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Innovation and Organizational Change:

Mobilising Social Capital Through

Corporate Entrepreneurship

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Abstract

This paper represents an attempt to integrate the concept of corporate entrepreneurship with the emerging literature on social capital. Corporate entrepreneurship (Burgelman, 1983) focuses on the activities of individuals who take-on responsibility for organisational innovation and change. Ideas associated with social capital draw attention to the importance of workplace relationships which provide resources for individuals based on mutual obligations, trust and expectations (Coleman, 1988). Empirical data are drawn from a long-term study of *MFD* a mature manufacturing firm located in a small town in north Wales. Change was initiated by the owner/managing director who was concerned about declining activity as the company lost its core business with the Ministry of Defence. The corporate entrepreneur was a middle manager who joined the company less than one year before the change programme began. Because he was new to the company, the corporate entrepreneur did not have reciprocal obligations to other employees and was able to identify a range of 'brokerage opportunities' (Burt, 1992) which he used to breakdown barriers between departments and between senior managers and other employees.

Keywords:; Entrepreneurial behaviour, Social capital, Innovation Organisation change,

Introduction: Managing Maturity

MFD, a privately-owned company, was founded over 50 years ago to supply casting and machined components to the Ministry of Defence (MoD). A decline in defence-related work meant that between 1992 and 1994 the workforce was reduced by 50% to approximately 450. The owner/manager, increasingly concerned about the company's ability to survive, recruited three middle managers with experience in other manufacturing companies. Gradually, a range of new technologies were introduced which were utilised to develop new products, improve manufacturing processes and create better communication systems. The main change agent, in contrast to most other long-serving staff, had extensive experience in a mass-production environment. He drew on this experience to instigate a range of changes which revolutionised activities within the company.

Change management has attracted a considerable amount of academic interest since the emergence of the field of inquiry termed 'organisation theory' (Pugh, 1984). Beginning with the seminal work of Lewin (1947) and including important contributions by Bennis (1964) through to more recent work (Eden and Huxham, 1996; Hartley et al, 1997) the concept of 'change agent' has been a central feature of academic research. North American influence has encouraged wider usage of terms such as 'corporate entrepreneur' (Burgelman, 1983) and 'intrapreneur' (Pinchot, 1985) in the management literature. One consistent theme in such work is that corporate entrepreneurs are 'social deviants' prepared to break organisational rules in implementing change (Schon, 1963; Shane, 1994; Markham, 2000). In contrast, work dealing with social capital focuses attention on the value of social relationships in providing resources to entrepreneurs (Coleman, 1988). Hanifan (1920) was perhaps the first person to explicitly use the term social capital in referring to 'good will, fellowship, sympathy and social intercourse among.... a social unit'. In recent years the term have increasingly been adopted by a wide range of scholars concerned with the study of organizations (Adler and Kwon, 2002). The concept of social capital has been particularly attractive to those studying networks with debates about the relative importance of open and closed systems. Burt (1992)argues that sparse social networks mean the inherent 'openness creates many 'brokerage opportunities'. Those influenced by 'structural hole theory' believe that the consistent norms fostered by cohesive networks limit opportunities open to individual actors. While Bourdieu (1985) suggests that social capital is mobilised as a result of resources which accrue to groups or individuals from their institutionalised relationships which are the outcome of durable networks. The concepts of corporate entrepreneurship and social capital are brought together in the work of Chung and Gibbons (1997). While their work provides some insight into the importance of social capital for corporate entrepreneurship the econometric approach adopted by Chung and Gibbons does little to identify the social processes associated with such activities.

Social Capital

According to Cooke and Wills (1999) modern use of the term social capital began with the work of Jacobs (1961)who examined how the breakdown of networks contributed to the decline of major US cities. In a study of 'racial income differences' Loury (1977) defined social capital as naturally occurring social relationships which promote the development of valued skills or characteristics'. Contemporary writers usually begin with the work of Coleman (1988) who attempts to reconcile two conflicting explanations of social action. According to structural accounts, individual actors are socialised into the acceptance of social norms, rules and obligations which constrain their behaviours (see Wrong, 1961). The alternative view is that individuals set goals independently and act in a manner which is entirely rational and self-interested (Minford, 1992; Smith,1993). Coleman (1988) examines ways in which social relations constitute useful resources for individual actors. Reciprocity, based on obligations, expectations and trust, is central to the creation of social capital. Individuals help others because they trust them to reciprocate and, as such, both sides have expectations related to future behaviours. Network closure is important to the mobilisation of social capital because it supports the creation of norms and reinforces obligations and expectations. In Coleman's terms closure means that actors within particular social groupings are linked to other actors by more than one 'tie' (cf Burt, 1992). Closure is essential in ensuring that there is a willingness to share information with colleagues which is particularly important in organizational settings.

