

The future role of entrepreneurship centres in the UK

Keywords: Entrepreneurship; Entrepreneurship centres; Third mission

Abstract

Entrepreneurship centres experience a lack of resources and high expectations from various and sometimes diverse set of constituencies. The goals of entrepreneurship centres varies between new firm creation, researching market opportunities, developing enterprising and entrepreneurship skills among students and staff, and contributing to the capitalisation of knowledge. Within this context, one can argue that there is currently a proliferation of aims, roles and location of entrepreneurship centres. This proliferation adds to the debate what the role and functions of entrepreneurship centres should be? The aim of this paper is to critically reflect on the current and future role of UK based entrepreneurship centres within Higher Education institutions.

1. Introduction

It is almost becoming a cliché to refer to the globally fast changing business and educational environment and the need to react to those changes in creative and innovative ways. Within this environment, the role of Higher Education Institutions (HEIs) are questioned - are they are part of the solution to renewed socio-economic development or are they engaged with the environment in an overly sporadic manner (Bok, 2003; Kitson et al., 2009; Gibb and Haskins, 2013; MacKenzie and Zhang, 2014; NCUB Report, 2014). This renewed focus on HEIs to play a meaningful role in socio-economic development led to the development of the third mission (entrepreneurial involvement) for HEIs as an equal component to the traditional roles of teaching and research (Nelles and Vorley, 2011). An OECD report (Nelles and Vorley, 2011: 343) supports the socio-economic role HEIs need to play and stated that “*universities can make contributions to economic prosperity beyond spin-offs and licensing activities typically associated with technology transfer efforts*”.

Within the United Kingdom (UK) in recent years, several reports have emerged to encourage the HEI sector to undertake more entrepreneurial activity and business collaboration (Wilson, 2012; Witty, 2013; Young, 2014). However, a search of research projects focusing on the role of entrepreneurship centres in the UK revealed limited research in the role that such centres can play in stimulating sustainable enterprise and entrepreneurship activities. The extant research suggests that there is no doubt that entrepreneurship centres can and should play an important role in stimulating enterprise and entrepreneurship activities within HEIs (Finkle et al., 2006; Nelles and Vorley, 2011; Finkle et al., 2013).

Thus the central aim of this research is to identify the future role of UK based entrepreneurship centres within HEIs. It was decided to focus this study in the UK due to the lack of literature in this context. Secondly, within the 161 publicly funded HEIs (www.hesa.ac.uk/intros/heukintro1213) there were 2,299,355 enrolled students during 2013/14 (www.hesa.ac.uk/stats) which is a significant potential market to focus on in terms of enterprise and entrepreneurship education. Within this potential market there are already a significant number of enterprise and entrepreneurship activities occurring (Wilson, 2012; Gibb and Haskins, 2013; Witty, 2013; Young, 2014). In many cases, entrepreneurship centres are at the foreground of enterprise and entrepreneurship activities within HEIs and therefore the contribution of this research will focus on the evaluating their effective performance and how they contribute to enterprise activity and entrepreneurship curriculum enhancement, research, and entrepreneurial support. The structure of the rest of the article is as follows: the literature is appraised around the role of HEIs within the enterprise and entrepreneurship agenda and how that is managed through entrepreneurship centres. It then describes the methodology adopted to address the research aim. The findings are presented, followed by a discussion and conclusion, with managerial and policy implications for further research.

2. Literature

The importance of enterprise and entrepreneurship is by no means a function of the global recession which commenced 2008. It is acknowledged in the Entrepreneurship 2020 Action Plan (European Commission, 2012) that Europe faced structural challenges before that time which influenced socio-economic growth negatively. According to the European Commission (2012) member countries are still struggling to create new employment, develop new skills, and promote self-employment – the latter has declined in 23 of the 27 Europe Union member states whilst a positive trend is observed in China and the United States of America (USA). One of the biggest challenges Europe Union countries face is unemployment especially in the youth category. Europe has 100 million people in the youth category of which 23.5% are unemployed yet there are two million job opportunities (European Commission, 2014). To rectify this situation of low to no economic growth and the subsequent high unemployment figures especially amongst the youth, the Entrepreneurship 2020 Action Plan (European Commission, 2012) focuses on three main pillars namely developing entrepreneurial education and training, creation of the right business environment, and promoting role models for entrepreneurship. Within this broad European Union regulatory environment, the UK Government has consistently driven the promotion of entrepreneurship over decades through various initiatives such as the Enterprise Allowance Scheme, Training and Enterprise Councils, Business Link, and Local Enterprise Growth (Huggins and Williams, 2009). According to Huggins and Williams (2009) these initiatives were driven by various institutions such as the Department of Business Innovation and Skills, Chambers of Commerce, Local Enterprise Partnerships and HEIs. Although this plethora of initiatives supports an environment where most UK entrepreneurship measures remain above the longer term trend as determined by the Global Entrepreneurship Monitor (Hart et al., 2014) the same structural challenges (e.g. youth unemployment and low growth) faced by European Union member countries occurs in the UK. One area addressed consistently by various reports (e.g. European Commission, 2012; Witty, 2013; Young, 2014) is that HEIs can and should play an active role in the promotion of socio-economic growth.

The various external and internal challenges facing HEIs lately (e.g. financial changes from Governments, accelerated innovation, changes in educational policies, youth unemployment, mobility of experts) are not new phenomena within HEIs but something researchers and policy makers have grappled with trying to find solutions (Kitson et al., 2009; Mitra, 2012; Gibb and Haskins, 2013). Within this context, there is an emerging consensus that HEIs can and should play a more active role within the knowledge economy. This is supported by Nelles and Vorley (2011: 342) who suggest that “*Universities have become one of the most important engines of the knowledge economy, acting as drivers of both national and regional economic growth and competitiveness*”. Within this context, a wider and more holistic approach (wider than teaching and research only roles) is required by HEIs to address the building of innovation networks, create collaboration among HEI staff, students and businesses, and measuring their success in different ways.

