more information about the strategy are more likely to develop an understanding of how to contribute (Boswell, 2006).

**Interactive Effects of Perceived Efforts to Motivate, Stimulate Capability Development, and Inform**

In addition to the effects of the three types of perceived managerial efforts on SAB (both direct and indirect), it seems likely that perceived efforts aimed at motivating, developing capabilities, and informing are complementary in their effects on SAB. That is, one type of perceived effort will have more effect when the other types of effort are also perceived to be present, and less effect when the other two types are not perceived to be present (cf. Blumberg and Pringle, 1982). For example, when an employee is motivated to do something, but is not provided with the capabilities or the opportunity to do so, the motivation is unlikely to lead to actual behaviour. The lack of capability and opportunity then acts as a barrier for behaviour to occur. Vroom (1960) already demonstrated empirically that motivation and capabilities are complementary in producing behaviour. Bandura’s (1997) self-efficacy theory also states that the motivating influence of incentives depends on the degree to which people perceive themselves as capable of executing the desired behaviour. Similarly, Judge et al. (2007) showed that the motivating influence of perceived capability is stronger when difficult goals are set (a factor known to influence motivation).

To the interactive effects of motivation and (actual) capabilities, Blumberg and Pringle (1982) added situational opportunities, proposing that opportunities complement both motivation and capabilities. Pringle (1994) tested this proposition empirically, but he only found support for the interactive effects of motivation and capability. This suggests that opportunity does not always moderate the effects of motivation and capability, presumably because in many cases the opportunity is the same for all persons involved; however, opportunity would moderate the effects of both motivation and capabilities where substantial differences in opportunities exist between different employees (Peters et al., 1982; Pringle, 1994). Therefore, we propose that perceived managerial actions aimed at motivation, capability development, and informing, will interact with each other in their effects on SAB. Specifically, we hypothesize:

**Hypothesis 4**: Perceived managerial efforts to motivate employees regarding the strategy are more strongly related to SAB when employees perceive (1) more efforts to develop employee capabilities regarding the strategy and (2) more efforts to inform employees about the strategy (in general and regarding the role of employees in implementation).

**METHOD**

To test our model, we collected data from three large companies via an online survey. Prior to conducting the survey, we held interviews with each company’s top communi-
cation manager and director of strategy to determine the content of the strategies, both in the abstract and in terms of day-to-day work activities. We also examined documents about the strategies that these managers provided to us. The first company (Organization 1) is a large multinational logistics company employing approximately 140,000 people. It consists of a headquarters and two divisions, which since a couple of years both operate under the corporate name. Before that time, the two divisions used separate brand names. The company’s main strategic objective at the time of this study dealt with operational efficiency. Efficiency has always been important to the company, but recently the company defined it as its key strategy in order to cope with external market pressure and enhanced competition. For this reason, it was important that employees not only routinely tried to work as efficiently as possible, but also actively tried to look for ways to improve efficiency even more. The second company (Organization 2) is an insurance company with approximately 6,500 employees. Contrary to Organization 1, it is a local player concentrating its efforts on its home country and to a limited degree on the neighbouring countries. It consists of a head office and six divisions. Most of these divisions are recently acquired companies and still operate under their own brand names. This company had recently introduced a set of key values in order to cope with growing pressure from society in terms of ethical business conduct. In addition, the company had recently made acquisitions and wanted to stimulate integration of the new business units into the organization. Therefore, the values served a dual purpose: (1) stimulating ethical awareness and conduct among employees; and (2) increasing internal cohesion between the ‘old’ and ‘new’ divisions. Thus, although the values as such are abstract principles, their aim was to change concrete employee behaviours. The third company (Organization 3) is a large multinational electronics manufacturing company employing approximately 125,000 people. It consists of a head office and five divisions, all of which operate under the corporate name since several decades. This company recently introduced strategic plans to stimulate focus on the customer benefits of its products, rather than on technological innovation. This strategy implied (1) a fundamental shift in the focus of the company’s product portfolio, as well as (2) a need for more internal collaboration among the company’s divisions.

Respondents

Given that Organization 1 wanted to focus the survey on its management-level employees, all of the company’s top and middle-level managers, excluding the top 250 which were involved in actually formulating the strategy were considered as the population for this study. This group consisted of 2,923 employees in total. All of these employees were asked to participate in the study; 903 actually participated, yielding a response rate of 30.9 per cent. In Organization 2, a random sample was taken of 2,513 employees, stratified according to business units and functional levels. The overall response rate was 35.8 per cent (n = 900). In Organization 3, its management was interested in the opinions of higher-level employees, which included managers but also professionals. Therefore, a stratified random sample of 4,797 higher-level employees was drawn from all six units. The overall response rate was 14.5 per cent (n = 696).
To provide some indication of the representativeness of the samples, we compared the samples with the populations of employees on some demographic data that were available. These were the division or subsidiary that the employees worked for, their country of residence, and their gender. One could expect that these variables could be related to non-response to the survey, which is a prerequisite for the variables to be considered relevant (Sharot, 1986). For example, it seems likely that people from some divisions or countries (e.g. the company headquarters or the company’s home country) are more likely to participate in the survey than people from other divisions or countries, because they might identify more strongly with the organization as a whole. For Organization 1, these data were available for all employees in the population (top and middle level managers). For the other two organizations, data about gender and country did not exist for the population. However, Organization 3 published percentages of female employees among its executives in its social responsibility report, as an indication of employee diversity. The available percentages for the three organizations are given in Table I. It can be seen that there is a reasonable correspondence between the samples and the populations with respect to the available demographic data. A few minor deviations are notable. In all three organizations, the sample seems to contain relatively many employees from the corporate headquarters. And in the samples for which data about gender were available, there seem to be relatively few females in management positions compared to the population. However, these deviations seem to be insubstantial. Therefore, we think that we can conclude that the samples are representative of their populations, at least with respect to the demographic variables that were available.

