

Examining Management Capabilities for Innovation: Creating the Capacity to Let Go

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Abstract

The capacity to cope with radical uncertainty is critical to any business in securing competitive advantage. Since the middle of the twentieth century differing learning methods have been used to change employee behaviours and increase skills and competencies. Learning is critical to developing innovation capabilities but innovation management continues to be a strategic challenge for business, and many companies lack the prerequisite managerial competencies required for innovation. Supporting high levels of involvement by all operational stakeholders through continuous learning initiatives increases the need to develop new managerial competencies and organisational capabilities and behaviours that support the innovation process. This new innovation climate requires a shift from a facilitative or control role, to one where the manager, just like a coach, has to let the team do their thing when required. Managers have to develop the capacity to trust and let go. Using data collected from a sample of Australian manufacturing firms surveyed in 2003, this paper reports on certain findings in relation to management practices as part of continuous improvement and learning activities. Managers in the sample identified the increased need for management to play an effective role in improvement and learning activities. However when cross tabulated with an 'Innovation Maturity Index' only a small number of organisations were ranked in the 'High Maturity' category which contemporary literature suggest requires 'low' management involvement. The results also identify a low level of employees taking up opportunities for learning or personal development. Inadequate management competencies are discussed as a possible cause of the gap between the desired and the current position which has the potential to reduce not increase organisational learning capabilities and competitive advantage.

Introduction

Changing competitive dynamics continue to impact on the manner in which organisations strive to achieve competitive advantage (Grant 1996; Salaman and Asch 2003). Success is measured by an organisation's ability to be dynamic and ready to change and re-orient core competencies in order to deal with new environmental challenges by utilising dynamic organisational capabilities (Teece, Pisano, and Schuen 1997). A competitive advantage stems from internal organisational capabilities which overlap strategic industry factors which, to a significant extent, allow companies to compare what can be done with what can be successful in a market (Amit and Schoemaker, 1993). In creating strategy, organisational managers need to ensure a match between its current resources, which include skills and capabilities, and the external environment (Grant 1991). Developing organisational capabilities need to include the management of innovation processes and systems (Bessant 2003) and according to Schein (1996) many companies lack the prerequisite managerial competencies required to achieve a high level of involvement and commitment to innovation. Using data from a recent survey of Australian manufacturing firms, this paper reports certain findings in relation to the management and learning practices used as part of improvement activities. Whilst the findings support the need for a high level of management support for learning activities it appears that individuals may not be taking advantage of the learning



opportunities suggesting that the problem may not be learning itself but inadequate managerial competencies to motivate employees to be involved in the learning experience.

Strategy and Competitive Advantage

An organisation's competitive advantage (CA) from a strategy point of view is its ability to access relevant resources, and the effective utilization those resources in responding to environmental opportunities and threats (Hitt, Ireland and Hoskinson 2001). A strategic positioning framework in relation to CA suggests that an organisation needs to focus on: isolating the organisation's opportunities; identifying its strengths and weaknesses; and matching those strengths and weaknesses to its opportunities and threats (Barney 1991). The underlying assumptions for this point of view are: all organisations have control over identical strategically relevant resources; and that any advantage those identical resources bring will be short lived because the resources will eventually become highly mobile through acquisition or selling (Barney 1991). This approach looks at the organisation from the macro level and as such can ignore other invisible assets (Itami and Roehl 1987; Kakabadse, Kouzmin, and Kaksbadse 2001) that may significantly add to the organisation's competitive advantage.

Contemporary theory of CA, more commonly referred to as resource-based theory, examines the linkages between the organisation's internal characteristics and performance. The underlying assumptions of this approach are: the strategic resources and organisational capabilities an organisation has may be different to other similar organisations; and, mobility of the resources and capabilities may not be as immobile as the strategic positioning approach proposes and thus increasing the sustainability of the organisation (Barney 1991). Therefore micro issues such as skill, the acquisition, dissemination and transfer of knowledge, and continuous learning become fundamental strategic determinants of competitive advantage (Teece *et al.* 1997), because performance differences are the manner in which knowledge is used to create organisational capabilities (Amit and Schoemaker 1993). Grant (1996) suggests that primary role of the organisation as being the facilitator of the knowledge integration process.

Knowledge and Learning

The acquisition, dissemination and transference of knowledge within any organisation is predominantly found in set routines which identify how things are done within that particular organisation (Bessant and Caffyn 1997). Pisano (1994) suggests that organisational capabilities are embedded in these routines and are an essential element of organisational learning.