To address the challenges of how HEIs should effectively operate in a fast changing environment, the concept of an entrepreneurial university emerged (Clark, 1998; Clark, 2004; Gibb et al, 2009; Thorp and Goldstein, 2010; Philpott et al., 2011). The EC and OECD (2012) there was various attempts to define the entrepreneurial university but none succeeded and therefore the term entrepreneurial university is typically described rather than defined. In this regard, the NCEE (2010: 3) explains that the entrepreneurial university is a term that demonstrates “*how institutional leadership and a strong entrepreneurial culture can create the policies and practices that are conducive to the development of enterprising and entrepreneurial mind-sets and behaviours throughout the organisation – in management and administration, in teaching and research staff and in students and graduates*”. This definition is supported by Philpott et al. (2011:161) who defines an entrepreneurial university as “*A university that embraces its role within the triple helix model and adopts the mission of contributing to regional/national development is referred to as an ‘entrepreneurial university’*”.

Kitson et al. (2009) equates the entrepreneurial university to that of a connected institution which contributes to socio-economic development through continuous involvement in the building of innovation networks and the development of new and relevant skills for current and future conditions. This connectedness is further supported by Gibb and Haskins (2013: 25) who indicated that HEIs need “*a model of much wider stakeholder and societal culture engagement*”. Thorp and Goldstein (2010), Philpott et al., (2011) and Lundqvist and Middleton (2013) indicates that entrepreneurship within HEIs sometimes has too narrow a focus on the commercialisation of ideas or small business start-ups and should follow a broader approach promoting

entrepreneurship. The strategy should be supported by a visible structure whereby HEIs should not regard the promotion of student entrepreneurship as third stream income activities, entrepreneurial support should be regionally and globally relevant, entrepreneurship as philosophy should form part of teaching strategies, infrastructure should exist that supports greater visibility for student entrepreneurs, the impact of the entrepreneurial university should be measured (Maas et al., 2004; EC and OECD Report, 2012; Gibb and Haskins, 2013).

In terms of enterprise and entrepreneurship education Maas et al. (2004) acknowledges that entrepreneurship will not be suitable for all students but that they should be exposed to enterprising skills during their stay at HEIs. Fretschner and Weber (2013: 412) agree adding that the *“overarching goal of entrepreneurship education is to develop an individual’s intention to act entrepreneurially”*. Although reference is made of entrepreneurial education the terms ‘enterprising’ and ‘entrepreneurship’ is quite often used in an intertwined manner. Within this study, enterprising is defined *“as the application of creative ideas and innovations to practical situations”* and entrepreneurship *“as the application of enterprise skills specifically to creating and growing organisations in order to identify and build on opportunities”* (QAA, 2012: 8). These definitions are supported by Gibb and Haskins (2013: 17) who indicate that the *“The Enterprise Concept focuses upon the development of the ‘Enterprising Person and Entrepreneurial Mindset. The Entrepreneurship Concept focuses upon the application of these skills etc to the setting up a new venture and designing an entrepreneurial organisation”*. Thus the study authors decided that both concepts would be accommodated within the definition of an enterprise or entrepreneurship centre as they are quite often used interchangeably. Therefore, within the scope of this study, enterprise and entrepreneurship centres are defined as any specific identifiable entity within a HEI with the specific responsibility of promoting enterprise and entrepreneurship.

Although the rationale of enterprising/entrepreneurial universities are generally accepted and included as third missions on an equal basis to teaching and research (Nelles and Vorley, 2011; Philpott et al., 2011; Van Looy et al., 2011) the question remains how to transform and encourage enterprising and entrepreneurial behaviour within a HEI? Entrepreneurial centres became important vehicles in delivering curricular and co-curricular activities in the development of the third mission and experienced various successes. Finkle et al. (2013: 67) point out that *“much of the growth of entrepreneurship education and research at universities can be related to the existence of a university-based entrepreneurship center”*. Despite their success, entrepreneurship centres still experience limited resources and high expectations from a diverse set of internal and external constituencies (Finkle et al., 2013). Within this context, the goals of entrepreneurship centres varies significantly between new firm creation, researching market opportunities, developing enterprising and entrepreneurship skills among students and staff, and contributing to the capitalisation of knowledge (Del-Palacio et al., 2008). Within Entrepreneurial centres it is apparent that they experience various challenges. For example, Finkle et al. (2006) identified specific problems directors of entrepreneurship centres experienced. Within newly established centres, the five most prominent problems were limited time because of the multiple constituencies they service, obtaining enough funding for the centre to fulfil its obligations, appointing qualified staff specific to the needs of the centre, developing legitimacy within the political-institutional framework, and faculty jealousy. Within established entrepreneurship centres faculty jealousy is substituted by effectively measuring success (Finkle et al., 2006).

The positioning of entrepreneurship centres within HEI’s structure varies significantly. Examples exist where such centres are situated within Business Schools, some function independently from faculties whilst others report through their careers advice services (Maas and Jones, 2015). Maas and Jones (2015) argue that the location of entrepreneurship centres influences the specific goals they pursue e.g. centres in Business Schools might focus more on that specific faculty’s strategic objectives through teaching, project and research activities Furthermore, other faculties might have a silo mentality and be reluctant to collaborate with a Entrepreneurship Centre with such allegiances. However, the question remains why entrepreneurship centres undertake diverse roles and whether they are required within HEIs? In an ideal situation one might expect the enterprise and entrepreneurship agenda to be an integral part of the HEI culture and that in such an environment academic silos (e.g. entrepreneurship centres) are not required. Thorp and Goldstein (2010: 31) maintain that *“a culture that accepts and promotes interdisciplinary work within the traditional disciplines and across traditional barriers will have a greater impact”* than free standing units promoting such interdisciplinary

activities. Here the authors agree with Thorp and Goldstein (2010) but suggest the current culture within HEIs is not conducive of an integrated approach and requires entrepreneurship centres to steer development of enterprise and entrepreneurship agenda. Finkle et al. (2006) noted that entrepreneurship centres have multiple stakeholders and as such cannot act in isolation. They should form part of a well-structured entrepreneurial eco-system defined by Mason and Brown (in OECD Report 2013: 1) as “a set of interconnected entrepreneurial actors, organisations, institutions and processes which formally and informally coalesce to connect, mediate, and grow the performance within the local entrepreneurial environment”. Within HEIs, such an entrepreneurial eco-system can be interpreted as collaborative and holistic activities focusing on the promotion of entrepreneurial behaviour which is guided by a clear institutional strategy. The formalised HEI entrepreneurial eco-system guided by a transparent institutional strategy can address the acceptance and legitimacy of enterprise and entrepreneurship (Maas and Jones, 2015). However, Maas and Jones (2015) suggest the existence of entrepreneurial eco-systems is not a guarantee that socioeconomic development will be positively stimulated. Eco-systems can create a positive environment for systemic entrepreneurship to prosper but can equally be an obstacle when policies are preventing creativity. A set of carefully formulated policies should therefore guide the implementation of a HEI specific entrepreneurial eco-system.