Table I. Comparison between samples and populations

<table>
<thead>
<tr>
<th>Division</th>
<th>Organization 1 Population</th>
<th>Organization 1 Sample</th>
<th>Organization 2 Population</th>
<th>Organization 2 Sample</th>
<th>Organization 3 Population</th>
<th>Organization 3 Sample</th>
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<tbody>
<tr>
<td>Headquarters</td>
<td>5.5%</td>
<td>7.3%</td>
<td>3.5%</td>
<td>5.2%</td>
<td>0.9%</td>
<td>4.2%</td>
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<tr>
<td>Division 1</td>
<td>49.9%</td>
<td>45.7%</td>
<td>12.3%</td>
<td>11.3%</td>
<td>11.7%</td>
<td>12.5%</td>
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<tr>
<td>Division 2</td>
<td>44.6%</td>
<td>47.0%</td>
<td>2.2%</td>
<td>2.9%</td>
<td>6.7%</td>
<td>9.9%</td>
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<tr>
<td>Division 3</td>
<td>6.2%</td>
<td>7.2%</td>
<td>13.8%</td>
<td>10.8%</td>
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<tr>
<td>Division 4</td>
<td>50.6%</td>
<td>49.2%</td>
<td>22.0%</td>
<td>26.9%</td>
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<tr>
<td>Division 5</td>
<td>4.4%</td>
<td>5.8%</td>
<td>24.6%</td>
<td>25.9%</td>
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<tr>
<td>Division 6</td>
<td>20.8%</td>
<td>18.3%</td>
<td>20.2%</td>
<td>9.9%</td>
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<tr>
<td>Country</td>
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<tr>
<td>Organization’s home country*</td>
<td>68.8%</td>
<td>64.1%</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
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<tr>
<td>Other countries</td>
<td>31.2%</td>
<td>35.9%</td>
<td>–</td>
<td>–</td>
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<tr>
<td>Gender</td>
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<tr>
<td>Male</td>
<td>71.6%</td>
<td>75.5%</td>
<td>–</td>
<td>94.0%</td>
<td>97.4%</td>
<td></td>
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<tr>
<td>Female</td>
<td>28.3%</td>
<td>24.5%</td>
<td>–</td>
<td>6.0%</td>
<td>2.6%</td>
<td></td>
</tr>
</tbody>
</table>

Notes: * Because in Organization 1, there were relatively few respondents for each country outside the organization’s home country, we only provide the percentages for home country versus other countries here.
Participation in the study was voluntary for all three organizations, and responses to the questionnaire were anonymous. This was also emphasized at the beginning of the questionnaire.

Measures

Employee perceptions of managerial efforts were measured using formative scales. Briefly, in a formative scale, the underlying construct is defined by its items, while in a reflective scale, the items are reflections of the construct (Diamantopoulos and Winklhofer, 2001; Jarvis et al., 2003). Statistically, the weight of an individual item in a formative scale is determined not by the path from the construct to the item (as in a reflective scale), but by the path from the item to the construct. When there is more than one item, this implies that the weights are multiple regression weights reflecting the unique contribution of each item. In terms of content, this means that in a formative scale, each item should have a unique contribution to the construct, while in a reflective scale each item is interchangeable. In the case of our concepts, we define the different categories of efforts (motivating, capability development, and informing) as a collection of specific, unique efforts that together determine the category. For example, motivating efforts are defined in terms of four separate actions: providing a rationale for the strategy, openness in communication, employee participation in decision making, and supportiveness. Clearly, these are not interchangeable reflections of the same construct. Therefore, we think that formative scaling is appropriate for our constructs. Traditional methods of examining scale reliability and validity, which are based on correlations between the items used to measure a construct, are irrelevant for formative scales; instead, we applied the following steps, as suggested by Diamantopoulos and his colleagues (Diamantopoulos and Siguaw, 2006; Diamantopoulos and Winklhofer, 2001): content specification, indicator specification, assessing potential indicator collinearity, and assessing criterion validity. We will provide details on these steps for each measure below. After applying these steps, we created scores for each construct by computing a weighted sum of the items corresponding to the construct. The weights were obtained by estimating a Partial Least Squares (PLS) path model (see Tenenhaus et al., 2005). PLS is an estimation method for structural equation models that is more suitable for formative scales than methods that rely on maximum likelihood estimation, such as LISREL (Diamantopoulos and Winklhofer, 2001). A PLS model always includes the relationships between items and their constructs as well as the hypothesized relationships between the constructs. This is because the weights of the items depend on their construct’s relationships with other constructs (Tenenhaus et al., 2005). We used the programme PLS-GUI 2.0.1 (Li, 2005) for the estimation.

