



Manchester Metropolitan University

Business School

Working Paper Series

Working Paper 07-01

Academic Entrepreneurship in MMU: A Case Study of the *Centre for Enterprise*

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ISSN 1478-8209

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2007

ABSTRACT

Within the UK, universities have been obtaining additional income by engaging in the commercialisation of scientific knowledge and general economic development. This has become even more urgent for new universities (ex-polytechnics) which have been largely excluded from research funding as a result of the RAE. This paper examines the creation and growth of a centre for enterprise, based in a new university, which was established to give coherence to small firm related activities. The *CfE* now has 21 full-time staff and a number of associate researchers who are engaged in a wide range of activities associated with the management of SMEs and the support of nascent entrepreneurs. In the paper we draw on the concept of ‘tipping points’ (Bessant *et al.*, 2005) to demonstrate the way in which a number of crises were negotiated during the *CfE*’s growth. We demonstrate that issues of strategy and people management were particularly significant in pursuing a growth strategy, although strategy was incremental and evolutionary rather than based on the classical rational model associated with Ansoff. In summary, the *CfE*’s strategic orientation focused on building an organization which was entrepreneurial, flexible and responsive to new opportunities.

1. Introduction

Recent government policy places universities as key players in the implementation of economic strategy. The introduction of the ‘third mission’, involvement in economic development, is the formalisation of a process that has been underway for some time. Etzkowitz (1998) used the term ‘entrepreneurial university’ to describe institutions that have been critical to regional economic development in the US and, more recently, in Europe. This view of the involvement of European universities in economic development seems to be valid in the context of the commercialisation of science, which many authors consider to be synonymous with economic development (Bercovitz and Feldman, 2006). UK government policy initiatives and funding regimes are very heavily weighted to encourage and support the commercialisation of science and technology research, principally through the creation of spin-out companies (Hackett and Dilts, 2004). This activity is largely in response to the innovation gap that the US has created over the last twenty years (Etzkowitz, 2003).

A dominant view is clearly detectable in the literature that the prime university role in economic development is commercialising the results of scientific research either by patent licensing or, more commonly, by spinning out new, knowledge-based enterprises (O’Shea *et al.*, 2000). Many UK universities have invested heavily to support the development of science-based companies through the development of science parks and incubation units. Although their economic impact, locally and regionally, is the subject of debate (Rhoades and Sporn, 2002). However, a significant cautionary message emerging from the literature is that a simple causal relationship between university-led scientific innovation and economic benefits cannot be assumed (Fairweather, 1990). Even strong proponents of the scientific agenda regard engagement with low and mid-tech firms as part of the entrepreneurial university’s activities (Etzkowitz *et al.*, 2000). Bramwell and Wolfe (2005) go further in suggesting that to be fully effective in economic development the knowledge assets of the university must be aligned to the

multivariate needs of local firms. In this context, and the widely accepted importance of entrepreneurship and business expertise in the success of new science-based businesses, the potential role of business schools and, in particular, centres of enterprise (entrepreneurship centres) in economic development has been recognised (Powers and McDougall, 2005; Finkle *et al.*, 2006).

Business schools are especially suited to engage in economic development as all the manifestations of such development call on their expertise in business and management (Boyle, 2004). Centres for enterprise directly reflect the importance of entrepreneurship and innovation to economic development (Finkle *et al.*, 2006) and provide an important contribution to research, curriculum innovation and economic development. Based on a US survey, Finkle *et al.* (2006) traced the development of enterprise centres from the early 1970s defined as involving academic curriculum in entrepreneurship, faculty that perform research in entrepreneurship and external outreach activities (ie economic development). The development and growth of centres of enterprise is not directly linked to the current drive to extend the commercialisation of science. Nevertheless, the combination of expertise and activities that exist in such centres is extremely relevant to the issues faced in implementing this agenda. In this context it seems likely that centres of enterprise will have an increasingly important role to play, not simply in the continuation of their 'traditional' role, but as an integral part of the commercialisation of science strategy that has been adopted by governments around the world (O'Shea *et al.*, 2004; Hackett and Dilts, 2004).

The traditional role of polytechnics (new universities) in the UK was to focus on practical engagement with the business world. Before 1992, this meant producing students with the skills to make the transition into the world of work more effectively than those from traditional universities. Ending the binary divide in 1992 meant that 'new' universities were encouraged to develop research capabilities creating a tension within institutions which had

traditionally concentrated on teaching (Bakewell and Gibson-Sweet, 1998; Prince and Beaver, 2004). This paper focuses on a new university business school which retains a strong commitment to research. Creation of research centres which are encouraged to seek external funding has been seen as a way of compensating for decreasing research income. Given the policy and institutional context, the aim of this paper is to consider the growth of MMUBS's centre for enterprise (*CfE*) and to examine factors that influenced its emergence and sustainability. The empirical data are drawn primarily from the personal experiences of the first author in his role as Head of the *CfE*. Supporting data are drawn from official Business School documents including minutes of meeting and strategy papers. The paper first explores theories of growth and considers how the negotiation of crises, or transition points, is essential for continued expansion. The paper goes on to explore how the institutional context was fundamental to the development of the Centre and the ways in which these transition points were negotiated.

