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628

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Abstract

Purpose – This study aims to identify factors that facilitate or inhibit middle managers' experience of uncertainty management during organizational change.

Design/methodology/approach – The approach is qualitative and involved interviews with 40 middle managers from a range of organizations.

Findings – Analysis revealed that at the pre-implementation stage, uncertainty focused on the strategic concept of the change, whereas at implementation, uncertainty related to the appropriate procedures to implement. Middle managers' uncertainty management was found to be important in assisting their employees in the change transition. The factors identified as being either facilitators or barriers to uncertainty management focused on themes related to the design of change, communication with both senior management and their own staff, support from senior management, role conflict, and peer interaction. A model was created to link facilitators and barriers with uncertainty to guide future research.

Research limitations/implications – Implications for organizational change research along with practical implications are discussed.

Originality/value – This study provides insight into the positive contributions middle managers can make during change, along with suggesting what factors are facilitators or barriers to this positive role.

Keywords Uncertainty management, Middle managers, Organizational change

Paper type Research paper

Change is ever-present in today's fast-paced organizations (Lewis, 2000). Market demands, the introduction of new technologies, and an internal push for growth are some of the major factors driving change in organizations. However, the failure rate of large-scale change efforts has been reported as being as high as 50 percent (Majchrzak, 1988) to 70 percent (Burnes, 2002). This failure rate needs to be addressed due to the substantial loss of time and financial resources for organizations and their employees (Marks and Mirvis, 2000).

In particular, adequate coverage has not been given to the role middle managers play in organizational change (Huy, 2002; McKinley and Scherer, 2000). Middle management can be defined broadly as managers holding positions between the first-level supervisor and the level of executives, below those who have company-wide responsibilities (Frohman and Johnson, 1992). Middle management was given a largely negative image during the 1980s. In this respect, they were seen as becoming obsolete due to the flattening of hierarchical organizational structures, even though a substantial reduction of middle management positions never eventuated (Dopson and Steward, 1990). In the 1990s, downsizing often involved the delayering of



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management

organizations. Because this often translated into a loss of jobs for middle managers, they were typically viewed as resistant to change (Wai-Kwong et al., 2001).

It is important to reduce negative views of middle management and promote their positive input into organizational change processes. Indeed, research has found that middle managers can make an important and positive contribution to change, by contributing to higher levels of performance when involved in strategy-making (Wai-Kwong *et al.*, 2001) and the emotional management of their employees (Huy, 2002). Middle managers are required to be flexible and adaptable to meet the constantly changing environment (McKenna, 1999). Their roles often involve providing support to and facilitating communication between senior management and employees (Peters, 1988). This study will investigate the role of middle managers during change by exploring the uncertainty they experience as a result of change and factors that are facilitators or barriers to their uncertainty management.

The notion of uncertainty

The theoretical grounding for the current study is the notion of uncertainty management. Traditionally, decisions regarding the strategy of planned and large-scale change events are made by senior managers, while the judgment of how to implement those decisions are often made by middle managers. The result of this, as described by McKinley and Scherer (2000), is the experience of cognitive disorder, where middle managers may be left with feelings of uncertainty about the best course of action to follow.

Uncertainty has been identified as being experienced by employees during change (Bordia *et al.*, 2004). Uncertainty can be defined as ambiguity about the outcomes of various actions, when the situation is unpredictable and when information is inconsistent or unavailable (Brashers, 2001). Two prominent uncertainty theories are uncertainty reduction theory (Greco and Roger, 2001; Sutton and Kahn, 1986) and uncertainty management theory (Bradac, 2001). Uncertainty reduction theory proposes that uncertainty is a stressful psychological state that individuals are motivated to reduce (Greco and Roger, 2001). The uncertainty management literature, on the other hand, suggests that not all uncertainty is negative and in some situations it is preferable as it provides hope of a possible positive outcome rather than the certainty of a negative outcome (Brashers, 2001). While the theory of uncertainty management has not been explicitly tested in the change management literature, a number of studies identify uncertainty management strategies that middle managers use during organizational change. These include sense-making (Balogun and Johnson, 2004) and interpretation (Isabella, 1990).

