THE ROLE OF BUSINESS INCUBATORS IN DEVELOPING ENTREPRENEURSHIP

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Abstract

Extant literature in business incubation has been criticised for focusing on quantitative measures of success while failing to offer a comprehensive, process-focused understanding of the phenomenon. This study addresses that gap by linking established theoretical frameworks from both entrepreneurship and learning to theorise the business incubation *process* and to offer a new conceptual framework that captures the process of opportunity identification and development within a business incubator. This contributes to knowledge by offering a fresh perspective on how the entrepreneurial process might be studied within a business incubator environment.

The study draws on qualitative data and documentary evidence from a range of stakeholders associated with a university Business Incubation Centre (BIC), including in-depth interviews with twenty incubatees. Through a series of narratives detailing the lived experience of incubatees the study identifies six distinctive pathways through the incubation process, which allow the process to be conceptualised as a process of opportunity identification and development.

The process of opportunity development within the business incubator is explored further using experiential and social learning theories as heuristic tools. This leads to a more nuanced conceptualisation of business incubation as a learning process that begins with prior knowledge at the opportunity identification phase, progresses through the acquisition of new skills and knowledge necessary to develop an opportunity and concludes with a transformation phase where new knowledge (business ideas and opportunities) is acted upon. Alongside this, the study finds that the incubation process can transform identities as individuals undertake a journey to 'become an entrepreneur'.

The findings indicate that knowledge alone may not fully explain the entrepreneurial process. It is the dynamics of learning that offers a greater understanding of how information, experience, skills and identity can be transformed into new knowledge, which in turn leads to opportunity identification and development. This suggests that

although a high stock of knowledge may be important prior to entering a business incubator, it is learning that is crucial to the opportunity development process, where new knowledge is created by combining prior knowledge with new information and experience. Crucial to this process is a supportive learning community where incubatees receive relevant information in an atmosphere of trust.

The study has a number of implications for incubator managers. Firstly attention and scarce resources should be focused on providing relevant information and encouraging an atmosphere of learning and mutual support. Secondly managers should adopt a less 'managerial' approach and be prepared to act as mentors to support and encourage incubatees. Thirdly recruitment practices should be revised to include a more holistic appreciation of potential incubatees contribution to the learning community as well as an assessment of their business plans.

For policy makers the study suggests that a successful business incubator does not necessarily require a large financial investment in state-of-the-art premises and technology. Appropriate management training together with carefully selected incubatees can create an effective learning community where opportunities are developed and transformed into enterprises and individuals into entrepreneurs.

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List of Abbreviations

BI	Business incubation / business incubator
BIC	The Business Incubation Centre
ELT	Experiential learning theories
ERC	The Entrepreneurship Research Centre
NES	New Entrepreneurship Scholarships programme
UK	United Kingdom
UKU	United Kingdom University
UKUBS	United Kingdom University Business School

List Of Participants And Their Business Opportunities

Participant's name	Abbreviation	Business opportunity
Helen	ESM	Environmental Sustainability Management
Tim	AG	Art Gallery
Andy	WG	Web Development
Jane	SM	Sports Management
Ian	SNE / Ian_1	Social Networking Events
	HW / Ian_2	Hypnotherapy And Wellbeing
Tony	LCBA	Life Coaching And Business Advice
Nick	WDD	Web Design And Development
Neil	CDTC	Culture Development Training And Consultancy
Phil	OJSM	Online Job Searching And Management
Jeff	ITS	IT Support
	DP/ Jeff-Paul	Digital Publishing
Paul	OFS	Online Food Specialist
	DP/ Jeff-Paul	Digital Publishing
Peter	MPPB	Mobile Phone Provider For Businesses
Emma	AAPD	Approved Aeroplane Parts Database
James	OLEA	Online Letting And Estate Agent
Kath	CVM	Childcare Vouchers Management
Laura	TSRA	Training Services For Recruitment Agencies
Alex	OSM / $Alex_1$	Online Social Maps
	NS / $Alex_2$	Nightclub Snapshots
Kelly	MPRGD	Marketing, PR And Graphic Design
Mark	CWC	Corporate Wellbeing Consultancy
Karen	RDP	Radio Documentary Productions

Chapter One
Introduction: An Overview of the Study

Business incubators are being used by policy makers around the world as a tool to encourage early entrepreneurial activities and to promote business start-ups and regional economic development. In the United Kingdom (UK) there are approximately 300 business incubators (UKBI 2012). Indicators of success are often based on agreements with funders and typically require quantitative data recording start-up survival and success rates, turnover and jobs created.

However, conceptualising success in terms of conventional, quantifiable outcomes fails to capture softer measures of success such as learning, knowledge and experience that are arguably equally important in building and sustaining entrepreneurship. Importantly it says little about the complex and nuanced journey that entrepreneurs undertake during the incubation process. To redress this imbalance, extant research in business incubation has called for more process orientated studies that explore softer measures of success, such as learning within a business incubator (hereafter BI). This thesis aims to address this gap in knowledge by exploring the incubation experience from the perspective of the incubatees, drawing on theories from both the entrepreneurship and learning frameworks.

The overall aim of the research is to explore the role of business incubators in developing entrepreneurship. In order to do this, it draws on rich qualitative data collected from the Business Incubation Centre (BIC), a business incubator established by a UK university business school.

The thesis is organised as follows, Chapter 2 sets the context for the study by charting the development of business incubation through extant literature. It is evident that the definition of BI evolves with the development of this literature. However, a general consensus emerges which suggests that the study of BI should shift its focus from output driven to process focused. In order to achieve this, it is proposed that viewing

business incubation through the lens of entrepreneurship can help to build a more robust understanding of the business incubation process.

Chapter 3 builds on this proposition by reviewing literature in the field of entrepreneurship. The chapter begins by highlighting the importance of the interplay between the entrepreneur and the opportunity with a contemporary definition of entrepreneurship. It then looks at recent developments in entrepreneurship literature, which shift views from the notion that 'opportunities are discovered' to the idea that 'opportunities are created'. The idea that opportunities can be created opens up the possibility of exploring the interplay between the entrepreneur and the opportunity as a learning process. The chapter builds on this approach by drawing on literature in entrepreneurship, learning and business incubation to propose a holistic approach to study the business incubation process.