2. Exploring Theories and Models of Growth

A review of growth theories by Levie and Hay (1999) identified 63 different stage models in academic literature published between 1960 and 1996. These models draw on an 'organismic' metaphor to describe the development of the firm. Each firm, it is argued, goes through identifiable stages where transition is necessary in order to reach 'the next level' (Bessant *et al.*, 2005). Consequently, at each stage of development firms will have to face and resolve similar problems. Essential to this transition is the application of human resources in order to (re)structure the firm appropriately to take advantage of entrepreneurial opportunities (Penrose, 1959). Levie and Hay (1999) note that perhaps the most influential model is the five-phase model of firm evolution and revolution provided by Greiner (1972). Greiner argues that the organizational systems that support evolution will eventually limit expansion. In order to

continuing growing, new organizational systems will have to be implemented. Thus, '*each phase is both an effect of the previous phase and a cause for the next phase*' (ibid, p41, original italics). This is a linear model that proposes organizational structures and co-ordination mechanisms as the essential elements of growth. The length of time between evolutionary and revolutionary stages will depend on growth rate within the industry. Greiner argues that managers must be prepared to abandon current practices and replace them with new systems. What is not clear is how managers are convinced of the need to innovate and change, nor how new knowledge is identified and incorporated.

In their review, Levie and Hay (1999) identified three other models that have been particularly significant in the development of growth theories and which have influenced a number of studies. They note that the theoretical antecedents of Scott and Bruce's (1987) model to describe small firm growth can be traced back to Christiansen and Scott (1964) and to Lippett and Schmidt (1967). Whereas in Greiner's model the focus is on internal aspects of managing growth, Scott and Bruce include environmental factors. This point of difference highlights another aspect of growth research that Levie and Hay find surprising. Despite the theoretical assumption that these models are generally applicable, and the direct links through cross-referencing of studies, they could not find a common model. Perhaps more concerning is the fact that when these theories have been tested (Tushman *et al.*, 1986; Birch, 1987) no supporting evidence was found that could validate stage model theories of growth. Levie and Hay (1999) suggest that even 'the Scott model', developed through empirical research in the US in the 1970s, only reflects environmental influences present when the study was conducted. Even if the model was valid it would only be relevant in similar contexts. So, for example, structures of social capital are more formal in the German economic context than they are in the UK or USA, and this will influence engagement with external knowledge resources in order to manage transitions (Spence and Schmidpeter, 2003).

The intuitive appeal of stage models and the underpinning assumptions that firm growth is sequential and predictable are being increasingly scrutinized (Bessant *et al.*, 2005). While Bessant *et al.* (2005) acknowledge that negotiating transitions in the firm is essential for continued expansion, they use the concept of a ‘tipping point’ to illustrate the need for small firms to undertake radical changes to their current activities. They argue that crises are not sequential but are recurring. In this case some firms will be more or less able to find and integrate knowledge resources in order to address their particular crises. Success relies on managers resolving crises that occur dependent on path dependencies and the limitations of knowledge resources. Bessant *et al.* (2005) identify six key tipping points for small firms:

1. People management – focus on delegation, leadership, recruitment and training;
2. Strategy – moving to a focused approach which includes the development of new products and services;
3. Formalised systems – crucial to shift from informal approaches to data collection and knowledge acquisition to implementation of formal systems;
4. New market entry – identifying new customers and new areas through the modification of existing products and/or introduction of new products;
5. Obtaining finance – accessing external finance is central to effective growth in all SMEs;
6. Operational improvement – understanding process capabilities and best practices (sales, marketing, operations management etc).

Other emerging, and linked, theoretical directions in entrepreneurial development also attend to issues of ecology and focus primarily on how individual entrepreneurs makes sense of the environment in which they are located (Gregorio and Shane, 2003; Dutta and Crossan, 2005; Kitila and Shane, 2005). These authors recognize that analysis of entrepreneurial activity has to appreciate the uneven distribution in society of knowledge and information (Shane, 2000), of reputation and ties to potential investors (Gregorio and Shane, 2003), and of market conditions

(Kitila and Shane, 2005). They argue that a condition of the entrepreneurial experience is that ‘assets’ are not fixed. Rather, what is emblematic of the entrepreneurial experience is a search for and recognition of what might become an asset (Schumpeter, 1934). If this is the case, the process of firm evolution is thoroughly embedded in locales. This means that generalizations of which types assets are most valuable, or how growth patterns might be significant, have to be made with great care. So for example, in recent study Lichtenstein *et al.* (2006) argued that although emergence or growth may be punctuated by significant events (such as crises noted by Greiner) it is managerial sense-making that is crucial in determining the actions by which ambiguity is resolved. In this regard, rather than rational opportunity analysis, a firm’s emergence is dependent on the how sense is made of specific contexts and the process by which responses are institutionalized to inform collective action and organizational identity (ibid).

3. Crises, Resources and Growth

What is common between stage models and evolutionary theory is that they both identify the importance of crisis management during transition periods (Bessant *et al.*, 2005). In this regard, stage models identify particular knowledge resources that are essential to manage specific crisis points. Similar to Penrose’s (1959) theory, other models identify specific physical, financial and human resources that are required for success and attention is given to particular periods of resource saliency. For example, Churchill and Lewis (1983, p42) note that ‘issues of people, planning and systems gradually increase in importance as the company progresses from slow initial growth’. Stage models thus imply that entrepreneurs will be able to identify a particular crisis and apply appropriate solutions. In addition, stage models recognize that path-dependent experience limits the repertoire of managerial and entrepreneurial resources and can create barriers for change: ‘[h]olding onto old strategies and old ways ill serves a company that is entering the growth stages and can even be fatal’ (Churchill and Lewis, 1983, pp44-48). Thus, management knowledge resources are fundamental to restructuring for growth, and some

managers may not be able to achieve transitions due limited resources (Goffee and Scase, 1995), or investment in past practices that create organizational rigidities (David, 1985; Leonard-Barton, 1995). Stage models therefore conceptualize management transitions as requiring access to specific knowledge resources that will solve predictable crises; resource saliency will change depending on which crisis is being managed.