Maintaining a successful entrepreneurship centre within an entrepreneurial eco-system is also influenced by the availability of suitable staff highlighted by Finkle et al. (2006) as another critical challenge. Within a HEI there are specific pathways to promotion which are not always fit for purpose for staff within an entrepreneurial centre. Clarysse et al. (2011) concluded that academic staff are required who have high levels of entrepreneurial capacity. They also identify that staff that are tenured are more likely to be involved in entrepreneurial activities. To retain suitably qualified staff within entrepreneurship centres therefore demands a different approach to promotion and remuneration.

In terms of required employment roles and behaviour of employees within entrepreneurship centres they include new firm creation, market research, skills development, motivating entrepreneurial behaviour, entrepreneurship knowledge creation and improving social welfare of the community in which the HEI operates (Maas et al., 2004; Finkle et al., 2006; Del-Palacio et al., 2008; Van Looy et al., 2011; Maas and Jones, 2015). The extant literature has focused on what entrepreneurship centres are doing or have done with minimal attention to considering their future role. If it is accepted that entrepreneurship centres will continue to play an important role in the immediate future then the question is whether the existing roles of entrepreneurship centres are in line with future expectations? There is a growing view that although a plethora of entrepreneurial support activities exist they struggle to create the future desired state of required socio-economic growth. In this regard, Maas and Jones (2015) argue that a systemic approach in the promotion of entrepreneurship is required – a process that is more heuristic and holistic in nature to accommodate both individualistic and societal approaches. Duval-Couetil (2013) agrees that a more innovative approach is essential to prepare students for the future work-place. Both Sautet (2013) and Knickel et al. (2009) argue for a more innovative approach stimulating entrepreneurship and maintain that a focus on local entrepreneurship does not lead to economies of scale and scope. According to Sautet (2013: 393) a systemic approach of stimulating entrepreneurship “refers to socially productive entrepreneurial activities that go beyond the local level” and that “it is not about the size of entrepreneurial opportunities per se, but rather about the scope of the opportunities exploited”. According to Ács et al. (2014: 477) the term ‘system’ “constitutes of multiple components that work together to produce system performance”. Rosenberg and Nelson (1994) further illustrates that it is not implicit that the sub-components of a system are in perfect harmony with each other. There might be weaknesses in the system, which need specific attention to restore the balance of the total system. Within this context ‘systemic entrepreneurship’ refers to a broader orientation in terms of entrepreneurship promotion and combines the individual and other sub-systems such as society and institutions interacting and collaborating to create a positive framework in which opportunities can be exploited. Sautet (2013: 393) maintains that a systemic approach emphasises the need for holistic thinking and in essence moves the concept of the entrepreneur from the individual to the context in which the individual is situated, that is to society more generally. This approach is not arguing against the existence of locally focused entrepreneurial activities, micro enterprises or subsistence enterprises. However, if not enough focus is put on systemic entrepreneurial activities (activities that go beyond local levels) socio-economic

growth can be under pressure to create wealth in a country. Re-thinking the way entrepreneurship is promoted is therefore called for and the focus of this drive is systemic that can lead to transformational results.

Miller and Collier (2010: 85) defines transformational entrepreneurship “as the creation of an innovative virtue-based organization for the purpose of shifting resources out of an area of lower and into an area of higher purpose and greater value under conditions requiring an holistic perspective. Transformational Entrepreneurship transcends economic terms and emphasizes the centrality and value of people, their vocations, and the many levels of relationality involved in entrepreneurship, in addition to the technical aspects of the business”. Marmer (2012) agrees with this definition and states that a combination between technology entrepreneurship and social entrepreneurship is desired to address the current stalemate in terms of global socio-economic growth. Within the systemic and transformational entrepreneurship domains the focus is on researching and finding improved ways to address current global realities and to create a holistic and heuristic approach which can form a sound basis for socio-economic growth in the future. To bring about effective transformation, it is important to evaluate and challenge, when necessary, the heuristics upon which decisions are currently made. The danger of real time, tried and tested solutions (default heuristic) is that they can be short-term and policy driven. New approaches need to be devised that challenge default reactions and which create new frameworks for adaptive thinking. These new ways should ultimately find their way through to policies that can guide current and future socio-economic development. Within an environment that is characterised by short term orientations policies are often equally short-term and out of sync with global phenomenon. Therefore, entrepreneurship centres need to reconsider their roles and whether they are still leading on entrepreneurship development or merely following a trend which led to the central research question which is to identify the future role of UK based entrepreneurship centres within HEIs.

3. Research method

Research design

The aim of the research is to explore the role and contribution of UK HEI Entrepreneurial Centres. The literature review demonstrated that extant research into Entrepreneurial Centres was limited and typically focused on single case studies. This study looks to evaluate the scope and nature of their activities and their contribution to the University mission. Although ‘how’ questions often indicate explanatory research (Yin, 2003), this study is exploratory in nature. The construction and activities of Entrepreneurial Centres is a complex phenomenon with significant variation between Centres. This study represents a first attempt to map and contrast their philosophy, provision and activities.

A multiple case study approach was selected in order to explore the rich contextual data within each Entrepreneurial Centre. Case studies are typically used to conduct a detailed and intensive analysis of a single or limited number of cases (Bryman, 2008; Eisenhardt, 1989). In this context, the unit of analysis was the University Entrepreneurship Centre. This study considers UK University Entrepreneurship Centres to enable a comparable analysis against equivalent educational legislation and regulations. The study has a cross-sectional design due to the need to compare and contrast multiple Entrepreneurial Centres (Bryman, 2008). A multiple-case strategy allows an improved generalization of the findings possibly leading to the beginning of building a theory.

Research questions

Drawing from the literature discussion the aim of this research is to identify the future role of UK based entrepreneurship centres within HEIs. The following research questions support the evaluation of the research aim:

- What are the factors influencing the strategic direction of entrepreneurship centres in the UK?
- What should the aim and roles be of entrepreneurship centres in the UK?

- How can resourcing of entrepreneurship centres ensure sustainability of support to the enterprise and entrepreneurship agenda within HEIs?

