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Manufacturing regeneration through corporate entrepreneurship

Middle managers and organizational innovation

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Manufacturing
regeneration

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Abstract

Purpose – To investigate the role played by corporate entrepreneurs in the strategic renewal of mature manufacturing companies.

Design/methodology/approach – A case study approach is adopted as a means of identifying links between corporate entrepreneurship and social capital. Data are drawn from a three-year study which incorporates formal and informal interviews with 15 members of a pseudonymous company management team.

Findings – The study extends understanding of limits between corporate entrepreneurship and social capital in three ways: corporate entrepreneurs (CEs) can exploit “structural holes” for the benefit of the organisation rather than for career advancement; newcomers are more effective than insiders in overcoming the relational inertia caused by lack of external links; the bridging actions of CEs are important for linking internal activities as well as for accessing external knowledge.

Originality/value – The case is used, in combination with earlier contributions to the literature, as a basis for reconceptualizing the process of corporate entrepreneurship.

Keywords Change management, Entrepreneurs, Experience, Middle managers, Social interaction, Strategic planning

Paper type Case study

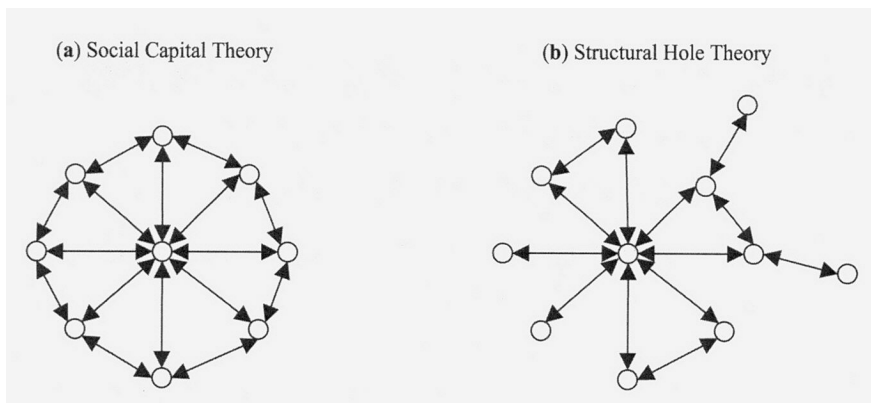
Introduction: managing maturity

The concepts of “corporate entrepreneur” (Burgelman, 1983) and “intrapreneur” (Pinchot, 1985) are widely used in the north American management literature. Within the UK there is much less focus on those key individuals who promote innovation and organizational change. There are certainly few studies which explicitly examine the role of middle-managers as corporate entrepreneurs in mature manufacturing firms (Huang, 1999; Tranfield and Smith, 1998). A consistent theme in the north American literature is that corporate entrepreneurs are “social deviants” prepared to break organizational rules to implement change (Markham, 2000; Schön, 1963; Shane, 1994). In contrast, work dealing with social capital focuses on the value of social relationships in providing resources to entrepreneurs (Coleman, 1988). Social capital is central to debates about the relative importance of open and closed networks. Bourdieu (1985) suggests that social capital accrues to individuals as a result of network closure that facilitates trust and cooperation (Figure 1(a)). Others argue that mobilising social capital depends on open networks which create “brokerage opportunities” for those



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Figure 1.
(a) Social capital theory;
and (b) structural hole
theory



who operate between rather than within network groupings (Burt, 1992; Walker *et al.*, 1997). Open networks are typified by “structural holes” which occur when there are communication gaps in a social network (Figure 1(b)). Structural holes provide opportunities for some managers to act as corporate entrepreneurs by adopting “boundary spanning” roles to transfer knowledge between departments or organizations (Burt *et al.*, 2000; Tushman and Scanlan, 1981).

There have been a number of US studies examining the role of social capital in providing resources for ethnic entrepreneurs (Amsden, 1989; Evans, 1995). The concepts of corporate entrepreneurship (CE) and social capital are brought together in the work of Chung and Gibbons (1997). Hornsby *et al.* (2002) draw on ideas developed by Floyd and Woolridge (1997) to suggest that social capital is important to corporate entrepreneurship because it encourages risk-taking without fear of sanction. However, there appears not to have been any detailed qualitative studies examining how social capital facilitates or restricts the activities of corporate entrepreneurs.

This research investigates the way middle-managers adopting the role of corporate entrepreneur can improve organizational performance through the exploitation of social capital. MFD the case study organization was founded in the early 1950s to supply machined components to the Ministry of Defence (MoD). The loss of defence-related contracts meant that between 1992 and 1994 the workforce reduced by 50 per cent to approximately 450. In an attempt to halt the company’s decline owner Mark Fletcher recruited three experienced middle managers. Two new recruits, responsible for marketing and personnel, helped improve communications and create a more professional managerial approach. The third new manager had extensive experience in mass-production and used this knowledge to instigate changes which gradually transformed the company. The paper begins with a review of the literature associated with corporate entrepreneurship and social capital. Following discussion of the research methods, case study data are presented to illustrate the way in which a middle-manager can instigate significant organizational change. The final two sections analyse the mobilisation of social capital within MFD and suggest a re-conceptualisation of the processes associated with CE.