Lichtenstein and Brush (2001) conducted a study of three growing high-technology firms. They used Pfeffer and Salancik's (1978) definition of resource saliency to operationalize their research. Resources were considered particularly salient if they demonstrated high magnitude (being available from one supplier) and high criticality (they were considered an essential resource for growth). They found that while traditional growth models concentrated on systems and financial capital to explain growth potential, in fact it is was social and organizational capital that was most salient to these firms. Lichtenstein and Brush (2001) contrast their own findings with the conventional growth literature:

[T]here is a distinction between the relevance of resources as theorised from earlier studies, and the salience of specific resources in real time.... Growth typologies for small and new businesses emphasize tangible resources including capital, physical, technological and organizational systems, but these three firms seemed more concerned with intangible or 'soft' resources (p51).

Lichtenstein and Brush conclude that while organizational systems and routines are important for incremental change, they may become redundant during periods of transformative action, although new routines are selected and embedded over time. While this finding is still similar to the models and theories above, Lichtenstein and Brush also note the importance of business relationships and alliances that help owner-managers strengthen their business by providing access to scarce 'soft' resources, including skills, information and knowledge. In addition, they note how *what is considered salient will depend on past experience and access to alternative conceptions of a particular crisis*. This suggests that the range of responses available are dependent on how organizations, or key agents within the firm, perceive problems in their

environment (Child, 1997). As Aldrich (1999:40) notes, organizations are influenced by many forces, including:

The competencies carried by experienced members, accumulated understandings within a work group, competitive and cooperative pressures from a population, and normative and regulatory obligations from a community and society.

Aldrich argues these forces control responses to uncertain situations, and thus social norms and influential agents construct the opportunities and trajectory of a firm's evolution. Evolutionary theory suggests that firm growth is more a contextually sensitive process rather than a predictable sequence of emergence events. In evolutionary theory, knowledge is as much a relational construction as it is a controlled entity that can be applied at a particular stage to manage growth. What may sustain growth is the capacity to get things done when current structures, systems and capabilities start to fail (Nicholls-Nixon, 2005). Organizations have different capacities and motivations to learn new ways of coping (Spicer and Sadler-Smith, 2006). The corollary of this is that managing growing firms may be less about creating a template for growth than it is about creating an infrastructure and culture that enables self-organized change to occur (Lichtenstein, 2000). Firms and individuals are partly dependent on their ability to draw on public knowledge, their absorptive capacity, and the linkages they have through appropriate social and business networks (Cohen and Levinthal, 1990; Aldrich, 1999). Those firms that are open to learning and have systems and cultures that can support collective learning are likely to be more successful in managing transitions at appropriate junctures (Lumpkin and Lichtenstein, 2005). This suggests that we need to look beyond individual entrepreneurs when considering organizational transformation and consider how they are supported or constrained by internal and external factors (Dutta and Crossan, 2005).

The entrepreneurial function is thus institutionally embedded in the managerial and entrepreneurial ability to network and make connections (Cantwell, 2002). In this respect,

different motivations of key agents within the firm, and the different types of relationships developed with other institutions will inevitably impact on how sense is made of, and the range of responses available to, particular crises. Moreover, embedding that knowledge into productive routines within the firm is a social process that requires cooperation of more than just the entrepreneur and his or her creditors (Aldrich, 1999). Entrepreneurship is not an individual act, but it is a social achievement (Downing, 2005). A deeper understanding of the way context influences the knowledge transfer process is needed (Wynarczyk and Watson, 2005). With this in mind, we now turn our attention to the crises and the factors of influence in the development of the Centre for Enterprise at MMU Business School.

4. Research Methods

This case study is designed to illustrate the tensions associated with establishing and growing an entrepreneurial centre within the context of a large and bureaucratic university. As discussed above, less research-intensive universities have been under considerable pressure to increase their third stream income. At the same time, there has been growing recognition of the importance of academics engaging more actively with practice and practitioners. Gibbons *et al.* (1994) who advocated a mode 2 engagement between theory and practice certainly stimulated considerable debate amongst the business school community (Tranfield and Starkey, 1998). Key institutions such as the ESRC have also begun to stress the importance of academics making research results relevant for practitioners. For example, a recent joint initiative between the ESRC and regional development agencies has led to the appointment of knowledge transfer officers to build better links between business schools and their respective regions (<http://www.innovation.gov.uk/innovationreport/index.asp>).

Belatedly, the UK has followed the US in recognising the role of universities as important actors in economic strategy, both regionally and nationally. The idea of an

‘entrepreneurial university’ (Etzkowitz, 1998) is becoming a reality as academic enterprise is given greater prominence, at least in new universities. North American universities and business schools have also led the way in establishing centres for enterprise (Finkle *et al.*, 2006; Powers and McDougall, 2005). Such centres promote new science-based enterprises, provide entrepreneurship education and help improve business skills in smaller enterprises (Bramwell and Wolfe, 2005; Boyle, 2004). In England, a small number of visionaries established enterprise centres or small business research units at least twenty years ago. Probably the most well-known was Allan Gibb’s small business centre established in 1971 at the University of Durham. The SBRC (small business research centre) at Kingston set up in 1985 and now operating under the leadership of Robert Blackburn is also well-known (Welch, 1996). As entrepreneurship has become more central to the academic and political agendas, then, an increasing number of business schools have established enterprise centres. This paper reports on the creation and evolution of MMUBS’s Centre for Enterprise (*CfE*) since its inception in 2001.