Adler and Kwon (2002) point out that social capital is 'gaining currency' in a range of areas related to organization studies including: career success (Burt, 1992), job search (Granovetter, 1995), product innovation (Tsai and Ghoshal, 1998), intellectual capital (Hargadon and Sutton, 1997), corporate entrepreneurship (Chung and Gibbons, 1997), new business formation (Walker et al, 1997), supply chain relations (Uzzi, 1997), regional production networks (Romo and Schwartz, 1998) and inter-firm learning (Kraatz, 1998). The core of social capital is that goodwill drawn from family, friends, workmates and other acquaintances provides a range of valuable resources including information, influence and solidarity (Sandefur and Laumann, 1998). The nature of network relations provides a range of opportunities for actors to 'leverage' resources. In network theory attention is focused on the quality of various ties including their frequency, intensity, multiplexity and density (Scott, 2000). Weak ties, as well as strong ties, are often invaluable in providing information and accessing resources (Granovetter, 1985; 1973). More recently, Portes (1998) suggests a number of factors influence motivation including internalised norms acquired as a result of primary or secondary socialisation (Goffman, 1961). Secondly, 'instrumental' motivations are based on obligations created during social exchange or what Portes (1998) describes as enforced trust. Opportunity and motivation must be complemented by individual abilities which refers to competences and resources which can be identified at network nodes. Some regard associability, which is related to the extent to which groups define and enact their goals, as a source of social capital (Leana and Van Buren, 1999). Others suggest ability is related to network outcomes such as trust, norms and shared beliefs amongst actors (Nahapiet and Ghoshal, 1998). All three elements, motivation, opportunity and ability, must be present for social capital to be motivated. The authors stress that their 'tripartite schema is a heuristic guide to the proximate causes of social capital exchange' (Alder and Kwon, 2002:27).

Galunic and Moran (2000) hypothesise managerial performance (contribution to sales and innovation) will be positively related to the number of ties and the extent to which there are 'structural holes' (Burt, 1992; Burt et al, 2000). The authors studied managers working in 170 operating units of a global pharmaceutical company. Completed questionnaires were received from 139 managers (69% response rate) involved with sales and innovation. Results confirmed links between social capital and the performance of individual managers and their organizations. One interesting element was that structural embeddedness was more robust in explaining sales performance and relational embeddedness was more 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 those ties. In contrast, innovation activities are characterised by the exchange of intangible resources with the associated higher levels of uncertainty and risk. As a consequence, tacit knowledge is more likely to be passed between strong ties rather than weaker linkages.

> *'To sum, our study suggests the usefulness of breaking down the concept of social capital into its structural and relational dimensions, noting the relevant advantages of these dimensions of social capital to different ways in which managers can add value to their firms' (Galunic and Moran, 2000:23).*

Social capital is distinct from other forms of capital in that it cannot be owned by individuals nor organizations. At the same time, social networks are a resource which can be mobilised as an organizational resource. Social interaction within a network context is affected by both microstructures (embeddedness) and macrostructures such as class (Woolcock, 1998). 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). To examine this issue Johanson (2001) studied a group of Finnish civil servants and data indicated that the two theories 'describe separate processes of social intercourse': employees benefit from sparse networks and work units benefit from cohesive networks (Johanson, 2001:249). 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, 2001:253).

According to Gargiulo and Benassi (2000) social networks can enhance both firm and individual performance in two ways: first by facilitating access to information and resources; secondly by helping co-ordinate task interdependencies. Cohesive networks provide considerable amounts of 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 entrepreneurs. Similarly, 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 made it difficult for those entrepreneurs to pursue new opportunities as they gain experience (Portes and Sensenbrenner, 1993). With regards to intrapreneurship, there are two factors by which cohesive networks make it difficult to instigate organizational change. Cohesive ties may mean that managers' contacts can 'amplify' pressure to reciprocate past favours thereby resisting pressure for change. Groups that have been together for long periods of time create strong bonds and become isolated from external sources of information and influence. Such relational inertia increase the likelihood that organizations lack the flexibility to adapt to new situations. Gargiulo and Benassi (2000:186) propose the following hypothesis:

> *The higher the cohesiveness of a manager's network the lower the manager's ability to adapt the composition of that network to the co-ordination requirements of a new task environment.*

Data were obtained from nineteen managers employed by the Italian subsidiary of a multi-national 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 DPI managers to enact change which reflected changes in task interdependencies. Absence of structural holes was attributed to the managers' networks which were based on ties forged through years of working in the same organizational units (Gargiulo and Benassi, 2000:192).