Motivating efforts. First, following the first step prescribed by Diamantopoulos and Winklhofer (2001), the content of motivating efforts was specified. Based on our discussion in the hypotheses development section (Hypothesis 1), we distinguish two main types of efforts aimed at stimulating motivation: (1) explaining the rationale for the organization’s strategy; and (2) communication climate. Communication climate is further specified as openness, participation in decision making, and supportiveness (Smidts et al., 2001). In
agreement with these categories, we specified the indicators of the construct (Diamantopoulos and Winklhofer’s second step) through four items, each corresponding with one of these dimensions, as well as two overall items measuring the degree to which managers and the internal media stimulate employees to be more involved with the company. The latter are items denoting the overall communication climate (cf. Downs and Hazen, 1977; Gregson, 1990). Example items are ‘At [company], management is sufficiently involved in decision making’ (participation in decision making), and ‘My direct manager motivates me strongly to be more involved with our company’ (overall communication climate). These items were rated on 5-point Likert scales. The third step in Diamantopoulos and Winklhofer’s scheme is assessing indicator collinearity. This is necessary because formative items each should have a unique contribution to the construct. When some items are collinear (i.e. highly correlated) with other items, this implies that they do not provide a unique contribution. To assess collinearity, we first examined the correlations between the items. These correlations were modest, ranging between 0.26 and 0.76 for the three organizations. Given our sample size, correlations of such magnitude are unlikely to lead to collinearity problems (Grewal et al., 2004). This was verified by examining the weights of the items in testing the model (Diamantopoulos and Winklhofer, 2001). If all weights have the same sign, this implies that all items contribute to the construct and that there are no collinearity problems; this is also an indication of validity (Tenenhaus et al., 2005). Indeed, the weights for all six items were positive, although the items related to providing a rationale for the organization’s strategy, and to an open communication climate, as well as the overall items related to motivating efforts of managers and internal media, had the strongest weights for all three organizations. Finally, Diamantopoulos and Winklhofer (2001) state that the criterion (external) validity of a formative measure can be assessed by testing its relationship with another construct that is measured by reflective (rather than formative) indicators and that theoretically can be postulated to be related to it. Therefore, we looked at the path coefficient between the ‘motivating efforts’ construct and SAB. As we discuss later in our results section, this relationship is significant and positive for all three organizations. Therefore, we can conclude that the scale has adequate criterion validity.

**Capability development.** Based on our discussion in the hypotheses development section (Hypothesis 2), we specified the content of capability development efforts as (1) providing resources, and (2) providing training. Correspondingly, we specified the indicators of capability development efforts as two items related to resources and training provided to apply the strategy in day-to-day work: ‘At our company we have sufficient resources to pursue our company’s major goals’, and ‘At our company we have sufficient training to pursue our company’s major goals’. With respect to indicator collinearity, the correlations between the items ranged from 0.30 to 0.68 in the three organizations, which could not be expected to yield collinearity problems. In addition, the weights of all three items were positive. Finally, the coefficient of the path from capability development efforts to SAB was positive and significant in all three organizations, providing evidence of criterion validity.

**Informing efforts.** Regarding content specification, we argued above (Hypothesis 3) that two types of information are relevant in terms of stimulating SAB: information about the
strategy as such, and information about the employees’ role in implementing the strategy (Boswell, 2006). Following Smidts et al. (2001), we specified the indicators of perceived efforts to inform about the strategy itself as three items concerned with the degree to which employees felt that the company kept them sufficiently informed about the company’s strategy (through management and internal media). Example items are ‘My company keeps me sufficiently informed about our major goal to [description of strategic goal]’ and ‘The internal media inform me extensively about our company’s major goals’. The correlations between the items ranged between 0.33 and 0.58, which again could not be expected to produce collinearity problems. The weights of all three items were also positive in testing the model, disconfirming indicator collinearity. We specified the indicators of information about the role of employees in implementing the strategy based on Parker and Axtell’s (2001) scale which measures the degree to which employees have an ‘integrated understanding’ of their workplace, i.e. the degree to which they understand their role in the ‘big picture’ and know what other departments do. We used four items dealing with the degree to which the company kept employees sufficiently informed about how their work relates to the tasks of other employees, and about how their work contributes to the overall strategy. An example item is ‘I get enough information about how I contribute to the overall strategy’. These correlations ranged between 0.19 and 0.73, and all four items had a positive weight, again showing that there were no collinearity problems. Both types of informing had positive and significant effects on SAB (although not in all the organizations that we studied), providing some indication of criterion validity.

Strategically aligned behaviour. Five items were used to assess the degree to which employee behaviour was in alignment with the company’s strategy (see Table II). As we discussed earlier, in our operationalization of SAB we focus mainly on contextual, as opposed to task-related, behaviours. Several researchers have developed scales of contextual behaviours aimed at the organization as a whole, i.e. of organizational citizenship behaviour (OCB) (Moorman and Blakely, 1995; Podsakoff et al., 1990; Van Dyne et al., 1994). We argued earlier that for those employees who are managers, SAB consists of (1) communicating about the strategy to their subordinates and (2) planning the implementation by developing specific projects. These two types of activity are also reflected in Moorman and Blakely’s (1995) scale of OCB. Therefore, the items we developed to measure SAB were inspired by this scale, particularly by the dimensions labelled ‘individual initiative’ and ‘interpersonal helping’. The specific strategy that the items referred to was placed as a heading above the items. We treat these items as being reflective rather than formative,

<table>
<thead>
<tr>
<th></th>
<th>Items measuring SAB</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Most of my peers actively discuss this major goal amongst themselves</td>
</tr>
<tr>
<td>2</td>
<td>Most of my peers actively explain the <em>why</em> behind this major goal to their employees</td>
</tr>
<tr>
<td>3</td>
<td>Most of my peers actively take initiatives to pursue this major goal in their daily activities</td>
</tr>
<tr>
<td>4</td>
<td>Most of my peers actively help colleagues to pursue this major goal in their daily work</td>
</tr>
<tr>
<td>5</td>
<td>Most of my peers actively help their employees to pursue this major goal in their daily work</td>
</tr>
</tbody>
</table>
because LePine et al. (2002), in their meta-analysis of the OCB construct, provided evidence that OCB is a reflective construct. That is, OCB seems to be a general disposition to cooperate with others in the organization which manifests itself through behaviour, rather than a collection of unique behaviours which together define the OCB construct. Because SAB generally involves taking initiative and other discretionary behaviours (Colvin and Boswell, 2007), we think it is justified to assume that SAB is a reflective construct as well. To avoid social desirability bias, we asked respondents to rate the extent to which most members of their division performed SAB, rather than the extent to which they themselves performed these behaviours. Fisher (1993) has shown that this indirect questioning method is an effective technique in avoiding social desirability bias. All items were rated on 5-point Likert scales. We calculated the composite reliability of the scale in the manner recommended in the literature on PLS (Tenenhaus et al., 2005, eq. 9). This reliability was 0.94, 0.92, and 0.95 for Organizations 1, 2, and 3, respectively, which is well above the recommended cut-off of 0.70.