Uncertainty management has been investigated in the broader communication literature. Kramer *et al.* (2004) investigated the effect of communication on uncertainty for pilots during an acquisition of their airline. While some pilots were found to use information to reduce their uncertainty, others managed their uncertainty by assessing the situation as a future concern or used communication for other purposes such as maintaining their working relationships. Other uncertainty-provoking situations investigated by the communication literature include intercultural interactions (Cooks, 2001) and domestic terrorism legislation (Nabi, 2002). It has been suggested that communication can be used to reduce, increase, or maintain uncertainty (Goldsmith, 2001).

More specifically, the notion of uncertainty management has been examined in the healthcare literature. Uncertainty had been viewed as a central component to the experience of illness (Babrow *et al.*, 1998). Again uncertainty is not always viewed as detrimental and can be beneficial. In this respect, uncertainty about the possible outcomes of a breast cancer diagnosis rather than the certainty of disfiguring surgery (Babrow and Kline, 2000) may be viewed as a preferable state. This is consistent with Brashers (2001) reasoning that uncertainty is preferable in some situations as it provides the possibility of a positive outcome. This preference for uncertainty can be applied to employees in organizations undergoing restructures. Uncertainty of what will be the outcome of the restructure may be preferable to the certainty of job loss.

The exact nature of uncertainty experienced by middle managers during organizational change has not been established. The current study draws primarily from the organizational change literature, including process models of change. Although potentially too linear in nature (see Weick and Quinn, 1999), many change process models categorize change into pre-, during, and post-implementation. The uncertainties held by middle managers prior to change and during change will be investigated to determine whether they are qualitatively different. This study attempts to describe the uncertainty that middle managers experience. Thus, the first goal of the study is:

Research Goal 1: To determine the nature of the uncertainties experienced by middle managers pre- and during implementation and how they may differ.

Facilitators and barriers to uncertainty management

Both the communication and organizational change literatures suggest that a number of organizational processes may play an important role in uncertainty management (Bradac, 2001; Brashers, 2001). These relate to the extent to which middle managers have the opportunity to participate in decision-making, receive timely and accurate information, and have access to support from others in the workplace. Process models provide step-by-step guidelines for understanding what is required at different stages of implementation and what the expected effect will be on organizational members (Armenakis and Bedian, 1999). The process models by Galpin (1996), Klein (1996), and Kotter (1996) were examined to ascertain what the requirements are for successful implementation of change at different points in time. While the facilitators and barriers to change have been previously explored in the change literature for employees, particularly in relation to how employees cope and adjust to organizational change, there is little research about how these processes operate for middle managers, given their unique role in the organization during times of change. Furthermore, the connection of these processes to the uncertainty management of middle managers during change has not previously been investigated. The current study will focus on factors important to middle managers' uncertainty management at both the pre-implementation stage and during implementation:

Research Goal 2: To identify and define the factors which may act as facilitators or barriers to uncertainty management for middle managers, and also to examine how these factors will differ from pre-implementation compared with implementation.

It is proposed that a number of factors, namely strategy input, communication, and support may be important during middle managers' uncertainty management. These factors may also be directly or indirectly important to middle managers' role in helping

management

their employees understand the need for change. These factors will be investigated to ascertain whether they differ from pre-implementation to implementation.

Facilitators and barriers during pre-implementation

Involvement in strategy formation will possibly facilitate middle managers' uncertainty management. Floyd and Wooldridge (1994) suggest that as middle managers hold the position between strategies and operations, it gives them a unique insight into the nature of strategic requirements. Due to this position, middle managers should not be viewed as obstacles but as sources of knowledge (Frohman and Johnson, 1992). As noted by Floyd and Wooldridge (1994), middle managers can have a substantial grasp on the strategic concept and aid implementation.