Corporate Entrepreneurship

Social capital is linked to corporate entrepreneurship by Chung and Gibbons (1997) who stress the importance of values and beliefs to innovation success. The authors suggest that while human capital (Becker, 1994) is widely understood there is less clarity about ways in which corporate culture contributes to entrepreneurship. As defined by Coleman (1988) social capital refers to the productive potential derived from structural relations between and among actors. 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 relationship, are constrained (see Thompson, 1967). The organization's administrative system and social relations between organizational actors, including norms and sanctions, comprise the sociostructure. Finally, Chung and Gibbons (1997:15) define superstructure as the ideological underpinnings based on dominant assumptions, paradigms and core values. Ideologies attract, integrate and bind individuals to an organization and helps create shared meaning (Beyer, 1981). Ideology underpins corporate entrepreneurship because of what Thompson and Tuden (1959) term 'beliefs about causation' and 'consensus on objectives'.

Sharma and Chrisman (1999:11) suggest that there is a 'striking lack of consistency' in definitions of both entrepreneurship and intrapreneurship. Some authors associate corporate entrepreneurship with business diversification through the development of new ventures, products or markets (Burgelman, 1983; Zahra, 1996). While Pinochot (1985) suggests that intrapreneurs are 'dreamers' who take responsibility for innovation of any kind within organizations. It is argued by Covin and Slevin (1991) that 'independent' and 'corporate' entrepreneurs (Collins and Moore, 1970) share three postures: risk-taking, innovativeness and proactiveness. A complementary view is proposed by Covin and Miles (1999) who posit that organisations themselves can adopt an entrepreneurial philosophy (Stevenson and Jarillo, 1990; Stopford and Baden-Fuller, 1994). The authors draw on work by Lumpkin and Dess (1996) who set out five dimensions of organizations which adopt an entrepreneurial orientation: autonomy, innovativeness, risk-taking, proactive and competitive aggressiveness. Although, Lumpkin and Dess (1996) were equivocal about whether all five elements were present in entrepreneurial firms. Covin and Miles (1999) suggest that there are two elements which define entrepreneurial organisations. First, innovation, the introduction of a new product, process, technology, system, technique, resource or capability, is ‘at the center of the nomological network that encompasses the construct of corporate entrepreneurship’(Covin and Miles, 1999:49). 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, 1999:50).

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 corporate entrepreneurship 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 pragmaticism as central to the validation of organisational beliefs. Social network theory provides insights into the role of weak ties, actor centrality and emergent networks as a basis for 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, 1999:133).

As noted by Hornsby et al (2002: 256) there is little empirical research ‘documenting and understanding the contribution middle managers make in the context of corporate entrepreneurship’. The authors do suggest that in the fields of strategic management and international business middle managers are recognised as key agents of organizational renewal and change. A number of influential writers (Bartlett and Ghoshal, 1993; Drucker, 1985; Noble and Birkinshaw, 1998; Woolbridge and Floyd, 1990; Quinn, 1985) point out that middle managers are influential in promoting corporate entrepreneurship because they link the operational and strategic elements of a firm’s activities. The work of Nonaka and Takeuchi (1995) is also important in terms of recognising the significance of what the authors describe as ‘middle-up-down management’. Hitt and Ireland (2000) have been at the forefront of attempts to integrate corporate entrepreneurship 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 related to the two topics with a focus 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). Perhaps the most widely-known author in the area of corporate entrepreneurship is Kanter (1983; 2000) who dismisses the idea that innovation is chaotic and random insisting that 'structure and social arrangements' can actively stimulate innovatory activity.

> *'At its very root, the entrepreneurial process of innovation and change is at odds with the administrative process of ensuring repetitions of the past'* (Kanter, 2000:168).

The objective of this research is to provide a detailed examination of links between corporate entrepreneurship as expressed through middle management and social capital. There have been a number of US studies examining the role of social capital in providing resources and support for ethnic entrepreneurs (Amsden, 1998; Evans, 1989). Corporate entrepreneurship has also received some attention most notably from Chung and Gibbons (1997) who use an econometric approach to examine the influence of organisational culture. Hornsby et al (2002) draw on the work of Floyd and Woolridge (1997) to suggest that social capital is important to corporate entrepreneurship because it encourages employees to take risks without fear of sanction. So far, there appear not have been any detailed qualitative studies examining ways in which social capital facilitates or restricts the activities of corporate entrepreneurs.