Organisational Learning (OL) involves a continuous strategic process of acquiring, disseminating, and sharing of knowledge and skills (DiBella *et al.* 1998; Gavin 1993) and the primary objectives of the process is to transform the organisation, creating capabilities that are valued in the marketplace, and change the fundamental way organisations respond to challenges and opportunities (Davenport, Sirkka, & Beers, 1996; Nonaka 1994; Senge 1990, 1997). Whilst OL is considered more than the sum of individual learning in an organisation, literature also notes that individual learning is the primary agent by which organisational learning occurs (DiBella, *et al.* 1998; Senge 1990, 1997). Commenting on the importance of individual learning Kim (1993: p. 37) argues that "it is at once obvious and subtle – obvious because all organisations are composed of individuals; subtle because organisations can learn independent of any specific individual but not independent of individuals". The two primary mechanisms by which individual knowledge contributes to organisational knowledge are: developing an infrastructure that supports the acquisition and transference of knowledge as part of the learning process (DiBella *et al.* 1998; Schein 1996); and creating the capacity or opportunities for individuals to bring individual knowledge into an organisational context where that knowledge can be applied in implementing creative and innovative solutions (Brown and Duguid 1991; Senge 1990; Nonaka 1994).

Driver (2002) suggests that there are two types of learning within an organisation, those being routine learning and innovative learning. Innovative learning seen as being different to lower order learning required for routine problem-solving (single loop learning) because the higher order learning required for an innovative climate by questioning fundamental underlying assumptions (double loop learning). Therefore learning becomes an essential and significant core organisational capability (Leonard-Barton



1992) because higher order learning, as required for innovation, is about change not merely developing learning mechanisms (Nevis *et al.* 1995).

Continuous Improvement

The effective use of both operational and innovative capabilities is found in the organisation's capacity to enable behaviours within and between organisations to develop, accumulate or use its core competencies in operating in a dynamic environment. This is continuous innovation (Bessant 2003). Bessant (2003) proposes that continuous innovation is achieved through developing continuous improvement (CI) behaviours which are also embedded in learning processes.

CI has been defined as 'an organisation-wide process of focused and sustained incremental innovation' (Bessant and Caffyn, 1997) and is driven by knowledge and problem solving (Schroeder 2004). This implies a systematic approach to improvement in which staff throughout the organisation is engaged in an on-going effort to implement changes which, though often small-scale, cumulatively will impact on the goals and objectives of the organisation. Bessant and Caffyn (1997) propose a behavioural model in which continuous improvement is described in terms of a set of generic behaviours that appear to be essential for long-term success with CI. The set includes behavioural routines around individual and corporate learning. While paradigms for change such as CI and TQM have been successfully implemented in many organisations, but as Glennie (1994) argues, it has not been all plain sailing.

CI has many attractions, one of the most important being a potential low cost approach. However, Bessant and Caffyn (1997) note that despite the attractions, the technique can often fail. Successful CI requires long term organisational commitment to a course of action and the development of a consistent set of shared values or beliefs. The key to the success of continuous improvement is an ongoing process of plan (planning improvements) – do (implementing improvements) – check (whether expected performance have been achieved) – act (standardise the new practice). Among the major potential benefits of CI are: increased organisational performance (in terms of reduced waste, set-up time, stock, handling, breakdowns, and lead time) and 'people performance' in the form of improved development, empowerment, participation, involvement and quality of work life of employees, all of which address contemporary societal needs. The problem with CI is that the concept, which at first sight appears to be very simple and attractive, is often difficult to design, implement and develop successfully. Mature CI requires 'learning to learn', or learning to improve ever more efficiently and effectively and to tackle ever-more complex improvement problems and challenges both within and across organisational elements (Gieskes, Hyland and Magnusson 2002).

Developing continuously innovative organisations also depends on the capability to renew managerial competencies and to create radically new competencies in order to transform and reconfigure resources and capabilities essential to continuous innovation (Tecce *et al.* 1997). The challenge for managers may be bringing together of the existing knowledge held within all organisational members, and not a chosen few, in bringing creativity to the decision making process (Bessant 2003).

Managerial Practices

The efficient and effective allocation of organisational resources in line with the organisation's strategic imperatives has traditionally been the major role of management in ensuring long term survival of an organisation. However, contemporary literature strongly supports the role of management as being one of designing and implementing programs for developing organizational capabilities. Managers play a major role in developing organisational capabilities by: developing and maintaining the organisation vision; identifying specific individual knowledge and organisational knowledge and organisational capabilities needed for strategic fit; creating and maintaining supportive learning practices that develop individual knowledge, organisational knowledge, and organisational capabilities; and combining, re-combining, and deploying organisational knowledge to develop effective organisational capabilities (Porter 1996; Schein 1996; Garrick 2000; Bessant 2003). More specifically developing a learning environment requires the active and personal involvement and support of management. The roles expressed above suggest a shift from an emphasis on tangible assets to one that incorporates intangible assets which include human capital, customer relationships, innovation capabilities and culture (Kaplan and Norton 2004). In relation



to market value, Stewart (1995) reported that intangible assets, such as learning and organisational knowledge, increased from 38% to 62% of an organisations market value between 1982 and 1992 suggesting that managers have to work differently in developing capabilities that add to the market value of the organisation.