Chapter 4 draws on the literature to outline the principal aim of the research and to formulate four research questions. The chapter continues by setting out an appropriate philosophical stance and methodology to address the aims of the thesis. The research methods are presented and discussed in the fifth chapter. Chapter 5 also details the process of data collection, management, and analysis.

Chapter 6 begins to explore the process of business incubation by presenting in-depth lived experiences of the participants. Using narratives as a tool, the chapter presents six detailed and distinctive pathways of business incubation. These pathways provide a context for the study and allow a deeper understanding of the process through which individuals start up and nurture their businesses in BIC, as well as the role the BIC played in such a process.

Chapter 7 returns to the interaction between the entrepreneur and the opportunity, and focuses on the role of prior knowledge in opportunity identification. It identifies 23 opportunities among the 20 participants and explores the relationship between each opportunity and the incubatee's prior knowledge. The chapter builds on Shane's (2000) three types of prior knowledge and proposes the inclusion of a fourth (personal interests), based on the work of Ardichvili et al. (2003). The chapter extends current

understanding of the role of prior knowledge by detailing the impact of each combination of these forms of prior knowledge and identifying three outcomes that prior knowledge can have on opportunity identification. By detailing the prior knowledge the participants had, the chapter builds a foundation for further data analysis in Chapter 8.

Chapter 8 builds on the work presented in Chapter 6 and 7. It investigates the process of opportunity identification and development in more detail. Using experiential learning theory as a heuristic tool, it explores how the necessary new information and skills are acquired through BIC, which led to opportunity development. In addition the chapter investigates the transformation process of individuals, specifically in relation to them 'becoming an entrepreneur' and feeling being part of the BIC community.

By using experiential learning theory as a heuristic tool to study business incubation and entrepreneurship, the chapter demonstrates that it is not only information that can be acquired but skills, too. Both of these are crucial for incubatees to develop their business ideas. BIC, in this context, provided a fast track for the incubatees to acquire skills by creating a friendly, supportive and informal learning community in which participants acquired the skills quickly through collaboration, forging alliances and building up new partnerships with other incubatees.

Chapter 9 draws the work together by setting out how the thesis has addressed the research questions described in Chapter 4, and assessing the contribution to knowledge. Critical reflections on the study, together with suggestions for future research are presented. The thesis concludes by presenting implications for incubator practitioners, prospective and current incubatees, and policy makers.

Chapter Two
Business Incubation

2.1 Introduction and background

The Global Entrepreneurship Monitor 2011 Global Report interviewed over 140,000 adults in 54 economies and found that 388 million entrepreneurs were actively engaged in starting and running new businesses in 2011 (Kelley et al. 2012). Undoubtedly, entrepreneurship continues to be a global phenomenon in the context of economic growth, social development, innovation, and labour force dynamics. As a result of these positive impacts, *'there continues to be an ongoing policy commitment within the European Union (EU) towards the creation of an enterprising culture'* (Gibb 2005 cited in Packham et al. 2010).

In the UK, according to the latest Statistical Press Release from the Department for Business Innovation and Skills, at the start of 2012, 99.9% of enterprises in the UK private sector were micro- and small-sized businesses, employing 0 – 49 employees (BIS 2012). These micro- and small-sized enterprises accounted for 59.1% of the private sector employment and 48.8% of the private sector turnover (BIS 2012). Micro and small businesses are vital therefore, to the UK's economy. Moreover, in most developed nations, *'between one-quarter and two-thirds of the variation in economic growth is attributable to the creation, by nascent entrepreneurs, of new and independent businesses'* (Matlay 2005, p.673). This suggests that new business start-ups are important to both the UK's employment and economic growth. The importance of entrepreneurship in stimulating economic growth and employment means that it continues to attract increased interest and investment from the government (Jones et al. 2008).

However, Costa-David (2004) argues that the SME sector in the UK is less developed than in other EU member states, despite a strong latent potential for entrepreneurship. Hannon (2005a) points out that, the UK government is committed to encouraging

graduates to become entrepreneurs and to build new business start-ups, however, these very small businesses need access to finance and business support if they are to be encouraged to transform from solo self-employed and micro-enterprises into larger companies (Costa-David 2004). More recently, according to Peckernell et al. (2011, p.183-184), '*the CIHE/NCGE/NESTA (2008) Report indicates that governments are seeking to develop entrepreneurial economies involving competitiveness, growth, innovation and creativity by encouraging entrepreneurial graduates*'.

In many countries, business incubators have become an increasingly popular policy instrument to encourage economic growth and employment, and to help entrepreneurs succeed (OECD 1999). In the UK, there are approximately 300 business incubators, directly supporting over 12,000 businesses (UKBI 2012). A series of OECD (1999) case studies claim that '*business and technology incubators have generally shown a positive impact in terms of improving firm survival*'. Similarly the UKBI (see MBS 2006) reports that '*UK incubators have an average success rate of 84.4% compared to a normal rate of 50%*'.

Since 2000, UK Business Incubation have also measured the impact of business incubation on the local economy and workforce. They suggest that on average each business incubator's client businesses provide 167 full time equivalents jobs. It is claimed that business incubators have an average success rate of 98% for business whilst in the business incubator, with 87% surviving after 5 years, compared to a national average of less than 30% for all SMEs registered (UKBI 2012). Indeed the success of business incubators as tools to sustain and develop entrepreneurship and to facilitate local economic growth by encouraging entrepreneurship is a strand that runs through both policy documents and academic literature (see Al-Mubaraki and Busler 2010; Todorovic and Moenter 2010; Brooks 1986; Cooper 1985).

In the UK, according to the Office for National Statistics (ONS) Labour Market Statistics for the period between September 2011 and February 2012, the number of self-employed has increased to 413,200. This is a 7.8% increase compared to the 2011 figure (ONS 2012). Moreover between 2011 and 2012, there were 450,000 newly registered companies in Great Britain, which is the highest increase since before the last

recession (Lord Young 2012). With increasing numbers in self-employment and newly established firms, the government recognises the importance of supporting start-ups in terms of office spaces and business incubators. According to Lord Young (2012, p.7), '*the government has agreed to open up vacant or under-used spaces in its estates to business start-ups*'. Launched and supported by the current Prime Minister, David Cameron, StartUp Britain offers an online search tool for entrepreneurs to locate incubation space and facilities (Number 10 Downing Street, 2012).