Definition of entrepreneurship centres

Within this study, entrepreneurial centres are defined as any specific identifiable entity within a university with the specific responsibility promoting enterprise and entrepreneurship. Within this context, enterprise is defined “as the application of creative ideas and innovations to practical situations” and entrepreneurship “as the application of enterprise skills specifically to creating and growing organisations in order to identify and build on opportunities” (QAA, 2012: 8).

Data collection

Case studies typically employ multiple data collection methods, using both qualitative and quantitative evidence sources (Eisenhardt, 1989). The principal benefit of multiple data collection is that triangulation of the data is made possible, improving the credibility of the research findings (Eisenhardt, 1989). However limited access to the Entrepreneurship Centres makes this difficult. The most suitable data collection method was therefore semi-structured interviews with key individuals within each Centre (e.g. the director or deputy director (Jones et al, 2014). The Interview questions were framed around the three research questions drawn from the literature review as key study themes as identified below. The semi-structured interview instrument was developed with a set of open-ended questions (Partington, 2002), enabling respondents to discourse on the topics (Johannessen et al., 1999). Related questions were utilised as prompts, ensuring a more consistent link to the research themes (Poon and Swatman, 1998).

Case selection

The literature provides no precise guidelines as to how many cases should be chosen. The goal should be to select ‘information rich’ cases in relation to the research aim – that is, those worthy of in-depth study (Perry, 1998; Ghauri and Gronhaug, 2005). In this study, the selection of the cases is based on theoretical sampling, where the cases are chosen based on a theory (Eisenhardt, 1989). Saunders et al. (2000) describe this technique as ‘purposive sampling’, and state a number of sub-choices of cases, including extreme, heterogeneous, homogeneous, critical and typical. The sampling in this study was non-random, but based on a purposive sampling technique. Cases were selected to ensure variation, allowing the researchers to identify the spectrum of practice in Entrepreneurship Centres, and enabling between-case contrasts to be explored (Perry, 1998). Selected Centres had to meet the following criteria:

- The Centre was based in a UK higher education institution
- The core focus of the Centre must be engagement with entrepreneurial or enterprising activities

Five cases were chosen for this research (Ghauri and Gronhaug, 2005) and a summary of their characteristics is shown in Table 1.

Table 1: Selection of cases

Case	Which year was the centre created	Job title of Centre’s line manager	Location of Centre	Full time staff employment
1	2008	Deputy Vice Chancellor	Central	10
2	2013	Director Business School	Faculty	14.2
3	2010	Dean	Faculty	2.5
4	2000	Vice Provost	Central	15
5	2001	Dean	Faculty	31

Participating Centres were identified through desk research and a social media campaign. Centre Directors were then emailed to explain the research study and commitment required. The research instrument was sent in advance of the actual interview and face-to-face interviews conducted on the site of the Centre and recorded using a set of notes (Packham et al., 2004).

Research Themes

The following themes that emerged from the literature review and during the data collection and analysis were selected for analysis and possible identification of cross-case patterns (Eisenhardt, 1989).

- Centre Strategy: what was the Centre strategy and how does it fit into the University mission.
- Centre Philosophy: what were the underlying principles underpinning the centre e.g. Social enterprise.
- Centre Goals: what are the objectives of the centre (both currently and in the future).
- Provision: what geographical regions does the Centre service (e.g. region, national, international).
- Centre Resources: how is the centre funded (e.g. internal and external income).
- Curriculum: what role does the Centre play in the provision of curriculum e.g. core curriculum, co-curricular, extra-curricular.
- Organisation: how is the Centre organised e.g. it is a cross University entity or does it reside within a faculty.
- Key inhibitors: what are the key problems experienced by the Centre.

Data analysis

To provide structure to the analysis, a coding system was utilised to categorise the data. This involved a process of data reduction, display and conclusion drawing and verification (Miles and Huberman, 1994). Thereafter, the data were sorted and placed into sections relating to the three research questions developed from the prior literature (Smith, 1991). A narrative text approach was adopted to enable an accurate description of the data as related to the phenomena of the Entrepreneurship Centre around the three research questions (Strauss and Corbin, 1990). This involved a keyword search and a cross-comparison of the emergent themes against each of the themes for each case. This interpretation process involved multiple reviews by the lead researcher and numerous meetings with the research team in order to explicate and refine understanding of each case (Baskerville and Pries-Heje, 2001). Although time consuming, this was recognised as the only viable method to elucidate an agreed meaning from the longitudinal transcripts across the case studies. Initial interview transcript and documentary analysis was guided by the three research questions. To assist this process, domain analysis was employed to complement and extend the initial data analysis, distinguishing the semantic nature and meaning of the relationships between the Centres and supplying enhanced insight into the phenomena. Domain analysis provided a method for collective comparison of the case studies, while retaining a degree of richness and meaning associated with the three research questions.

Validity and reliability

Although the interpretivism approach is linked to ontology of subjectivism validity and reliability of this research were addressed through objectivity, construct validity, internal validity, and reliability (Meyer, 2001; Denzin and Lincoln, 2011; Saunders et al., 2012). Objectivity was achieved by making a conscious effort to set own presuppositions aside to consider rival conclusions. Construct validity was ensured through applying a structured interview followed by a multi-case study approach. Internal validity was ensured through collecting data from quantitative and qualitative data sources and cross-checked during the analysis phase. Reliability is addressed through meticulously reporting on the total research process e.g. theoretical framework, sampling, data collection and analysis.

4. Analysis of findings

The data of the case studies were interrogated using the software package NVivo11 and reported in this paragraph.

Centre Strategy

Three questions were asked determining the centre's strategy namely: What is the Centre strategy? How does the Centre strategy fit the University mission? Is there a coordinated enterprise and entrepreneurship strategy within the university? Analysing the first question, six codes were identified namely business support, education, new tools for business, research, student support, survival (see Annexure A). From the NVivo analysis, it became clear that the Centre's strategy revolves around education provision, research, and business support. However, two respondents also indicated that the centre's strategy focuses on survival.

Analysing the second question (How does the Centre strategy fit into the University mission?), six codes were identified from responses namely creating spin-out projects, improved engagement with community, innovation, link with corporate strategy, no link with corporate strategy, and student support (see Annexure A). Four of the respondents agree that centre's activities link up with the corporate strategy – only one respondent disagreed. Analysing the third question (Is there a coordinated enterprise and entrepreneurship strategy within the university?), three codes were identified from responses namely the future will be better, no enterprise and entrepreneurship strategy exists, and yes, such a strategy exists (see Annexure A). Where four of the respondents agreed that their centre's activities can be linked to corporate strategy, four of the respondents are of the opinion that a specific operational strategy guiding enterprise and entrepreneurship do not exist in their institutions.

