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Main Article:

The Business of Research in Art and Design: Parallels Between Research Centres and Small Businesses

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Abstract

This article provides a cross-case analysis of four art and design research centres operating within UK universities. Findings from autobiographical and semi-structured interviews with researchers, research managers, and research leaders indicate that they encounter similar issues in trying to establish internal legitimacy within the university alongside the need to gain external support and recognition. In dealing with these challenges, art and design research centres tend to pass through four broadly identifiable phases: (i) Origination (utilising credentials and leadership capacity), (ii) Establishment (securing resources and embedding dedicated systems and processes), (iii) Development (furthering profile, diversifying, and retaining autonomy), and (iv) Sustainability (enhancing research culture, networks, and influence).

Many interesting parallels are evident with the way small businesses strive to establish themselves within competitive market environments. Lessons for research managers and directors are explored to consider such similarities in key areas of responsibility that cover leadership, managing people and processes, developing organisational capacity, and building external networks. The research suggests research centre directors must demonstrate many intrapreneurial qualities to overcome obstacles in the development of a successful research team and that university departments can make substantial organisational interventions to help them succeed.

Index Terms: research centre; case study; research management; research team; intrapreneurship; research funding; university system; research assessment; artistic research; design-oriented research; organisational development; small & medium-sized enterprises

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1. Background

In 1992 art and design became eligible under its own categorisation to enter the national research evaluation process in the United Kingdom (see HEFCE, 1992). The recognition that this area undertook auditable research stemmed partly from the Polytechnics and Colleges Funding Council (PCFC, 1990) report, *Research in the PCFC Sector*. This report found art and design research was in need of support and funding as it had been excluded from previous rounds (Allison, 1994).

University art and design departments subsequently geared themselves to research (Frayling, 1993) and have increasingly earned a larger proportion of funding. There was a 280% increase in allocation from the 1992 to 1996 Research Assessment Exercise (RAE) and the creation of the Arts and Humanities Research Board (subsequently, Arts and Humanities Research Council [AHRC]), has meant further expansion.

A literature review identified a limited number of studies exploring aspects of research centres in higher education. Sandberg and Gatewood (1991) found that they reflected a diversity of purpose due to differing ages, affiliations, and principal research orientations. The association for Directors of Research Centres in Social Sciences (DORCISS, 1995) highlighted the need for enhanced training and professional development. Harvey, Pettigrew, and Ferlie (2002) studied four medically related research groups using exploratory interviews to investigate factors that support successful research outcomes. Factors associated with high achievement were: (a) strong leadership, (b) finding, motivating, and retaining talent, (c) strategies of related diversification, (d) strongly linked theory and practice, and especially, (e) network connectedness.

Lastly, Whiston (1990, 1995) interviewed research centre directors to propose an evaluation framework that took into account the centre's own role and objectives. In conclusion, Whiston identified eight areas to measure performance: (i) publications, (ii) data bank, (iii) dissemination, (iv) education and training, (v) organisational and strategic factors, (vi) international reputation, (vii) policy effects, and (viii) methodology. In summary, these studies have largely focused on classification, training, evaluation, and impact rather than research centre formation and development.

1.1. Scope of the Study

In this study, we focus on four art and design research centres in the UK and seek to understand how these centres have evolved to become formally recognised units in universities with a remit to improve research performance. The analysis covers three census periods of the RAE between 1996 and 2008 so that their development can be

viewed over time and with a degree of certainty that they have demonstrated both quality and sustainability.

In addition, as several previous studies have drawn a link between research centres and small businesses (e.g., Harvey, Pettigrew, & Ferlie, 2002; Whiston, 1995), we also seeks to explore commonalities and differences with the small business literature. In short, the article aims to address the following questions:

(a) Are there typical phases of development affecting art and design research centres in UK higher education, and if so, what are they?

(b) What are the management factors that may influence a research centre's ability to succeed, and what role might those factors play in the process of the centre's development?

(c) Do similarities and parallels exist within the literature on small businesses growth and what might this mean for research leaders and directors?

Importantly, the definition of art and design research for this study draws upon the original 1992 RAE guidance which has underpinned all subsequent research evaluation processes: "the invention of ideas, images, performances, and artefacts including design where these lead to new or substantially improved insights" (HEFCE, 1992, Annex A).