As noted above, communication has been linked to uncertainty management, it also will be examined to ascertain if it is linked to middle managers' uncertainty management during organizational change. Communication has been identified as a crucial factor in achieving organizational change linking "what gets said and what gets done" (Kitchen and Daly, 2002, p. 46). Communication has been found to assist in the management of uncertainty for employees during organizational change, and the form or source of communication requires future investigation (Ellis, 1992). Process models of organizational change provide some guidance (however, they are rarely tested) as to the communication requirements (or types of information) needed in order to facilitate change successfully (Galpin, 1996; Klein, 1996; Kotter, 1996). These include issues such as communicating the vision for the change and the need for change. The few commentators who have focused on middle managers role in communication advocate that they facilitate communication between the levels of organizations (Peters, 1988). Middle managers are seen as being required to interpret and facilitate senior management's vision to employees (Balogun, 2003). This study aims to identify the role of communication with senior managers, in middle managers' uncertainty management. Given that employees identify that an outcome of effective communication with managers is the facilitation of their understanding (e.g. Armenakis et al., 1993; Bovey and Hede, 2001; DiFonzo and Bordia, 1998), the current study will examine this issue from middle managers' view points.

Support from senior management is also thought to be important in uncertainty management. Support has been put forward, by the healthcare literature, as a factor that influences the experience of uncertainty (Brashers et al., 2004). It is seen as useful for appraising an uncertain situation and can provide direction. Huy (2002) studied the role of middle managers in major change involving relocation implemented by a large information technology company over a period of three years. From interviews with close to 500 employees. Huy (2002) found that the greater the support demonstrated by senior management, the greater commitment middle managers gave to the procedure. This leads middle management to further their promotion of the project. Drawing on the social support literature, typical types of support that are of theoretical relevance to this study include instrumental, informational, and appraisal support (Malecki and Demaray, 2003). Instrumental support involves giving needed resources (e.g. time and materials), informational support is the provision of necessary information or advice, and appraisal support is providing evaluative feedback to others. The importance of these three types of support will be examined in relation to middle managers in change.

Facilitators and barriers during implementation

The current study will examine how implementation requirements for middle managers' uncertainty management differ from pre-implementation requirements in regard to communication and support. An example of how communication may differ from pre-implementation is that it may be more important to involve all levels of staff during implementation, as more decisions are made at an operations level rather than a strategic level. Implementation may provide more opportunity for two-way communication and allow for ideas to travel from the lower levels up. Involvement in the information process will allow lower level employees to feel they are making a contribution and consequently become more open to change (Armenakis *et al.*, 1993; Bovey and Hede, 2001, DiFonzo and Bordia, 1998).

Summary of the research goals

The first research goal is to identify the nature of the uncertainty that middle managers experience during organizational change. This is followed by the second research goal, which aims to identify and define the factors that may facilitate or inhibit the uncertainty management of middle managers during change. Both research goals will be examined prior to and during implementation of organizational change, to observe any differences across these stages. Due to the exploratory nature of the current study, a qualitative approach was appropriate as it potentially allows for a much larger range of possibilities to be examined as compared to a quantitative analysis (Bryman, 1992). Qualitative analysis enables the researcher to explore emerging themes and examine how they hold under different conditions.

Method

Sampling characteristics

Participants were purposefully selected for this study who fitted Frohman and Johnson's (1992) definition of middle managers (described previously), and had responsibility in the change process at organizations that had recently undergone a significant change event. Twenty-one organizations were approached by the researchers to take part in the study. Of these organizations, ten agreed, and these consisted of private, government, and not-for-profit organizations. Across these organizations, 40 middle managers were selected to be interviewed. The middle managers in this sample ranged in expertise and self-reported leadership style. The roles of these middle managers varied and included clinical nurse manager, property officer, marketing manager, manager of diversity, general manager, manager of financial and business services and human resource manager. There were 21 females and 19 males in the sample. The middle managers had between three and 300 people working for them. They had been working for their organizations from eight months to 39 years. The majority held post-graduate degrees in their relevant areas of expertise.

Change events

Organizations were chosen that had recently undergone transformational or transactional organizational change. Transformational change is a large-scale change event that has had an impact on the vision, work procedures, and values of the company (Kleiner and Corrigan, 1989). Transactional change, on the other hand, involves developmental change and is generally viewed as being less disruptive. This

type of change includes the expansion of discrete products or services, or developmental changes to existing systems and processes. Change events discussed during the interviews included restructures, new performance management systems, introduction of new technology, building relocations, new quality assurance procedures, and new financial systems. The use of more than one type of change at a varying level of effect to the organization is consistent with past change research (Judge et al., 1999; Caldwell et al., 2004).