The relationship between education, research and business engagement is a central theme from all cases and best summarised by respondent from Case 3 who indicated that "The focus of the centre is to achieve this by blending theory and practice in a meaningful way." In terms of stability, the importance of financial viability and availability of resources were identified as critical issues. In this regard, Respondent from Case 1 said that the centre's strategy focuses on "To get over the valley of death regarding resources". Respondents raised another important point indicating that there is no clear enterprise and entrepreneurship strategy in the University which should guide the Centre's strategy. Respondent from Case 1 said that "A single brand for enterprise and entrepreneurship activity does not exist". Respondent from Case 2 indicated that "A select number of strategies exist that comes together under the umbrella of enterprise and entrepreneurship. However, they do not form one integrated strategy for enterprise and entrepreneurship". Respondent from Case 3 said although entrepreneurship is part of the corporate strategy "support has been patchy in the past, largely responding to political pressures". In conclusion, from the thematic analysis of the cases, five main themes emerged as basis of a centre's strategy namely enterprise and entrepreneurship education, providing of best practice through research, providing student and business support, connectivity with corporate strategy and existence of an enterprise and entrepreneurship strategy.

Centre Philosophy

Following from the Centre's strategy, questions were asked to determine the principles underpinning the Centre's strategy. From the responses, eleven codes were identified namely business engagement, contributor to eco-system, development of best practices, entrepreneurial mind-set, entrepreneurialism, ethical actions, global involvement, innovation, regional development, sustainability and university-business link (see Annexure A). To a degree, the number of codes can be interpreted to reflect a general philosophy rather than a focused approach in defining the centre's activities. All respondents indicated that their centre's philosophy focus on addressing needs of individuals and groups. Respondent from Case 5 summarised that as follows: "We seek to put knowledge to work to support business, communities and individuals". The importance of policy formulation is also indicated by the respondent from Case 5 who indicated that their "research informing policy and practice in entrepreneurship". Respondent from Case 4 also refers to "The underlying philosophy is one of connectedness with business and students to create synergy between businesses and students".

Respondent from Case 1 indicated that all this interconnectedness between education and industry should ultimately be “supporting the enterprise development strategy for region”. In conclusion, from the thematic analysis of this section, the three main themes indicating the Centre’s philosophy are business engagement, entrepreneurialism and research.

Centre Goals

In this theme, questions focused on determining the Centre’s current and future objectives. From the responses, six codes were identified related to the current objectives of Centres namely business engagement, education, networking, reorganisation, research and student support (see Annexure A). Networking, research and reorganisation received the least support from respondents. There was uncertainty among respondents whether objectives of Centres will change in future. A third question asked respondents how the success of centres should be measured. In this regard, six codes were identified namely academic feedback, engagement targets, financial targets, impact, reputation improvement of university and research output (see Annexure A).

From the data, it became clear that all the Centre’s objectives focused on the same sub-themes with some content variations. Respondent from Case 3 indicated that “The objectives have stayed the same, although the approach in terms of size and growth of each of the areas have changed”. Respondent from Case 4 indicated that there is currently a “debate between the power of the Centre and the power of the Faculties” which will influence objectives in the foreseeable future. Measurement of success from all Centres indicates a focus on numbers of engagements, financial viability and impact as the major indicators of success. In terms of the latter respondent from Case 1 indicated that the Centre should play a key role in research and “Focus on impact because of REF and ultimately impact give worth of activity”. The respondent from Case 3 expressed an uncertainty identified by all cases as follows: “Objectives still the same but see what new director is going to do”. In conclusion, the most important sub-themes focusing on goals are education, business support and research whilst impact is the most important measurement of success.

Provision

The geographical regions in which the Centres operate were determined in this theme. Five codes were identified namely contributor to eco-system, international, local, regional and transnational (see Annexure A). All cases indicated the same category of regions although there are differences in the specific location where they operate for example respondent from Case 3 indicated Romania, Uruguay and Brazil as international areas whilst respondent from Case 4 indicated Jordan, Thailand and Kenya as areas of interest.

In conclusion, the themes identified in terms of provision include University wide delivery and external delivery according to demand for their services.

Centre Resources

In terms of how Centres are currently resourced six codes were identified namely externally funded, grants, industry contracts, internally funded, research income and teaching income (see Annexure A). A combination of sources is used to ensure sustainability of the Centre. In terms of how Centres should be resources two additional codes were identified namely commercial income and a more important emphasis on research projects (see Annexure A).

From the responses it became clear that Centres obtain their resources from a variety of sources and they also highlighted their financial contributions to the University. In this regard, respondent from Case 3 indicated that their Centre “covers all its pay costs, all non-pay costs, provides the School with a full overhead contribution and make a small surplus”. The expansion of activities within the current method of funding Centres is perceived as a challenge. In this regard, respondent from Case 4 indicated that “The model works

but the pressure is with regard to scale-ability getting the balance right between intra and extra-curricular activity". The struggle for resources is highlighted by the various cases and summarised by respondent from Case 5 as follows: "I am currently fighting for three roles to be made permanent given their long service on short term contracts". In conclusion, the themes identified regarding resources are core funding from the university and to obtain project related income.

Curriculum, research and extra-curricular

In this theme, the role the Centre plays in the provision of curriculum, research and extra-curricular activities were determined. In terms of the current role of Centres in the provision of curriculum four codes were identified namely improve accessibility of education, leading curriculum design, presenting specific programmes and support curriculum delivery (see Annexure A). When analysing the future role of centres in the provision of curriculum the following codes were identified namely a champion's role, curriculum development and support implementation of curriculum (see Annexure A).

In terms of the current role of Centres in the provision of co-curricular/extra-curricular activities only one code was identified namely student support (see Annexure A). When analysing the future role of Centres in the provision of co-curricular/extra-curricular activities three codes were identified namely improved engagement with community, maintain existing role with students, and provide services across university (see Annexure A). In terms of the current role of Centres in the provision of research activities five codes were identified namely conducting research, create impact case studies, general support, limited role and no research activity (see Annexure A). When analysing the future role of centres in the provision of research activities five codes were identified namely higher level entrepreneurship research, identifying research themes, impactful research, more involvement in research and the same as current role (see Annexure A). However, the future roles in research reflect a more dynamic involvement leading to high impact research results.