Research Methods

Despite widespread usage of the term there is a lack of compelling evidence which links corporate entrepreneurship and organisational performance. As Hornsby et al (2002:254) go on to say 'there is still much to be learned about the substance and process of corporate entrepreneurship'. However, many of the studies on corporate entrepreneurship, including those by Hornsby and his colleagues, are based on quantitative methodologies which cannot reveal organisational processes. Equally, although there is ‘much exhortion’ to conduct longitudinal studies ‘the percentage of published research articles that report data collected at more than one point in time is minuscule’ (Monge, 1995:268). Ogbor (2002:623) 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’. Therefore, it is suggested that adopting a detailed case study approach allows researchers to observe a ‘chronological sequence’ which helps to ‘determine causal events over time’ (Yin, 1994). My view is that establishing causality in highly complex social organisations is extremely difficult whatever methodology is adopted. Rather, I concur with Barley (1986:81) who argues that mapping ‘emergent patterns of action’ demands a detailed qualitative approach: ‘Retrospective accounts and archival data are insufficient for these purposes since individuals rarely remember, and organisations rarely record, how behaviours and interpretations stabilise over the course of the structuring process’. Longitudinal research remains rare in organisational studies and single cases raise issues of generalisability. In discussing the shift from micro to macro levels Hamel et al argue (1993) 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’.

Data are drawn from a study of MFD a privately-owned manufacturing company founded over 50 years ago to supply casting and machined components to the Ministry of Defence. In 1999 MFD employed 70 monthly staff, 200 direct operators and 175 indirect staff. Until recently, most products were batch-manufactured but there is now increasing emphasis on higher volume work utilising flow-line assembly. In the past, MFD manufactured to contract and had little marketing expertise: ‘if you took the customers away you would have difficulty identifying production of a specific product’ (MFD manager). One expensive mistake was turning down a contract to manufacture Dyson’s dual cyclone vacuum cleaner: ‘the opportunity didn’t fit the current profile of the business but Dyson also expected MFD to do the marketing’. Currently the firm relies heavily on two customers: BT and LaComm. Access to MFD was originally negotiated when senior managers agreed to participate in a doctoral research project investigating the nature of innovation networks in a range of mature manufacturing firms (Beckinsale, 2001). As supervisor, I visited the company and realised that it fitted my own research interests in the role of corporate entrepreneurship. Data were acquired from a variety of sources including observation, regular discussions with Gareth Williams (see below), company documents as well as fifteen interviews carried out over a two-month period at the end of 2000. These semi-structured interviews, taking between 45 and 60 minutes, were taped and obtained managerial views recent on events within MFD. Interviewees generally confirmed that change was initiated by the owner and managing director Mike Fletcher who was concerned about declining activity within the company as a result of fewer defence contracts. At an operational level, the change agent was Gareth Williams a middle-manager who, in contrast to most other white and blue-collar workers, had joined the company less than one year before the change programme began.

Into the Modern World of Mass Production

MFD was established in 1951 to supply equipment to the MoD and forty years later defence-related work still accounted for 60% of turnover. The decline in UK defence spending and the associated move away from cost-plus contracts to competitive tendering meant that the company could no longer rely on owner Mark Fletcher's personal contacts to obtain business. Losing MoD business meant that by 1994 the workforce had halved to 450 employees and for a while the company's decline appeared likely to continue. Initially, two factors contributed to the turn-around: first, a gradual recognition throughout the management team that they had to actively seek new customers and, secondly, considerable investment in new manufacturing equipment. New business was generated by moving from batch manufacturing to light assembly work with the securing of contracts from BT and Dublin-based LaComm. Other changes initiated by Mark Fletcher included the recruitment of a number of 'outsiders' with experience in different industries. Gareth Williams 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 WIP (work in progress) were revolutionary to most long-serving MFD mangers. A new post of marketing manager was filled by Peter Dawson who had experience in a range of firms including time spent as MD of a medium-sized manufacturing company. A new personnel manager was also recruited to replace the works director's wife when she retired and he introduced a more conciliatory and democratic approach to relations with the shopfloor.

> *'It was first obvious with the recognition that the defence business would not be enough for us to survive on. The family have now recognised that there are other ways of doing things but that is not the only answer. I think that there are other people who are going to determine how the company will be run rather than the familiar immediate group'* (Materials Director).