The middle manager as corporate entrepreneur

Sharma and Chrisman (1999, p. 11) suggest that there is a “striking lack of consistency” in definitions of both entrepreneurship and intrapreneurship. Some authors associate

CE with business diversification through the development of new ventures, products, or markets (Burgelman, 1983; Zahra, 1996). Others suggest that intrapreneurs are “dreamers” who promote innovatory activity within organizations (Pinchot, 1985). According to Covin and Slevin (1991) “independent” and “corporate” entrepreneurs share three postures: risk-taking, innovativeness and proactiveness (see Collins and Moore, 1970). A complementary view is that organizations themselves can adopt an entrepreneurial philosophy (Covin and Miles, 1999; Stevenson and Jarillo, 1990; Stopford and Baden-Fuller, 1994). The authors draw on the work by Lumpkin and Dess (1996) who set out five dimensions of organizations which adopt an entrepreneurial orientation: autonomy, innovativeness, risk-taking, proactiveness and competitive aggressiveness. Covin and Miles (1999) suggest that there are two elements that define entrepreneurial organizations. First, innovation, the introduction of a new product, process, technology, system, technique, resource or capability, is “at the centre of the nomological network that encompasses the construct of corporate entrepreneurship” (Covin and Miles, 1999, p. 49). The second element is that of sustaining high performance or radically improving competitive standing:

...corporate entrepreneurship is engaged to increase competitiveness through efforts aimed at the rejuvenation, renewal and redefinition of organizations, their markets or industries It is the spark and catalyst that is intended to place firms on a path to competitive superiority or keep them in competitively advantageous positions (Covin and Miles, 1999, p. 50).

Corporate entrepreneurs must extend existing capabilities without breaking links with the organization’s core competences (Floyd and Woolridge, 1999). Middle-managers are the locus of CE because they are central to resolution of the capability-rigidity paradox (Leonard-Barton, 1994). In developing a conceptual framework Floyd and Woolridge (1999) integrate concepts from two distinct literatures. Knowledge theory emphasises the importance of subjectivism, empiricism and pragmatism as central to the validation of organizational beliefs. Network theory provides insight into how CEs can exploit their unique social relationships as a basis for improved opportunity recognition.

Combining the knowledge and social elements, the model suggests that opportunities for entrepreneurship are perceived within organizations because individuals have access to unique information through weak social ties and because they are willing to accept ideas based on subjective criteria (Floyd and Woolridge, 1999, p. 133).

The term “strong tie” refers to those who comprise our most significant and long-lasting social relationships incorporating very close work-colleagues as well as family. In contrast, weak ties tend to be shorter in duration and such relationships are less trust-based than strong ties (Aldrich *et al.*, 1997). A number of influential writers (Bartlett and Ghoshal, 1993; Drucker, 1985; Noble and Birkenshaw, 1998; Nonaka and Takeuchi, 1995; Quinn, 1985; Woolridge and Floyd, 1990) point out that middle managers are influential in promoting CE because they link the operational and strategic elements of a firm’s activities, although Hornsby *et al.* (2002, p. 256) note that there is little empirical research “documenting and understanding the contribution middle managers make in the context of corporate entrepreneurship”. Hitt and Ireland (2000) have been at the forefront of attempts to integrate CE with strategic management. They claim that, although the study of entrepreneurship remains underdeveloped in comparison to strategic management’s relative maturity, there are

six points of “intersection”: innovation, organizational networks, internationalisation, organizational learning, top management teams and governance, growth and flexibility. Furthermore, there is “convergence” in research on the two topics based on longitudinal design, dynamic analytical methods, structural equation modelling and cognitive mapping. At the same time, there is acceptance of a need for “systematic qualitative research” based on ethnography, case surveys and multi-case methods (Hitt and Ireland, 2000).

There is also interest in the role played by corporate entrepreneurs in improving organizational performance (Floyd and Woolridge, 1997; Georgellis *et al.*, 2000; Lumpkin and Dess, 1996), although some authors claim that current research does not provide evidence of unambiguous links between CE and firm performance (Covin *et al.*, 2000; Zahra, 1999). In their analysis of US healthcare company, *Accordia*, Kuratko *et al.* (2001, p. 69) suggest that “impressive financial results” can, at least in part, be attributed to “entrepreneurial actions”. Furthermore, they argue that another indication of success is managers who encourage entrepreneurial behaviour amongst employees. Identifying direct links between CE and performance is clearly a difficult task in large and complex organizations. As Carrier (1996) notes, there is a “somewhat surprising” absence of research into intrapreneurship in smaller firms particularly given the centrality of “structural and relational aspects”.

In mature companies “managers believe the industry is stable with slow demand growth and incremental changes in technology” (Baden-Fuller and Stopford, 1994, p. 4). The authors argue that managerial choice rather than industry structure is the most important determinant of profit and growth. This proposition is based on the work of Schumpeter (1934) who points out that business success is achieved by encouraging employees to perform more productively. As discussed above, within the innovation literature references to CE (or intrapreneurship) tend to focus on “social deviance” (Schön, 1963; Shane, 1994), “bootlegging” of organizational resources (Markham, 2000) and the creation of the so-called “skunkworks” (Quinn, 1985; Jones and Smith, 1997). Related literature looks at corporate entrepreneurs who establish R&D-based activities in separate organizations. Corporate ventures are associated with large technology-based companies such as 3M or Procter and Gamble (Rice *et al.*, 2000). Similarly, there is an extensive literature dealing with high-technology business start-ups (Roberts, 1991; Oakey, 2003). Recent interest in change leadership has stimulated interest in the middle manager as change agent (Caldwell, 2003). Certainly the “change management model”, which focuses on the role of middle managers in building strategic change, is the most relevant of Caldwell (2003) fourfold classification. Antoncic and Hisrich (2001) identify four dimensions of intrapreneurship: new business venturing, innovativeness, self-renewal, proactiveness. While this conceptualisation covers a broad range of activities the self-renewal dimension, incorporating strategic reformulation, reorganization and organizational change, focuses attention on key activities undertaken by corporate entrepreneurs.

