THE COMPETENCE TRAP: EXPLORING ISSUES IN WINNING AND SUSTAINING CORE COMPETENCE

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Introduction

The annals of management history are full of case stories about firms which sought to concentrate on their existing skills and assets only to be caught offside. The organisational struggle to maintain and refine, yet also necessarily to renew and replace core capabilities, is a complex, and at times paradoxical, challenge. This paper reflects on this managerial task and on the difficulties and tensions inhering in its possible resolution. In sum, it asks how can the need *to leverage* competence for today be balanced with the requirement *to build* competence for tomorrow?

It elaborates on the concept of competence drawing from the competence based view of strategic management. It highlights the danger that a core competence can become a core rigidity because exclusive focus on the competence effectively blinkers the firm to significant changes in technology, industry dynamics or consumer taste. A number of case studies illustrate this process or phenomenon of competence redundancy. The authors explore four avenues of thinking and research they consider worthwhile in the context of managing this competence "dilemma". These include innovation and systems of innovation; the concept of market orientation; organisation theory and development; and strategic learning and knowledge management. The insights from these fields of enquiry can help firms to cope with the vagaries of the marketplace and manage the uncertain path of competence evolution. Equilibrium in the approach to managing a number of these relevant activities is recommended. Further, the

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ability of firms to absorb uncertainty into their systems, routines and value sets is key.

The Competence Trap

The resource based view of the firm has been in the ascendant for some two decades. It has in large part liberated managerial ambitions from the determinist, "environment-is-all" school of thinking. Yet there is shortcoming in its approach. In particular, there has been a lack of precision about many of its ideas. The words competence, capability and resource are used too loosely, too interchangeably – and too often. Williamson (1999) sees a tautology problem bedevilling the resource based view of the firm. In short, there has been a need for a widely agreed typology of competence.

A series of international workshops and publications, since the early 1990s, have explored afresh aspects of competence and competence based competition (Hamel and Heene, 1994; Sanchez et al., 1996: Sanchez and Heene, 1997, 2000; Heene and Sanchez, 1997. The objective of this new literature is to build theory for strategic management based on a central, generally accepted, concept of organisational competence. This work deepens the existing resource based perspective, offers rigorous definition of concepts, and continues to push out the frontiers of understanding about competence. This article is written within this stream of thinking and research. Competence is the ability ('the power to do something') to sustain the co-ordinated deployment of assets in a way that helps a firm achieve its goals; to be recognised as a competence, a firm activity must meet the three conditions of organisation, intention and goal attainment (Sanchez et al., 1996, p. 8). *Competence building* is any process by which a firm achieves qualitative changes in its existing stock of assets and capabilities, including new abilities to co-ordinate and deploy new or existing assets and capabilities in ways that help the firm achieve its goals. *Competence leveraging* is the applying of a firm's existing competences to current or new market opportunities in ways that do not require qualitative changes in the firm's assets and capabilities (Sanchez et al., 1996, p. 8).

The competence based view (CBV) that the firm matters (and not just the industry) raises the stakes considerably in terms of managers' ability to manage in turbulent and often deceptive markets. Just when a market seems at its most profitable to a firm, may also be the time when the expertise and capability underpinning this success is becoming redundant and in need of substantive reconfiguration. Thus an

important issue for the competence view of strategic management to address is when and how a firm should renew a core capability.

Traditional core capabilities can run the danger of becoming core rigidities; a core competence can exhibit a dysfunctional down side that inhibits innovative progress and effectively becomes a competence 'trap' (Leonard-Barton, 1992). Hamel and Prahalad (1991) describe the 'tyranny of the served market', in which a dominant general management logic circumscribes business perspectives and ambitions and cuts short the search for unconventional business opportunities. The ability and the courage to challenge current orthodoxy, especially when the latter is delivering a steady stream of profit, are not widespread (March, 1991). Boisot et al. (1997, p. 67) see a core competence as something of a double-edged sword: "neglect it and you forgo an important source of competitive advantage; hold on to it too long and you incur a strategic opportunity cost". They add that this dynamic aspect of competence management – knowing up to what point to invest in it and when to let go of it – is only now receiving the attention it deserves.