2. Methodology

An outline description of the four art and design research centres studied is provided in Table 1.

Table 1. *Outline of the Four UK-Based Art and Design Research Centres*

Case	Research Centre Activity	University Type	Started	Department RAE Ratings	No. of Staff
A	Design, Sustainable Design, Design Management, Interaction Design, Computer Aided Design, New Product Development, Industrial Design, Art and Design Pedagogy	Technological university (based in England)	1990	1996: International excellence (>50%) 2001: National excellence (100%) 2008: International excellence (35%)	Between 5-10
B	Design, Sustainable Design, Design Management, Interaction Design, Computer Aided Design, New Product Development, Industrial Design, Interactive Design	Large former polytechnic (based in England)	1989	1996: National excellence (2/3rds) 2001: National excellence (100%) 2008: World Leading (5%)	Between 5-10

C	Design, Interactive Design, Fine Art, Electronic Arts, Computer Aided Design, Digital Imaging	Small former polytechnic (based in England)	1992	1996: National Excellence (2/3rds) 2001: National excellence (1/2) 2008: World Leading (15%)	Between 5-10
D	Design, Interactive Design, Electronic Arts, Art and Design Pedagogy, Visual and Contemporary Arts	Former technological college (based in Scotland)	1992	1996: National excellence (2/3rds) 2001: National Excellence (2/3rds) 2008: World Leading (5%)	Between 10-15

It is argued that a research centre can be viewed as a case study. Yin (1984, p. 23) defines a case as an investigation into contemporary phenomenon within its real-life context, when the boundaries between the phenomenon and its context are often blurred, and when multiple sources of evidence are used. However, this study seeks to compare and contrast evidence across cases and therefore we need to look beyond Yin's definition to Eisenhardt's (1989) model for deriving theory from case studies.

This approach describes the process from the point of entering the field to analysing data, from shaping hypotheses through to enfolding the literature (Eisenhardt, 1989, Table 1, p. 533). Unlike the traditional model of exploring the implications of a single case, Eisenhardt's approach allows for transferable and generalisable concepts to be identified. By following this model, the history of each research centre's development has been investigated in depth.

Documentary analysis has been undertaken following the last RAE conducted in 2008 combined with open and semi-structured interviews with research directors, researchers, and research managers. Two types of interview were undertaken. First, research directors were asked to reflect on their experiences, recounting the events and happenings affecting the research centre's development over time. Subsequently semi-structured interviews, based on thematic areas identified in the literature, were analysed to identify management factors deemed to have had an influence.

Plummer (1983) in his description of the "life elicitation" interview, where he seeks to secure an autobiographical account of events, refers to the need to allow respondents to talk freely and with limited interventions being made by the interviewee. The open interviews were conducted in this way to yield as full an account as possible in the respondents' own words. All interviews were taped and fully transcribed using pseudonyms and codifications to provide anonymity.

3. Findings

Figure 1 provides a graphic interpretation of the respondents' evidence using a causal connection diagram (Miles & Huberman, 1994) to understand the process of development of the research centres. Each node is numbered to provide a cross-referencing mechanism. For example, bracketed number [14] in the text will refer to the node where

the research director develops the skills necessary to lead and manage the research team, as the informal research group achieves recognition by the university.

In seeking to secure recognition and growth, all the research centres appeared to go through the same phases of development: Origination, Establishment, Development, and Sustainability. These phases form the basis of the discussion that follows.