The leadership role centres should be playing in curriculum design, research and extra-curricular activities are supported by the various cases. Respondent from Case 1 indicated that their centre "should be the champion of entrepreneurship across the Group and drive new thinking around entrepreneurship and its impact". This respondent went on to indicate that "Research should focus on higher level entrepreneurship and use data from other research projects too to inform new thinking and improve future impact of projects". In conclusion, leadership in enterprise and entrepreneurship education, research and extra-curricular activities was identified as the most important theme and that this leadership should be applied across the University faculties and units.

Organisation

In this theme, the way the Centre is organised was determined. Various codes were identified namely the existence of an Advisory Board, the Centre functioning independent from faculties, the existence of a Management Board, the Centre being part of a Faculty and the appointment of students within the Centre, the Centre being part of a Business enterprise group, and availability of space (see Annexure A).

From the analysis of the codes, there seems to be uncertainty the way Centres should be organised and where it should be located. Respondent from Case 1 indicated that "Currently location is not making sense. There is no identity for enterprise and entrepreneurship in university and therefore location is problematic". However, respondent from Case 2 indicated that although they are satisfied with their location within a faculty because of the support they receive from them, "the physical location does have a bearing on the success of the Centre". Respondent from Case 5 reported that the Centre is "Faculty based, due to a random decision by the Dean but ideally it would be centrally based as it works across other faculties". Costs and availability of space are two factors identified by the cases as primary reasons for their location. The respondent from Case 4 supported this and said that it is "Unlikely to put everyone in one building because of real estate costs". Some of the Centres are supported by a Management Board and others by an Advisory Board although they also indicated that there are mixed results in terms of the involvement of these boards.

Key inhibitors

In this last theme, key problems experienced by the Centre were identified. Various codes were identified namely the balance between curriculum and extra-curricular activities, distance between academia and business, financial sustainability, focus on income, measurement of success, physical space, reaching small numbers, shift in national agendas, staffing, succession for director and University regulations (see Annexure A). The role of the Director of a Centre is highlighted and it is feared that too much is built around that person's profile. In this regard, respondent from Case 1 indicated that "succession planning for centre needed" as a critical point. Respondent from Case 3 also indicated that "The success of the centre is due to the determination of the Director and his willingness to take on the system and pursue the enterprise agenda". Furthermore, the respondent from Case 1 indicated that the "measurement is wrong – too much academic orientated". Respondent from Case 4 supports this and indicate that "Too much emphasis on end of funnel. A lot more could be done on entrepreneurial mind-set and commercial awareness". The problem of resources is key and highlighted by the various cases that a variety of income resources is needed. However, respondent from Case 2 said that the centre is "Working out of step with rest of university – the need to be quick and responsive is sometimes adversely affected by University policy and procedures".

From above analysis, three themes can be identified namely resources, University support and ability to react to changes. That necessitates a clear and sustainable resource plan, alignment of strategies in the University in terms of enterprise and entrepreneurship, and the ability of the Centre to react fast to external and internal changes.

5. Discussion

The research themes provide various important answers to the main research question i.e. to identify the future role of UK based entrepreneurship centres within HEIs. In terms of the centre's strategies all cases referred to the need for sustainability to deliver knowledge, research, student and business support to students, staff and the broader community. This is based on a philosophy to create entrepreneurial mind-sets (which refers to the definition of enterprise in paragraph 2) and business engagement (which refers to the definition of entrepreneurship in paragraph 2). The goals of the centres are linked to their strategies but the absence of a clear institutional enterprise and entrepreneurship strategy creates uncertainty regarding the measurement of their goals. All centres indicated that they are delivering their services locally and internationally which, given the resource problem they experience, can lead to an overstretching of activities. All cases also indicate that the centres should play a leading role in the enterprise and entrepreneurship agenda within their universities and regions specifically focusing on providing new insights in terms of policies and practices. However, there are challenges such as general resourcing of the centre, staffing of centres, ability to scale up activities and reach a wider audience, reporting lines which are not clear and the physical location of centres which makes accessibility to their target groups sometimes difficult.

In order to find potential answers to the research aim, the research themes (see paragraphs 4 and 5) were used as basis to answer the three research questions namely: What are the factors influencing the strategic direction of entrepreneurship centres in the UK? What should the aim and roles be of entrepreneurship centres in the UK? How can resourcing of entrepreneurship centres ensure sustainability of support to the enterprise and entrepreneurship agenda within HEIs?

What are the factors influencing the strategic direction of entrepreneurship centres in the UK?

Various factors influencing the centres strategy were identified such as a focus on stability, availability of resources, corporate strategy, and location of the centre. After inspection of all factors they were grouped into three themes namely University related factors, Service delivery related factors and University-Community engagement related factors (see Table 2). These three themes are influencing the current strategies of centres but are also deemed important factors identifying the future strategy of centres. It is assumed that a university will always strive to balance their corporate strategy with external considerations such as changes in government policies and changes in technology reaching their clients. From the corporate strategy a clear enterprise and entrepreneurship strategy should assist finding an optimum balance in terms of the triple helix

model for entrepreneurial universities. Clear aspirations for entrepreneurship centres can then be formulated making it a more powerful contributor to the enterprise and entrepreneurship agenda of a HEI.

Table 2: Factors influencing the strategic direction of entrepreneurship centres in the UK

Combined theme	Examples of specific underlying factors
University related factors	Availability of resources; corporate strategy; inclusivity of services; reporting agendas
Service delivery	Education provision; research activities; translate theory to practice; policy and practice
University-Community engagement	Theory with practice; policy and practice; academia and business interconnectedness;

What should the aim and roles be of entrepreneurship centres in the UK?