Williams was initially in charge of management services with primary responsibility for control of labour costs via the issue of standard times. He quickly realised that there were a wide range of factors influencing the inefficient use of labour including an ancient and inflexible MRP system which made it extremely difficult to track flows of material through the factory. This was crucial because as a result of material shortages operator 'waiting time', paid at average earnings, was high. The work of white collar staff was also inefficient as supervisors, foremen and store-keepers spent a considerable amount of time searching for missing materials. After carrying out a detailed analysis Williams decided that the only way to improve efficiency was to purchase a new mainframe computer with software, including MRPII, capable of dealing effectively with the complexity of operations within MFD. Williams presented the results of his analysis and recommended the purchase of a new IT system at a cost of £250,000 and employment of 2/3 new technical staff to works director Ken Chalmers . Following discussions with Fletcher, Chalmers approved the project and Williams's department were given responsibility for the purchase, installation and commissioning the new system. The computer was primarily intended to resolve problems associated with stock control and labour inefficiency but it was also designed to link all major functions within MFD. This meant obtaining departmental heads' cooperation was necessary to improve transparency and incorporate their requirements into the specification. As a result, there were considerable changes to the organizational routines (systems) with particular emphasis on greater openness, trust, flexibility and interaction with customers (there was broad agreement across the managerial group so illustrative quotations are representative):

'It takes a lot of commitment from the guy signing the cheque. He can't have cold feet at the first hiccup, he has to be 100% behind it and ask what will it take to do it, not can we do it, should we do it? We've answered those questions and now it's time to ask what it will take to do it? Don't tell me the problems come and tell me if I can help you to solve them. These are new to MFD, total commitment from top-down and from bottom-up' (Telecom Manager).

'I think the main change has been greater flexibility in terms of decision- making and authority, more flexibility in terms of freedom of movement, in terms of what we can and can't do. Opening up opportunities, you could call it greater trust. This in turn reflects on the people working for me as well, I endeavour to give them more flexibility. In the time I've been with the company, probably in the last 2 or 3 years I have seen more change than the rest of the time. I'm not sure whether that was a conscious decision made elsewhere or just the way that we've had to operate in terms of speed and response' (Purchasing Manager).

Evaluation of the external environment was the owner's responsibility and as described above, it became obvious that reliance on MoD contracts was at an end. Mark Fletcher initiated substantial change by delegating responsibility to operational managers. There was gradual acceptance that the traditional top-down approach was no longer appropriate and employees at all levels had to be given greater responsibility for their day-to-day tasks. A further significant structural change was creation of 'module champions' who were given responsibility for liaising between their departments and the team introducing the new computer system.

'It's difficult to be certain about the "relaxation" but there has been a change and I'm not exactly sure about the motives behind that but hopefully it is a greater trust in the people further down the line' (Purchasing Manager).

'In one way it's quite dramatic, it's caused the company to look critically at the business and take mostly appropriate action. Electronics is a close-knit team and that side is now considerably stronger. Also the company is confident to take that part of the business forward because it has a better understanding of what it is good at and therefore what it can market' (Marketing Director).

'We've gone in at the bottom level and said we have to improve the response time to customers, improve the service (and) we need to do it in a number of ways. By doing that they (operators) feel they have more responsibility and it's raised spirits and that's helped enormously with the success of the project' (Industrial Engineer).

According to Denis et al (1996) effective change needs to be managed through high levels of collaboration. Further, the effect of strategic leadership can be categorised according to three outcomes: symbolic, substantive and political change. There was evidence of all three factors in MFD. Symbolic change occurred as a result of Fletcher's willingness to spend more time in the plant talking to supervisors and managers. Ending his aloofness and isolation encouraged broader changes which helped create greater trust between managers and shopfloor workers. Other symbolic changes emphasised the increasingly importance of 'customers':

> *'I think that we've had it very cosy and the real world is starting to hit us. LaComm have told us that we've got to find more customers because they're competing against slick, lean operations and they can't support us. We've got to go out and win business against other companies. We'll have to prove we're committed'* (QA Manager).
>
> *'The company has always manufactured to customer requirements but that is a reactionary position. A big impact is that now we're proactive and draw customers in. That is a dramatic difference and the awakening of that reality was brought about by LaComm but acceptance from the chairman down was not that easy'* (Materials Director).

Substantive change occurred as a result of two major investments the first of which was the IT system approved in 1998. In December 1999 Williams instigated a second major capital investment in the assembly area. More than £350,000 was spent on a process line for automatically assembling printed circuit boards and a major reorganisation of the assembly shop to give a logical workflow and remove excessive work-in-progress. This was partly to satisfy the demands of LaComm who wanted MFD to adopt a more professional approach which would impress their own customers who sometimes visited sub-contractors.

> *'Mr Fletcher has spent a lot of money during the last 2 or 3 years. If he hadn't we'd be out of business because LaComm and BT would go elsewhere even if it was only to second-source suppliers. We're tooled up for the electronics trade and we need to stay in it. We're buying dollops of equipment - a third of a million pounds a time'* (Works Manager).
>
> *We've made significant improvements in quality standards, all round, image, housekeeping, general labour efficiency are all dramatically up (50%). All of that is very good stuff and as well as that £100,000 is being spent on equipment. All of this originates from proper capacity planning and preparation. We've an awful to do before*

> *we're a really serious class act but we're moving in the right direction* (Production Supervisor).