If we accept Itami's (1987) comment that 'the time to search out and develop a new core resource is when the current core is working well', the implications for a firm's management are daunting. "If it ain't broke, don't fix it" is much quoted tenet of management. In the case of competence, the reality is more complex and uncertain. An apparently smooth running and highly productive core competence may mutate rapidly into a core rigidity, unless some substantive "fixing" is done. In the terminology of economics, nurturing a competence yields increasing returns to scale until some point where decreasing returns start to kick in. Yet resource allocation decisions and managerial effort can be quite different, and at times contradictory, in choosing between nurturing existing and shaping new competences. In sum, this dilemma of competence necessitates that firms reconcile, in some manner or other, competence leveraging with competence building (see Figure 1).

FIGURE 1: THE COMPETENCE TRAP

Competence
Building

Failure to reconcile
competence leveraging
with competence building
can lead to competence trap.

Competence
Leveraging
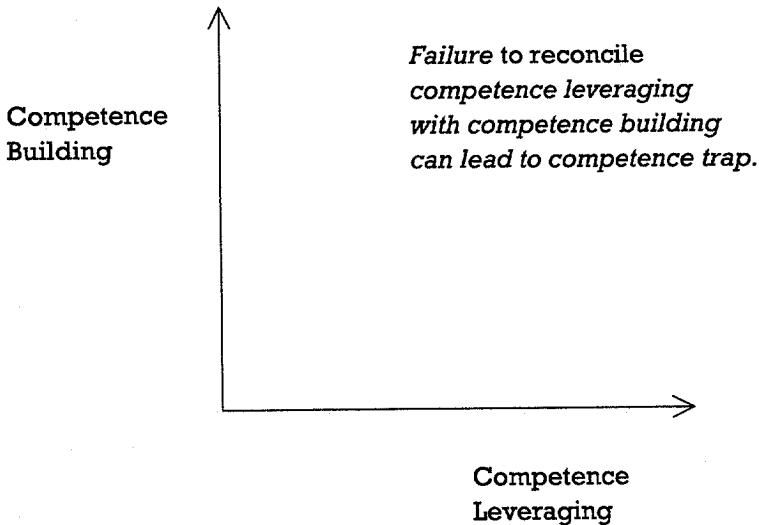
Case Histories of Success and Failure in Competence Building

Kmart

In the early 1980s, Kmart was king of the discount retailing industry in the US, an industry it had virtually created (Stalk et al., 1992). It managed its business successfully by focusing on a limited number of product centred strategic business units, with each a profit centre under a strong centralised line management which selected merchandise, set prices and decided which products to promote. The company subcontracted many activities, including most of its ground transportation fleet. Transactions with its suppliers were based on lowest cost and at arm's length. This recipe worked well. With almost 2000 stores and average revenues per store of $7 million, Kmart enjoyed enormous size and scale advantages. But ideas of real-time inventory management and lean production systems, aided by the digital revolution, electronic data interchange (EDI) and electronic point of sales systems (EPOS) were shortly to reshape the nature of competence in discount retailing. Kmart continued to invest in its existing systems and routines. However, a (then) much smaller competitor, Wal-Mart embraced the winds of change and effected a world class integrated logistics infrastructure for its operations. "Cross-

docking", as it became known, employed every electronic technology, from scanning systems and videoconferencing to its own satellite communications system, in order to ship goods from warehouse to store in less than 48 hours. Wal-Mart began to work more closely with fewer, more committed suppliers, shipped with its own dedicated truck fleet, and instituted innovative personnel policies. By the late 1990s, the growth of these capabilities saw Wal-Mart as the largest discounter in the world with an average 15% return on capital employed to Kmart's 5% (Hill and Jones, 2001). The competence trap had cost the latter dearly.

Nortel Networks

Nortel Networks is a multinational company supplying the telecommunication industry with voice, data, wireless and optical products for the public and private carrier markets and call centres. It offers an interesting case of a firm that avoided the core rigidity problem (Elwood and Holland-Fox, 2000). During the 1980s and early 1990s, Nortel Networks developed a formidable reputation as an innovator in continually bringing technologically advanced products to the marketplace. It did this through a strategy of extensive vertical integration, and capabilities in areas such as circuit board production and electromechanical assembly were considered crucial to competitive success. However, as the company approached the 21st century, it realised that, while hardware continued to be of critical importance, greater value began to reside in the software that powered its hardware and networking systems. It perceived that many capabilities, such as circuit board production and electromechanical assembly, had become widely dispersed in the industry and hence were of less value to any one particular player. Companies with savvy were moving from being vertically integrated to being virtually integrated to take advantage of their suppliers' capabilities. Nortel Networks now saw "system configuration" as a core competence to be nurtured. Each product or networking offering required a system or process to be designed that provided for product conception, manufacturing, distribution, order generation, fulfilment and service – and that maximised value for the customer. Many of these value-adding activities would now be carried out beyond the conventional boundaries of Nortel Networks, but the company itself was at the centre of and drove this system of virtual architecture. Throughout the latter part of the 1990s it streamlined its operations, and many arenas of manufacturing, logistics, warehousing, and repair, where the company did not