The descriptive statistics and correlations of all of the constructs for the three organizations are shown in Table III. The means for most constructs are slightly above the midpoint of the scale (which is 3), while the constructs related to perceived managerial efforts show moderate correlations with the SAB scale (ranging from 0.28 to 0.55).

RESULTS

We first tested whether the data could be pooled across the three organizations. To do this we investigated whether the covariances between the items could be considered equal among the three organizations (see Morrison, 1976). This test showed that the differences among the covariance matrices are highly significant ($\chi^2 = 1241.55$, $p < 0.0001$), which implies that pooling the data is not allowed. However, this does not yet say anything about the equality of the structural model across organizations (i.e. the equality of the effects we wanted to test). We therefore ran the model for each organization separately and examined for each coefficient whether it differed significantly across organizations through t-tests (see Chin, 2000).\textsuperscript{[4]} Because we had to make three comparisons for each effect (comparing each organization to the other two), the type I error rate would be inflated. We corrected for this by applying a modified Bonferroni procedure (Holm, 1979). These tests showed highly significant differences for 7 out of 17 effects (see Table IV). We therefore think it is safe to conclude that pooling the data across organizations is not permitted.

Because pooling the data is not permitted, we first tested our hypotheses about the relationship between managerial efforts and the SAB of individual employees using the data obtained from Organization 1. We then used the data obtained from the other two organizations to validate the resulting model.

To test our hypotheses, we estimated a structural equations model using PLS. Following the recommendations by Tenenhaus et al. (2005), we determined the significance of the structural coefficients through ordinary least squares (OLS) regressions using the latent variable scores estimated through PLS. Similarly, as recommended by Chin et al. (2003), we estimated the interaction effects through moderated OLS regressions using the latent variable scores. In addition to testing the significance of the interaction effects
<table>
<thead>
<tr>
<th>Table III. Descriptive statistics and correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization 1</td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1. Motivating efforts</td>
</tr>
<tr>
<td>2. Capability development</td>
</tr>
<tr>
<td>3. Informing about strategy</td>
</tr>
<tr>
<td>4. Informing about role</td>
</tr>
<tr>
<td>5. SAB</td>
</tr>
<tr>
<td>Sample size</td>
</tr>
</tbody>
</table>

Notes: * In PLS, latent variables always have a standard deviation of 1. This is because they are first estimated as standardized variables, to which the mean is then added back (Tenenhaus et al., 2005).
<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Dependent variable</th>
<th>Org. 1 – Org. 2</th>
<th>Org. 1 – Org. 3</th>
<th>Org. 2 – Org. 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>T-value</td>
<td>T-value</td>
<td>T-value</td>
</tr>
<tr>
<td>Main effects</td>
<td>Motivating efforts</td>
<td>SAB</td>
<td>−0.85</td>
<td>−1.33</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SAB</td>
<td>−6.33**</td>
<td>−3.56**</td>
</tr>
<tr>
<td></td>
<td>Capability</td>
<td>development</td>
<td>SAB</td>
<td>−1.42</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Informing</td>
<td>−0.71</td>
<td>0.24</td>
</tr>
<tr>
<td></td>
<td>about strategy</td>
<td>SAB</td>
<td>0.12</td>
<td>−0.99</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Motivating</td>
<td>−1.76</td>
<td>−4.26**</td>
</tr>
<tr>
<td></td>
<td>efforts</td>
<td>SAB</td>
<td>3.20**</td>
<td>2.45*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Informing</td>
<td>−1.76</td>
<td>−4.26**</td>
</tr>
<tr>
<td></td>
<td>about strategy</td>
<td>SAB</td>
<td>3.69**</td>
<td>2.70*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Motivating</td>
<td>1.84</td>
<td>1.42</td>
</tr>
<tr>
<td></td>
<td>efforts</td>
<td>SAB</td>
<td>3.57**</td>
<td>1.96</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Informing about</td>
<td>SAB</td>
<td>−0.15</td>
</tr>
<tr>
<td></td>
<td>strategy</td>
<td>role</td>
<td>SAB</td>
<td>0.15</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sample size</td>
</tr>
</tbody>
</table>

Note: ** p < 0.01; * p < 0.05.
separately, we also tested whether the 2-way and 3-way interaction effects together significantly improved the fit of the model (Jaccard et al., 1990). We can only conclude that a particular interaction effect is significant when the set of interactions to which it belongs significantly improves model fit.

Given that perceptions of both managerial efforts and SAB can be expected to be related to other aspects of the work environment, it is important to control for the influence of these aspects to avoid testing spurious relationships. First, both perceived managerial efforts and SAB are likely to differ between the different divisions of a company because of differences in workforce characteristics or ‘hard’ managerial factors such as policies and structure. Second, previous research has shown that gender, organizational tenure, and age influence employee attitudes regarding the company that they work for (Kreiner and Ashforth, 2004; Mathieu and Zajac, 1990). Third, Kreiner and Ashforth (2004) demonstrated that employee attitudes are influenced by job position: managers tend to identify more strongly with their organizations than non-managers. Therefore, we included division, gender, organizational tenure, age, and manager (vs. non-manager) as control variables in the model. For Organization 1, for which the sample consisted only of managers, we examined the influence of being a director (higher level manager) versus a ‘regular’ manager, instead of the influence of being a manager versus a non-manager. We based these distinctions on the information about the respondents’ functional levels which they provided in the questionnaire.