Uncertainty management

633

Interviews

Semi-structured interviews were conducted with middle managers. Interviews lasted from 30 minutes to two hours. It was left to the middle manager to decide on a recent change event they had been involved in to focus on during the interview. When deciding on a change event, middle managers were asked to choose a change event that was of personal relevance to them and which had not taken place a significant amount of time ago, potentially reducing reframing or remembrance effects (Caldwell et al., 2004). The majority of changes chosen occurred within the last 12-18 months. This is consistent with past change research that has used a retrospective design (Lewis, 2000; Isabella, 1990). Questions were asked regarding the nature and goals of the event, along with its impact on the organization. Participants were also asked general questions regarding their position in the organization.

The majority of questions were asked to gather evidence for the goals of the current study. For example, to gather evidence regarding middle managers' involvements in strategy formation, the following questions were asked:

- (1) To what extent were you involved in designing the change?
- (2) How did this assist you in your understanding of the change?

In another example, to gather evidence regarding communication, the following questions were asked:

- (1) What form of communication was used?
- (2) What was effective?
- (3) How did this help you to manage your uncertainty regarding the change?

During the interviews, middle managers were also asked: did you experience any other barriers or facilitators to the change process?

Contradictions that arose during interviews were discussed with participants (Seale, 1999). Interview questions were revised where appropriate, following feedback from previous interviews and insights from recent additions to the change literature. The exploration of particular ideas or themes in later interviews which emerged during earlier interviews is consistent with guidelines for conducting rigorous qualitative research (see Rubin and Rubin, 1995). Interviews were taped and transcribed to ensure accuracy of the information collection procedure (Rubin and Rubin, 1995). In addition, transcripts were given back to middle managers so they could verify their responses.

Data analysis overview

Thematic data analysis was conducted to explore middle managers' responses in regard to the research goals. Transcripts were entered into an Excel spreadsheet to allow for easy comparison across interviewees (Hartley, 1994). Responses were analyzed to explore for emerging themes. Interview responses and literature insights informed each other in the analysis. To adhere to recommendations for qualitative analysis methodology, a clearly described analysis method was developed and followed (Gephart, 2004). There were three steps to the data analysis. In the first step, preliminary categories were created to organize the interview responses reflecting the ideas identified from the change literature and process models. Themes from each paragraph were marked off by codes (Rubin and Rubin, 1995).

In the second step, subcategories and new categories were created to fit the responses more accurately. The extent to which the themes held under different conditions was explored by comparisons made within participants' responses (Rubin and Rubin, 1995). Nouns and verbs, which were repeated frequently in themes, were used when naming concepts along with names from the organizational change literature. Definitions of the concepts were developed and links were explored to meet the two main research goals.

In the final step of the analysis, comparisons were made across responses to determine under what situations certain findings occurred (Huberman and Miles, 1994). Coding also captured the relationship between themes (Lee, 1999) to further explore the second research goal. Alternative interpretations of the model devised were explored via meetings with another researcher (Burgess-Limerick and Burgess-Limerick, 1998). Quotes were taken from interview transcripts to give clarity to themes (Rubin and Rubin, 1995).

Results

Analysis of the data revealed that the middle managers interviewed where able to make distinctions between issues of change both pre- and during implementation. From the investigation of managers' perceptions of their roles in change, it was possible to ascertain that our conceptualization of their role was accurate. To explore the first research goal, middle managers' descriptions of their uncertainty pre- and during implementation were explored. To consider the second research goal, responses about pre- and during implementation of the change were examined.

Uncertainty pre- and during change

Following this analysis, it has become possible to consider the first research goal regarding middle managers' experience of uncertainty. Prior to implementation, most managers' uncertainty pertained to their conceptual understanding of the change that was occurring. In this respect, their understanding of the goals and need for change, along with the expected benefits of the change were focal. Managers also were concerned about employees' understanding. These uncertainties are illustrated in a quote from a manager who identified what he required in order to effectively manage his and his employees' uncertainty:

I guess in helping my staff manage change I have to be open to the change. For me to be open to the change, I have to understand: why we are changing? [...] How will it add value or benefit to the organization as a whole? How will it benefit my team? If I can understand those things, then I am quite confident in leading my team through change.