view itself as having a distinctive advantage, were outsourced. Capabilities in supply chain management (SCM), enterprise resource planning (ERP) systems, and strategic partnership management were honed.

Novotel

Novotel is an international hotel chain founded by two French entrepreneurs in 1967. Haberberg and Rieple (2001) describe how its steady expansion in the 1970s and 1980s owed much to distinctive capabilities in reliability, systems management and control procedures. The chain developed a standard format for hotel room designs, for furnishing and for standards of service that enabled it to offer business travellers, in particular, a uniform standard of comfort throughout Europe and, later, the world. In the late 1980s, Novotel continued to extend and deepen its competence in hospitality systems control. It developed a rigid set of rules and procedures, the "95 Bolts", that governed every aspect of the operation of its hotels worldwide in minute detail, from how guests should be greeted to room charge discretion for frontline staff. But cracks began to appear. The new systems made it difficult for staff to show personal warmth towards their guests and react spontaneously to their requirements, making Novotel seem less hospitable. New competitors appeared, but Novotel's procedures prevented managers from matching their prices or offering priority to regular guests. The hotels started losing business and the group recorded a sharp decline in profits. By ignoring changing market and competitive dynamics, Novotel had transformed its core competence into a core rigidity.

Waterford Crystal

Waterford Crystal, now part of the Waterford Wedgwood Group plc, is a highly renowned name in the international tabletop industry and the world's leading brand in the premium crystal market. In the late 1980s and early 1990s, it was faced with a major recession in its principal market, the US, which saw its high income target consumers starting to trade down, move to lower price purchasing points in the crystal market, and modify their tastes (O'Donoghue, 1997). The company responded with the launch of a new brand, Marquis, designed in a more contemporary or transitional way and positioned in a lower price tier of the premium crystal market. Furthermore, against the grain of company history, production of this new product was outsourced in Slovenia and Germany. The new brand achieved great

success, and did so without cannibalising sales of its mother brand, Waterford Crystal, which was repositioned adroitly at the same time to increase its market share in an essentially static crystal market. In the face of shifting consumer preference and economic downturn, the company had developed further its competence in the supply and marketing of premium crystal.

These case studies narrate briefly the history of a number of firms which succeeded in renewing their competencies, and a number which did not, in the face of changing technology, shifting competitive dynamics and/or consumer tastes. They offer a practical, albeit rather general, illustration of competence development (or lack of it), mindful that much discourse in this area can be very abstract and lacking in everyday example. They do not attempt to provide detailed analysis of how and why such happened nor is any attempt made to generalise from them. Indeed, each case would require a major study, beyond the remit of this paper, if such were to be attempted. Rather the cases should prompt reflection on the nature of the competence trap and whether existing and emerging lines of enquiry in management studies shed light on this important issue. We suggest that four such domains of thought and research offer insight.

Innovation

If leveraging current competence at the expense of competence building can lead firms to sacrifice the future, the solution, it is often argued, is to pursue innovation – broadly defined as forays into new technologies, new products or new markets. Yet innovation can be a very uncertain and opaque avenue for the firm, often resulting in expensive disappointments and an ambivalent commitment to future effort. Can innovation activity be managed in a less daunting and more systematic manner? McGrath (1998) offers some interesting insight into this crucial question.