In addition to these control variables, we also wanted to check to what degree respondents actually understood the strategy they were required to implement. We derived a measure of understanding from an open question about the meaning of the strategy in terms of the respondent’s day-to-day work, the answers to which we coded as either ‘right’ or ‘wrong’. To do this we used a coding scheme based on information about the strategy provided by the organizations. We also verified this scheme by asking managers from the organizations to review it. In Organization 1, 74.2 per cent of the respondents correctly described the organization’s strategy. In Organization 2, this percentage was 84.3 per cent. In Organization 3, on the other hand, less than 50 per cent demonstrated a correct understanding of the company’s two main strategic issues (42.7 and 47.8 per cent, respectively).

**Results for Organization 1**

The results of the model for Organization 1 are shown in Figure 2. Regarding the main effects of perceived managerial efforts on SAB, we note that perceived efforts by management to stimulate employee motivation have a significant positive effect, as expected (Hypothesis 1). Perceived efforts to stimulate capability development also have a significant positive effect on SAB, confirming Hypothesis 2. Efforts undertaken to inform employees of the strategy as such have a significant direct effect on SAB, but informing efforts regarding the employee’s role do not (partially confirming Hypothesis 3).

Regarding the indirect effects of perceived managerial efforts on SAB, we also found that perceived efforts to stimulate capability development have a significant positive influence on perceived efforts to stimulate motivation and on both types of perceived informing efforts. This implies that managerial efforts to stimulate capability develop-
ment have both a direct relationship with behaviour and an indirect relationship, mediated by perceived motivating and informing efforts. Furthermore, both types of informing efforts have a significant positive effect on perceived efforts to stimulate motivation, and thereby also an indirect effect on behaviour. Finally, perceived efforts to inform employees about the strategy as such have a significant positive relationship with perceived efforts by the company to inform employees about their roles. To provide some indication of the relative strength of these indirect effects, we calculated, for each type of perceived efforts that had indirect effects, the ratio of the combined indirect effects of that variable to its total effect on SAB (MacKinnon et al., 1995). We see that 44.0 per cent of the effect of perceived capability development efforts on SAB is indirect, while 32.7 per cent of the effect of perceived efforts to inform about the strategy in general is indirect. For perceived efforts to inform about the role of employees in implementing the strategy, the percentage of the effect which is indirect is 43.9 per cent. Therefore, it appears that the mediated effects are relatively strong for all the three types of perceived efforts which have indirect effects.

Looking at the interaction effects, we see that adding the two-way interactions does not significantly improve the fit of the model ($F_{5,857} = 1.44, p = 0.21$), but adding the three-way interactions does ($F_{2,855} = 4.09, p = 0.02$). As hypothesized (Hypothesis 4), there is a significant positive three-way interaction among motivating efforts, capability develop-
ment efforts, and efforts aimed at informing employees about the strategy in general. This implies that the relationship of each of the three types of efforts with SAB is diminished when either one of the other two is low. Specifically, Figure 3 shows that the relationship of efforts to stimulate motivation on behaviour with SAB is strong when both

Figure 3. Interaction between perceived motivating efforts, capability development, and informing efforts (Organization 1)
efforts to stimulate capability development and informing efforts (regarding the strategy in general) are high \((b = 0.42)\), but weak when efforts to stimulate capability development are low \((b = 0.12)\), informing efforts are low \((b = -0.04)\), or both are low together \((b = 0.06)\).

**Validation of the Model for Organizations 2 and 3**

The model results for Organizations 2 and 3 are shown in Table V. The results for Organization 1 are also shown for comparison, as are the effect sizes of the significant coefficients. The latter are defined as the squared partial correlations between the independent variable and the dependent variable, holding all other variables in the model constant (Cohen, 1988). They can be interpreted as the percentages of variance in the dependent variable uniquely attributable to the independent variable. To determine the overall effects of the three types of managerial efforts across the organizations that we studied, we also conducted a test of the combined effects (Rosenthal, 1991; Snedecor and Cochran, 1989). The results of this analysis are displayed in the last column of Table V.

It can be seen that for the three organizations combined, all types of managerial efforts have a significant influence on SAB. Second, the F-tests of the added explanatory power of the interactions are significant both for the two-way interactions and for the three-way interactions. However, when looking at the coefficients of the interaction terms, only the three-way interaction between perceived efforts to motivate, stimulate capability development, and inform about the strategy in general is significant, indicating that for the organizations combined, these types of perceived effort seem to be complementary.

Third, all effects of the three types of effort on each other that we expected are significant. While for Organization 1 alone, all these mediated effects are relatively strong when compared to the direct effects, in the combined analysis they are relatively strong for perceived informing efforts about the strategy in general (54.5 per cent), but weaker for capability development efforts (20.9 per cent). The strength of the mediated effect for informing efforts about employee roles in strategy implementation is roughly in between that for the other two variables (38.7 per cent). The reason for the relatively strong indirect effect for perceived informing efforts about the strategy in general seems to be mainly that the direct effect of these perceived efforts is weaker for Organizations 2 and 3 than for Organization 1, as we will discuss below.