Political change was illustrated by shifting from an authoritarian approach to a management style that had elements of consultation if not participation. Bryn Griffiths, responsible for materials and assembly, was extremely authoritarian. His office overlooked the shopfloor and if he saw operators talking he immediately summoned the supervisor and demanded they be disciplined. The supervisor described his tactics for dealing with these situations:

> *'I would go up to them and start waving my arms about as if I was giving them a right bollocking - but I would probably be saying "come on boys get back to work that bastard is watching you from the office". I decided if I ever became a manager I would behave very differently - he taught me what not to do'.*

Early in 1999 when the mainframe had been implemented and most 'teething problems' overcome Chalmers decided that Williams's role should be extended to include responsibility for electronic manufacturing and Bryn Griffiths reverted to materials manager. Williams's approach was to give supervisors direct responsibility for dealing with shopfloor issues. Greater participation in decision-making at all levels and more consultation with shopfloor workers was evident throughout the organisation:

> *'Working practices have changed and we're in the modern world now. Everything's changed so dramatically from purchasing to manufacturing. The whole philosophy of the firm has changed and it seems to have gone in a different direction, the right way I think. Now many more people get a say in what goes on. There are little sub-committees and everyone is involved'* (Stores Manager).
>
> *'We've had successes there is 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 has been driven by the introduction of new blood and by recognising the potential of some we already had in the business. We've been able to form the foundation of a much bigger business'* (Materials Director).

Williams's 'championing' of the mainframe and PCB line led to a number of other related changes. Up-to-date shopfloor information enabled the works manager and the materials manager to regain control of scheduling. As discussed below, lack of regular management meetings allowed Williams to create a forum in which all those whose jobs were affected by the new system were involved in discussion 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 consequence, staff were given the opportunity 'buy-in' to the new way of working without the imposition of an 'alien' system. Most managers identified Williams as the prime-mover in stimulating change and these quotes illustrate his success in becoming a corporate entrepreneur.

> *'The problem on the shopfloor has always been lack of parts that is the biggest moan that you will hear out there. But that is one of the reasons that Gareth has taken over telecoms, the guy who was doing that job was a director. Whenever products weren't being produced it was him not ordering parts but he didn't get a bollocking. Now it's better because Gareth shouts at Ken (Chalmers) to get things done. That's a success, putting Gareth out there'* (IT Manager).

> *'It's very interesting because when I joined the company 2 1/2 years ago they were a very staid, set in their ways and Gareth has introduced new methods and a whole different outlook and the reaction is very, very noticeable. They've realised that they have got to get into gear to keep up with industry'(BT Production Manager).*

Mobilising Social Capital in MFD

In examining links between social capital and corporate entrepreneurship in MFD I draw on the hypothesis developed by Gargiulo and Benassi (2000) which states that 'The higher the cohesiveness of a manager's network the lower the manager's ability to adapt the composition of that network to the co-ordination requirements of a new task environment'.MFD was certainly confronted by a new task environment as MoD-related activity declined in the early 1990s. Few existing managers had external experience and there was no coherent vision of how the company could generate new business. An opportunity to steer a new direction came from a source which initially did not seem to offer a great deal of potential. One of the low-value activities carried out in MFD was the refurbishment of BT telephone coin-boxes. Although the work was both intermittent and labour intensive it helped keep existing workers employed in the hope that something more significant would eventually turn up. As a result of good relations established with BT, early in 1996 senior managers agreed to their request to assemble a batch of telephones for the domestic market.

While employees had little experience of light assembly work it was carried out satisfactorily and eventually led to regular a contract for 2000 phones per month. Furthermore, this experience provided the opportunity to tender for a large contract to assemble telephones for LaComm who were expanding their suppliers. The two companies had different attitudes to suppliers, in the case of BT as long as goods met acceptable quality standards they were satisfied. In contrast, LaComm actively managed their supply chain relationships and were very keen to encourage MFD to adopt a more professional managerial approach. Limited experience meant that existing managers struggled to respond in a way that was acceptable to representatives of LaComm. Managers at all levels were embedded in a batch-production mind-set and did not fully understand the problems associated with high-volume assembly involving stock control, consistent quality standards and just-in-time manufacturing principles.