This business incubation phenomenon has attracted the attention of policy makers, practitioners and academics across the globe (Wynarczyk and Raine 2005; Lee and Osteryoung 2004; Peña 2004; Peters et al. 2004; Thierstein and Wilhelm 2001; Lalkaka and Abetti 1999; OECD 1999; Autio and Klofsten 1998; Allen and McCluskey 1990; Merrifield 1987). However, because of the rapid development of incubators, much research in this field is '*atheoretical*' (Hackett and Dilts 2004). Hence studies attempt to describe what incubators are and to identify important factors in their success, but fail to develop an understanding of the role the incubators play in developing entrepreneurship.

Recent developments in BIs have heightened the need to develop a deeper understanding of the role of incubators. In order to do this, it is important to understand the process of business incubation, how BIs work, how incubators and incubatees interact with each other and consequently help each other to succeed. This is especially important for those BIs that are supported by public funds (Grimaldi and Grandi 2005) and '*should be held accountable for the outcomes associated with the use of those funds*' (Hackett and Dilts 2004).

This chapter critically examines literature on business incubators. It begins with the definition of business incubators and sets up boundaries of the research field. A general background of BIC (the Business Incubation Centre) is then presented to set a context of the study. The chapter continues by looking at the development of business incubation literature in order to identify the key issues, challenges, and problems facing the incubators. In the final section of the chapter, a discussion on how BIs should be studied

and considerations on how to further develop a more coherent BI literature are presented.

2.2 Definition of business incubators

Business incubators emerged in 1959, due to a major shift in regional economic development strategy (Wagner 2006) and the dynamic changes in the social environment (Bøllingtoft and Ulhøi 2005). However, major development of BIs has taken place in two waves. The first period took place in the 1980s and the 90s, when incubators were recognised as local economic development tools. The second wave followed in 2000 until present, and is mainly concerned with the growth and diversification of the incubators.

Despite the first business incubator being established in 1959, according to Hackett and Dilts (2004), it was not until 1984, with the publication of Temali and Campbell's study (Business Incubator Profiles: A National Survey) that they came to the attention of academics. Brooks (1986, p.24) proposes an early definition of an incubator as:

> *'a multi-tenant facility which provides entrepreneurs with: (1) flexible leases on small amounts of inexpensive space; (2) a pool of shared support services to reduce overhead costs; (3) some form of professional and managerial assistance; and (4) access to or assistance in acquiring seed capital.'*

Brooks (1986, p.28) identifies three major elements of a successful incubator: support network, pooled support services, and a link to a university. He asserts that '*there needs to be a very strong and formalized relationship between the university and the incubator for this to provide value.*'

Writing slightly later, Allen and McCluskey (1990) describe an incubator as a tool for enterprise development:

'[it] is a facility that provides affordable space, shared office services, and business development assistance in an environment conducive to new venture creation, survival, and early-stage growth.'.

Adapted from Brooks' (1986) framework, Allen and McCluskey (1990) develop their business incubator continuum, which categorises BIs by their primary and secondary objectives (see Table 1). In developing their continuum of types of BI, Allen and McCluskey (1990) draw on data from a survey conducted with 127 incubators in 1987 in the United States, which studies incubators' structure, policy, and service. They use the continuum to categorise incubators into four types: for-profit property development incubators, non-profit development corporation incubators, academic incubators, and for-profit seed capital incubators. The incubators' role can range from one end of the spectrum, realising real estate value, to the other end as a business development tool. While in reality, there can be different mixtures of objectives and tenants, and hence hybrid types of incubator, nevertheless the framework provides a useful tool for conceptualising types of incubator.

Table 1 - The business incubator continuum: facility objectives

	Real Estate -	Value added through	Business Development	
	For-Profit Property Development Incubators	**Non-Profit Development Corporation Incubators**	**Academic Incubators**	**For-Profit Seed Capital Incubators**
Primary Objective	Real estate appreciation Sell proprietary services to tenant	Job creation Positive statement of entrepreneurial potential	Faculty-Industry collaboration Commercialize university research	Capitalize investment opportunity
Secondary Objective	Create opportunity for technology transfer Create investment opportunity	Generate sustainable income for organization Diversify economic base Bolster tax base Complement existing programs ' Utilize vacant facilities	Strengthen service & instructional mission Capitalize investment opportunity Create good will between institution & community	Product development

(adapted from Allen and McCluskey 1990, p.65)

Today, the definition of a BI has not changed much, however, it tends to be described as a process rather than a physical facility. The UKBI (2004), for instance, defines it as: '*a unique and highly flexible combination of business development processes, infrastructure and people, designed to nurture and grow new and small businesses by supporting them through the early stages of development and change*'. Hannon and Chapman (see Wynarczyk and Raine 2005, p.207) believe that '*incubators provide several main ingredients for growing successful businesses, such as accommodation, entrepreneurial and learning environment, ready access to business experts, mentors and investors, increased visibility in the market place, and networking / clustering opportunities.*'

In general many BIs have more than one aim, and the objectives have been widened, to include objectives such as: promoting or increasing regional development; helping to contribute to structural change of the local or regional economy; increasing the rate of start-up companies with above average innovation potential; contributing to general labour market goals by creating new jobs (Thierstein and Wilhelm 2001); and acting as '*a problem-solving agency not only in the areas of technology but also in other related areas of business development*' (Dubey et al. 2005, p.5). However, as Treanor and Henry (2010) point out in their recent study of female entrepreneurship and university incubators, the majority of extant BI studies are conducted in the USA and academic incubators are still under-researched. This study addresses that gap by focusing on a UK university-based incubator, the Business Incubation Centre (BIC).