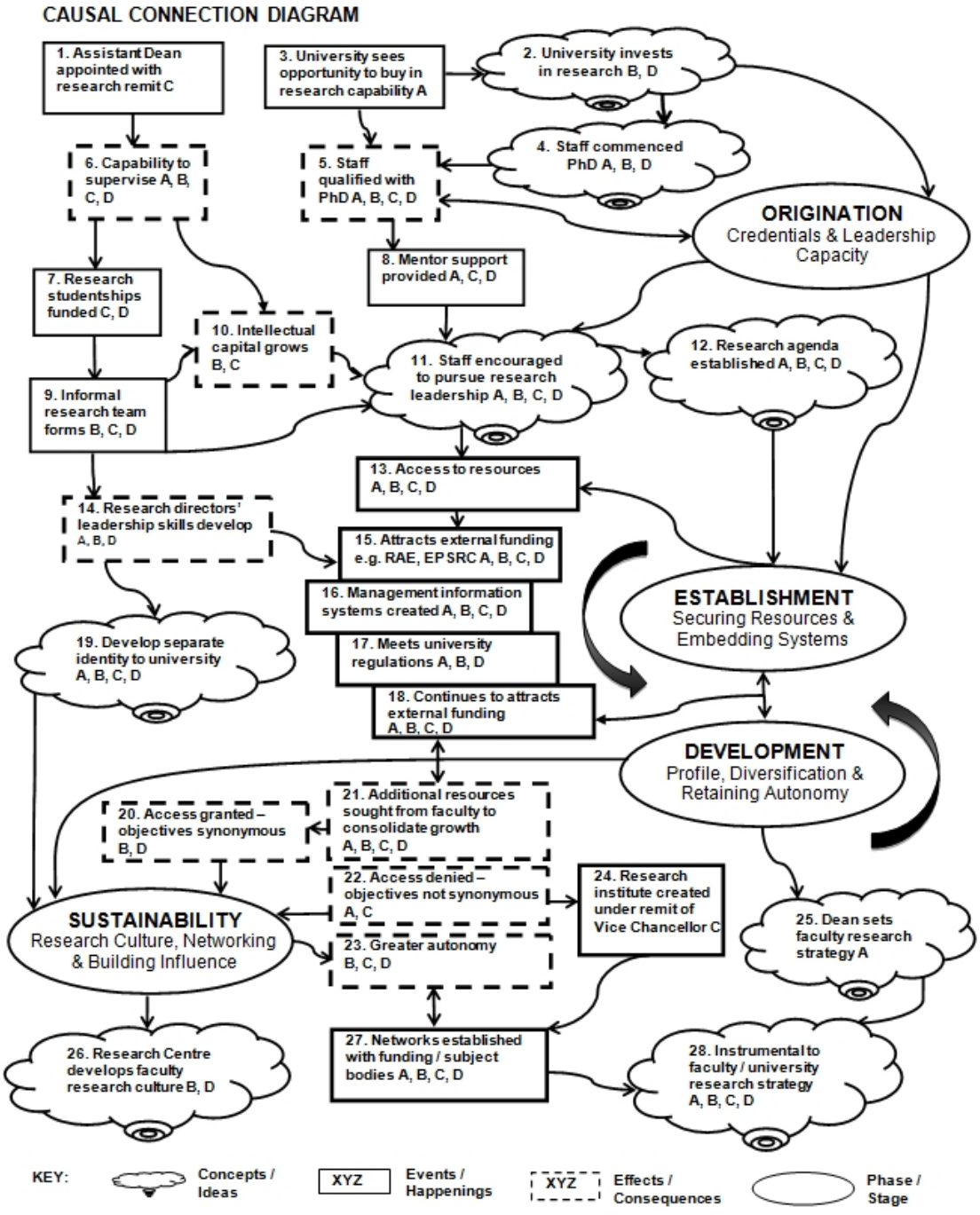

Figure 1. Phases of research centre development.

3.1. Phase #1. Origination: Utilising Credentials and Leadership Capacity

The interview transcripts in the pre-research centre phase describe a change of university strategy toward research [1, 2, 3]. There is an appointment of an Assistant Dean with specific remit in Case C, the Dean in Case A "buys in" a research team, and research teams are developed in-house in Cases B and D. Case A and D suggest the Dean is keen to stimulate and develop research in readiness for a forthcoming Research Assessment Exercise (RAE). As the Research Director in Case A reported, the Dean was anxious to "really work at bringing the research rating up."

Appropriately qualified staff becomes a priority for senior management (Cases A, B, D) and research directors indicate that their own PhD leads naturally to the supervision of others [4, 5, 6]. Faculties are therefore keen to recruit research students [7] and the emerging research directors are mentored [8] and encouraged to take on research leadership roles as their skills and expertise develop [10, 11].

> So we were in a position for the first time to actually supervise . . . we still needed some assistance and expertise and experience from colleagues in other parts of the University but you know we had a kernel there of enthusiasm and possibility. (Research Director, Case D)

A research team has already been established in Case A [3]. However in the other cases [9] research leaders hone their new found skills by developing staff research around them [9, 14] and at the same time, their purpose is reinforced by the acquisition of resources [13]. As Katzenbach and Smith (1993) suggest, removing obstacles from the team's path creates tangible evidence to team members of the leader's credentials. During this early period, advice is also sought from peers [8] in order to overcome issues that confront the development of the group.