The concept of social capital

Chung and Gibbons (1997) link CE to social capital by stressing that values and beliefs underpin successful innovation. The authors suggest that while human capital (Becker, 1964) is widely understood there is less clarity about ways in which culture contributes to entrepreneurship. Social capital refers to the productive potential

derived from structural relations between and among actors (Coleman, 1988). Such a definition is similar to ways in which culture contributes to the ability of organizations to establish competitive advantage (Barney, 1986). Chung and Gibbons (1997) conceptualise organizational culture as a social structure because it is based on routinised and enduring patterns of norms, values and beliefs. Social structures can be disaggregated into three autonomous levels: infrastructure, sociostructure and superstructure (Fombrun, 1986). Infrastructure refers to “the set of interdependencies” through which organizational activities, such as technology and market relationships, are constrained (Thompson, 1967). The organization’s administrative system and social relations between organizational actors, including norms and sanctions, comprise the sociostructure. Finally, Chung and Gibbons (1997, p. 15) define superstructure as the ideological underpinnings based on dominant assumptions, paradigms and core values. Ideologies attract, integrate and bind individuals to an organization and help create shared meaning (Beyer, 1981). Ideology underpins CE because of what Thompson and Tuden (1959) term “beliefs about causation” and “consensus on objectives”.

The core of social capital is that goodwill drawn from family, friends, workmates and acquaintances provides a range of valuable resources including information, influence and solidarity (Adler and Kwon, 2002; Granovetter, 1973; Sandefur and Laumann, 1998). Network closure is important to the mobilisation of social capital because it supports the creation of norms and reinforces obligations and expectations (Coleman, 1988). Galunic and Moran (2000) hypothesise managerial performance (contribution to sales and innovation) is positively related to the number of ties and the extent to which there are “structural holes” or “gaps” between network groupings (Burt, 1992; Burt *et al.*, 2000). Questionnaires from 139 managers (69 per cent response rate) involved with sales and innovation confirmed links between social capital and the performance of individuals and their organization. Structural embeddedness was robust in explaining sales performance and relational embeddedness was strongly related to innovation performance. According to the authors, because sales activity is typified by the exchange of “relatively tangible resources”, network positioning is more important than the quality of ties. In contrast, innovation activities are characterised by the exchange of intangible resources with associated higher levels of uncertainty and risk. As a consequence, tacit knowledge is more likely to be passed between those who have close, trusting relationships (strong ties) rather than groups typified by weaker links.

Johanson (2001) argues that the structural hole theory (SHT) versus social capital theory (SCT) debate has been resolved by application in differing situations. The former applies in cases typified by competition (Burt, 1992) and the latter where cooperation is more appropriate (Walker *et al.*, 1997). A study of Finnish civil servants indicated that the two theories “describe separate processes of social intercourse”: employees benefit from sparse networks and work units benefit from cohesive networks (Johanson, 2001, p. 249). Cohesion and lack of cohesion can lead to social liabilities for both organization and individual. Managers must ensure that employees do not distort information or undermine accountability in their efforts to further their careers. Equally, social closure at the unit level increases the likelihood of inter-unit conflict: “finding an optimal level of cohesion is by no means a straight-forward task” (Johanson, 2001, p. 253).

According to Gargiulo and Benassi (2000) social networks enhance both firm and individual performance in two ways: first by facilitating access to information and resources and secondly by helping coordinate task interdependencies. Cohesive networks provide support for “entry-level” managers who lack access to knowledge and resources. Alternatively, networks “rich” in structural holes provide a wide range of opportunities for experienced managers to adopt the role of corporate entrepreneur. Work related to ethnic entrepreneurs suggests that support and resources provided by cohesive networks are important in the early stages of new ventures. Eventually, constraints associated with reciprocal obligations make it difficult for those entrepreneurs to pursue new opportunities as they gain experience (Portes and Sensenbrenner, 1993). With regards to CE, there are two factors by which cohesive networks make it difficult to instigate organizational change. Strong ties mean that contacts “amplify” pressure on managers to reciprocate past favours, resisting pressure for change. Secondly, groups that have been together for long periods create strong bonds and become isolated from external sources of information and influence. Such relational inertia increases the likelihood that organizations lack the flexibility to adapt to new situations. Gargiulo and Benassi obtained data from 19 managers employed by the Italian subsidiary of a multinational computer firm. At the time of the research, a special unit (DPI) was established to promote major organizational change within the subsidiary. Results confirmed that a lack of structural holes made it difficult for managers to enact change because of task interdependencies. Absence of structural holes was attributed to managerial networks which were based on ties forged through years of working in the same organizational units (Gargiulo and Benassi, 2000, p. 192).

The importance of open or closed networks to the development of social capital remains a contested issue for understanding entrepreneurial behaviour (Sandefur and Laumann, 1998). Burt (1992) argues that sparse networks mean that the inherent openness creates “brokerage opportunities” (Burt *et al.*, 2000). Others suggest that social capital is mobilised through the resources which accrue to groups or individuals from the creation of durable networks (Bourdieu, 1985; Coleman, 1988). According to Gargiulo and Benassi (2000) attempts to reconcile the opposing perspectives are based on the principle that benefits from network structure may be contingent on exchanges between actors (Podolny and Baron, 1997). While Davidsson and Honig (2003) suggest the two forms of social capital, described as “bonding” and “bridging”, are actually complementary. “Bonding” social capital, typical of closed networks, describes close intra-organizational relationships based on mutual trust and reciprocity (Figure 1(a)). “Bridging” social capital, typical of open networks containing structural holes, describes inter-organizational links which provide access to new resources and information (Figure 1(b)). As recently discussed by Hoang and Antoncic (2003, p. 172) what is important in research terms is improving our understanding of how networks mobilised by corporate entrepreneurs lead to positive outcomes for individuals and their firms.