2.3 BIC - The Business Incubation Centre

BIC, the BI that provides the case study for this thesis falls between a non-profit incubator and an academic incubator on the continuum developed by Allen and McCluskey (1990). The main aim of BIC is to help university students and graduates to start up a business, with a view to creating jobs and enhancing the local economy. The setup funding for BIC was provided by the European Regional Development Fund, UK University Business School (UKUBS), and the Entrepreneurship Research Centre (ERC), a research centre which is based in the UKUBS.

From a non-profit incubator point of view, the large office space provided by UKUBS was not well used before BIC was established. By giving the space to BIC, the business school helped to re-vitalise under-used office facilities. During the first operational year of BIC, the management charged incubatees a rent well below the market price. Even before the ERDF funding was due to run out, the management were thinking of ways of sustaining BIC financially. After the first year's funding, the university agreed to continue to provide the office facilities, but BIC had to support the management team independently through rent income. The management then introduced a tiered rent system based on the facilities incubatees wanted (or could afford) to access. The rental packages ranged from postal address only with no other administrative support, hot-desking only, a dedicated desk, and a dedicated office at a different floor (rent depending on size of office). Because of the benefits provided to the incubatees and the increasing number of clients, BIC was able to increase the overall rent substantially and became financially partially independent from the UKUBS and ERC.

BIC also fits with Todorovic and Moenter's (2010, p.28) definition of university incubator:

> *'a university incubator is a programme sponsored by a university to nurture new and small businesses by providing support throughout the early stages of development. Most university incubators provide specialized resources, such as technical or other research capabilities that are not otherwise available to the firm.'*

BIC often had student visitors who had studied or were studying entrepreneurship and SMEs and students from the business school and the university as a whole from a wide range of disciplines. Some incubatees in BIC offered work experience to the students. In a sense, BIC complemented existing educational programmes. From an academic incubator's point of view, the university and ERC promoted BIC to students and encouraged them to turn business ideas into real businesses. This offered the students the opportunity of realising their ideas before or after their graduation. When setting up and running BIC, academics and managers from various faculties, who were interested in entrepreneurship, were involved in the decision making process for BIC. This mainly took the form of a steering group. On the other hand the advisors from BIC often gave talks to incubatees, students and entrepreneurs outside of BIC, which helped to speed up the knowledge transfer process and to match up resources.

2.4 Key literature in business incubation

When looking at the literature of business incubation, a central strand running through the literature is what roles the BIs play in developing entrepreneurship and how success in this respect can be operationalised and measured. A summary of the BI literature is presented in Appendix I – Success indicators and the role of BI. It summaries the literature of BI by year of publication, hard factors, soft factors, type of incubator studied, and future research direction.

The literature in BIs developed through incubator-centred studies (Allen and McCluskey 1990; Campbell 1989; Lumpkin and Ireland 1988; Fry 1987; Brooks 1986; Cooper 1985) to incubatee development studies (Zhang and Sonobe 2011; Schwartz 2009; Voisey et al. 2006; Hackett and Dilts 2004; Allen and Weinber 1988; Autio and Klofsten 1998), then to incubator-incubation impact centred studies (McAdam and McAdam 2006; Voisey et al. 2006; Bøllingtoft and Ulhøi 2005; Hannon 2005b; CSES 2002, Peña 2002).

In the two later stages of BI literature development, discussion frequently focuses on how to measure business incubators' performance. This is often expressed in terms of hard and soft indicators of success. The hard indicators, or hard measures (Voisey et al. 2006) refer to statistical outcomes and tangible figures, such as '*the number of incubating businesses, value of sales*' (Voisey et al. 2006, p.465). In contrast, soft indicators, or soft measures, are '*benefits such as increased business knowledge and skills, more business awareness and increased client networking*' (Voisey et al. 2006, p.465).

Grimaldi and Grandi (2005) suggest that, rather than developing a standardised set of indicators, context specific hard measures should be used when looking at BI performance. They suggest that different types of incubators should be measured with varying criteria. According to them, the public BIs should help to reduce the start-up costs for small businesses and strengthen local networks and economy. On the contrary, the private incubators should be measured by their ability to accelerate the start-up process of highly promising enterprises. As for the university incubators, Grimaldi and Grandi (2005) believe that it lies between the public and the private incubators. These

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incubators should be measured by their capacity in reducing start-up costs, strengthen the local and national economy and knowledge transfer between the university and the incubation centres.

Writing five years later, Vanderstraeten and Matthyssens (2010) point out that the literature in evaluating BIs is divergent. They believe that using only a few indicators for success limits the understanding of BIs. Unlike Grimaldi and Grandi's (2005) suggestion, which focuses on different types of BIs, they propose to use a multi-criteria evaluation method to understand business incubators and their performance. This includes: "average incubation time, share of start-ups, share of high-tech firms, client satisfaction, overall survival and employment growth after graduation" (Vanderstraeten and Matthyssens, 2010, p.15).

Also using hard measures for BI performance, Al-Mubaraki and Wong (2011) believe that different types of BIs (e.g. technology based and agricultural based) should be taken into account. However this is different to Grimaldi and Grandi's (2005) proposal, which categorises BIs by public, private and university funded. Importantly, they point out that reasons why some BIs perform better than others are not understood and that further research is needed in this area. It is evident that literature in using hard measures to understand BI's role remains divergent.

Similarly to BIC, many business incubators have developed into communities that facilitate entrepreneurship by providing varieties of service, e.g. knowledge transfer and skills development. This is particularly the case with academic, or campus-based incubators (Treanor and Henry 2010). While the success of for-profit incubators might arguably be judged by straightforward balance sheet figures, evaluating the success of not-for-profit incubators requires a more nuanced approach. Current literature in business incubation calls for a framework that uses a holistic approach to evaluate the success of non-profit and academic incubators, that takes account of 'soft factors', such as entrepreneurs' learning outcomes. This literature is discussed below.

Campbell (1989) sees BIs as change agents and believes that incubators are long-term investments in job creation. He suggests that in order to create the most benefit in

terms of job creation and economic development, '*incubators should offer quality management, professional business assistance, low rents and flexibility*' (Campbell 1989, p.58).