To test whether multicollinearity could affect the results (particularly where effects turned out to be non-significant), we estimated the Variance Inflation Factors (VIFs) and Condition Indices for each variable in the model, which are commonly used indicators of collinearity. The VIFs ranged between 1.02 (for the dummy variable indicating whether the respondent had a higher-level management function, in Organization 2) and 9.21 (for the interaction between perceived effort to motivated employees, to stimulate the development of their capabilities, and to inform about the strategy in general, in Organization 1). The VIFs for the perceived efforts themselves range between 1.20 (for efforts to stimulate capability development, in Organization 2) and 2.26 (for efforts to stimulate capability development, in Organization 3). All these values are below the commonly used cut-off value of 10 (Mason and Perreault, 1991). Similarly, the meaningful Condition Indices (i.e. those indices which were linked to high variance
Table V. Model comparison among the three organizations

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Dependent variable</th>
<th>Org. 1</th>
<th>Org. 2</th>
<th>Org. 3</th>
<th>Combined</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Path</td>
<td>ES</td>
<td>Path</td>
<td>ES</td>
</tr>
<tr>
<td>Main effects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motivating efforts</td>
<td>SAB</td>
<td>0.17**</td>
<td>0.01</td>
<td>0.22**</td>
<td>0.04</td>
</tr>
<tr>
<td></td>
<td>Motivating efforts</td>
<td>0.12**</td>
<td>0.02</td>
<td>0.40**</td>
<td>0.16</td>
</tr>
<tr>
<td></td>
<td>SAB</td>
<td>0.16**</td>
<td>0.05</td>
<td>0.11**</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>Informing about strategy</td>
<td>0.34**</td>
<td>0.12</td>
<td>0.31**</td>
<td>0.09</td>
</tr>
<tr>
<td></td>
<td>Informing about role</td>
<td>0.17**</td>
<td>0.03</td>
<td>0.16**</td>
<td>0.03</td>
</tr>
<tr>
<td></td>
<td>SAB</td>
<td>0.21**</td>
<td>0.03</td>
<td>0.05 (ns)</td>
<td>0.07</td>
</tr>
<tr>
<td></td>
<td>Motivating efforts</td>
<td>0.37**</td>
<td>0.16</td>
<td>0.44**</td>
<td>0.22</td>
</tr>
<tr>
<td></td>
<td>Informing about role</td>
<td>0.46**</td>
<td>0.20</td>
<td>0.29**</td>
<td>0.08</td>
</tr>
<tr>
<td></td>
<td>SAB</td>
<td>0.08 (ns)</td>
<td>0.07 (ns)</td>
<td>0.15**</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>Motivating efforts</td>
<td>0.36**</td>
<td>0.16</td>
<td>0.30**</td>
<td>0.12</td>
</tr>
<tr>
<td>2-way interactions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motivating × Capability development</td>
<td>SAB</td>
<td>−0.08 (ns)</td>
<td>0.09*</td>
<td>0.01</td>
<td>−0.08 (ns)</td>
</tr>
<tr>
<td>Motivating × Informing about strategy</td>
<td>SAB</td>
<td>0.06 (ns)</td>
<td>−0.05</td>
<td>(ns)</td>
<td>−0.03 (ns)</td>
</tr>
<tr>
<td>Motivating × Informing about role</td>
<td>SAB</td>
<td>−0.00 (ns)</td>
<td>0.02</td>
<td>(ns)</td>
<td>0.08*</td>
</tr>
<tr>
<td>Capability development × Informing about strategy</td>
<td>SAB</td>
<td>−0.03 (ns)</td>
<td>−0.03</td>
<td>(ns)</td>
<td>0.02</td>
</tr>
<tr>
<td>Capability development × Informing about role</td>
<td>SAB</td>
<td>0.02 (ns)</td>
<td>0.01</td>
<td>(ns)</td>
<td>−0.01</td>
</tr>
<tr>
<td>F-test of significance of 2-way interactions</td>
<td>1.44</td>
<td>1.74</td>
<td>1.51</td>
<td>4.53*</td>
<td></td>
</tr>
<tr>
<td>3-way interactions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motivating × Capability development × Informing about strategy</td>
<td>SAB</td>
<td>0.08*</td>
<td>0.01</td>
<td>0.05</td>
<td>(ns)</td>
</tr>
<tr>
<td>Motivating × Capability development × Informing about role</td>
<td>SAB</td>
<td>−0.05 (ns)</td>
<td>−0.03</td>
<td>(ns)</td>
<td>0.00</td>
</tr>
<tr>
<td>F-test of significance of 3-way interactions</td>
<td>4.09*</td>
<td>1.75</td>
<td>0.01</td>
<td>7.66**</td>
<td></td>
</tr>
<tr>
<td>Overall model fit</td>
<td>R² for SAB (including interactions)</td>
<td>0.27</td>
<td>0.34</td>
<td>0.36</td>
<td></td>
</tr>
<tr>
<td></td>
<td>R² for Motivating efforts</td>
<td>0.53</td>
<td>0.46</td>
<td>0.56</td>
<td></td>
</tr>
<tr>
<td></td>
<td>R² for Informing about strategy</td>
<td>0.20</td>
<td>0.13</td>
<td>0.12</td>
<td></td>
</tr>
<tr>
<td></td>
<td>R² for Informing about role</td>
<td>0.33</td>
<td>0.17</td>
<td>0.23</td>
<td></td>
</tr>
<tr>
<td>Sample size</td>
<td>903</td>
<td>900</td>
<td>696</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: ** p < 0.01; * p < 0.05.

Because statistical power is generally lower for interactions than for main effects (Cohen, 1988), we used an alpha of 0.05 for the interaction effects and an alpha of 0.01 for the main effects. In addition, the main effects reported are those obtained in the model without interaction effects, as main effects cannot be interpreted as such in a model in which significant interaction effects are present (Jaccard et al., 1990). Similarly, the two-way interactions reported are those obtained in the model without three-way interactions.
decomposition proportions for at least two variables) range between 1.37 (for the correlation between informing about the strategy in general and informing about the employee’s role, in Organization 1) and 11.00 (for the correlation between the two three-way interactions between the types of perceived efforts, in Organization 1). All of these values are below the commonly used cut-off of 30 (Mason and Perreault, 1991).