3.2. Phase #2. Establishment: Securing Resources and Embedding Systems

Once an agenda has been clarified with the dean [12], the research team grows its capability and capacity for research [10]. The cases indicate a period of negotiation for resources to deliver this new remit and responsibility [13].

> We became increasingly aware that the profile of the projects was high or potentially high and we needed to convince the companies that we had an area to work in . . . the space that we identified and the origination of the Centre itself was regarded as a spin out directly from teaching. (Research Director, Case B)

Credentials of the emerging research centre are further enhanced by the amount of studentships, grants, research contracts, and external finances they secure [15]. This also places a greater emphasis on dedicated systems and processes required to manage and administrate in accordance with funding agency requirements [16]. Reflecting on an Engineering and Physical Sciences Research Council (EPSRC) award, the Research

Director in Case D reflected: "If you are involved with a Research Council then they are pretty tight on what you are doing and how you are doing it . . . So we were really under the microscope."

Aside from Case C where the Associate Dean is already in a position of authority to secure formal recognition upon appointment, endorsement by the university as a dedicated research centre follows only after improved research performance (in the RAE) or demand from industry [15]. Although this might suggest universities are indifferent to research groups until they have demonstrated they are sustainable, this process seeks both internal and external verification for the research being undertaken through peer review [15, 18].

The semi-circular arrows in Figure 1 around the Establishment and Development phases indicate a mutually reinforcing interaction. During the early stages of development of a research centre, securing resources and embedding systems gradually drives outputs that gain external recognition which, in turn, attracts further resources and drives system development.

3.3. Phase #3. Development: Furthering Profile, Diversification, and Retaining Autonomy

All the research directors recognise that acquiring research funding is an inherent part of their job [18] and yet they see their leadership roles not in a hierarchical way but more in the nature of team leadership to represent and develop the work of their colleagues. The views of the Research Director in Case B are typical: "One of the things I enjoy doing . . . is envisaging new areas of development . . . The other skills are leadership on a daily basis and the ability to excite and motivate the staff to achieve their own potential."

In Cases B and D the strategic direction of the research centre is entirely congruous with those of the faculty and the staff [20]. The centre acts as a mechanism for staff within the faculty to engage with research and they further new methodologies in the subject area [26]. However, in Cases A and C, as the profile of the Centre grows in accordance with the need to promote itself to external stakeholders, the synergy of research agendas at faculty level are not maintained [21, 22]. Tensions arise in the ability to maintain senior management support to consolidate the centre's development when new deans are appointed.

The current Research Director in Case C and the former Research Director in Case A feel let down by a change in research strategy at faculty level and seek to retain autonomy and influence [23]. Case C operated largely independent of the School. The Research Director in Case A moves to another institution and a new person is appointed with a clear remit and mandate to operate as part of the faculty. In contrast, Case C reinforces its position within the university as a whole and is able to re-launch the centre as a research institute [24] which reinforces the Director's authority and control [22, 24].

The Development phase highlights the difficulty of managing growth and the importance of managing levels of autonomy and authority. Indeed, the role of the dean as mentor, evident in the set-up phase [8], and the research director as protégé (Allen, Poteet, & Burroughs, 1997), no longer retains mutual benefit or status. As the relationships change, the deans appear to revert to a more traditional hierarchical style of leadership.

3.4. Phase #4. Sustainability: Enhancing Research Culture, Networking, and Influence

Continued research performance and ability to attract external funding [18] remain key components of the research centre's long term sustainability. This is achieved through an extensive network of contacts [27] and provides a means of securing both research contracts and representation on national and international research/subject bodies. The Research Director in Case B highlights the benefits of this approach: "We established at a fairly early stage a good working relationship with the Committee for Medical Design . . . and we developed some good contacts . . . So one project has tended to lead to another."

The research centres in Cases B and C consolidate their role through the development of activities to improve the research culture at faculty level [26] and all have influence over university research policy [28]. It is notable that they recognise the difficulty in being able to enhance the student experience as a successful research capability does not necessarily lead to a growing research culture. To counteract this, Cases B and D become a "hub" for professional development and research support within the faculty and seek to further reflective practice in related disciplines.