Writing in the mid 1980s, Cooper (1985) selected a sample of 161 new, growth-oriented firms to examine the relationships of the new companies to their incubators. He recommended that future BI studies would need to assess the effectiveness of *university* incubators and the relationships between '*incubators, spinning off students and faculty who start growth-oriented firms*' (Cooper 1985, p.85). However, university incubators attracted little attention from academics at this time and attention turned instead to incubatees.

Voisey et al. (2006, p.459) argue that little research has been undertaken on '*the experience of the incubatees*'. Unlike counting numbers of existing and graduated firms (Allen and Weinberg 1988), Voisey et al. (2006) advocate the inclusion of incubatees' performance in measures of incubator success.

However the inclusion of subjective, or 'soft' measures such as 'individual performance' is potentially problematic. The OECD (1999, p.11) point out that '*the lack of systematic evaluation of business incubators is a problem shared all too often with small enterprise support programs generally*'. Autio and Klofsten (1998) also argue that incubators are often evaluated by the incubators' managers or by bodies close to them, and the outcomes of evaluations are often partly influenced by the need to enhance the image of the general viability of a particular arrangement:

> '*such a motivation is betrayed by, for example, vague or missing definitions of success, by implying that the prosperous economic development of the region is exclusively due to the support arrangement, and by the often missing consideration of potential alternatives to the arrangement*' (Autio and Klofsten 1998, p.33).

Similarly, Hackett and Dilts (2004) question the transparency of incubator data as politics are involved and decisions for further funding to non-profit and university incubators depend on incubators' performance. '*The level, scope and quality of incubation-related data management varies widely among incubators and access to*

information regarding politically sensitive incubation failures will continue to remain problematic' (Hackett and Dilts 2004, p.73).

Writing five years later, Schwartz (2009) points out that evaluating BI performance still remains problematic. He believes that the role of a BI should not only be examined using the survival rate of the incubatees during their incubation period, but also using the survival rate after they have graduated from their incubators. After studying 352 graduated firms from five technology oriented incubators in Germany, he found that BIs have '*life-prolonging effects [on the start-ups] rather than enhancing the firms' survivability*' (Schwartz 2009, p.416). In other words, BIs defer failures of start-ups while they are incubating; however when leaving BIs, they are not able to compete in the markets. It is recommended that BI managers should develop a process to prepare for the firms to graduate, for example using follow-up mentoring.

Using samples of science and technology business incubators in China, Zhang and Sonobe (2011, p.22) specifically examined the variables that are associated with incubatees' success. They found that '*human resources, infrastructure, and financial resources of the incubator*' are linked to the success of the incubatees. It is also pointed out that '*the location of the incubator, such as the inflow of FDIs, proximity to universities, and the diversity and scale of industrial activities in the locality*' are not associated with the incubatees' performance (Zhang and Sonobe 2011, p.22).

Bøllingtoft and Ulhøi (2005) argue that most research on BI adopt a traditional top-down planning approach and does not put much emphasis on the role of social interactions. They also point out that the extant research '*underestimates the extent to which such crucial skills [for success] can be acquired by learning*' (Bøllingtoft and Ulhøi 2005, p.266). They utilise social capital theory to stress the importance of facilitating relationships within incubatees to build up an internal network, as social networks are a source of learning. These arguments are further supported by a study conducted by McAdam and McAdam (2006), who stress the importance of networking in a university incubator. Likewise, Peña (2002, p.195) contends that '*the development of productive business networks and immediate access to critical economic agents facilitates the culmination of the gestation period*'.

Voisey et al. (2006) conducted a case study on university incubators in Wales, and conclude that improved incubatee's business skills, increased and productive networking with peers, and other soft factors have an impact on incubator's success. Hannon (2005b) believes that a learner-centred approach is needed to offer an effective value-adding learning opportunity. Similarly, Peña (2002, p.194) points out that *'entrepreneurs' human capital elements such as education, business experience and level of motivation are important intangible assets, which seem to be related positively to venture performance'*.

Likewise, a study carried out by Hackett and Dilts (2008) highlighted the importance of learning in BIs. They surveyed 53 US business incubators and the aims of the study were to unravel the inner workings of business incubation, and to examine the incubation process. One of the key contributions of their study was to reveal the resource munificence available in a BI. Differently to their hypothesis, which listed availability of resource, quality of resource and resource utilisation, *incubatee learning* was found as the only significant resource munificence in a BI. Although the survey was filled in by incubator managers, it stresses the importance of learning in the incubation process.

2.5 Summary and discussion

It is apparent that as a relatively young subject, the literature in business incubation lacks theoretical coherence and that much work is needed to theorise the incubation *process*, rather than outputs. The indicators for measuring incubator success suggested in the existing literature are summarised in Appendix I.

The literature in BI moved from defining BIs, to developing hard measures of success (Cooper 1985; Lumpkin and Ireland 1988; Allen and McCluskey 1990; Grimaldi and Grandi 2005; Wynarczyk and Raine 2005; Vanderstraeten and Matthyssens 2010). This was followed by a focus on soft measures (Fry 1987; Peña 2004; Hannon 2005a) and more recently to a concern with using varying evaluations according to the context of BI (Voisey et al. 2005; McAdam and McAdam 2006; McAdam and Marlow 2007; Bergek

and Norrman 2008; Todorovic and Moenter 2010; Arlotto et al. 2011; Zhang and Sonobe 2011).

While all these developments attempt to provide a better understanding of the role business incubators play in developing entrepreneurship, stimulating local economy, enhancing knowledge transfer and facilitating employability, two central themes emerge: what are business incubators? And how to measure BI performance? The first theme tends to be descriptive, in defining and categorising BIs. The second theme of the BI literature tends to be fragmented. As Allen and McCluskey's (1990) business incubator continuum describes, the aims of the BIs can be different from one to the other.

However it is paramount to understand the role of business incubators, because they have become an increasingly important tool for universities and governments, as a drive for knowledge transfer, innovation, entrepreneurship and economy. Categorising BIs by aims, sectors and how they are funded have all contributed to the development of the BI literature. The hard measures are useful to provide a snapshot of how effective the funding has been used in a BI. They also make it easy to compare performance across similar types of BIs. However the hard measures are not sufficient to theorise the BI phenomenon to provide an in-depth understanding in terms of what happens inside of the a BI, what lasting effect a BI has on fledging companies, and what interactions take place between the incubatees, the incubator and the management.