It is first necessary to distinguish between innovation that focuses on the present industry standard or "platform" and that which seeks to discover genuinely novel modes. The former is essential for keeping up with the state of the art and best practice and is beneficial in terms of efficiency gains. But its successes can be copied readily by competitors who operate on the same industry platform. It is unlikely to confer longer term advantage. In contrast, undertaking "discovery driven" experimentation can provide information, experience, and resource combinations that are available only to the firm engaged in experimentation because they are experientially acquired (McGrath

and MacMillan, 1995). Unlike knowledge that is already codified and diffused, the discoveries made through firms' trial and error learning are far more likely to embody elements of tacitness and organisational embeddedness, rendering them difficult for others to comprehend and imitate (Boisot, 1995). Such idiosyncratic combinations underpin, in the language of Sanchez et al. (1996, p. 8),'the process by which a firm achieves qualitative changes in its existing stocks of assets and capabilities' – builds competence, in other words.

In order for a firm to manage a programme of discovery driven innovation, McGrath (1998) proposes a framework to assess emergent competence and its possible competitive advantage. The potential of a project to contribute a distinctive efficiency, a distinctive value to the customer, and/or a distinctive responsiveness in deepening the firm–customer relationship is key in this assessment, along with consideration of how far the experimentation pursues genuine exploration, and thus new knowledge, beyond the existing competence base. McGrath's empirical findings from a major field study suggest that it is possible to capture early evidence of distinctiveness (or lack of it) – and hence of latent competence – prior to commercial execution. This gives managers data that can be used either to redirect the project or to terminate it, enabling the firm to undertake more experimentation within scarce resources.

Data from this study indicates also that while discovery oriented projects may contribute distinctive efficiency benefits to firms, such gain alone is unlikely to create comparative competitive advantage in the longer term. As McGrath (1998, p. 365) succinctly puts it, 'one cannot reengineer one's way to greatness'. The clear conclusion is that innovation must reach out and explore not only new technologies but also novel product and markets, distribution channels, customer categories and various elements of customer need.

Managing innovation in this idiosyncratic yet systematic manner enables firms to cope with uncertainty in ways specific to themselves; this specificity derives from the experiential nature of the knowledge acquisition in new projects. McGrath's (1998) model offers a parsimonious, easy-to-use and empirically tractable way to determine whether or not competencies and competitive advantages are indeed emerging. It gives managers the potential to take action earlier than if they were forced to rely on conventional measures alone, enabling the firm to undertake more initiatives as the cost of pursuing any given one can be contained. This is consistent with a view of experimental projects as 'options' on future strategies, a perspective which

is gaining increasing recognition as important under turbulent competitive conditions (McGrath, 1997; Sanchez, 1993).

Market Orientation

The idea of market orientation is germane to a firm's concern about a competence trap. Market orientation necessitates an external or outward-looking perspective on the part of a firm – a relentless focus on competitors, market dynamics and, particularly, customers. But the concept, as developed by scholars over the past decade, involves more. Market orientation is defined as the organisation-wide generation of market intelligence, or information on customers' current and future needs, dissemination of that information across departments, and organisation-wide responsiveness to it (Kohli and Jaworski, 1990). In essence, market orientation refers to the way a firm implements the marketing concept. In principle, this three-component view of market orientation (generation of, dissemination of, and responsiveness to market intelligence) makes it possible to diagnose an organisation's level of market orientation, pinpoint specific deficiencies, and design interventions tailored to the particular needs of an organisation. It should be emphasised that a market orientation is not the exclusive responsibility of a marketing department but rather is an organisation-wide mode of operation.

Research suggests that market orientation is related positively to business performance (Narver and Slater, 1990; Jaworski and Kohli, 1993). Further, it is likely to be strongly related to performance under conditions of high market turbulence, technological stability, strong competition, and weak economic conditions. A market orientation yields higher customer satisfaction and repeat business, and appears to increase employees' commitment to their organisations and their *esprit de corps*. In seeking to implement a market orientation, these authors suggest that the commitment of top management to the idea is key, particularly in reminding employees that it is critical for them to be sensitive and responsive to market developments. In addition, market orientation seems to require a certain level of risk tolerance on the part of senior managers and a willingness to accept an occasional failure as a normal part of transacting business. The nature of interdepartmental dynamics also plays a very important role: interdepartmental conflict reduces market orientation while interdepartmental connectedness facilitates it. Moreover, the role of market-based reward systems and decentralised decision making in engendering market orientation is strong, suggesting that reward systems

should take into account an individual's ability to sense and respond to market needs.