Zollo and Winter (2002: p.340) argue that deliberate learning is key to developing dynamic capabilities which they define as a 'learned and stable pattern of collective activity through which the organisation systematically generates and modifies its operating routines in pursuit of improved effectiveness'. Such a model suggests a structured management practice for developing continuous learning, where sharing knowledge becomes a key organisational capability. DiBella *et al.* (1998) suggest an unstructured management practice like spending time with staff and listening to people to learn about current situations, participating in learning activities and implementing new programs is also important to supporting learning. In a more recent study, face-to-face communication and regular shop floor visits by management were seen as being important to securing support for improvement activities (Hyland, Di Milia and Mussig 2004) suggesting a shift from controlled and power based management styles of the past to one of sharing in the experience. Learning is also supported by not punishing mistakes and accepting that learning is more effective through the reflection and analysis of what went wrong (Edmondson 1996). Schein (1996) also suggests that learning in contemporary organisation is hindered by different cultures within organisations. The three different cultures are the management, engineering and operational cultures. Learning does not occur because of the lack of effective communication between the three cultures and sharing knowledge hindered (Schein 1996). Kaplan and Norton (2004) suggest that such a problem can be linked to the ineffective communication of the organisations strategy. A united commitment to a strategy is reliant upon a shared understanding, without a shared understanding alignment around the strategy is extremely difficult (Kaplan and Norton 2004).

The literature presented to date presents an argument that whilst competitive advantage is seen as essential to achieving sustainable organisational success, a number of issues are relevant to the process. Organisational learning which incorporates the effective development of learning mechanisms that support the acquisition, dissemination and transfer of knowledge is required for implementing CI activities synonymous with continuous innovation (Bessant 2003). The literature also presented the importance of strategic fit and the roles effective management practices play in the process. The findings of a recent study of an Australian sample of manufacturing firms in examining some of these issues are considered in the remainder of this paper.

Methodology

As part of an international investigation of CI, a self report survey was mailed to mostly manufacturing based organizations. This study reports the findings from an Australian subset of this study (n=89). Scales incorporating 'learning' and 'management' practices were developed by conducting a factor analysis of several items that represented presently used improvement activities in these organizations. Managers rated their level of agreement to these items on a five-point scale (1=fully agree; 5=disagree). For each firm a CI maturity index was computed (range=1-5). According to the literature organizations demonstrating high levels of maturity would exhibit behaviors at the higher end of the scales measuring importance of the learning and management practices. Respondents in low maturity organizations would report scores at the lower end of the five point scale, and organisations falling into medium levels of maturity would report scores in between high and low scores. The index used as a basis for grouping companies was 'high' (<2.00), 'medium' (>2.0 - <3.00) and 'low' (>3.01) level of maturity.

Cross-tabulations and chi-square were computed for both the management and learning practices scale. However, chi-square was unreliable due to the number of cells with no data. Therefore only cross tabulations are reported in Table 1. To facilitate meaningful interpretation, the levels of agreement were recoded into two categories: A for agree; and B for disagree.



	Maturity Index					
	High (n = 7)		Medium (n = 69)		Low (n = 11)	
	A	B	A	B	A	B
Management Practices Items	%	%	%	%	%	%
Managers lead by example, becoming actively involved in the design and implementation of systematic ongoing improvement.	100	0	74	4	0	9
Managers support experimentation by not punishing mistakes, but by encouraging learning from them.	100	0	57	10	18	55
Managers support improvement processes by allocating sufficient time, money, space, and other resources	86	0	43	16	0	82
Senior management make available sufficient resources (time money, personnel) to support the continuing development of the company's improvement system.	100	0	58	13	18	81
Learning Practices Items						
Everyone learns from their experiences, both good and bad.	86	0	81	3	36	27
Individuals and groups at all levels share (make available) their learning from all work and improvement experiences	71	0	33	14	0	91
Individuals seek out opportunity for learning/personal development (e.g. active experimentation, setting own learning objectives)	43	0	41	18	9	36
People and teams ensure that their learning is incorporated into the organisation by making use of the mechanisms provided for that.	86	0	52	6	0	91
The organisation articulates and consolidates (captures and shares) the learning of individuals and groups.	83	0	39	22	0	91

Table 1: Levels of agreement with management and learning practices by CI Maturity index