As well as lacking up-to-date knowledge of manufacturing techniques MFD had a number of extremely cohesive groups including the senior management team and most sub-units such as the machine-shop and assembly departments. 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 communication and the resultant social closure was influenced by a number of factors. First, the six senior managers had all worked in the company for at least 20 years and formed a tight network which was difficult for other insiders to penetrate. Secondly, a bureaucratic structure discouraged informal links between functions and communication relied on departmental managers. Thirdly, first-line supervisors and technical staff were isolated from decision-making which involved Fletcher informing the works director what he wanted and Ken Chalmers passing this information on to the management team. As a result, existing employees had been socialised into accepting the prevailing norms of behaviour which emphasised deference to Fletcher and the senior managers. This deference was reinforced by the economic importance of MFD to an area in which there were few other opportunities for regular, well-paid employment. Until Gareth Williams's appointment no-one within the company was willing to challenge this paternalistic culture which rewarded those who accepted existing norms of behaviour. Also, by ensuring there was widespread consultation about the exact operational requirements he mobilised the skills and knowledge of first line supervisors and technical staff:

> *'Gareth has created a lot of movement, you have to give him credit for getting through to the top level as much as he has done. It was a very high wall to get over but he managed it and to be fair they have given him backup. He is very enthusiastic and that enthusiasm has transferred down'* (QA Manager).

Williams was recruited in March1997 to take charge of management services and, as discussed above, quickly decided that it was necessary to replace the obsolete computer system. The need to satisfy LaComm combined with the introduction of a new mainframe computer was the catalyst for major organizational changes. Before joining MFD Williams had spent more than twenty years working for a major domestic appliance manufacturer. His experience in a number of roles ranging from production engineer to manufacturing manager had given him a comprehensive understanding of how to run a modern, high-volume, high-quality, production plant. Not feeling bound by existing conventions and having confidence in his ability to enact change meant Williams was able to mobilise support by building network linkages across the organization. One notable aspect of MFD operations was the works director's relationship with the management team. Chalmers never held management meetings but instead had informal discussions with individual managers. This provided Williams with an opportunity to take the initiative by arranging meetings to discuss implementation of the new IT system in which he outlined his view of the company's future direction. For example, both first-line supervisors and senior mangers were committed to maintaining 'arrears' as a 'guarantee' for shopfloor work. By ensuring work was carried out two, three, four or even more weeks behind schedule everyone knew that shopfloor activity could be maintained at least until arrears were cleared. This way of thinking had been encouraged by the 'cosy' relationship with the MoD who seemed not to expect deliveries on-time. Even when new business was obtained with customers such as BT this 'routine' of working in arrears remained in place. Representatives of LaComm were unwilling to contemplate late deliveries and the demands of their engineers and buyers stimulated change. The problem was, until Williams's appointment there was no-one within the company who had experience of efficient scheduling and mass-production. He also championed the creation of module champions who were responsible for ensuring their departments had 'voice' in the design and implementation of the IT system.

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 could be exploited by individuals not linked into existing networks. In Burt's (1992) terms this created 'brokerage' opportunities for someone willing to adopt the role of corporate entrepreneur. To do this, Williams built trust amongst senior management group as well as with other groups across the organization including those responsible for material control and first-line supervisors. The latter group were essential in making the new system work effectively because it meant abandoning the traditional way of working in 'arrears' with large stocks of work-in-progress (WIP) in favour of a Kanban system based on just-in-time principles. As quotes in the preceding section illustrate Williams, by championing a new IT system and introducing up-to-date manufacturing techniques, instigated significant changes within MFD. Building linkages which spanned both hierarchical and lateral groups helped mobilise social capital (Coleman, 1988) by creating an environment typified by greater flexibility, trust, responsibility, involvement and teamworking. This is not to suggest that there was widespread resistance to change rather, existing managers were unable to breakout of their conventional mind-sets. It is important to acknowledge the role of buyers and engineers from LaComm who encouraged the adoption of more modern approaches to management and manufacturing. Everyone, from shopfloor to Mark Fletcher, knew long-term survival depended on convincing LaComm representatives that MFD could become a major supplier of electronic components and this helped Williams give the change direction and purpose.

> *'I've been involved in the change in working practices, the change in the type of people that we are employing – different skills, retraining of employees, changes in health and safety requirements and all the associated things that go with it, costs, manual handling, risk assessments all the rest of it'* (Personnel Manager).