On this reading, market orientation seems a worthy endeavour for the firm. None the less, the literature to date lacks specifics on many aspects of its real-time implementation. In particular, the issue of how the costs and benefits of acquiring market intelligence, the *external* search, are balanced with the costs and benefits of sharing and re-acting to this information, the *internal* response, is not addressed in any detail. This has obvious implications for how market intelligence can be translated into some form of competence regeneration. This lack of precision is echoed by Deshpandé (1999) who contends that understanding 'optimal levels of market orientation within a contin-gency framework would be helpful'. Market orientations flourish in corporate environments in which continuous learning and improve-ment are encouraged. Thus the concept of market orientation is likely come to full fruition only when it is enveloped in the learning organi-sation (Slater and Narver, 1995; Sinkula et al., 1997).

Organisation Theory and Development

Achieving a balance between innovation and efficiency in order to serve the market with a customer and competitive strategy of both value and cost typically demands unique organisational arrange-ments. Lawrence and Dyer (1983) in their classic study of the renewal phenomenon in continually successful US firms suggested that the re-quired organisational form consists of high degrees of organisational differentiation and integration. Companies capable of self-renewal and continuing growth are likely to be both differentiated and inte-grated in structure. A differentiated structure is one that contains vari-ety and subdivision so as to allow different units to respond differently to varied aspects of the environment. A differentiated form will nor-mally entail allowing decision making discretion at decentralised lev-els and the empowerment of the members of the organisation to ana-lyse their situation and take action. Integration, by contrast, implies centralisation and unified control of the company's activities. The pre-scription for renewal is to have both of these apparently contradictory features combined. In much the same way, such organisational ap-proaches may help to deepen a firm's ability to leverage current competences while at the same time being conscious of potential competence obsolescence and of the need to build anew.

This contrariety is also the feature of excellent companies to which Peters and Waterman (1982) drew attention when they spoke of firms

that were simultaneously "loose and tight". Similarly, this require-
ment to reconcile apparently conflicting organisational imperatives is
evident in the concept of the transnational corporation. In a major
study of the world's largest corporations, Bartlett and Ghoshal (1989)
examined the strengths and weaknesses of the three conventional or-
ganisational models – the multinational model, the international or-
ganisation model and the global organisation model – before pro-
posing their transnational solution.

The three traditional approaches to organising yield different ad-
vantages – the global has the potential to generate efficiencies
through scale and standardisation; the international to generate
learning from the array of markets from which lessons may be drawn
and then communicated back to other parts; the multinational to be
responsive to local needs and to win by being more tailored to the
specifics of demand than competitors. Bartlett and Ghoshal argue that
current circumstances require that companies should design their or-
ganisations to achieve all three strengths simultaneously in order to
be fully competitive, and call this the transnational model.

The transnational model is therefore proposed as one which bal-
ances integration for efficiency, with localisation for market respon-
siveness and joint development, with sharing of knowledge for
learning on a global scale. The individual line of business and its
business team and business manager are likely to be the locus of *in-
tegration*. The country manager and country management team are
the most appropriate locus of *responsiveness*; and the function is the
most likely centre for shared *learning* and for the guidance of central
and locally originated *innovation*.

Prahalad and Hamel (1994), framing the issue in terms of core
competence, see a need to strike a balance between the claims of
differentiation – an SBU's need for focus and operational autonomy –
and those of integration – the centre's responsibility in fostering cor-
porate-wide competences. They acknowledge that achieving this
equilibrium between the centrifugal claims of SBUs and the centripe-
tal claims of head office is no easy task. We conclude that the firm
which seeks consciously organisational arrangements to balance dif-
ferentiation with integration, the global with the local, the "loose" with
the "tight" may be at an advantage in terms of competence renewal.

Strategic Learning and Knowledge Management

In the resource and competence based view of the firm there is in-
creasing recognition that the total value of a firm is determined in

large part by 'soft', people mediated assets, not just inventory and equipment. Knowledge, its management and learning processes, all become crucial in understanding organisations, competence and strategic superiority (Durand, 1993; Nonaka and Takeuchi, 1995; Senge, 1990). In this context, Boisot's (1995) Culture Space or C-Space offers a useful conceptual framework to analyse knowledge management within and between organisations and to examine its implication for a core competence. The C-Space relates the extent to which knowledge can be diffused to its degree of codification (see Figure 2). Codification describes how far an item of knowledge can be articulated, made explicit and compressed into codes. Tacit or uncodified knowledge can usually only be transmitted slowly in face-to-face situations and often to only a limited constituency in a trustful environment (region A in Figure 2). Codified, standardised and less ambiguous knowledge, in contrast, can be transmitted much more rapidly and impersonally to large audiences (region C in Figure 2).