Research methods

As Hornsby *et al.* (2002, p. 254) note, “there is still much to be learned about the substance and process of corporate entrepreneurship”. However, many studies, including those by Hornsby and his colleagues, are based on quantitative

methodologies that cannot reveal the reality of entrepreneurship within the confines of mature organizations. Equally, although there is "much exhortation" to conduct longitudinal studies "the percentage of published research articles that report data collected at more than one point in time is minuscule" (Monge, 1995, p. 268). Ogbor (2000, p. 623) is also critical of the reliance on quantitative methodologies ostensibly based on neutral, objective and value-free social science which dominate studies of entrepreneurship. Instead, he calls for qualitative approaches in which there is an "intimate collaboration between facts and theory". Similarly, the authors of a recent review of the network literature make a "plea for more qualitative, inductive research that will introduce new theoretical ideas" (Hoang and Antoncic, 2003, p. 183). Longitudinal research is rare in management studies and single cases raise issues of generalisability. In discussing the shift from micro to macro levels Hamel *et al.* (1993) argue that the objectives are more important than the number of confirmatory cases. This refers to the distinction between statistical generalisation (Yin, 1994), in which inference is made about a specific population, and analytical generalisation, in which empirical data are compared with a theoretical "template".

In 2000 MFD, a privately-owned manufacturing company, employed approximately 450 staff (all individual and company names except BT are pseudonyms). Originally, senior managers agreed to participate in a doctoral research project investigating innovation networks in mature manufacturing firms (Beckinsale, 2001). My own interest in the company was based on significant changes that occurred at the time of the study. Access was negotiated for a more detailed case study focusing on the management of major organizational change. I made 12 day-long visits to the company between 1997 and 2001 during which time I was free to talk to managers and employees about the change process. During these visits I also had discussions with the corporate entrepreneur who is the focus of this paper. The brief notes taken during each visit were "written-up" on return to my office. As the change process neared completion 15 semi-structured interviews (between 45 and 60 minutes) were carried out with all six senior managers and departmental managers directly involved in the change.

Data from my visits to the company were used to construct a narrative of the change process. The interviews were analyzed by constructing a matrix with nine questions on the horizontal axis and the 15 respondents on the vertical axis. Brief summaries of answers to each question were inserted into the appropriate cells to provide a direct comparison of the responses. Quotations were selected to illustrate general views on the main changes over the last two years and the reasons for those changes. Senior managers were also asked to identify their most frequent work-related contacts. Gary Wilson was identified as the key actor for instigating and implementing widespread changes within the organization. It is however, important to note that I do not claim that the analysis provides value-free, objective data related to the changes discussed in the paper. The research draws on a social constructionist perspective in which "the interpretive practice of making sense of one's finding is both artistic and political" (Denzin and Lincoln, 2003, p. 37). That is, I am not attempting to validate a theory or hypothesis in a positivistic sense, but use the case study to illustrate ways in which corporate entrepreneurs can mobilize social capital. At the same time, it is important to acknowledge that conceptual models are useful in mediating theory and empirical phenomena (Morgan and Morrison, 1999).

Case study: strategic renewal in MFD

In the early 1990s UK defence spending declined and there was a move from cost-plus contracts to competitive tendering (Matthews, 1994). Losing MoD business meant that by 1994 the workforce had halved to 450 employees and owner Mark Fletcher sought to stabilise the company by identifying other markets. An opportunity came from a source which initially did not seem to offer a great deal of potential. One of MFD's low-value activities was the refurbishment of BT telephone coin-boxes. Although the work was both intermittent and relatively unprofitable it provided employment for existing workers during slack periods. Early in 1996 senior managers agreed to a request from BT to assemble a batch of phones for the UK market. While employees had little experience of light assembly work it was carried out satisfactorily and eventually led to a regular contract for 2,000 phones per month. This experience provided an opportunity to tender for a large contract to assemble phones for LaComm an Irish telecommunications company. BT seemed satisfied as long as goods met acceptable quality standards, but LaComm actively managed their supply chain and encouraged Fletcher to adopt a more professional approach to management.

In response to LaComm's demands Mark Fletcher initiated the recruitment of three experienced middle-managers. Gary Wilson had spent more than 20 years working for a large domestic appliance manufacturer which was organised according to Fordist principles. His ideas on material flows and the elimination of work in progress (WIP) were revolutionary to most long-serving MFD managers. Peter Dawson who had experience in a range of firms including time spent as MD of a medium-sized manufacturing company filled the new post of marketing manager. Chris Williams replaced the works director's wife, who had recently retired, as personnel manager and he adopted a more conciliatory approach to shop floor relations. Wilson's brief was to reduce direct labour costs via the issue of accurate standard times. His initial analysis revealed that factors influencing labour inefficiency extended well beyond the inadequacy of conventional mechanisms for controlling and motivating shop floor workers. Over an 18-month period the company had shifted emphasis from batch producing mechanical components to mass-producing electronic assemblies. Transformation of the company's manufacturing focus was accompanied by a restructuring of the workforce. Older male semi-skilled machine operators left through redundancy, retirement or natural wastage and were replaced by young females, often on short-term contracts, who were regarded as more suitable for light assembly work. Consequently, other than HR problems associated with laying-off long-serving employees, change from batch to mass production was managed effectively on the shop floor.