4. Similarities Between Research Centres and Small Businesses

It is widely recognised that the boundaries between private and public sector management models and practices in universities are becoming increasingly blurred (see, e.g., Cave, Hanney, Henkel, & Kogan, 1997; Henkel & Kogan, 1996). Research centres are at the very nexus of this divide, maintaining coherent strategies for research, training, and consultancy activities for a diverse range of stakeholders. As Harvey, Pettigrew, and Ferlie (2002, p. 766) argue, they operate in a contemporary and dynamic environment in a "multi-faceted" way.

This analysis suggests a striking similarity between the development of art and design research centres and the early phases of growth in small business enterprises. Whiston (1995) also pointed to these parallels when evaluating the performance of Economic and Social Research Council (ESRC) research centres from the "taking off" stage through to the "plateau" stage, and lastly the sustainability or "in decline" stage. Whiston also argued that research centres have similarities with commercial enterprises in the way they manage resource acquisition, as they have a direct trading relationship with customers in deriving revenue streams whereas many public sector organisations are often constrained by controls over the regulation and balance of inputs and outputs.

Hanks, Watson, Jansen, and Chandler (1993) have reviewed stage models for small business growth. They conclude that there are typically five stages: (i) start-up, (ii) expansion, (iii) consolidation, (iv) diversification, and in recognition of the complete life-cycle, (v) the decline stage. The text concerning the start-up stage focuses on the inception of the enterprise, when entrepreneurs strive to achieve success in commercial environments to establish their businesses. Organisational processes are often informal and ad hoc. Gibb and Davies (1990) and Perren (1996) point to the impact of the "entrepreneurial personality" during this phase.

The expansion stage reflects the owner manager's influence on the organisation and business skills being deployed through functional planning, control, and formal strategic orientation. This period is identified with survival in trading terms and the ability to achieve market credibility through service to clients.

The consolidation stage recognises the importance of professional business management. This is often characterised by the ability to achieve optimum levels of efficiency in production and distribution whilst at the same time, exploiting opportunities for new product development which leads to diversification. Gibb and Davies (1990) state that this stage highlights the importance of personal objectives and business goals becoming synonymous. At this stage, the owner manager's desire to achieve growth is interrelated with a willingness to share ownership, often resulting in the recruitment of professional managers. This leads to a loss of direct control or influence of the owner manager over all aspects of the business (Flamhotz, 1986).

Ultimately many enterprises fail. The decline stage marks the point when the market opportunity has changed and bureaucracy and centralisation prevail to such an extent that it is no longer possible to innovate.

Hendriks and Sousa (2013) contend that researching is essentially knowledge work as it is the combination of the organisational context and culture, combined with the motivations and intentions of researchers. To understand the challenges and issues faced by research leaders when managing this work and establishing research centres, management factors that influence a centre's development were analysed across four broad and overlapping areas of responsibility: (i) leadership, (i) business management, (i) organisational development, and (i) external engagement.

Table 2 provides a consolidated visual summary of this analysis along with the nature of the influence, indicated as either positive or negative (identified by plus and minus +/- signs). For example, the factor [F1] Innovator/Initiator was reported to have influenced leadership responsibility eight times by respondents but the factor [F8] Outside Advice was only reported in Cases C and D.