Studies associated with entrepreneurship in UK universities are beginning to emerge (Brennan and McGowan, 2006); although the focus tends to be entrepreneurship education (Collins *et al.*, 2006), the propensity of students to engage in entrepreneurial behaviour (Chapman and Skinner, 2006) or staff involved with entrepreneurship education (Bennett, 2006). In this paper the focus is on a small, but growing, group of staff operating in an enterprise centre who have been responsible for generating large amounts of third sector income as well as contributing to conventional research income (Appendix 1). Data for this qualitative case study are drawn from a number of sources. First, because the analysis is organized around a small number of key events or crises, records kept by *CfE* administrative staff provide structure to the paper (dates of key meetings, staff recruitment and leaving dates etc). Other key data are more subjective and rely on informal records of those key events kept by the *CfE* Head. Hence, data presented below are not intended to be value-free because all observations are socially

situated between ‘the observer and the observed’ (Denzin and Lincoln, 2003:31). As outlined by Langley and Royer (2007) case studies have made a significant contribution to organization theory and have become one of the most common approaches to qualitative research (Stake, 2000).

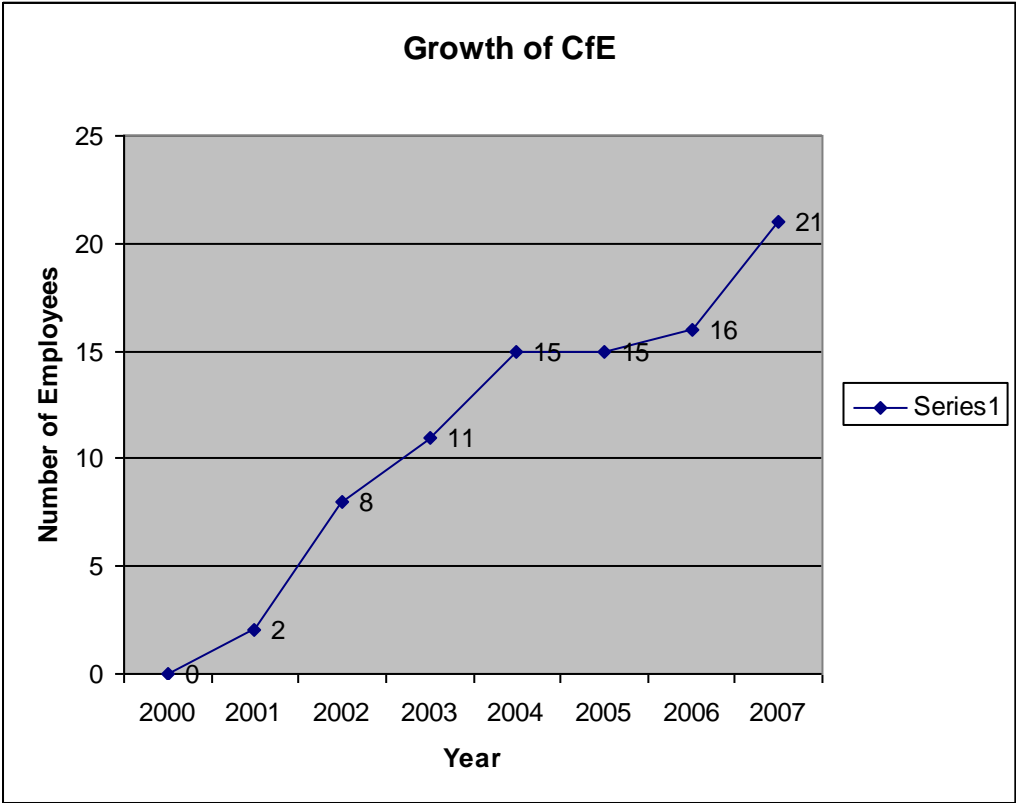
Competing themes are emerging in entrepreneurship research and studies must explore the socially constructed nature of entrepreneurial activity since entrepreneurs intuit and enact their ideas within a network of relationships internal and external to the firm (Dutta and Crossan, 2005; Macpherson and Holt, 2007). To understand enterprise growth requires that researchers contextualize the actions and decisions of individuals (Schatzki, 2005). This in-depth approach requires researchers manage the tension of being both inward and outward looking as well as attending to the demands of making sense of such but open-ended data (Watson, 1995). According to Finkle *et al.* (2004:205): ‘Research needs to be conducted at each stage in the development of centers (start-up, growth, mature and decline) to *determine* relationships at each stage of the industry life cycle’. The authors also go on to suggest the importance of carrying in-depth qualitative research ‘to get inside centers’. Thus, in this study, narrative and qualitative sensemaking approaches are adopted with the aim of attending to actions, context and history in ways that provide holistic rather than linear explanations of outcomes (Pettigrew, 1997; Langley, 1999). As such, the study is presented as one view among many that could be drawn from the data available, and the intention is to stimulate debate and in order to better understand how a particular practice-arrangement bundle influenced the emergence of the *CfE* at MMUBS.

5. Crises, Learning and Growth in the CfE

The MMUBS centre for enterprise (*CfE*) was launched in March 2001 to give coherence to activities related to entrepreneurship and the management of SMEs. At that time, the only

income generating activity was the NES (new entrepreneur scholarship) programme which was being managed on a part-time basis by a mature PhD student (Taylor *et al.*, 2004). Gradually, NES activity increased in size and importance leading to a steady flow of funds into the *CfE* (Appendix 1). Within six months KB was employed as the NES project manager with support from one administrator. In March 2001, a senior member of staff from University External Relations (SO) suggested the possibility of preparing a bid for funding from the European Regional Development Fund (ERDF). The successful bid was developed, submitted in August 2001, and it initiated the development of *CfE*. As well as supporting entrepreneurial activity in the local area, the Head's main objective for *CfE* was to develop research capacity within MMUBS. In delivering on these objectives, as *CfE* grew over the next six years, a number of transition points occurred (see Figure 1).