FIGURE 2: THE C-SPACE

Codified   B   C

**Knowledge
Codification**

Uncodified   A

Undiffused   Diffused

Knowledge Diffusion
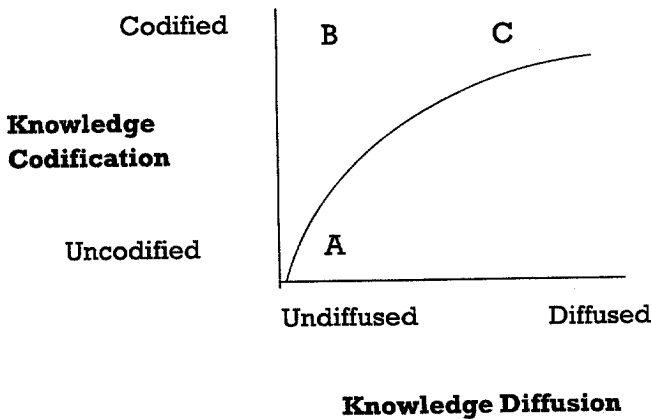
Source: Boisot *et al.*, 1997, p. 68.

A competence can be represented in the C-Space as an interrelated set of processes or technologies that are systematically managed and integrated to yield a superior performance. In the C-Space, the tacit components of a core competence, being uncodified and hard to dif-

fuse, will be grouped together in the region labelled A in Figure 2 (though, of course, many of the constituent or underlying elements of the core competence might be positioned higher up the curve). However, maximum value can only be achieved in region B, where the utility of the knowledge underpinning the competence has been maximised through a process of debugging, testing and standardisation, and where such knowledge, being as yet undiffused, retains a maximum scarcity. Thus, the tacit components of a core competence can be thought as constituting a kind of launching pad located in region A for the delivery of useful information embedded in goods and services into region B. But as these rise towards B, "they encounter a *paradox of value* since information goods located in region B, being much more codified than those in region A, are subject to strong diffusion pressures" (Boisot et al. 1997, p. 70). The knowledge engrafted in such goods is now capable of being shared either voluntarily or involuntarily through competitive imitation.

Boisot et al. (1997) stress the need to come to terms with the lower regions of the C-Space, viewing them not as territory to be avoided but as a potential source of competitive advantage in their own right. A core competence is an emergent product of the C-Space's lower regions which is driven over time towards its upper regions; here it encounters the paradox of value where any gain in utility achieved by codification is paid for with a value-eroding loss of scarcity. The upward move is seen as inevitable, given the firm's own internal organisational dynamic working in conjunction with external competitive forces. "Managing a core competence can thus be interpreted as managing its trajectory in the C-Space in response to the conflicting forces that pit the upward move against the paradox of value" (Boisot et al., 1997, p. 80). Managing this dilemma, to reconcile the divergent cultural claims of the upper and lower regions of the Space, is not so much about uncertainty reduction as uncertainty *absorption*. Instead of seeking to escape from the lower region of the C-Space, a strategy of uncertainty absorption explicitly requires a firm to develop some organisational capacity in that region. Such an ability, according to these authors, has a value, a cognitive and an institutional component.

The value component calls for a culture of trust and socialisation to shared values in the firm since in the lower, uncodified regions of the C-Space, asymmetrical and ambiguous information increases substantially the cost of policing while at the same time multiplying the possibility of opportunistic behaviour (Williamson, 1985). The cognitive component encourages the firm's management to be less fearful of uncertainty and to view it as a source of opportunities as much as of

threats (Sanchez, 1993). Finally, the institutional component involves the firm in sensitive negotiation with employees about the ownership and possession of intellectual knowledge. The tacit knowledge associated with the lower regions of the C-Space – and with core competences – can present problematic issues of property rights.