Similarities in terms of current objectives of entrepreneurship centres were observed such as providing enterprise and entrepreneurship education, conducting research, support with business creation. Various uncertainties regarding resourcing, changes in line management, absence of an overarching enterprise strategy, and uncertainty regarding future aims and objectives exist. Building from the themes identified in Table 2, current objectives are highlighted and contrasted with possible future aims and objectives (see Table 3). In terms of the literature, it was indicated that it is well accepted that entrepreneurial centres are playing a critical role in HEIs managing the enterprise and entrepreneurship agenda. With the global challenge of how to stimulate socio-economic growth in a sustainable manner and the acceptance that a systemic manner of improving entrepreneurship is needed leading to transformation within communities and countries, the role entrepreneurship centres play can be argued to have grown in importance. Although the generic aims of centres (e.g. knowledge transfer, research, student and business support) would remain as anchor pillars, it can be argued that the contents of these aims should be changing in order to fulfil a leadership role in the enterprise and entrepreneurship agenda of a HEI which could include overseer of the entrepreneurial eco-system of a HEI, development and implementation of educational programmes, and support of regional socio-economic strategies. That would probably necessitate a moving away from too operational activities to a more strategic role focusing on the promotion of multi-disciplinary and inter-disciplinary solutions from a university wide perspective.

Table 3: Aims and roles of entrepreneurship centres in the UK

Combined theme	Current aims and roles	Potential future aims and roles
University focused	Creating a sustainable centre	Leadership role in fostering an integrated enterprise and entrepreneurship eco-system in University which would include focusing on Cascading corporate strategy into a University wide enterprise and entrepreneurship strategy
Service delivery	Providing education, research and extra-curricular activities	Leadership role in Educational programmes, Research projects and Extra-curricular activities in enterprise and entrepreneurship
University-Community engagement	Translating research into best practices for potential and existing entrepreneurs Academia-Business engagement	Support regional strategies for socio-economic growth through educational and research activities

How can resourcing of entrepreneurship centres ensure sustainability of support to the enterprise and entrepreneurship agenda within HEIs?

The various cases indicated that the stability of resourcing of centres is a major concern. Various inhibitors have been identified that are influencing centres and ultimately the way they are resourced. Therefore, it is as much a case of providing resources as it is for the removing of inhibitors when it comes down to resourcing entrepreneurship centres. The common inhibitors identified included lack of stable funding, no core funding, and lack of staffing. Other factors included the location of the centre (physical location and reporting level), over dependency on a director of a centre (e.g. lack of succession), lack of an enterprise and entrepreneurship strategy for the University. Therefore, the question remains how should entrepreneurship centres be resourced? If it is argued that entrepreneurship centres should play a more active and leading role

in the enterprise and entrepreneurship agenda of a HEI ultimately to stimulate socio-economic development, the resourcing of these centres needs a total restructuring. Various options might be considered depending on the specific role these centres will be playing such as core funding for the strategic role, income from service delivery such as educational modules and programmes, income from focused research projects, and commercial delivery of projects. However, these resources should be made available in such a manner that detailed operational activities do not overshadow the more strategic role these centres need to play.

6. Conclusions

A plethora of views were provided by the participants of the various case studies. However, all participants were of the opinion that entrepreneurship centres are playing a crucial role in the promotion of the enterprise and entrepreneurship agenda and that clear enterprise and entrepreneurship strategies would assist improving this agenda in future. They also highlighted that, despite the inhibitors and uncertainties that surround the activities of entrepreneurship centres, more should be done to resource these centres adequately to operate innovatively to address the needs of students and industry. It might be seen that entrepreneurship centres are opportunist in finding new sources of resources to survive financially but that can have a detrimental impact on the focus of their activities. That might be a reason why research activities leading to futuristic policy and practice matters are not high on the agenda of entrepreneurship centres because it can be perceived as too time and cost consuming.

In conclusion, it is clear from the secondary and primary data that entrepreneurship centres are important instruments with the entrepreneurial eco system domain and consequently socio economic growth. From the data it is also clear that there are a number of differences among entrepreneurship centres in the UK. Therefore, it will be difficult to generalise guidelines and policies for the successful operation of entrepreneurship centres in future. However, deduced from the research and secondary literature, the following broad recommendations can be made. Firstly, a point can be made that a more focused approach (within the context of contextual differences) among entrepreneurship centres might assist the support of entrepreneurial eco systems and socio economic growth far better than a fragmented approach. Therefore, annual gatherings of UK entrepreneurship centres might be a starting point to achieve a more focused approach across the UK. Secondly, the link between entrepreneurship centres and HEIs are not clear because of the uncertainty of existing strategies guiding an improved link between entrepreneurship centres, the specific HEI, businesses and Government. Although one often sees the words enterprise and entrepreneurship within the vision and values of HEIs it seems that plans guiding implementation and control lacks. Therefore, HEIs should invest time and resources to create sound and visible enterprise and entrepreneurship strategies and link these strategies to entrepreneurial eco systems in their specific regions. Thirdly, entrepreneurship centres perform a wide variety of activities spanning from curriculum design and implementation to assistance with small business start-ups. From this one can argue that the list of activities is too wide which can be performed in some cases by other actors e.g. business start-ups by technology parks. One area that seems to underperform is research and policy formulation. Such activities might support the operation of entrepreneurial eco systems to be longer term orientated than the relative short termism of five years. Therefore, entrepreneurship centres should focus more on research and policy formulation to enhance socio economic growth in their regions. Fourthly, entrepreneurship centres identified resources as one of their main problems. Financial resources are obtained from various sources of which the majority is external to the specific HEI. This brings into question the social investment of HEIs into socio economic growth. Obtaining funding from external sources alone and which is normally project focused can take resources away from the real purpose of an entrepreneurship centre. Within an environment of restricted funding the importance of being financially viable is not negated – a more optimal balance between internal and external financial sources is argued for especially if entrepreneurship centres are to become more involved in longer term research projects. Therefore, the availability of longer term financial resources for entrepreneurship centres should be investigated by HEIs and Government. Fifthly, the route to promotion for staff members in entrepreneurship centres are often unclear and difficult to achieve if traditional practices to promotion (e.g. publications in ABS ranked journals) are overshadowing what is needed of staff members in entrepreneurship centres. Therefore, HEIs should investigate the route to promotion for staff members within entrepreneurship centres. Lastly, enterprise and entrepreneurship are multi-disciplinary concepts that are not for the domain of

business schools alone. However, within a HEI various political barriers might exist if such a centre belongs to a specific faculty. Location of entrepreneurship centres should therefore allow them to operate freely among all units within a HEI and with relevant external stakeholders. Therefore, entrepreneurship centres should be located in areas which will allow maximum interaction with all areas of the HEI and external stakeholders.