Discussion

The initial analysis of the data suggests that the managers answering these questions support the proposal that management practices and learning practices are important to sustaining CI within their organisations. Whilst it is important the managers accept the importance of these practices, when cross-tabulated with the CI Maturity Index it is found that only seven (7) of the 89 organisations in this sample achieved a high level of CI maturity, 69 organisation achieved the medium level of CI maturity and 11 organisations achieved a low level of CI maturity. These results support the Bessant (2003) maturity model in that those organisations that actively support learning and knowledge sharing will have the capacity to sustain CI capabilities. With four of the five learning practices, learning is seen as an important because rather than making the same mistakes over and over, in the high and medium maturity levels, managers are expecting and encouraging employees to learn from their mistakes and to embed any learning into operational processes and practices. When CI is embedded in the operation and supported by management practices that value learning, then organisations can develop the capabilities necessary to evolve into a learning organisation. However as Dodgson (1993) points out, becoming a learning organisation is not a simple task and nor is it a matter of self proclamation. Rather it requires appropriate management practices and employee's with the competences and capabilities needed to engage in and value learning.

Tannenbaum (1997) argues that organisations cannot learn without individual learning. To that end the literature presented above presents an argument that organisational learning is a strategic imperative for achieving competitive advantage by both managers and employees engaging in and value learning (Driver 2002). Whilst four of the five items in the learning indicator suggest that a strong commitment to learning is needed, the scores for item four across all levels of maturity index suggest some level of concern. It appears that whilst management recognises the importance of learning, according to



managers many employees are not seeking out individual learning or development opportunities. The question needed to be answered is why?

It is the responsibility of senior management to develop the organization vision and the strategy to implement that vision (Kaplan and Norton 2004). In the modern knowledge economy an essential task of management is to develop an innovative climate where knowledge is acquired, shared and transferred (Harkema and Browaeys 2002). Therefore, managers must have the necessary competencies to effectively build and support the relationships that support the process. Contemporary literature suggests that effective 'soft' skills are needed to create effective relationships between managers and employees, employees and customers and managers with other external networks (Goleman 1998, 2000). Developing interpersonal skills is becoming a high priority for managers so as to motivate employees to be committed to continuous learning as part of developing innovation capabilities. In relation to this study, it would appear management is asking employees to commit to improvement practices associated with organizational learning and continuous innovation, but employees are not taking up the challenge. One possible reason for this anomaly may be the lack of certain important management competencies, which in an Australian context has both historical and contemporary relevance.

The Karpin Report (1995) strongly criticized the skills of Australian managers with a specific emphasis on 'soft' skills. A recent study identified that not much has happened since the original report. Lamond (2001) argues that his study identified that the majority of the managers in his sample were still 'tough-minded' individuals, and their organizations were a far cry from the innovative and entrepreneurial organization that Karpin envisaged. Also the results from the current study identified the expectation that employees will understand the need for learning and that they, the employees, should trust that they will benefit from the learning experience. In examining the relationship between trust and innovation, Clegg, Unsworth, Epitropaki, and Parker (2002: p. 410) found that when employees believe they will share in the benefits of creativity and suggestion making they are more likely to participate in the process. That is when employees trust that when the organization listens to them they are more likely to be committed to the innovation implementation process. Therefore creating relationships that support a trusting environment should be a key role of management (Coopey 1998). Within the Australian context, this could be seen as a major problem because Australian management considers developing trust as being a lower order personal performance indicator (James 2001), suggesting that Australian managers seem to be untrusting in allowing employees the capacity to demonstrate their skills and creative competences resulting in employees not participating in learning opportunities. People will only support what they helped to create.

Conclusion

In the modern knowledge economy, knowledge as an asset becomes considerably important to the owner of that knowledge, the employee, and the organisation because in terms of intangible assets individual and organisational knowledge becomes a source of competitive advantage. Achieving innovation through the implementation of CI activities based on learning continues to be one the primary goals and also the primary challenge for management. The extremely low number of organisations in the high maturity category in the study reported here suggests that more work is required in achieving CI capabilities. Also the current study found that whilst the managers in the sample identified the need for certain management and learning practices in achieving CI, they appear to be less than successful in motivating employees to take up the learning/development challenge. Whilst more research is required to identify why employees are not ready to take up the challenge, it is suggested in this paper that management itself may not have the necessary interpersonal or 'soft' skills and competencies required to motivate employees to commit to the innovation process. Within this sample of Australian manufacturing managers the ultimate challenge may still be to recognise that control and power based models of management are a thing of the past, and that employees can be trusted to play their role in the CI process and developing innovation capabilities. The ultimate management skill may simply be 'to let go'.



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