Figure 1 Growth of the Centre for Enterprise



First, and key to future sustainability, was the success in obtaining the ERDF project within the first six months of establishing the *CfE*. This major project entailed the recruitment of six staff (four researchers, one administrator and one project manager). There were two major problems; first recruiting staff who could engage on a practical level with small firms across a range of sectors while using that engagement as a basis for research and publication. Second, a new and experienced project manager was needed who could take responsibility for management of the team and delivery of the project outputs. AW, who had managed a number of ESF projects within the HRM/OB department, agreed to join the *CfE* as ERDF project manager. Her managerial and organizational skills were central to the project's success and allowed the Head to continue in a mainly academic role (teaching and publishing). The team of business analysts/researchers included one experienced researcher with a PhD who was beginning to publish. The other three were much less experienced, although one had recently completed her PhD in a well-regarded business school. Consequently, within nine months of being launched the *CfE* consisted of eight full time staff.

The second major transition point was precipitated by a successful ESRC proposal which was part of the Evolution of Business Knowledge initiative. The ESRC project was important for the evolution of the *CfE* because success in attracting a large amount of funding (£364,000) legitimated the Centre's activities as a 'real' research centre. In other words, while 'soft' EU structural funds were important in helping create the *CfE*, this was not sufficient to establish real credentials in academic terms. Preparation of this proposal was very much a team effort involving the Head, a colleague RT, three staff from two other projects currently underway in the *CfE* (ERDF and ESF), and a colleague from another institution. Initially, the main crisis for the *CfE* concerned the diversion of staff time from other projects, which had implications for delivery of practical outputs in terms of providing support for small firms. However, it was decided that 'flexing' resources (in terms of staff time) for the ESRC bid would not damage the

ability to deliver on the former. Over the longer term, EBK was extremely demanding in terms of new skills (administrative and academic) required from all the team. For example, the research proposal stressed the importance of a 'mode 2' (Gibbons *et al.*, 1992) engagement with practitioners and policy-makers. This involved administrative staff developing the negotiation and persuasion skills necessary to encourage non-academics to attend events to discuss the research findings. For the researchers there were a range of new skills including technical knowledge related to software packages such as NVivo and the analytical skills to make sense of large amounts of (coded) interview data. Other activities which have helped to establish the *CfE*'s research credibility have included an ESRC +3 PhD studentship (on a topic related to the ESRC project) and a Leverhulme early career fellowship. While in financial terms these two projects accounted for less than £90,000 they helped confirm the Centre's ability to attract conventional research funding as well as softer EU funds (Appendix 1).

Obtaining these two major projects was central to the *CfE*'s growth both in terms of staff numbers as well as the team's understanding of entrepreneurship and the management of small firms. Retaining a core of staff allowed them to develop a wide range of skills including the delivery of services to SMEs as well as engaging in conventional research activity such as conference attendance and publishing. As they gained more experience, each of the researchers developed their own specific interests and began to consider ways of obtaining additional external funding. MB who was recruited to the original ERDF project obtained two ESF projects aimed at improving managerial skills in social enterprises. In addition, NES had grown and funding was much more secure. In conjunction with the project manager (KB), it was decided to use some of the funds to develop research capability associated with the project. Two research posts were created and it was also decided to appoint two PhD students who began in September 2004. Both research fellows and the two PhD students focused their work on NES-

related activities. Thus, NES, ERDF and ESRC projects were central to the development of both academic and business support capacity.

The third transition point was AW's (project manager) resignation at the beginning of 2005 to move to another institution. The Business School Dean had agreed that AW should be made a permanent member of staff (she had been employed by the BS for more than six years on a series of short-term contracts). The permanent contract did not materialise, however, and she joined a nearby University as administrative head of PG research. AW was widely respected within both the BS and the University. Her managerial skills had been central to project delivery and to the effective management of the growing numbers of both research and administrative staff. She was also very experienced in writing European bids and had been responsible for six ESF projects worth more than £1million to the BS. She had also been central to the process of building better links with policy-makers in the region. Her competent management of projects had helped to demonstrate *CfE's* ability to deliver business services to the local business and policy community. Her leaving was compounded by the fact that funding for the post only extended for a further six months which made it impossible to recruit a new member of staff. In addition, AW had written an outline proposal for a further three-year ERDF project which would ensure the jobs of at least five staff within the Centre. This proposal had to be completed by June 2005 (ie, in next five months). AW leaving threatened both the short-term delivery of existing projects and long-term viability because of the need for a major source of funding to ensure experienced researchers were retained. Given that the staff had built-up a considerable amount of expertise it was essential to the *CfE's* reputation and capacity that these key staff did not leave. Because this project was so central to the *CfE*, the Head took responsibility for completing the proposal and negotiating with a number of partners (including two Business Links and the Financial Services Skill Council) to help deliver this project worth £508,000 to MMUBS. The Head also decided that AB, who was managing two smaller ESF projects, should

take over from AW as European project manager. This meant a considerable increase in responsibility as she also had to take on responsibility for day-to-day management of *CfE* staff.