During implementation, the most commonly reported uncertainty was over the processes of change. By implementation, most middle managers had established their conceptual understanding of the change, but experienced uncertainty regarding the

management

appropriate procedures and processes of implementation, what to implement, and how to assist employees in the change transition. All managers took steps to reduce their uncertainty; however, most said they were optimistic during the periods of uncertainty. For example, some managers described that during the change they were thinking everything would work out for them, even though at the time, they were not certain what the outcome would be.

The change process

To explore the second research goal concerned with determining how middle managers' uncertainty management can be facilitated or inhibited by particular factors, the analysis was first broken down into pre-implementation and implementation.

Pre-implementation

Strategic involvement. Managers' level of strategic involvement in the change affected their experience of uncertainty. In our analysis of the interviews, we classified managers as being creators, designers, or implementers. Eight managers interviewed were identified as being creators – involved in the creation of change. It was either their idea or they had a major role in defining the vision for change. These managers held great ownership for the change and were clear on the goals and need for change as illustrated by the following quote:

I did an impact assessment when I was first put on the project to understand who was going to be impacted and how [...] we managed the change here with our own recourses with HR and other development leaders. We developed the change strategies based on my own research which I had done.

Fourteen managers were identified as designers – involved in the design of an aspect of implementation for the whole organization, in line with their area of expertise. Although not involved in the overall vision for change, these managers also had clear views of the need for change and the requirements. This is illustrated by the following quote:

I was on the change committee. We met on a regular basis. I was involved in the communications aspect of the change and developed a communications plan. I identified key messages and developed an action plan.

For the 18 remaining managers, their roles were classified as implementers – purely involved in the implementation of change. They had little or no input pre-implementation. For example, some managers categorized as implementers described knowing only as much as employees prior to implementation and having no say in how the change was formed. This role fits with the more traditional view of managers as implementers of change (Kotter, 1996). These definitions allow for the possibility of managers taking on the responsibility of roles below their role. The role of creators can encompass the role of designers and implementers. Designers may have taken on the role of implementers (but not creators). Implementers were restricted to implementation.

From responses, support is provided for the benefit of strategic input. Creators and designers, who had a greater involvement in the strategic design, described being more

certain about their conceptual understanding of the change, as compared to implementers. This is illustrated by the following quote taken from a designer:

There was initial uncertainty, but I was asked how I would handle it (the change). I was pleased to do that as I knew that these things would happen and it was better for me to be driving it than being on the outside not knowing what was going on.

Pre-implementation communication with senior managers. The majority of managers described the initial communication channel as a face-to-face meeting with their immediate, more senior, manager. The communication avenues ranged from informal conversations to formal marketing campaigns. From managers' responses, it is suggested that the message should include a clear vision and need for change, as advocated by many process models of change (Galpin, 1996; Klein, 1996; Kotter, 1996). Time-lines also were advocated by a number of middle managers as being useful for their conceptual understanding. Two-way communication was reported as necessary allowing for issues to be clarified. The findings suggest there is support that middle managers uncertainty management may be aided by their perception that they received effective communication with senior management.

Pre-implementation communication with employees. Meetings held by either middle managers or by senior managers were the most common channel for the initial communication of change to employees. Middle managers were responsible for clarifying to employees what the change meant prior to implementation. Barriers were reported by some managers, as illustrated by the following quote from a manager involved in the introduction of a new financial system:

Until a change happens, it is difficult to get people involved in it, they don't see it as a priority.

Despite these obstacles, the majority of managers did, however, see the need to "get employees onboard" and aid their understanding. This provides some support for managers assisting employees' understanding when they use effective communication. In this respect, communicating the need and benefit of change to individuals is important.