7. Limitations and further research

This study has contributed to the body of entrepreneurship centres literature by providing greater insight into the factors that influence these centres within the context of UK Universities. Although the study offers some valuable insights and contributions, several limitations need to be mentioned. Firstly, this is a cross-sectional study which only represents a “snap shot” in time. The study therefore doesn’t offer conclusive information on the factors that influence entrepreneurship centre’s future objectives and strategy. Secondly, only five cases were analysed. A wider selection of cases could have provided more detail information to build on future objectives and strategies. These limitations have however, subsequently given rise to opportunities for future research. A longitudinal study of entrepreneurship centres will allow centres to be examined over a longer period of time and will allow entrepreneurship centres to become a more prominent factor in the enterprise and entrepreneurship strategies of Universities. Further research can also be conducted by comparing entrepreneurship centres in developed countries with those in developing countries.

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Nodes structure and responses per node

Question from questionnaire	Nodes	Case 1	Case 2	Case 3	Case 4	Case 5
2.1 What is the Centre strategy	Business support	1	0	1	0	0
	Education	0	1	1	0	0
	New tools for business	1	0	1	0	0
	Research	0	0	1	0	2
	Student support	0	1	0	1	0
	Survival	2	0	0	1	0
2.2 How does the Centre strategy fit into the University mission	Creating spin-out projects	1	0	0	0	0
	Improved engagement with community	1	1	0	0	0
	Innovation	0	1	0	0	0
	Link with corporate strategy	2	2	1	1	0
	No link with corporate strategy	0	0	0	0	1
	Student support	0	0	1	0	0
2.3 Is there a coordinated enterprise and entrepreneurship strategy within the university	Future is better	1	0	0	0	0
	No	2	1	1	0	1
	Yes	0	0	0	1	0
3.1 What are the underlying principles underpinning the Centre's activities	Business engagement	2	0	0	0	1
	Contributor to eco-system	0	0	0	1	0
	Development of best practices	1	0	0	0	1
	Entrepreneurial mindset	0	0	1	0	0
	Entrepreneurialism	0	1	1	0	0
	Ethical actions	0	1	0	0	0
	Global involvement	0	1	0	0	0
	Innovation	0	1	0	0	0
	Regional development	1	0	0	0	0
	Sustainability	0	1	0	0	0
	University - business link	1	0	0	1	0
4.1 What are the current objectives of the Centre	Business engagement	2	1	0	1	0
	Education	1	1	1	0	1
	Networking	0	1	0	1	0
	Reorganisation due to changes in funding streams	1	0	0	0	0
	Research	1	1	1	0	0
	Student support	0	1	0	1	0
4.2 Will the current objectives of the Centre change in the next five years	No	0	0	1	0	0

	Uncertain	0	1	0	1	1
	Yes	1	0	0	0	0
4.3 How should the success of the Centre be measured	Academic feedback	0	1	1	0	0
	Engagement targets	1	1	2	0	0
	Financial	2	0	0	0	1
	Impact	2	2	0	0	2
	Reputation improvement	1	0	0	0	0
	Research output	0	0	1	0	0
5.1 What geographical regions does the Centre service	Contributor to eco-system	0	0	0	1	0
	International	1	1	1	0	1
	Local	0	1	1	0	0
	Regional	1	1	0	0	1
	Transnational	1	0	0	0	0
6.1 How is the Centre funded	Externally funded	0	0	1	0	1
	Grants	0	0	0	1	0
	Industry contracts	0	1	0	1	1
	Internally funded	0	1	1	1	0
	Research income	1	1	0	0	0
	Teaching income	1	0	0	0	0
6.2 How should Centres be resourced for the next 5 years	Commercial income	2	0	1	0	0
	Research projects	0	0	1	0	0
	The same as currently	0	1	0	1	0
	Utilisation of university resources better	1	0	1	0	1
7.1 What role does the Centre play in the provision of core curriculum	Improve accessibility of education	1	0	0	0	0
	Leading curriculum design	0	1	0	0	1
	Presenting specific programmes	0	0	1	0	0
	Support curriculum delivery	0	0	0	1	0
7.2 What role should the Centre play in terms of curriculum	Champions role	1	0	0	0	0
	Curriculum development	1	0	1	0	1
	Support implementation of curriculum	0	1	0	0	0
7.3 What role does the Centre play in the provision of co-curricular and extra-curricular activities	Provide support to students	1	1	1	0	1
7.4 What role should the Centre play in the provision of co-curricular extra-curricular activities	Improved engagement with community	1	0	0	0	0
	Maintain existing role with students	1	0	1	0	0
	Provide services across university	0	1	0	1	0

7.5 What role does the Centre play in the provision of research	Conducting research	0	0	1	0	1
	Create impact case studies	0	0	1	0	0
	General support	0	0	1	0	0
	Limited role	1	1	0	0	0
	No research activity	0	0	0	1	0
7.6 What role should the Centre play in the provision of research	Higher level entrepreneurship	1	0	0	0	0
	Identifying research themes	0	0	1	0	0
	Impactful research	1	0	0	0	0
	More involvement in research	0	1	0	0	0
	The same as current role	0	0	1	0	1
8.1 How is the Centre organised	Advisory board	0	1	0	0	1
	Independent from faculties	1	0	0	1	0
	Management board	0	0	1	0	0
	Part of a faculty	0	1	1	0	1
	Student employment	1	0	0	0	0
8.2.1 Where is the centre currently located	Business enterprise group	1	0	0	0	0
	In faculty	0	0	0	0	1
	Off campus	0	1	0	1	0
8.2.2 What is the reason for the current location of the Centre	Availability of space	0	1	0	0	0
	Costs	0	0	0	1	0
	No other logical place	1	0	0	0	0
	Part of faculty	0	0	1	0	1
8.2.3 Should the Centre be located differently to achieve its future goals and objectives	No	0	1	1	0	0
	Yes	1	0	0	0	1
9.1 What are the key problems experienced by the Centre	Balance between curriculum and extra curricular	0	0	0	2	0
	Distance between academia and business	1	0	0	0	0
	Financial sustainability	2	0	0	0	0
	Focus on income	0	0	1	0	0
	Measurement of success	1	0	0	1	0
	Physical space	0	1	0	0	0
	Reaching small numbers	0	0	0	1	0
	Shift in national agendas	0	0	1	0	0
	Staffing	0	1	0	0	1
	Succession for director	1	0	0	0	0
	University regulations	0	1	2	0	0