Wilson found that senior managers had not confronted problems caused by their own limited external experience. There was no real understanding of how to manage the complexity associated with high-volume assembly (effective stock control, consistent quality standards and just-in-time principles). In addition, management control relied on an ancient and inflexible material requirement planning (MRP) system which made it difficult to track material flows through the factory. Consequently, operator "waiting time" as a result of material shortages was high. The work of white-collar staff was also inefficient as first-line supervisors, store-keepers and material controllers were regularly engaged in time-consuming searches for missing parts.

Wilson recommended replacing the existing IT system with a mainframe computer incorporating MRPII software that was capable of dealing with the complexity of operations within MFD. Works Director Ken Chalmers consulted Fletcher who approved the expenditure of £250,000 and employment of three technicians. Wilson and his new team were given responsibility for acquiring and commissioning the IT system which was designed to resolve stock control problems, improve labour efficiency and link major functions within MFD. To ensure the new system was fully integrated into existing activities Wilson initiated regular meeting with departmental heads and their subordinates. He also created a forum in which junior staff affected by the IT system were involved in discussions about its implementation.

These meetings led to the creation of "module champions" who were responsible for ensuring the views of every department were incorporated into the system design. Uniquely, information about the selection, purchase and implementation of the new system was passed on via regular meetings over a 12-month period. As a result, there were considerable changes to communication structures with particular emphasis on teamwork and delegation:

We've had successes there's no doubt about that in the sense that we've built a team environment rather than a tiered managerial environment on the telecoms side. That's been driven by the introduction of new blood and by recognising the potential of some we already had in the business. We've formed the foundation of a much better business (Materials director).

Up-to-date shop floor information enabled the works manager and the materials manager to regain control of scheduling. Successful implementation of the IT system encouraged Ken Chalmers to give Wilson managerial responsibility for the telecommunications assembly area. Wilson drew on his mass production experience to introduce flow-line principles which reduced operator training time and improved product quality. He also sought assistance from the Welsh Development Agency (WDA) to reduce WIP by introducing a kanban system (Haslett and Osborne, 2000). In December 1999 Wilson instigated a second major investment of £350,000 for a process line to automatically assemble printed circuit boards and reorganize the assembly area. This satisfied the demands of LaComm who wanted MFD to adopt a more professional approach because their own customers sometimes visited sub-contractors.

LaComm were looking at how MFD fitted into their own strategy and that had a major knock-on effect. Collectively we realized that we had to be more proactive or we faced losing their business. Keeping LaComm's business was an opportunity to re-think the whole of our business (Marketing manager).

Gradually, reliance on the MoD was overcome and the marketing manager began to establish a portfolio of new customers. As a result, the company made steady progress between 1997 and 2002 during which time turnover increased from £12 m to £14.5 m and pre-tax profits rose from £510,000 to £720,000.

Compared to the decline in UK manufacturing the performance of MFD represents a considerable achievement for all concerned (DTI, 2002). In the following section the improvements are explained by suggesting that Wilson, adopting the role of CE, was able to mobilize latent social capital within the organization.

Mobilising social capital in MFD

As well as lacking up-to-date knowledge of manufacturing techniques MFD had a number of extremely cohesive groups including the senior management team (SMT) and sub-units such as the machine-shop and assembly departments. Senior managers had worked in the company for an average of 19 years, becoming unified and insular (Table I). The “most frequent (work related) contacts” for all members of the SMT were with each other or with owner Mark Fletcher. None of the team had regular work-related contact with employees other than direct subordinates and fellow members of the SMT (Figure 2). Initially, Wilson reported directly to Works Manager Mike James but quickly established a rapport with the works director who allowed him considerable freedom to introduce new working practices.

Wilson created links with other middle managers, technicians, administrators and first-line supervisors who were responsible for day-to-day operations (Figure 3). In short, he began to understand MFD from the perspective of those people who experienced problems at first-hand. At the same time, access to Chalmers helped him acquire the resources required to resolve those problems. The two other recent recruits also contributed to a more open management style. Peter Dawson, the company’s first marketing manager, identified a range of potential customers and was instrumental in

Name	Role	Age	Tenure	Most frequent contacts	Regular contacts outside SMT
Ken Chalmers	Works Director	62	25	MF/KG	None
Bryn Griffiths	Materials Director	59	20	KC/MF	Two
Mike James	Works Manager	61	23	MF/KC	Four
Meirion Pierce	Stores Manager	55	20	EH/MJ	Three
Eric Holmes	Purchasing Manager	54	10	MP/KC	Two
Enid Chalmers ^a	Personnel Manager	60	16	KC/MJ	None