Support pre-implementation. When looking for evidence of the three types of support during pre-implementation (i.e. informational, appraisal, and instrumental; see Malecki and Demaray, 2003), only evidence for informational support was found. Some middle managers perceived that requests they made for more information was met with support from senior managers. This was the case for the following manager involved as a designer of a financial system:

I was seeking some direction from upper-management [...] so that any changes I made with my staff whether it was structural systems or processes that those changes would be in alignment with the overall strategy of where they want to take the business.

Managers did indicate that they received other types of support. Several managers talked about senior management giving endorsement to their role, including visual presence at meetings. The following quote to illustrate endorsement is from a manager whose role was to create a quality assurance program:

We had a project team who directed my role, the CEO indorsed it. It was made clear that this was my role. There was a big push for it because we need to maintain our funding.

Many managers advocated that senior managers supported them by giving them autonomy, which mostly coincided with experiences of strategic involvement in the process. Of those managers who reported that they didn't receive any support from senior management, some felt their role was inhibited by this while others didn't see it as a major obstacle. Overall, there was some evidence that those managers who received support in the form of information, endorsement, or autonomy advocated that it aided their uncertainty management.

Uncertainty management

Implementation

Communication with senior management. Communication processes were again found to be important to aid middle managers' uncertainty management during implementation. Overall, middle managers required two-way communication with senior management with a clear message of the practical implications of the change for them and their team to aid their uncertainty management.

Communication with employees. Differing from pre-implementation, some managers indicated that they were able to acquire information from employees on practical aspects of the change, as employees had a unique knowledge of how the change would affect their role and the clients. The following quote is taken from a manager involved in a designer role for a new performance appraisal system, endorsing the benefit of employee input:

You cannot, as one person, know what the full impact of that change will be. I don't have that level of specialist knowledge throughout the process. Having their [staff] input is essential.

From managers' responses, communication was concluded to be effective when it was two-way in nature, allowing for employee participation, which enables employees to have ownership, and also assists both managers' and employees' understanding. This provides support to the notion that effective communication with employees may aid managers' uncertainty management and assist with helping employees during change.

Support during implementation. Similar to pre-implementation, again informational but not appraisal support was viewed as important. However, there was evidence of instrumental support. From managers' responses, this type of support was reported to be more important during implementation as more resources were required. Autonomy again emerged as a theme that some managers valued as important during implementation. Some middle managers voiced that the autonomy given to them created a belief in their own skills and abilities to implement the change in their area, without constant direction from senior management. Overall, responses provide some strength to the suggestion that senior managements' support may aid uncertainty management for middle managers.

Role conflict. Some managers reported that conflicting messages from senior management and employees increased their uncertainty and made their role difficult, as was the case for the following manager:

I can see where the executive position is where they want to go and the difficulties they face. They can feedback issues to me and I can feed them on to my team. I can see how talented my team is and that they manage an incredible amount of work, but they don't have a say.

Providing employees with more information than senior management approved of ended in role conflict for the following manager:

I believe that my style is comforting for staff in that they feel, that they are being consulted and informed. Sometimes I get into strife from senior management because I have told people more then I should have.

Some managers reported that incompatible requests could be a temporary barrier to their uncertainty management.

Peer interaction. The majority of managers described peer interaction (i.e. interaction with other middle managers in the organization) as being helpful in their uncertainty management during implementation, and responded more positively to it compared to interaction with employees or senior management. Some organizations promoted formal avenues for peer interaction such as planning days, which were well received. The following quote which illustrates the benefit of peer interaction, is taken from a manager involved as an implementer of a new quality assurance program:

It was very beneficial. Each different service linked together across regions. It was very beneficial to get someone else's take on how they were implementing it. It was beneficial to talk that through and be able to ask questions of people who have similar problems and hear how they have dealt with that.

Peer interaction was reported by managers to be beneficial in deciding on what to implement and how, implying that it was another facilitator to their uncertainty management.

Discussion

This research has defined the uncertainty experienced by middle managers and identified factors which facilitate or inhibit their uncertainty management, making a much needed contribution to the literature on organizational change, from the view point of middle managers (Huy, 2002; McKinley and Scherer, 2000). The current study supports the assertion that middle managers can make a positive contribution to change, such as facilitating communication between senior management and employees (Peters, 1988). Middle managers identified their role as needing to understand the change and assist employees through the change process, supporting past conceptualizations of their role (Balogun and Johnson, 2004; Floyd and Wooldridge, 1994; Isabella, 1990).