Table 2. *Management Factors Influencing Research Centre's Development*

LEADERSHIP							
	BUSINESS MANAGEMENT		ORGANISATIONAL DEVELOPMENT		EXTERNAL ENGAGEMENT		
INTRAPRENEURSHIP	STAFF WITH APPROPRIATE QUALIFICATIONS AND CREDENTIALS	EMBEDDING PROCESSES AND PROCEDURES	ACHIEVING CRITICAL MASS	POLITICAL GAMESMANSHIP	PROMOTING EXPERTISE AND KNOWLEDGE	EXPLOITING MARKET OPPORTUNITY	USE OF NETWORKS
F1+++++++/- Innovator/ initiator	F15+++++ Attracting/ motivating staff	F33+++/--- Regulatory controls	F22+++++/-- Resource access	F27+++++/-- Partnerships/ dependency	F30++++/- Image and reputation	F36++++++ Ability to publish	F25+++++ Policy influence
F2+++++/--- Strategic vision	F17+++++ Educational/ technical background	F5++++++ Business plan	F24++++/-- Investment stakeholders	F6++++ Synergy with HEI research policy	F32+++++ Diversification strategies	F34+++++ Demand for expertise	F28++++++ HEI networks
F3++++++/- Desire to succeed	F13++++ Management experience	F7++++/- Time for planning	F14+++/-- Training and development	F23+++ Overhead costs	F12++++ Pricing policy	F39+++/- Industrial development	F26+++++ Industrial input
F6+++++/-- Synergy with HEI research policy	F16++++ Industry experience	F9++++/- Financial systems/ information	F15+++++ Attracting/ motivating staff	F24+++ Investment stakeholders	F29++++ Marketing plan	F40++++ Public funding strategy	F40+++ Public funding strategy
F4++++/- Risk taker/ uncertainty bearer	F31++ Client handling	F11+++++ Project management	F34++++ Demand for expertise	F2-- Strategic vision	F31+++ Client handling	F38+++ Societal issues	
F22++++ Resource access		F18++++/- Quality control procedures	F35--- Competition for staff	F4+ Risk taker/ uncertainty bearer		F41+++ Location	
F8++ Outside advice		F19+++/-- Information sharing				F37++ Economic conditions	
		F20+++++ Communication systems					
		F13+++ Management experience					

From this analysis, the following lessons were derived for research leaders and research centre directors.

4.1. Providing Leadership to Develop a Team Culture

Intrapreneurial leadership (Palfreyman & Warner, 1996) is fundamental to the development of the research centre during its establishment. University research

managers can establish a creative and enterprising culture by supporting individuals to achieve credentials and qualifications by working on increasingly significant research contracts as well as encouraging staff to progress their careers. Emerging research centre directors in this study demonstrated many entrepreneurial qualities within a public sector operating environment, including the ability to secure and redeploy resources to advance the research profile of their centres, negotiating investment and formal recognition within the university.

Many of the studies concerning the development of research teams have also considered the role of the research leader in developing a team culture (Arnold, Rush, Bessant, & Hobday, 1998; Harvey, Pettigrew, & Ferlie, 2002; Tornatzky, Lovelace, Gray, Walters, & Geisler, 1999). This research found that the research director ultimately becomes synonymous with the external profile, reputation, and identity of the research team. They also act as a mentor, nurturing talent and displaying good practice in project management, offering advice and guidance to colleagues. In effect, they set the tone for the philosophy and strategic direction of the research team and ultimately carry the accountability for success or failure. Shamir, House, and Arthur (1993) have suggested that a key function of leadership is to create the "social identification" of the research team in order that staff have a sense of purpose and association with other team members.

4.2. Managing People and Processes to Maximise Output

As the volume of research contracts grow, and in order to meet the requirements of external funding agencies, the research centres establish dedicated financial controls and project management procedures in negotiation with university professional support service departments. This area suggests that the research leader needs to differentiate between leadership and management functions.

Achieving a critical mass of experienced researchers was clearly a priority for a number of the research directors. The cases suggest that the ability to capitalise on the knowledge of key personnel requires a balance to be struck between personal fulfilment and regulation and control at faculty level. In this respect, this research supports the view of Robertson and Hammersley (2000) who found that knowledge workers (in management consultancy firms) are expected to act with a high degree of responsibility and autonomy which, if not forthcoming, would result in the departure of key staff.

Bordons, Zulueta, Cabrero, and Barrigón (1995) have considered the effect of research staff numbers on research output. Theyfound there was a link between high productivity (publication) and there being four researchers in a team; teams appeared to sub-divide beyond an average size of 5.7. The findings from Case D would resonate with this analysis as a cluster structure had been introduced to take account of increased social interaction and efficiency in smaller groups.

4.3. Developing Organisational Capacity to Diversify Research Portfolio

This area of responsibility requires research leaders to display tact and political nous to negotiate additional resources for development within the university. Furthermore, the use of appropriate strategies for recruitment, training, and development can maintain a motivated and productive research team. It also indicates the need for continued resource access and investment whilst the demands on administrative tasks such as record keeping and client invoicing multiply, and pressures on the research leader's time increase.

The ability to promote expertise and knowledge becomes increasingly important as the research team aims to establish and build upon an image, profile, and reputation for the quality and innovative nature of the work. Most of the cases studied had integrated a number of marketing principles to develop new opportunities from existing research agencies, such as the recording and promotion of case studies.