Table I.
The SMT

Note: ^aWife of works director who retired and was replaced by Chris Williams

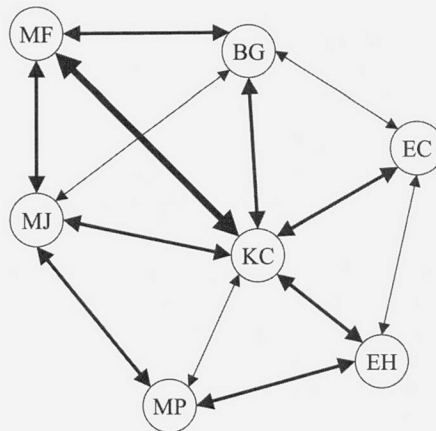


Figure 2.
The MFD SMT

Line width illustrates strength of contact ↔

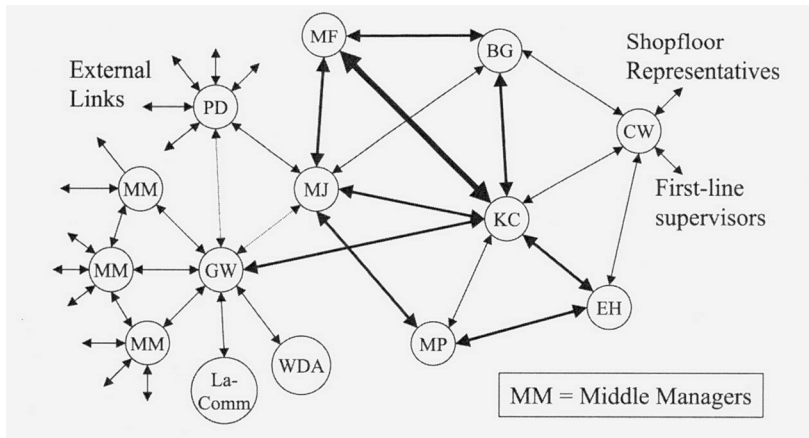


Figure 3.
Revised MFD network

developing MFD's diversification strategy. Labour relations and productivity improved as the new Personnel Manager, Chris Williams, initiated regular meetings with first-line supervisors and representatives of shop floor employees which helped breakdown divisions within the company (Figure 3).

The whole working environment and our approach to manufacturing has changed. Products have been developed in more detail with much higher technology and technical input. There's a completely new way of thinking. There's been a change in attitude, a change in working conditions even a change in salary levels (Personnel manager).

As Johanson (2001) points out, social closure at the unit level increases the likelihood of conflict between those units. Although the paternalistic culture discouraged open disputes, MFD was typified by a lack of trust and cooperation across the organization. Poor communications and the resultant social closure were influenced by a number of factors. First, none of the SMT had recent external experience and they formed a tight network which was difficult for other insiders to penetrate (Figure 2). Secondly, a strongly bureaucratic structure discouraged informal links between middle-managers and consequently, inter-departmental communication relied almost entirely on the SMT. Thirdly, middle-managers were isolated from decision making which involved Fletcher informing the works director what he wanted and Chalmers passing this information to his senior colleagues. Existing employees had been socialised into the prevailing norms of behaviour which emphasised deference to Fletcher and the SMT. This deference was reinforced by the economic importance of MFD to an area in which there were few opportunities for regular, well-paid employment. Until Wilson's appointment no-one within the company was willing to challenge this paternalistic culture which rewarded those who accepted existing behavioural norms. By ensuring there was widespread consultation about operational issues he mobilised the skills and knowledge of first-line supervisors and technical staff.

Wilson's experience in a major white goods company encompassed a number of roles ranging from industrial engineer to manufacturing manager and had given him a comprehensive understanding of how to run a modern, high-quality, mass-production plant. Not bound by existing conventions and having confidence in his ability to enact change meant Wilson was able to mobilise support by building network linkages



across the organization. As discussed above, Wilson arranged a series of regular meetings during the planning and implementation of the IT system which helped create a dialogue between departments and managerial levels. In particular, he promoted the creation of module champions who were responsible for ensuring their departments had “voice” in design of the new system. This interaction between previously insular departments was fundamental to the project’s success because each department was able to state its requirements at the outset.

Social closure amongst groups within the company limited opportunities for existing staff to interact on an informal level. Equally, the presence of these strongly cohesive groups meant that MFD was typified by “structural holes” which meant that there was little knowledge sharing between key managers or their departments. In Burt’s (1992) terms this created a “brokerage” opportunity for a manager willing to adopt the role of corporate entrepreneur. To do this, Wilson built trust amongst the SMT as well as with other groups including material controllers and first-line supervisors (Figure 3). The latter group were essential in making the new system work effectively because it meant abandoning the traditional practice of working in “arrears” with large stocks of WIP in favour of a kanban system based on just-in-time principles. Building links which spanned both hierarchical and lateral groups helped mobilise social capital (Coleman, 1988; Hoang and Antoncic, 2003) by creating an environment typified by greater flexibility, trust, responsibility, involvement and team-working. This is not to suggest that there was widespread resistance to change, rather, existing managers were unable to break-out of their conventional mind-sets. Wilson brought new ways of thinking and emphasised the importance of accessing knowledge and expertise internally and externally. For example, when purchasing the MRPII system, rather than utilising the company from which MFD usually bought IT equipment, Wilson initiated an evaluation procedure in which ten companies submitted detailed proposals (technical specification and costs). Wilson also encouraged Chalmers to take advantage of a Welsh Development Agency (WDA) programme to improve manufacturing practices. The WDA project, which emphasised the importance of kanban and shop floor teams, in combination with the MRPII system helped MFD shift towards the principles of lean manufacturing. Wilson also used his links with LaComm as a “lever” to minimise resistance to changes in traditional working practices amongst middle managers and first-line supervisors (Figure 3).