It is evident that literature in understanding the role of incubators is fragmented and that many studies in BIs tend to be descriptive and output centred. As Hackett and Dilts (2008, p.440) point out, '*few studies have examined the incubation process itself*'. Two years later, this is again confirmed by Todorovic and Moenter (2010, p.28), who argue that '*studies on the incubation process are sparse*'. A number of studies are beginning to focus on the incubatees and the interaction between the incubator and the incubatees (Treanor and Henry 2010). However, existing research points to a gap in research seeking to measure and theorise the *role* of the BI in developing entrepreneurship among incubatees.

Outside of incubators, the outcomes of entrepreneurial learning are argued to determine the success of start-up firms (Deakins and Freel 1998). Yet entrepreneurial learning is largely absent from debates about the impacts of BIs in developing entrepreneurship. Exploring the role of entrepreneurial learning within the incubation process will enable the business incubation process to be better theorised, and allow more holistic measures of incubator success to be developed.

There is a need to examine how incubators facilitate sustainable entrepreneurship in terms of expanding learning capacity, acquiring knowledge, and networking inside the incubators. This will allow a better understanding of the role incubators play in helping incubatees to develop their businesses during the incubation period.

Prior to joining an incubator, incubatees will have identified a business opportunity. They may develop that business idea, and set up the business during their incubation period. The business incubation process may also lead incubatees to identify further opportunities, and to develop new ideas as a result of the incubation process. Thus the process of incubation can be viewed as an enactment of entrepreneurship whereby incubatees identify, develop, and exploit opportunities. Indeed the notion of entrepreneurship and opportunity identification and exploitation are embedded in the incubation process. As the study will catch the lived experience, rather than entrepreneurs' retrospective memory of identifying and developing entrepreneurial opportunities, studying the process of business incubation will help to enrich the theoretical and empirical understanding of entrepreneurship.

From this perspective entrepreneurship can be interpreted from the economic, psychological and social behavioural point of view (Deakins and Freel 2012). As Davisson (2004, p.21) points out:

> '…..the domain of entrepreneurship research encompasses the study of processes of (real or induced, and completed as well as terminated) emergence of new business ventures, across organizational contexts. This entails the study of the origin and characteristics of venture ideas as well as their contextual fit; of behaviours in the interrelated processes of discovery and exploitation of such ideas, and of how the

ideas and behaviours link to different types of direct and indirect antecedents and outcomes on different levels of analysis.'

When studying the phenomenon of business incubation, it would be useful to borrow more developed theories in entrepreneurship to interpret and explain the process of business incubation, and the role of BI. In particular, looking closer at the process of how (prospective) entrepreneurs develop opportunities will help to theorise business incubation and provide a more in-depth understanding of the phenomenon.

The different streams of studies in business incubation point to common future directions in researching BI, namely the study of the entrepreneurial *process* that takes place in a BI environment.

The aim of this study is to theorise the business incubation process by bringing together literature from the fields of BI, entrepreneurship, and opportunity development to gain an insight into that process. The study will benefit both fields by providing a more in-depth understanding of both phenomena. This will respond to calls for improved theoretical frameworks to conceptualise and go some way to producing a more convergent literature on understanding the role of BI in developing entrepreneurship.

Contrary to an incubation centred approach, this study seeks to fill the knowledge gap in BI studies by adopting an incubatee-centred approach and by focusing on the entrepreneurial process. It will help to advance our understanding of how a BI operates, and what factors contribute to the development of entrepreneurs and, so, to a successful BI. The following chapter looks at the concept of opportunity identification & development and examines the possibility and appropriateness of using the notions of entrepreneurship to bridge the gap in business incubation research.

Chapter Three
The Process of Entrepreneurial Opportunity Development

3.1 Introduction

The review of literature in the field of BI presented in Chapter 2 points to an important gap in knowledge, namely an understanding of the incubation process. How entrepreneurship develops within BIs is fundamental to advancing understanding of this process. Therefore, as a first step in exploring the interaction between the incubation process and entrepreneurship this chapter presents a review of literature in the field of entrepreneurship.

Specifically the chapter looks at how recent entrepreneurship literature has developed, and how the concept of entrepreneurship has evolved as a research domain. It reviews how research in entrepreneurship has been extended and developed from a process-orientated to a development-oriented perspective, then to a learning-oriented perspective of entrepreneurship.

These perspectives are assessed in the context of business incubation. Using experiential learning theory as the heuristic tool, a relatively novel approach of studying the role of business incubators in developing entrepreneurship is then proposed.

3.2 Definition of entrepreneurship

3.2.1 Early development of the domain

Entrepreneurship itself is complex. It involves the entrepreneur, the opportunity, and interaction between the two. When looking at research in the field of entrepreneurship Grégoire et al. (2006) argue that while the field has some low levels of convergence it

remains fragmented. The definition of entrepreneurship and indeed the domain of entrepreneurship, therefore are divergent, and as Matlay (2005, p.670) points out '*as a generic term, entrepreneurship has been used in a variety of contexts and it covers a broad range of interchangeable meanings and situations*'.

Sarason et al. (2006) point out that a major problem in the entrepreneurship domain is that much research is either entrepreneur-focused or opportunity-centred. Early literature in entrepreneurship is skewed towards the entrepreneur. Indeed Neoclassical economists such as Khilstom and Laffont (1979) believed that opportunities were equally distributed in the market and that everyone could recognise them. The only characteristic that distinguished entrepreneurs was the ability to cope with uncertainty and risks and therefore to act upon the opportunities they identified. Similarly, studies focussing on the psychological characteristics of entrepreneurs argue that they have personality traits that predispose them to strive for high achievements (McClelland 1961), or that they possess superior abilities in processing information that is relevant to an opportunity (Shaver and Scott 1991).

This approach was questioned by The Austrian School of thought, which argued that information is not equally distributed and that differences in the stock of information mean that some are better able to spot an opportunity (Kirzner 1997).