The fourth crisis occurred within six months of AW leaving when KB, the NES project manager, also decided to move to another institution. Again, this was a major source of frustration because KB had been extremely effective in ensuring that MMUBS was the regional NES provider which meant that the *CfE* controlled funding for other institutions in the region. He had also built-up a strong network of contacts, regionally and nationally, which were potentially of massive importance both to MMUBS and the University as whole. KB, similar to AW, was frustrated by a lack of employment security and a relatively low salary (compared to his responsibility and value to the institution). By moving to another institution he was able to increase his salary by more than 50%. The Head made a number of appeals to senior managers within the University in an effort to encourage them to retain KB's services. As a result of what appeared to be a lack of strategic vision, as well as inflexibility on the part of the HR department, KB was allowed to leave. After consulting with KB, the Head decided that KB's assistant, DM, would take over responsibility for NES and a further administrator was recruited to provide additional support.

A fifth transition was triggered by an influx of five additional members of the research/business analyst team and one new administrator as the result of three successful bids for European structural funds (two ESF and one ERDF project). This success increased the number of staff in the *CfE* by 40% (from 15 to 21). One problem was related to the need for additional accommodation within the business school and an associated problem was the need to recruit staff quickly because all three projects began well behind schedule (for reasons associated with the EU funding regime) and no recruitment activity, including advertising for the posts, could be undertaken until funding was in place. The University's highly bureaucratic recruitment procedures meant that it is was very difficult to get jobs graded at the appropriate

level because they were not conventional research posts. That is, staff were not ‘pure’ researchers because they had other duties such as the delivery of training to SMEs. Consequently, ‘negotiations’ with HR meant that all three projects were subject to additional delay.

Relationships with two central departments, Human Resources and Finance, also played a major role in shaping the *CfE*. All staff are employed on fixed-term contracts associated with particular projects which usually vary between 18 months and three years. The University operated a highly rigid accounting system which did not permit ‘entrepreneurial centres’ to have their own budgets. So, for example, money ‘earned’ through consultancy projects could not be retained by the *CfE*. However, the opportunity to build an operating surplus which could be used to act as a ‘bridge’ between projects was crucial for providing staff with some employment security. Following pressure from the Dean, in October 2005 Finance finally agreed that the *CfE* could be allocated its own account. This provided the Centre with much greater levels of flexibility both in terms of extending the contracts of existing staff and of employing associate researchers on an *ad hoc* basis.

Finally, another major project is underway with development of a business incubator for all MMU University students. During a research project which was comparing nascent entrepreneurs associated with two different programmes, NES and SEC, it became clear that an incubator provided more than simply working space for those attempting to establish a new businesses (Lee and Jones, 2006). The SEC incubator provided space for networking activities between students, staff and potential customers. As a result of this investigation, the Dean offered a large working space in which to establish a ‘pre-incubator’ for students from all seven faculties. The development and management of *InnoSpace*, will have to be achieved from within the existing staff resources, primarily DM, the manager of the NES projects, although the £200,000 set up costs were provided equally through ERDF and the Business School.

6. Discussion: Building Entrepreneurial and Academic Resources

During *CfE*'s emergence there were a number of fairly clear points of transition, which were typified by crises of varying intensity (Figure 1). In terms of Churchill and Lewis's (1983) model, the move from existence to survival was quite rapid as a result of the first ERDF project. Experience with this project and a related ESF project led to the success of obtaining a major ESRC grant which helped establish the *CfE* as a genuine research-led organization. In terms of Grenier's (1998) model, the *CfE*'s growth was certainly typified by periods of revolution and evolution. But it was less easy to fit the *CfE* with specific phases such as the shift from creativity to leadership.

According to Aldrich (1999), organizational evolution depends on the ability of social agents to interpret and respond to normative and regulatory pressures. In this sense, knowledge is a relational construct which can either constrain growth or provide the competencies to respond to new opportunities. As pointed out by a number of researchers (Spicer and Sadler-Smith, 2006; Lichtenstein, 2000), the essence of growing organizations is the managerial ability to create an infrastructure that enables change to take place. What gradually evolved in the *CfE* was an organization in which all staff were encouraged to be flexible, enterprising and largely self-managing. As Lichtenstein and Brush (2001) stress it is the importance of softer, relational resources rather than formal systems, procedures and routines that enable access to specific resources necessary to manage transitions. The idea of resource saliency (Pfeffer and Salancik, 1978) helps demonstrate that while growth is to some extent path-dependent it is possible to use relationships and alliances to respond to different opportunities which require different kinds of knowledge. In the context of *CfE*, staff developed a number of important alliances and skills that were crucial in terms of promoting and sustaining growth.

The adoption of new systems to resolve various crises usually involved bringing in new staff to deal with the additional responsibilities. For example, the Centre grew rapidly as the NES programme expanded (2004) and two research fellows were funded by the project. Equally importantly, two new senior administrative staff were recruited to assist the European project manager (AW) and the NES project manager (KB). These two assistant project managers helped establish better systems within the Centre and allowed AW and KB to focus on more strategic issues such as preparing future funding bids. Thus, transitions were often associated with crises but solutions were not generic responses to a particular growth phase. In this regard it is useful to deploy Bessant *et al.*'s (2005) tipping point concept which provides a framework for understanding the transitions which small organizations must make if they are to grow. What seems to be important how staff absorbed and applied knowledge through existing or new relationships in order to resolve problems which threatened to undermine the viability of the *CfE* as perceived by the Head.

Strategy

While the NES programme provided the opportunity to set-up the Centre, this was the result of a colleague's (RT) links to the DfEE (Department for Education and Employment) which enabled MMUBS to be part of the initial pilot programme involving three institutions. Similarly, while the Head wrote much of the original ERDF proposal, the opportunity and the idea came from SO in the University's regional office. The emergence of a joint strategy—to promote regional economic development (*via* support of SMEs and start-up assistance) and to develop a research capacity related to the themes of entrepreneurship and the management of small firms—was a consequence of the initial funding opportunities rather than a carefully laid plan.