The corporate entrepreneur as bridge-builder

Schumpeter (1934) notes the distinction between managers who act according to organizational routines and entrepreneurs who are innovators concerned with implementing new routines. Managers create stability and embeddedness through institutional rules while entrepreneurs identify strategic opportunities which lead to creative destruction (Beckert, 1999). One consistent theme in the entrepreneurship literature is whether entrepreneurship can be taught (Fiet, 2000). The limited literature dealing with learning the skills of CE tends to concentrate on the creation of climates conducive to innovation and change (Baden-Fuller and Stopford, 1994; Kanter, 1983, 2000). Sundbo (1999), for example, discusses the role of HRM and organizational development (OD) projects for encouraging employees to become more enterprising. This entails establishing a “harmonious” dual structure: a formal management structure which provides strategic leadership and an informal employee structure in

which individuals are encouraged to operate as “free” corporate entrepreneurs (Sundbo, 1999, p. 106). According to Honig (2001) a key skill associated with both entrepreneurs and corporate entrepreneurs is their ability to identify and exploit opportunities (Georgellis *et al.*, 2000; Covin and Slevin, 2002). Both groups must mobilise social capital through their networks: external in the case of entrepreneurs and internal in the case of CEs. One important distinction between the two types is that CEs usually operate as part of a team (Morris *et al.*, 1993; Honig, 2001). Zahra *et al.* (1999) distinguish between “formal” entrepreneurial activities informed by the firm’s strategic goals and “informal” entrepreneurship which is often concentrated on an individual’s particular interests. The latter case has a long history in studies of intrapreneurship which focus on “social deviance” manifest in the “bootlegging” of organizational resources (Markham, 2000) and the creation of the so-called “skunkworks” (Quinn, 1985; Jones and Smith, 1997).

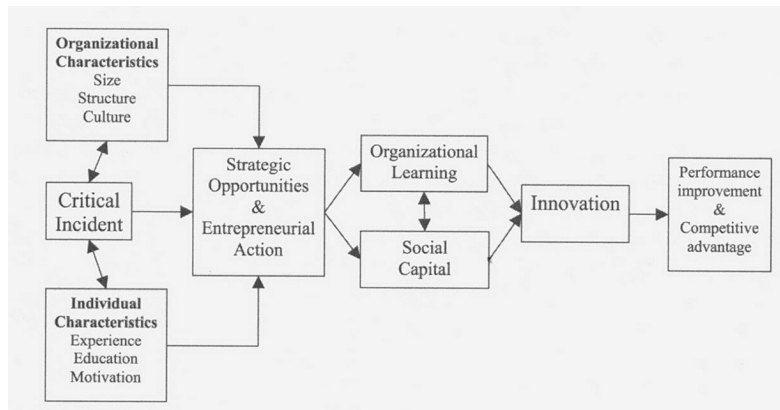
Wilson did not regard himself as a “corporate entrepreneur” as he simply focused on doing his job professionally. However, he did attribute his effectiveness in managing change to his “extrovert personality” combined with a willingness to act at the edge of his competence (Kanter, 1983). Wilson took on the responsibility for a number of activities with which he personally was unfamiliar:

I volunteered for a lot of things and I think that’s a personality thing. I’m prepared to take things on even if I don’t know much about them. I had no knowledge about IT, I’d only been here a few months but Ken Chalmers believed that I was capable of organising, structuring and planning the implementation, that’s one example.

Nor did Wilson have formal training in management or entrepreneurship and his evaluation of activities in MFD centred on two sets of practical skills gained as an industrial engineer. First, the efficient use of direct labour based on accurate work measurement and, secondly, the importance of effective stock control (kanban) to reduce work-in-progress while ensuring material shortages did not hold-up production. As discussed above, the outcome of this analysis was his recommendation to spend £250,000 on a sophisticated IT system. Preparing for implementation of the new system allowed Wilson to make full use of entrepreneurial skills that were “natural” rather than acquired through formal learning. Building networks which bridged departments and managerial levels as a basis for knowledge acquisition and knowledge-sharing resulted from his intuitive understanding of the situation rather than a carefully constructed plan to exploit structural holes. He also recognised the importance of fostering a strong *esprit de corps* amongst his immediate team as well as his more extensive network of contacts within the firm. This team-building involved both the sharing of knowledge as well as encouraging team-members to take on greater responsibility.

The MFD case suggests a need to re-conceptualise links between CE and social capital. The model shown in Figure 4 combines insights from the empirical data presented above with key contributors to the literature (Chung and Gibbons, 1997; Hornsby *et al.*, 1993; Zahra, 1993; Zahra *et al.*, 1999). A significant critical incident (Flanagan, 1954; Cope and Watts, 2000) such as losing a key customer or accessing a new market creates a strategic opportunity (Beckert, 1999) that is shaped by the characteristics of the organization and the CE. Organizational characteristics such as size, structure and culture influence the ability of senior managers to recognise threats posed by a “critical incident” and to initiate an appropriate strategic response

Figure 4.
Modelling the process of
CE



(Child, 1972, 1997). As acknowledged in the literature, smaller firms are generally more flexible and responsive to environmental change (Man and Chan, 2002). Similarly, the CE's characteristics including education, experience and motivation influences their willingness and ability to respond on a personal level to some perceived threat to the organization (Honig, 2001). Entrepreneurial action involves mobilising social capital through bridging activities as well as encouraging organizational learning.

The essence of social capital relates to the goodwill (reciprocity) drawn, in this case, from co-workers who provide valuable resources including information, social support and local knowledge (Sandefur and Laumann, 1998; Coleman, 1988). The latter is particularly important in situations such as prevailed within MFD where the corporate entrepreneur relies on help to navigate the organization and its culture. Employees and co-managers must trust the CE sufficiently to share inside information. Encouraging knowledge sharing is central to both entrepreneurial and organizational learning (Minniti and Bygrave, 2001; Blackler *et al.*, 1999). This approach is commensurate with increasing interest in the social dimensions of learning that have implications for entrepreneurship. Traditional "learning theories" (Burgoyne and Stuart, 1978; Kolb, 1984; Pedler, 1997) focus on the individual rather than the social dynamic associated with the acquisition and utilisation of new knowledge. A number of authors stress the importance of social processes in mediating "what is known" and "how it is known" (Lave and Wenger, 1991; Pavlicia *et al.*, 1998; Nicolini *et al.*, 2003; Wenger, 2003). Acknowledging that learning is not simply a cognitive activity has implications for the creation as well as the exploitation of social capital. Social learning is particularly appropriate for the acquisition of the skills associated with CE (Chung and Gibbons, 1997). As Wilson points out:

I don't think I had any real influence over senior management behaviour because their habits were too well established. I do think middle managers responded to my influence and they weren't discouraged by their superiors.