Inspired by the Austrian theory, Shane and Venkataraman (2000) take a disequilibrium view of entrepreneurship (Mole and Mole 2010). They question a definition of entrepreneurship focused on the study of entrepreneurs alone and set a milestone by linking the concepts of entrepreneur and opportunity as well as advocating the concept of entrepreneurial process, which is embedded with opportunities. Thus, according to Shane and Venkataraman (2000, p.218), entrepreneurship is a process that includes:

> '[the] sources of opportunities; the processes of discovery, evaluation, and exploitation of opportunities; and the set of individuals who discover, evaluate, and exploit them.'

This definition advances the understanding of entrepreneurship by providing a dynamic and holistic view of the entrepreneur, the opportunity, and the process of identifying

and developing the opportunity. Adopting this definition, entrepreneurship can be viewed as a process, within which, the interplay between the entrepreneur and the opportunity is highlighted.

3.2.2 Defining opportunity

As entrepreneurship can be contextualised as the process of opportunity identification and exploitation, it is important to take a closer look at the term and clarify what opportunity means in this context. Shane (2000, p.451) suggests that '*entrepreneurial opportunities are opportunities to bring into existence new goods, services, raw materials and organizing methods that allow outputs to be sold at more than their cost of production*'. Drawing on the work of Schumpeter (1934), Kirzner (1973) and Casson (1982), Ardichvili et al. (2003, p.108) define an opportunity as '*the chance to meet a market need (or interest or want) through a creative combination of resources to deliver superior value*'.

Similarly, based on the work of Casson (1982), Shane and Venkataraman (2000), and Eckhardt and Shane (2003), Vaghely and Julien (2010, p.75) define opportunities as '*situations in which new goods, services, raw materials, markets and organizing methods can be introduced through the formation of new means, ends or ends-means relationships*'. It should be noted that in the context of entrepreneurship, the terms 'entrepreneurial opportunity' and 'opportunity' are interchangeable.

Shane and Venkataraman (2000, p.219) point out that '*entrepreneurship does not require, but can include, the creation of new organizations*'. This suggests that the *idea* of providing new products and services, organising new methods to serve the markets and to meet new means-ends relationships is at the core of the process, rather than the physical entity of a new organisation. In a similar vein, Dimov (2007a, p.718) suggests that '*opportunities are nested within the realm of ideas*'. He goes on to argue that regardless of where and how an opportunity ends, it is pragmatic to define an idea as an opportunity. As such, he describes an opportunity as '*a creative product in entrepreneurship, [that] is the progress (idea + action) along a continuum ranging from*

an initial insight to a fully shaped idea about staring and operating a business' (Dimov 2007a, p.720).

3.2.3 Prior knowledge

Following this new conceptualisation of entrepreneurship for the new millennium (Shane and Venkataraman 2000), recent studies attempt to theorise entrepreneurship in terms of whether opportunities are created or discovered. Ardichvili et al. (2003, p.106) for example, suggest that '*opportunities are made, not found*'. According to this view rudimentary opportunities are not sufficient to form viable businesses. Prior knowledge of markets, the ways to serve markets, customer problems, and elaboration of developing opportunities are also important elements to the formation of business ventures (Sanz-Velasco 2006; Shane 2000).

So, how is prior knowledge defined? Earlier work emphasises knowledge asymmetry and its impact on the business. These studies (Ucbasaran et al. 2009; Ucbasaran et al. 2008; Ucbasaran et al. 2006; Davidsson and Honig 2003; Dahlqvist et al. 2000; Basu and Goswami 1999; Deakins 1999; Cooper et al. 1994; Brüderl et al. 1992) look at human capital and its relation to business survival and growth. There is a general consensus that the higher stock of human capital an entrepreneur possesses, such as education, skills, and general and specific business experience, the more likely he/she will start up and sustain the business.

Therefore prior knowledge or in other words, existing knowledge, is the knowledge developed before an opportunity is identified. Shane (2000) explicitly links prior knowledge to opportunity identification. He explains that prior knowledge, '*whether developed from work experience, education, or other means, influences the entrepreneur's ability to comprehend, extrapolate, interpret, and apply new information in ways that those lacking that prior information cannot replicate*' (Shane 2000, p.452). He further explains that prior knowledge is not only important at the identification stage, but it also moderates the process of opportunity identification and exploitation, as within this entrepreneurial process, combined with new information, prior knowledge can be turned into new knowledge. This statement puts prior knowledge in a prominent

position in relation to opportunity identification. It suggests that in order to understand how an opportunity is identified and developed it is important to explore the prior knowledge an individual has.

When explaining prior knowledge in the context of high-tech firms, Shane (2000, p.452) writes that prior knowledge of markets '*might include information about supplier relationships, sales techniques, or capital equipment requirements that differ across markets*'. Again, in the context of technology firms, prior knowledge of ways to serve markets is '*how the new technology could be used to create a product or service*' (Shane 2000, p.452). Finally, prior knowledge of customer problems means '*information about customer needs*' (Shane 2000, p.452).

Similarly, writing in the context of prior knowledge, opportunity development and innovation, Sanz-Velasco (2006, p.255-256) offers a more detailed explanation of the three types of prior knowledge:

> '*Markets: such as information about supplier relationships, sales techniques, or capital equipment requirements that differ across markets.*
>
> *Ways to serve markets: such as a new technology that might change a production process, allow the creation of a new product, provide a new method of distribution, permit a new material to be used, generate new sources of supply, or make possible new ways of organising.*
>
> *Customer problems: the solving of which enables customers to gain optimal benefits from the innovation.*'

However, both definitions of the three types of prior knowledge are focused on high-tech and innovative firms, rather than start-ups in general. To be able to respond to the research aim in this thesis (see Section 4.2), a more general definition that can be used for all types of start-ups is needed. Based on Shane's (2000) and Sanz-Velasco's (2006) work and to put *idea* at the centre of opportunity, the following definitions are used for prior knowledge discussed in the study:

- Markets: such as information about supplier relationships, sales techniques, or capital equipment requirements that differ across markets.

- Ways to serve markets: such as a new idea that might change a production process, allow the creation of a new product, provide a new method of distribution, permit a new material to be used, generate new sources of supply, or make possible new ways of organising.

- Customer problems: knowledge about customer needs, which enables customers to gain optimal benefits from the new idea.