People Management

Building internal alliances was certainly important to the continued survival and growth of the *CfE*. AM (2nd author) was employed in the HR/OB group, but had previously worked with AW on a number of EU projects. He was responsible for obtaining an ESF project examining knowledge networks in SMEs. This project was seminal to the ideas which formed the basis of an ESRC bid in the evolution of business knowledge initiative. So, even though he was employed elsewhere in the institution, AM became a key part of the *CfE* team. A further internal alliance was with the graduate business school which housed the doctoral students. Ex-doctoral students provided an important recruitment source because their skills and capabilities were known before they joined the *CfE* (six ex-doctoral students have worked in the *CfE*). In addition, doctoral students provided a useful resource for carrying out smaller and specialist short-term projects. A small pool of ‘associate researchers’ are also employed on an *ad-hoc* basis to carry out more extensive projects. These three reliable associate researchers have a wide-range of skills which enable the *CfE* to respond rapidly to new opportunities without the need to recruit permanent staff. The major external alliance was with LUBS where RT had been appointed to a chair in management. He was able to provide access to a wide range of additional resources in terms of staff and students who were important for the successful completion of the ESRC project. KB, previously project manager in the *CfE*, was appointed to a senior post in a College which was seeking university status. KB has a wide-ranging and influential network of contacts as a result of his NES-related activities and he was an important source of new opportunities for staffing the *CfE*.

Formalised Systems

Gaining the trust of senior staff within the Business School (Dean) and the University (VC) was central to the *CfE*'s growth. In particular, the ability to ensure that all projects were well-

managed and output targets met. This was particularly important in terms of outputs for EU programmes and record keeping in terms of matched funding. Failure to meet targets or maintain accurate records would have had significant implications for the University (repaying of funds for example). So, administrative efficiency was by far the most important core competency and this helped establish the *CfE*'s reputation with the University hierarchy. The reporting systems and procedures were primarily put in place by AW (first project manager) as she had considerable experience of EU projects before joining the *CfE*. AB, the existing EU project manager, together with the other administrative staff, are extremely effective in establishing and maintaining the appropriate systems and procedures. In particular, the most time-consuming aspect was identifying, contacting and negotiating access to appropriate small firms. Here the capability and connections of AW was crucial to the strategy delivery. The administrative systems also created 'space' for the business analysts/researchers to develop their publishing careers.

Obtaining Finance

Success with the ESRC project in September 2003 was followed by expansion of NES-related activity and the *CfE* grew to fifteen staff by the beginning of 2004. At that time, the Head decided that, in terms of sustaining a reasonable level of activity, this was probably the optimum size. So, except for some change of staff, the *CfE* remained at the same level until the end of 2006. It was important to strike a balance between retaining a critical mass of researchers and time spent obtaining new funds. This decision was taken against a background in which it was unlikely that there would be long-term funding the NES programme at its existing level. Such government initiatives tend to be relatively short-term and political imperatives change—particularly as Gordon Brown, initiator of the NES programme, was likely to make the shift from Chancellor to Prime Minister. The future of EU structural funds was also in doubt because

after 2008 it was due to be diverted to the Accession countries. Therefore, the Head's judgement was that the *CfE* should not become too exposed to either of these sources of funding.

With ERDF due to end in 2008, the 2005 'round' was the final opportunity to access this source of funding. The bid for more than £500,000 was intended to provide job security for at least four researchers. Initially, the bid was accepted by the Contact Board (who decided on the regional allocation of ERDF funds), but there then followed a long delay (which affected all UK projects) because of a dispute between UK universities and the EU over the allocation of overheads. As a result of this delay, much more effort was put into securing ESF projects which were generally smaller and for 18 months rather than three years. Hence, the growth 'spurt' at the end of 2006 was the result of the ERDF project finally being approved and the success of three smaller ESF projects which had been intended to act as insurance. In addition, the Dean's decision to allow the transformation of the main examination room into a business incubator (*InnoSpace*) and to fund this expansion has followed on from these successful bids.

Operational Improvement

Operational improvement in the *CfE* has placed more emphasis on remaining flexible and responsive to new opportunities rather than concentration on internal efficiencies. Administrative staff are encouraged to improve their skills by attending appropriate courses or by taking on new activities (conference organization, for example). In the early days of the *CfE*, business analysts/research staff's main focus was with conducting diagnostic procedures in SMEs and then delivering appropriate training to improve business performance as required by the first ERDF project. As these core staff gained experience they began to take on a far wider range of tasks including publishing, preparing and writing final project reports, organizing academic and practitioner conferences, reviewing for journals, and carrying out consultancy projects.

New Market Entry

New market entry is the least developed of the tipping points. The core market has remained the delivery of services to small firms and training for nascent entrepreneurs. Although, staff did undertake some small consultancy project these were more important for building relationships rather than realistic sources of future income. The main areas for diversification are viewed to be the delivery of specialist training (short courses) for owner-managers/SMEs and the development of a teaching portfolio at undergraduate and postgraduate levels. The primary problem in developing these 'markets' has been a lack of time and resources. However, the first tentative steps have been taken by a proposal to offer a final year undergraduate option: the management of social enterprises. It is hoped that this may have the potential to develop into a Master's degree in social enterprise. Team members have also developed a number of diagnostic tools (business planning etc) and there may be a limited market for such products. As with consultancy, this is not seen as an activity which is likely to provide any significant future income to the *CfE*.

Strategic Space and the CfE

What we suggest is that while there are clear differences between an enterprise centre and an entrepreneurial start-up there are some very strong similarities.