MFD provides an important illustration of corporate entrepreneurship because it was typified by a structure and culture which reinforced resistance to change. At the same time, there was a recognition across the organization that change was necessary if the company was to survive. The problem was there was no-one was willing or able to implement radically (for the company) new ways of working. There are two other issues worthy of mention: first Williams did not regard his activities as ‘entrepreneurial’ as he felt that he was simply doing his job to the best of his abilities. Secondly, social capital (Coleman, 1988) and structural hole theory (Burt, 1992) are not management ‘tools’ which can be applied in a similar way, for example, to Porter’s five-forces. Rather, the mobilisation of social capital within MFD relied heavily on Williams’s social skills defined by Fligstein (1997:397) as ‘the ability to motivate other actors by providing those actors with common meaning and identities in which action can be undertaken and justified’.To use their social skills entrepreneurs must be aware of two factors: the roles of various groups within an organisation and the type of ‘strategic action’ likely to ‘make sense’ given the prevailing conditions. Fligstein (1997) uses the work of Lukes (1974) to set out tactics available to strategic actors which include direct authority, agenda setting, framing action, brokering, remaining goalless and making others think they are in control. The tactics actors adopt depend on their relative positions and whether the organization is stable or in crisis:

> *‘Fluid situations mean that strategic actors must find a way to bring together as many groups as possible to form a center or core. Thus tactics that emphasize connecting to others are most important’* (Fligstein, 1997:400).

MFD was not in crisis at the time Williams joined but it was widely recognised that if they failed to fulfil LaComm’s requirements the consequences would be extremely serious. Thus, the organization was permeated by a sense of urgency and a willingness, at all levels, to accept new ways of working.

Conclusions

MFD, a mature manufacturing company, faced a number difficulties over the last ten years including the loss of its main customer the MoD. The process of change reported here encompassed a three-year period from January 997 to early 2000. Workforce numbers had declined to one-third of those employed in the late 1980s which encouraged managers and shopfloor workers to accept radical solutions. Owner Mark Fletcher recognised the need to move into new markets as a result of losing the company’s MoD core business. The research began at approximately the same time Gareth Williams was employed as management services manager early in

1997. After a relatively short period in which he evaluated the existing situation Williams suggested to the works director a number of major changes including a substantial investment in a new IT system to improve managerial control across the organization.

Because of its relative geographic isolation, there was little voluntary turnover and the majority of employees and managers had spent many years in MFD. In addition, owner-manager Mark Fletcher adopted a patrician style of management which encouraged high levels of deference amongst shopfloor workers and lower-skilled white-collar employees. At the same time, the workforce were expected to trust the management team and demonstrate their loyalty to the company. As most employees, including the management team, lived in the same small town there were numerous social and familial links within the organization. Unfortunately, the highly bureaucratic structure of MFD restricted the potential for mobilising this social capital because of 'closure' amongst a range of groups within the organization. Opportunities for existing employees to adopt the role of 'corporate entrepreneurs' were also restricted by both bureaucracy and the lack of links to external knowledge sources. The chance to release the motivational potential of social capital within MFD came with the recruitment of two '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.

It is generally accepted that the term 'entrepreneur' refers to someone willing to break through resistance to change that exists in any society or organisation (Schumpeter, 1934). Although, as Ogbor (2000:616) points out: 'The discourse says that most people are unable to do this since they can only handle what is familiar to them'. Ogbor (2002) goes on to make a number of relevant points related to the role of ideology in promoting entrepreneurs as 'heroic' individuals. However, other than making the usual poststructuralist demands for the 'deconstruction' of entrepreneurial myths he makes no attempt to acknowledge the positive role played by entrepreneurs in encouraging and promoting change from which we all benefit. While many still associate entrepreneurship with a Right-wing political bias it is increasingly acknowledged that enterprising individuals play a positive role in all aspects of society (Leadbeater, 1997). Also, the majority of middle managers adopting the role of corporate entrepreneurs are unlikely to receive extrinsic rewards in the form of stock options associated with more senior managers. Rather, individuals become corporate entrepreneur because of the intrinsic satisfaction they gain from managing the change process and the broader contribution they can make in ensuring that the organisations in which they are employed are innovative and successful.

The primary focus of this paper has been on the activities of Gareth Williams who was initially employed as management services manager. Williams employed skills gained in a mass-production environment to implement up-date manufacturing activities within the company. He also adopted a boundary-spanning role which enabled him to exploit the structural holes between senior managers, supervisors and shopfloor employees as well as linking the various functional activities with MFD. In many ways the mobilisation of social capital was an unintended consequence of what Williams saw as simply carrying out his responsibility to make the company more effective in the way in which resources were managed. The paper is not intended to offer prescriptions for 'better' management based on the 'exploitation' of social capital. Rather, the case illustrates that structural holes do exist in organizations which are typified by a dense network of relations. It also demonstrates that radical organization change in mature and relatively stable organizations demands an inflow of personnel and ideas from external sources.

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