Discussion

We have argued that managing competence also involves managing a dilemma. Failure to reconcile the need to nurture existing competences with the need to build new ones may lead to a competence trap. Such reconciliation may involve seemingly contradictory choices to be made. Leveraging versus building competence necessitates different resource allocations and managerial mindsets. Yet sustaining competitive advantage requires such choices to be made. We argue that four lines of scholarly enquiry can assist managers in this dilemma. Innovation, and in particular, systematic approaches to discovery-driven innovation, allow firms to reach out to new technologies, markets and products and at the same time to assess whether such exploration is leading to novel and genuine competence. A high level of market orientation also encourages a continuous, outward-looking perspective on the part of the firm; first rate market intelligence is generated and disseminated throughout the firm, enabling managers to respond coherently and regenerate competence. Organisation theory reminds the manager that decisions about strategy-structure alignment are crucial and set an important context for competence development. Knowledge management, how knowledge originates, gets codified and diffused within and between organisations, is an important concept given the tacit, knowledge-based nature of competence. These four domains of enquiry are by no means exhaustive in providing insight into the competence dilemma. We are drawn to them by the richness of argument implicit in each field and to the fact that the four fields have many ideas in common.

Both McGrath (1998), dwelling on issues of innovation, and Boisot et al. (1997), examining the role of knowledge management, stress the need to grapple with emergent or latent competence, which if harnessed successfully can lead to idiosyncratic and sustainable competitive advantage. Scholars in the area of organisation theory and market orientation highlight the contingency nature of management structures; firms must shape themselves in ways that permit sensitivity to change and the possibility of competence building. That such structures be supported by relevant systems, routines and

shared values is a theme emphasised by writers across the four fields (Bartlett and Choshel, 1990). The same is true of learning. Learning – adaptive and generative, exploitative and exploratory (March, 1991) – is seen as having a crucial role in shaping competence.

Closer reflection on insights from the four areas of enquiry suggests another important theme for which all share concern – a need for equilibrium between essentially different paths. If effort is be rewarded over the longer term, there must be a sense of balance between two avenues of broadly opposing choice: discovery driven versus platform oriented innovation; the external search for market intelligence versus its internal sharing and use in the case of market orientation; the need for integration and globalisation versus the need for differentiation and responsiveness in organisation structure; and optimal levels of trade-off between codification and diffusion in knowledge management. If the competence dilemma is to be managed, choice must be made and balanced in each field.

Such choices are challenging and painful. The organisation where strategy makers find themselves regularly "on the horns of a dilemma" is no fun place. In the case of our four lines of enquiry, the textbook provides broad guidelines, not precise answers. Uncertainty is a constant feature. Yet, as is to be seen in our discussion of each arena of enquiry above, scholars acknowledge the phenomenon of uncertainty (Boisot et al.,1997; Deshpandé, 1999; McGrath, 1998). Further, they argue that firms should not only cope with uncertainty, but should absorb it into their systems, routines and culture. As strategic options theory has shown, at the very least, uncertainty can be tolerated and designed for, rather than fled from (McGrath, 1997; Sanchez, 1993). In sum, uncertainty is not an ignoble condition and, if managers cannot fully embrace it, they can at least learn to live with it.

Conclusion

The theme of this article is the need for firms to reconcile the twin, and at times contradictory, demands of competence leveraging and competence building. An exclusive concern with nurturing today's resources, at the expense of shaping novel ones for tomorrow, may lead to a core rigidity and a consequent loss of competitive position. The literature of competence based strategic management offers insight into this issue, particularly as it seeks to "unbundle" the essence of competence. Greater understanding is required. We suggest that four avenues of thinking and research are worthwhile in the context of managing this competence dilemma. These include innovation and

systems of innovation; the concept of market orientation; organisation theory and development; and strategic learning and knowledge management. These four domains are by no means exhaustive. Topics such as the management and dynamics of change (e.g. Baden-Fuller and Stopford, 1992), and entrepreneurship (e.g. Cardon and McGrath, 1999) and their relevance to competence development have not been addressed here. We are drawn to the four particular fields by the richness of argument implicit in each and to the fact that the four fields have many ideas in common – in particular, the struggle to achieve balance between two avenues of broadly opposing choice in each field.

Achieving the winning equilibrium over time is a complex and uncertain task. Yet uncertainty can be viewed as something that enriches rather than enfeebles an organisation. The ability of firms to absorb uncertainty into their systems, routines and value sets is key. Embracing uncertainty and managing dilemmas may be painful, but it is also a rewarding process. As Hampden-Turner (1990, p.10) puts it, "value creation lies in the capacity of acknowledging those dilemmas which arise from competing and contrasting claims and of combining both horns of the dilemmas in a resolution which enhances all values in contention". Such a resolution is necessary to avoid the competence trap.

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