We also investigated to what degree the combined effects were consistent across the three organizations. To determine when an effect can be regarded as inconsistent across organizations (in spite of the significance of the combined effect), we took into account both differences in significance and differences in size. We regard an effect as inconsistent if (1) it is significant in some, but not all organizations and (2) its size differs significantly between the organizations. Following these criteria, only the direct effect of perceived efforts to inform employees about the strategy in general is inconsistent. It is significantly weaker for Organizations 2 and 3 than for Organization 1 (see Table IV), and is only significant for Organization 1 (see Table V). The rest of the effects differ either only in their significance, but not in their size, or only in their size, but not in their significance, or neither in size nor significance. The three-way interaction between perceived motivating efforts, capability development efforts, and efforts aimed at informing employees about the strategy in general is a borderline case. It is only significant for Organization 1, and its size does differ significantly between Organizations 1 and 3 at the 5 per cent level. However, there is no a priori reason to use the less conservative alpha of 5 per cent, which we used to test for the significance of the interaction effects themselves, also for the tests of the differences between interaction effects. The fact that interaction effects tend to be smaller than main effects (see Aguinis et al., 2005) does not imply that differences between interaction effects should also be smaller. Therefore, we can conclude that the three-way interaction effect is also consistent across the three organizations.

DISCUSSION

This study shows that strategically aligned behaviour (SAB) by managerial as well as non-managerial employees, which includes communicating about the strategy and taking initiative to make the strategy work, is higher when these employees feel that their managers undertake efforts to (1) stimulate employee motivation to contribute to the strategy, (2) stimulate the development of employee capabilities needed to implement the strategy, and (3) inform employees about the strategy (both in general and with respect to their roles). The positive effect of efforts to motivate employees is consistent with findings by Piercy et al. (2006) that perceived organizational support positively influences employee role performance. While assessing the measures used in this study, we discovered that among the motivating efforts considered in the present study, providing a rationale for the strategy and being open had the strongest relationships to SAB; taking employee opinions and feelings seriously, and allowing participative decision-making had weaker relationships (although still significant). This is consistent with Noble and Mokwa’s (1999) finding that while employees appreciate autonomy (participative decision-making) in implementing a strategy, this by itself is unlikely to improve their
implementation performance. On the other hand, results obtained by Ye et al. (2007) suggest that there is an effect of participative decision making on employees’ performance with respect to the strategy.

Our finding that perceived managerial efforts to stimulate the employee capabilities that are needed to implement the company’s strategy had a substantial relationship with SAB is consistent with the finding of Lee and Miller (1999) that capability development efforts increase the success of strategy implementation. Given that most strategic changes imply changes in employees’ day-to-day work activities, managerial efforts to help employees to develop their capabilities are likely to facilitate employee initiatives to implement the strategy.

We also found that perceived managerial efforts to inform employees about the organization’s strategy, and about their role in implementing it, are significantly related to SAB. This finding is consistent with Boswell’s (2006) finding that employee understanding of their role in strategy implementation significantly influenced their affective commitment towards the organization, as well as their turnover behaviour. Boswell also found that understanding of the strategy as such did not influence employee commitment and retention. This discrepancy with our findings might be explained by the fact that Boswell did not examine employee behaviour with respect to the strategy. In addition, we focused mainly on higher-level employees, while Boswell investigated employees on all functional levels. While both types of perceived informing efforts had a significant effect on SAB in our study, their effects were weaker than those of efforts intended to stimulate motivation and capability development. This is consistent with Blumberg and Pringle’s (1982) predictions and Pringle’s (1994) findings that capacity and willingness are generally more important drivers of performance than opportunity. One reason for this could be a lack of variance in the degree of opportunity in many situations (Pringle, 1994).

In addition to the direct effects of managerial efforts on employee SAB, we found that employee perceptions of the degree to which managers engage in the different types of effort are related to each other. For example, when employees feel that managers make significant efforts to inform them about the company’s strategy, and to stimulate the development of their capabilities, they are more likely to also feel that managers undertake significant efforts to stimulate their motivation regarding the strategy. The effect of perceived informing efforts about the strategy in general on perceived efforts to stimulate motivation is particularly strong. This suggests that while informing efforts do not directly influence SAB as strongly as the other types of effort, they do have a strong indirect effect. This could also be explained by the fact that both informing and motivating efforts include communicating about the strategy (either by ‘telling’ or by ‘selling’).

We also found that all three types of perceived managerial efforts appeared to be complementary in their effect on SAB. This was indicated by a significant positive three-way interaction between perceived efforts to motivate, to stimulate capability development, and to inform about the strategy in general. This finding is consistent with Blumberg and Pringle’s (1982) predictions that motivation, capability, and opportunity are complementary in their effects on employee performance. The contradictory findings in previous research regarding the effects of participation in decision making may partly be explained by this interaction. In our study, perceived efforts to stimulate employee motivation had a diminished effect on SAB when respondents perceived a low
amount of either informing efforts or efforts to stimulate capability development. This might explain why some previous studies did not find an effect of participative decision making (Noble and Mokwa, 1999), because respondents may have judged the efforts of their managers to inform them about the strategy, or to stimulate capability development, as insufficient.

There are several differences between the organizations that could explain why not all relationships were visible in each organization. Particularly, the organizations differed in the degree of employee familiarity and understanding regarding the organization’s strategy, as well as in the proportion of the respondents who were managers (with the sample for Organization 1 containing only managers, the sample for Organization 3 mainly managers, and the sample for Organization 2 all functional levels). Finally, the consequences of the different strategies for the day-to-day work activities of employees also differed among the three organizations, being relatively minor in Organizations 1 and 2 (where the strategy mainly involved an increased focus on what the companies had already been doing), and very fundamental in Organization 3 (where the strategy involved a fundamental refocus of the company’s product portfolio). More research is necessary to investigate which organizational differences are most relevant in the relationship between perceived managerial efforts and SAB.