The first goal of the study was achieved by defining and making a distinction between the uncertainties managers experienced prior to implementation as compared to the phase of implementation. Middle managers' uncertainty was identified at pre-implementation with respect to the strategic concept of the change. At implementation the uncertainty experienced pertained to what were the appropriate procedures to implement, how to actualize the conceptual concept of the change and also how to assist employees in the change process.

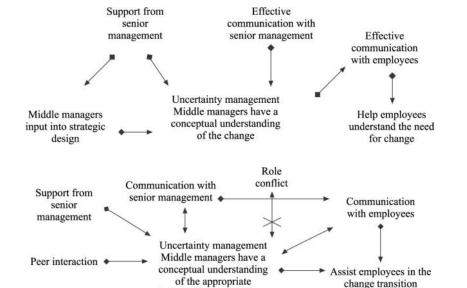
Evidence was found for the underlying theoretical grounding of uncertainty management. Uncertainty can become a stressful psychological state which individuals will be motivated to reduce (Greco and Roger, 2001; Sutton and Kahn, 1986). The majority of managers responded that they made efforts to reduce their uncertainty. However, middle managers who are involved in strategic decision-making during pre-implementation may benefit from a certain level of uncertainty, which may be required to achieve innovation and adaptability (Schwenk, 1984). Managers' responses suggest they experienced heightened uncertainty during pre-implementation. The idea of

uncertainty being beneficial in some circumstances is in line with uncertainty management literature (Brashers, 2001).

The second goal of the study also was achieved by identifying factors that facilitate or inhibit uncertainty management, how the factors aid middle managers in the assistance of employees, and how they differ from pre-implementation compared with during implementation. Two models have been created to present the findings from managers' responses. The findings for pre-implementation are encapsulated in Figure 1. Prior to change, it is important that middle managers reduce their uncertainty so they can consequently develop a conceptual understanding of the change event. This will also aid them in communication with employees and helping employees' to understand the need for change (or develop change readiness). Support and communication from senior management is important to reduce middle managers' uncertainty. Also, middle managers who have strategic input have reduced uncertainty; this is influenced by support from senior management.

The interplay between factors during implementation is demonstrated in Figure 2. A number of factors are important during implementation to reduce middle managers' uncertainty, helping them with the implementation of appropriate procedures and also with assisting employees in the change transition. Two-way communication between middle managers, with senior management, and with employees is important for uncertainty management, along with support from both senior management and interaction with other middle managers. Role conflict is a potential barrier to uncertainty management, which may arise from conflicting communication from senior management and employees.

The facilitators and inhibitors of uncertainty management were found for pre-implementation and implementation, a distinction that is consistent with process models of change (Galpin, 1996; Klein, 1996; Kotter, 1996). The involvement of middle



implementation processes

Uncertainty management

639

Figure 1.
Barriers and facilitators to change pre-implementation for middle managers

Figure 2. Barriers and facilitators to change implementation for middle managers

managers in strategic decision-making clearly facilitated their certainty management. As discussed above, managers identified as creators or designers in the strategic design appear to benefit by their role. Once the strategy was decided on these managers had a much clearer vision of the need for change and the strategic direction the organization was taking. Strategic involvement combined with their unique position between employees and senior management aids implementation.

Communication, which has been found to be important to employee's experience of uncertainty (Bordia *et al.*, 2004), was also found to be important for middle managers' uncertainty management. Communication allows for the clarification of decisions made involving the change. Middle managers can facilitate the communication between employees and senior managers. In this way they can encourage the inclusion of ideas from both directions into the change process. The potential downside is that incompatible requests made by either party may result in role conflict (Biddle, 1986).

During implementation, role conflict is very likely to occur when inconsistent requests are made from senior managers and employees. Organizational role theory asserts that roles are generated by normative expectations and identified social positions (Biddle, 1986). Role conflict is the "concurrent appearance of two or more incompatible expectations for the behavior of a person" (Biddle, 1986, p. 82). The outcome of role conflict is uncertainty in which coping mechanisms need to be adopted in order to deal with such inconsistencies.