7. Conclusions

In six years the *CfE* has grown from a small entrepreneurial centre with just two part-time staff into a highly successful source of income generation with 21 full-time staff and three associate researchers employed on an *ad hoc* basis. The notion of 'tipping points' provides insight into key transition points since 2001. While there are some similarities with various stage models,

evolution of the *CfE* fits most comfortably with the description of knowledge-dependent firms proposed by Bretherton and Chaston (2005). Certainly there are a critical mass of key resources and capabilities within the *CfE*, which include project management and administrative skills, as well as conventional research skills and the skills to support SMEs. These core capabilities provided the basis through which to create transactional strategic alliances, which provided access to a wide range of additional resources and opportunities. Perhaps the most important resource was the entrepreneurial ability to recognise and respond to those opportunities. The *CfE*, is a product of its evolutionary environment (Aldrich, 1999) and the sense-making activity of key actors (Dutta and Crossan, 2005; Weick, 1995)

In recent years the topic of academic entrepreneurship has begun to receive attention from researchers and from those responsible for managing universities (Etzkowitz, 2003). In the early stages, much attention focused on departments of science and engineering which seemed to offer the most obvious sources of income generation *via* knowledge transfer and spinout companies (Hacketts and Dilts, 2004). The concepts of academic enterprise and the enterprising university suggest that there are opportunities for income generation which extend well-beyond science and engineering. Business schools (Boyle, 2004) and centres of enterprise (Finkle *et al.*, 2006; Hackett and Dilts, 2004; O'Shea *et al.*, 2004) are particularly well-placed to generate additional income which is known as 'third-leg' (teaching and research being 1st and 2nd leg). Accessing third-leg funding has become particularly important for 'new' universities (ex polytechnics) as they have been largely excluded from research funding provided through the research assessment exercise (Prince and Beaver, 2004).

In this paper we present the case of MMUBS *CfE* which was established in 2001. In the last six years, the *CfE* has generated well over £7.7million in income from a range of different funding bodies and now employs twenty one staff including researchers, project managers and administrators. Business growth models (Greiner, 1972; 1998; Churchill and Lewis 1983)

highlight how crisis points punctuate growth (Figure 1). However, these models provide a fairly mechanistic and linear template for the progression of entrepreneurial ventures. As we have indicated, it was necessary to navigate various crises as the *CfE* evolved. Therefore, we suggest that examining various tipping points (Bessant *et al.*, 2005) is a more effective mechanism for analysing the growth of an ‘entrepreneurial centre’ within a large and highly bureaucratic university. What we are able to demonstrate is that issues of strategy and people management were particularly significant in the *CfE*’s growth and these were set in the context of the University’s systems and the availability of research and regional development funds. At the same time, strategy (particularly related to growth) was incremental and evolutionary rather than fitting with the classical model (Ansoff, 1965). In other words, the *CfE*’s strategic orientation was based on building an organization which was flexible and responsive to new opportunities. This meant empowering all staff to carry out their activities in a professional manner, but with a constant focus on the need for everyone to remain enterprising.

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Appendix 1 CfE Funding 2001-07

Funding Body	Time Period	Project Title	Main Activities	Main Outputs	Direct Funds
ESRC	September 2003 to August 2006	Evolution of Business Knowledge in SMEs	Study of 90 SMEs	Conference papers, research papers, SME policy	£360,000
ESRC Studentship	October 2005 to September 2008	The Cognitive Dimension of Social Capital	PhD Study	PhD + conference & research papers	£47,5000
Leverhulme Fellowship	May 2007 to April 2009	Managing Maternity for Women Owner-Managers	Not yet started	Conference & research papers, policy initiatives	£47,927
ERDF	May 2002 to April 2005	Improving Competitiveness of SMEs (Northwest)	Support for SMEs	£7.9m Increase in turnover + 76 new jobs	£364,000
ESF	January 2002 to June 2003	SME Knowledge Networks	Identifying main sources of new knowledge	Conference papers, research papers, precursor of EBK	£90,000
ESF	January 2004 to June 2005	Improving Managerial Skills in Social Enterprises	Support for SEs	Diagnostic tool (Balance), conference papers	£120,000
ESF	July 2005 to December 2006	Extension of Social Enterprise Project	Support for SEs	Conference and research papers	£92,000
ELFE	October 2003 to September 2007	e-learning for Female Entrepreneurs	Preparing e-learning material	e-learning modules, network building with partners	£132,000
ERDF	October 2006 to June 2008	Leadership in F&PS Small Firms	Support for F&PS SMEs	None so far	£508,000
ERDF	January 2007 to December 2008	Supporting High-Growth Start-ups	Support for nascent businesses	None so far	£150,000
ERDF	December 2005 to June 2008	Incubator Refurbishment	Space for 100 nascent entrepreneurs	X new businesses	£100,000
ESF	July 2006 to December 2007	Key Performance Indicators for SMEs	Identifying KPI in range of SMEs	None so far	£66,000
ESF	July 2006 to December 2007	Managing Maternity in SMEs	Preparing policy materials	Regional policy network, conference papers	£77,000
Consultancy Projects	2005/06	CGS, Tameside & Manchester/Salford LEGI Bids	Research + literature review	Two reports + closer links with city council	£57,000
HEFCE	2006	Enterprising Leadership	X training & leadership events	Conference papers, closer links with public sector managers	£90,000
HEFCE	2007	Urban Regeneration	Various projects	None so far	£30,000
Learning & Skills Council	June 2001 to May 2007	New Entrepreneur Scholarship	Supporting 900 new entrepreneurs	750 New Businesses + £8million increased turnover	£5,400,000
TOTAL					£8,158,927