The value of the research team's expertise is capitalised with mechanisms to diversify into new areas of research or product development. For example, the research leaders were clearly scanning the horizon for new research themes and presented the team's work at forums for both industry and public sector stakeholders.

4.4. Building External Networks to Enhance Influence and Profile

This area highlights the importance of networking, particularly by the research centre director and the advantages that can be derived from thinking within a broader delivery framework of contacts at a regional, national, and international level. The cases suggest that new opportunities can be generated in this way. For example prominent positions on research bodies, representative forums, and industry bodies were often cited as the ultimate position of influence. It helps in achieving increased profile for the team and greater recognition of its authority and influence to anticipate, and to some degree help shape, national and international research policy.

Lastly, the career development of research leaders is enhanced through the use of personal and professional networks. Several of the research directors in this study re-located existing research teams and, in Cases C and D, personal networks provided the research leaders with support in the form of mentors. Harvey, Pettigrew, and Ferlie (2002) suggest that "network connectedness" is the glue that holds together the factors implicit in a successful research group.

5. Discussion

This article has explored a number of parallels between the phases of research centre development and those associated with small business growth. There are however distinct differences. Hanks et al. (1993) make a link between the "decline" stage when small businesses have formalised to such an extent that they lose the flexibility and adaptability to respond to new market opportunities. In contrast the research centres studied had managed to retain a sense of innovation and vitality by generating new fields of inquiry in

sub-groups as new areas of art and design knowledge emerged. Indeed, it can be argued that universities have developed a unique environment to stimulate innovation through the generation of ideas, theories, and new knowledge that has evolved over centuries. Even when the vision and mission of the centre appeared to have been at odds with the strategic priorities of a new dean, the research centres in this study were able to maintain their research by operating independent of a faculty or even relocate to another university.

With the exception of family businesses, the stakeholder relationship which underpins investment in small enterprises is primarily financial, where capital is released in return for equity (Storey, Watson, & Wynarcyk, 1989). However, the relationship the research centre has with the host university is much more complex. For example, research centres negotiate access to resources and investment that are often made available in-kind, such as the redeployment of staff to equipment and studio space, and they have to promote an external identity whilst not undermining the university's overarching brand.

Therefore the notion that universities might operate research centres based purely on business logic is not only impractical but would also raise fundamental issues and unforeseen consequences. For example, a totally profit driven motive might deflect institutions from their primary social and cultural purpose. Indeed, it would undermine their charitable status if an appropriate balance were not maintained between primary (educational) and non-primary purpose (commercial) activities.

Even with the recent developments in the UK concerning student fees, universities have no single clear "bottom line" (Birnbaum, 1988), they have several. While business inevitably must respond to performance through levels of profitability, universities must respond to complex performance requirements and with a high degree of accountability to meet the needs of both clients (to whom they provide goods and/or services) and donors (from whom they receive resources), utilising all available funding with any surplus being ploughed back into furthering the institution's strategic purpose.

Academics also direct their loyalty toward their subject disciplines as opposed to being professionally or corporately minded. Kerr and Jermier (1978) have suggested that this can significantly limit the capacity of managers to initiate new tasks or persuade staff to take on additional responsibilities. This research would support the views of Zaidman (1997) who argues that decisions over research priorities by senior managers cannot be made without consideration of researcher's own beliefs, interests, size, and degree of authority. Indeed, the individual focus of selectivity within research assessment has strengthened the ability of staff with significant research track records to negotiate and control their immediate operating environment.

In summary, this article suggests successful research centre development requires an operating environment that retains a sense of autonomy and control for both research leaders and their teams. Ultimately research performance depends upon external peer review but it is clear that research leaders have a significant part to play in motivating and developing research teams that can secure an internationally excellent and world-leading

profile. In doing so, research teams establish their own unique identity and social cohesion, as the team leaders seek to create an environment in which research potential can be achieved. Yet, this article highlights many significant barriers that confront them in trying to achieve this objective, including limited resources, university bureaucracy, hierarchical management styles, lack of research infrastructure, and complex regulatory frameworks. To overcome these, research leaders demonstrate many intrapreneurial qualities in the pursuit of an enhanced research profile. For research to flourish, the appropriate use of organisational interventions discussed in this article may go some way to tip the balance in their favour.

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