One possible limitation of these conclusions concerns the presence of common method bias in our results, i.e. variance between the perceptions of managerial actions and SAB that is due to the fact that these constructs were measured in the same questionnaire (Podsakoff et al., 2003). For example, respondents might have tried to be consistent in their answers throughout the questionnaire, or they might have avoided giving answers that could put themselves in an unfavourable light (social desirability bias). We tried to limit the latter possibility by not asking respondents directly about their behaviour, but by indirectly inquiring about the behaviour of their colleagues (Fisher, 1993). To avoid other possible sources of common method bias, we took care to keep questions simple, specific, and unambiguous. In addition, we separated the measures of managerial actions from those of SAB by inserting questions related to familiarity and understanding of the strategy between them (Podsakoff et al., 2003). However, to completely eliminate concerns about common method bias, future studies should examine the effects of managerial efforts on SAB when these constructs are measured through different sources. For the interaction effects that we found, we can exclude the presence of common method bias with more confidence. Evans (1985) demonstrated that spurious interaction effects due to this type of bias never account for more than 0.5 per cent of the variance in the dependent variable. The percentages of variance explained by our significant interactions were approximately 1 per cent (see Table V).

Another limitation was that we only measured employee perceptions of different types of managerial efforts. We did not include measures of the proximal antecedents and consequences of these perceptions, namely, of the actual managerial efforts on the one hand, and of the actual motivation, knowledge and capabilities of employees on the other hand (except for employee understanding of the strategy). Including such measures would have strengthened our conclusions regarding the effects of the perceived efforts.

Finally, it seems likely that the managerial efforts that we identified as primarily relevant for stimulating employee motivation (providing a rationale for the company’s
strategy and the general communication climate) are important, but not sufficient, for motivation to occur. As Colvin and Boswell (2007) argue, employee motivation to contribute to the organization’s strategy also depends on the consistency of compensation systems with the company’s strategy (i.e. extrinsic motivators), and the degree to which the strategy matches with employee values (i.e. intrinsic motivators) (cf. Gottschalg and Zollo, 2007). In our discussion with the managers of the organization that we studied, it appeared that for Organizations 1 and 2, these conditions were sufficiently fulfilled. However, this was less the case for Organization 3, in which the strategic change was more complex. Therefore, it might be the case that the intrinsic and extrinsic motivators acted as omitted variables in our model for Organization 3.

Our findings suggest that to stimulate employees (either managerial or non-managerial) to take initiatives to contribute to the implementation of the organization’s strategy, managers should make sufficient efforts to stimulate employee motivation regarding the implementation of the strategy, to stimulate the development of the capabilities needed to implement the strategy, and to inform the employees about the strategy. Management can try to motivate employees by explaining the rationale behind the organization’s strategy, by allowing employees to have a say in important decisions, by taking their opinions and feelings seriously, and by stimulating an open communication climate. Capability development can be stimulated by workshops and trainings, by more informal socialization efforts, or by providing resources like information systems. Informing can be done through a number of channels, such as meetings, internal media, or informal face-to-face contacts. However, our results also show that it is unlikely that any of such efforts will succeed when applied in isolation. For example, it seems likely that efforts to inform employees about the strategy, which are not accompanied by efforts to stimulate their motivation or to facilitate capability development, will not translate into SAB. In fact, our results suggest that all three of these perceived activities are complementary, as the effectiveness of one type of perceived action is slight when the other actions are not perceived to be practiced sufficiently. Therefore, not only should managers pay attention to all three of these types of actions, ideally they should also track in some way the success of these actions. Based on our results we could also reason that the timing of the activities is important. For example, when employees have already been adequately informed about the company’s strategy, it might not be necessary to continue informing them at the same level of intensity. Instead, in such cases management should focus on stimulating employee motivation and capability development. Conversely, when employees know hardly anything about the strategy, it might be too early to focus on stimulating capability development as employees might not yet see the relevance of these capabilities. We did not test the significance of such timing issues in our paper, however. They might be an interesting avenue for future research, for example by conducting a longitudinal case study in one or more organizations, in which the effects of the different types of perceived managerial efforts are evaluated over time.

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NOTES

[1] In the remainder of this paper, when we talk about ‘employees’, we mean the people whose SAB we are investigating (who are mainly, but not exclusively, managers). When we talk about ‘managers’, we mean the managers above the level of these focal employees.

[2] We have here chosen to display these interactions as the moderating effect of perceived efforts to stimulate capability development on the influence of perceived efforts to stimulate motivation, which is in turn moderated by perceived informing efforts. From a statistical viewpoint, interaction effects are symmetrical, in that a hypothesis predicting that A moderates the effect of B is statistically equivalent to a hypothesis predicting that B moderates the effect of A (Ping, 2001). In addition, we propose that all types of perceived managerial efforts are to some degree complementary in their effects on SAB. Therefore, our choice to depict the interaction in this way is essentially arbitrary.

[3] These efforts do not include informing employees about what the strategy entails. The latter type of efforts is more appropriately seen as stimulating the opportunity for employees to implement the strategy, rather than their capability for doing so (Blumberg and Pringle, 1982). We discuss informing efforts in the next section.

[4] Because we tested our model using a PLS structural equation model, neither the commonly used poolability test for regression (the so-called Chow test) nor the standard multi-group analysis for SEM could be used to test differences in the structural model. The former is not possible because the measurement model (i.e. the exact way in which the constructs are computed) also changes when the model is tested in a different dataset. The latter is not possible because PLS does not allow for equality constraints in the model, and also because the traditional concept of model fit (on which the idea of the multi-group analysis is based) does not apply to PLS.

[5] When an effect is significant in one organization, but not in the other, this might be just because of a smaller sample size or a higher variance of the effect in one organization. Therefore, if the size of the effect does not differ significantly between the organizations, we cannot conclude that the effect is inconsistent. Similarly, if the size of an effect differs significantly between organizations, but is still significant (or insignificant) for all organizations, we cannot conclude that the effect is inconsistent.

REFERENCES


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