The MFD case illustrates that social capital has the potential to promote individual and organizational learning. This willingness to learn at both levels is the basis for product and process innovation. Innovation describes the range of organizational activities associated with moving from idea conception to a product or service offered in the marketplace (Freeman, 1982). More recently, Atherton and Hannon (2000, p. 278) use



Drucker (1985) work as a basis for their definition: "innovation is a business process of managing a bundle of activities which create wealth, in the widest sense of the word, from existing resources". In the longer term, cost reduction (more efficient processes) and a larger market share (more attractive products) improves the firm's performance and helps establish competitive advantage. The importance social capital plays in improving competitive advantage has had only limited recognition (Barney, 1986, 1991; Nahapiet and Ghoshal, 1998). Identifying social capital as a significant element in organizational performance reinforces the need to develop broad-ranging skill acquisition and knowledge sharing as organizations learn to learn (Bateson, 1972). Bridging structural holes brings exposure to new information and spurs learning which helps develop internal capabilities and enhance performance (Hoang and Antoncic, 2003, p. 171).

Conclusions

MFD, a mature manufacturing company, faced business failure during the 1990s as a result of losing its main customer, the MoD. Because of its relative geographic isolation, there was little voluntary turnover and the majority of employees and managers had spent many years in MFD (Table I). Owner Mark Fletcher adopted a patrician style of management which encouraged high levels of deference amongst shop floor workers and lower-skilled white-collar employees. As most employees, including the management team, lived in the same small town there were numerous social and familial links within the organization. The highly bureaucratic structure of MFD restricted the potential for mobilising social capital because of "closure" amongst a range of organizational groups. The chance to release the motivational potential of social capital came with recruitment of three "outsiders" to middle management roles. Employing a marketing manager was in itself a radical change because the company had relied primarily on Fletcher's personal contacts in the MoD to generate sales. The new personnel manager professionalized the company's human resource management activities. The third recruit, Gary Wilson, utilised skills gained in a mass-production environment to implement up-to-date manufacturing methods including kanban and lean production. He also adopted a boundary-spanning role that helped him build bridges between groups and departments that had become isolated (Figure 3).

This work contributes to the understanding of links between CE and social capital in three ways. First, because MFD had become isolated from external knowledge influences it was typified by "relational inertia" (Gargiulo and Benassi, 2000). However, Wilson did not "exploit" structural holes for his own career advancement as suggested by some work on CE (Burt, 1997; Burt *et al.*, 2000). Rather he encouraged dialogue both vertical, between senior managers, supervisors and shop floor employees (Figure 3), as well as horizontal through the creation of departmental module champions. His entrepreneurial actions helped mobilise social capital which promoted organizational learning, innovation and improved performance (Figure 4). In other words, social capital was a public good which provided organizational benefits rather than a private good which benefits only individual actors (Kostova and Roth, 2003).

Secondly, this study confirms that outsiders may be more effective than insiders in mobilising social capital amongst groups that have been together for long periods. Wilson opened-up the organization to new knowledge sources by encouraging senior

managers to act on advice offered by representatives of LaComm and by bringing in consultants from the regional development agency. This “bridging activity” (Davidsson and Honig, 2003) was key to the mobilisation of social capital within MFD. However, Wilson was able to adopt this bridging role because he was a newcomer and therefore, not subject to the prevailing norms or “reciprocal obligations” (Portes and Sensenbrenner, 1993) which make it difficult for insiders to instigate major organizational change.

Thirdly, the study demonstrates that “bridging activity” is important in linking internal activities as well as providing access to external knowledge sources. In fact, this point is well-known in the innovation literature through the concept of “boundary spanners” who are responsible for linking internal and external activities (Ancona and Caldwell, 1992; Perrone *et al.* (2003); Tushman and Scanlan, 1981; Zaheer *et al.*, 1998). As Kostova and Roth (2003) point out, the effectiveness with which boundary spanners carry out their roles directly influences the formation of social capital. However, this study differs from Kostova and Roth’s (2003) conceptual model because they focus on boundary spanning in multinational corporations (MNCs). MFD is a relatively small organization with less than 500 employees who are all based in the same factory. Consequently, it is suggested that boundary spanners who adopt bridging roles can make a significant difference in any organization in which there is relational inertia (Gargiulo and Benassi, 2000).

While this study primarily reports on the activities of one individual it is important to acknowledge that MFD performance improvements resulted from a combination of factors. That one individual in particular possessed a strong entrepreneurial drive was a matter of chance rather than of design. Second, Ken Chalmer’s (works director) acceptance that new ways of working had to be introduced if the company was to survive. Furthermore, had he not fully supported Wilson in his various initiatives then little would have been achieved. Third, the role of LaComm cannot be overstated as their demands for a more professional managerial approach prompted many of the improvements. Although serendipity played a role in MFD’s turnaround this does not detract from the main point that mobilising social capital is central to effective CE. Furthermore, given adequate support, the effective middle managers acting as a CE can enact substantial change in very mature manufacturing firms.

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