Senior management support also was found to be important pre- and during implementation for uncertainty management. The finding of evidence for informational support but not instrumental support at pre-implementation and the importance of both at implementation is likely to be due to the fact that most of the changes didn't require resources prior to implementation. The lack of evidence for appraisal support may be a reflection on the senior managers seeing change as just another role of middle managers that does not require extra feedback. Middle managers' positive response to senior managers giving them autonomy suggests that this is supportive as it allows for empowerment and the demonstration of senior managers' confidence in their ability. This links to findings that their role should be participative (Spreitzer and Quinn, 1996). Middle managers who identified that there was a lack of support didn't always view it as a barrier. However, the lack of support may still have an impact on the change outcomes achieved.

Peer interaction was viewed more positively than interaction with senior management or employees, consistent with Balogun and Johnson's (2004) finding that middle managers favoured peer interaction to senior management interaction. This is likely to be because they are able to identify more with their peers and would have experienced similar problems, thus gaining support. The notion of social support from peers was also investigated by Spreitzer and Quinn (1996) collecting data from 153 managers. Those who received more peer support were more likely to have a greater involvement in stimulating change by generating ideas and mobilising resources.

Limitations and directions for future research

It is important to interpret these findings with caution. First, the small sample size of 40 managers representing a variety of organizations has a number of potential implications. In this respect, it is difficult to collaborate across responses due to the

management

range of contextual variables that cannot be taken into account. As the interviews were conducted following the completion of the change events, there is the possibility of inaccurate recollection and hindsight bias (Isabella, 1990). Interviewees were asked questions about their uncertainties and factors related to pre- and during change after the change event had occurred. This could lead to either an exaggerated distinction or a reduced ability to distinguish between these two points in time. It is also possible that either a greater number of positive or negative events could have been recalled than what actually occurred (Lewis, 2000). Additionally, it is possible that managers who agreed to be interviewed are more likely to be open to change or change champions, this may reduce their representativeness of middle managers in general. Also, we only focused on middle managers perception of their role along with factors which facilitate and inhibit their role. It would be useful to investigate the perceptions of employees and senior management to provide more conclusive findings. This is one among a number of areas which requires exploration in future research.

Due to the small amount of research which has been conducted on the role of middle managers in change (Huy, 2002; McKinley and Scherer, 2000), there are many suggestions for future research. Future research is required which documents middle managers' experiences with multiple data collection points during a change event. In the future, researchers should focus on the role of uncertainty management and determine the optimal degree of uncertainty that allows for creativity and innovation. Future research could also focus on the effect of individual differences middle managers may have, such as tolerance for ambiguity, which have previously been associated with different responses to uncertainty (Greco and Roger, 2003).

Practical implications

Despite the need for future research, the current findings have practical implications for organizations. Prior to implementation, to aid middle managers' role in change, they should be involved in the strategic development of change. To aid their success in this role, they need to be given support in the form of informational support, endorsement, and autonomy to act from senior managers. Two-way communication and clear channels should be used between middle managers, with senior management and with employees, to ensure that all levels of the organization have a clear understanding of the need for change.

During implementation, senior managers should continue to provide managers with support in the form of instrumental and informational support, as well as autonomy. Increased informational support should be given to managers not involved in strategy design. Two-way communication with a focus on the practical implications of change should be encouraged between senior managers and middle managers. To further develop ideas for practical implementation of the change, middle managers should also partake in two-way communication with employees, allowing for employee participation. Messages from middle managers should reinforce the need for change and provide individualized practical implications, thus helping employees in the change transition. Middle managers contact with fellow peers should also be encouraged to assist them with overcoming difficulties for the implementation of change.

Conclusions

Middle managers can play a pivotal role during change, including assisting employees in the change transition. The current study has provided support for the assertion that middle managers uncertainty management can be facilitated by their involvement in strategy formation, communication with senior management and employees, support from senior management and peer interaction and possibly inhibited by role conflict. Future research that incorporates predictions and outcomes of uncertainty management will help to further our understanding of the role of middle management in change, subsequently leading to improvements in the success of change implementation.

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645

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