3.3 Entrepreneurship: a process of identifying and developing opportunities

Despite recent developments in the field of entrepreneurship, commentators such as Ardichvili et al. (2003) argue that the process of opportunity identification has still not been theorised and operationalised by researchers and that to date, little empirical research has been carried out to study the process of how opportunities are developed (Fiet and Patel 2008; Sanz-Velasco 2006; Gaglio and Katz 2001). To understand opportunity identification and development remains a core question for entrepreneurship researchers (Ucbasaran et al. 2008).

After reviewing literature in opportunity identification, Ardichvili et al. (2003) conclude that there are three principal dimensions in this process: opportunity recognition, opportunity evaluation and opportunity development. However, it is also accepted that '*these processes often overlap and interact with each other*' (Ardichvili et al. 2003, p.108). Indeed, it is often an iterative and creative process, in which opportunity needs to be re-evaluated and developed. As Dimov (2007b, p.561) puts it, '*entrepreneurial opportunities do not simply "jump out" in a final, ready-made form but emerge in an iterative process of shaping and development*'.

Likewise, adopting a development perspective of entrepreneurship, Gabrielsson and Politis (2012, p.51) point out that an opportunity starts with '*one or more diffused ideas of how to meet customers needs*'. They explain the opportunity development process as

an idea emerging process, where '*the idea can be elaborated and subsequently refined during its path of development*'. Sanz-Velasco (2006) emphasises the creation and elaboration of an opportunity. It is suggested that '*the term "opportunity development" incorporates the identification, the development, and the evaluation of an opportunity*' (Sanz-Velasco 2006, p.252).

Hence this study adopts this development view of entrepreneurship. An entrepreneur's active and deliberate role in developing a business idea is acknowledged by using the term 'opportunity development'. It recognises that an entrepreneur's initial resources, including knowledge, finance, social networks as well as strategies adopted, are important for the formation of a venture. In this study, the phrase 'opportunity identification and development' is used to describe the process, where the incubatees identify and deliberately develop the opportunities during their incubation period.

3.4 A learning perspective of entrepreneurship

To tackle the divergence in entrepreneurship literature (Grégoire et al. 2006), Schildt et al. (2006, p.411) call for entrepreneurship researchers to '*connect their ideas and findings to mainstream disciplines. Opening this dialog can enrich future entrepreneurship research and increase its acceptance and academic legitimacy*'. This points the way for researchers in the entrepreneurship field to borrow from other more established conceptual frameworks and theories to explain the entrepreneurial process. One such framework is learning.

3.4.1 Entrepreneurial learning

A number of commentators advocate that more research should be undertaken in the field of entrepreneurial learning. For example, Minniti and Bygave (2001, p.7) stress the importance of linking learning theories with studies in entrepreneurship because, '*entrepreneurship is a process of learning, and a theory of entrepreneurship requires a*

theory of learning'. Reynolds (1997, cited in Honig 2001, p.22) specifically emphasises the need to conduct research in learning within the entrepreneurship domain because, '*we know little of the learning styles, needs, and approaches for nascent activity. Fewer than five percent of individuals undertake nascent activities, with an even smaller proportion going on to actually start businesses'.*

Recent studies (Ucbasaran et al. 2008; Ozgen and Baron 2007; Cope 2005; Minniti and Bygave 2001) have often pointed out that there is a lack of understanding of why and how some entrepreneurs can identify and pursue more opportunities than other entrepreneurs. To respond to this knowledge gap, there have been some recent attempts to use learning theories to explain the development of business opportunities and how ideas develop during business venturing.

Donohoe and Wyer (2005), for instance, utilise the personal construct theory to develop a model to examine and explain growth in entrepreneurial small businesses. They find out that entrepreneurial learning plays an important role in entrepreneurs' growth from the micro start-up stage to the maturity stage.

Similarly, focusing on the individuals, Ucbasaran et al. (2008) put emphasis on the nature of entrepreneurs. They utilise human capital theory to illustrate which factors have an impact on an entrepreneur's ability to identify and pursue an opportunity. Both entrepreneurs' prior knowledge and current information were examined in relation to opportunity. It was found that entrepreneurship-specific human capital, such as ownership experience, managerial capability and entrepreneurial capability significantly relate to a higher probability of identifying and pursuing opportunities.

Ozgen and Baron (2007) study the opportunity recognition process in a social setting. The benefits of the information an entrepreneur can gain from social networks were examined. It was found that informal industry networks, mentors and participation in professional forums have a positive impact on an entrepreneur's alertness to new opportunities. The findings also suggest that entrepreneurs who have the ability to perceive the dynamics and connections between technology, markets, demographics and government policies are more likely to recognise opportunity. These are consistent

with the elements Ardichvili et al. (2003) propose which are vital for an opportunity to develop.

Nevertheless, previous studies often focus on one aspect of the opportunity development process and fail to offer a comprehensive understanding of the entire process (Ardichvili et al. 2003). By adopting a creative perspective of entrepreneurship, and relating it to learning, Dimov (2007a, p.714) suggest that:

> *'rather than being the deed of a single person, entrepreneurial opportunities encompass a social, learning process whereby new knowledge continuously emerges to resolve the uncertainty inherent to each stage of opportunity development … opportunities can be represented as a stream of continuously developed ideas, driven and shaped by one's social interaction, creative insights, and action at each stage.'*

This perspective represents a novel way of researching entrepreneurship, by linking opportunity identification and development process with more established theoretical frameworks, such as learning theories. Using this approach, the focus of the study is not only on the individual or the opportunity, but the interplay, between the individual and the idea development, and in this context, the opportunity.

In Dimov's (2007a) view, learning is embedded in the entrepreneurial process. Similarly, drawing on the influential work of Kolb's (1984) experiential learning theory, Corbett (2005, p.482) claims that, in order to achieve success, entrepreneurs '*must learn through their experiences and seek out new opportunities*'. Moreover, Pittaway and Cope (2007, p.212) maintain that entrepreneurial learning occurs through experience and discovery and through doing and reflection. All of these scholars' work looks at entrepreneurship through the lens of learning.

3.4.2 Experiential learning theory

So, what is learning in this context and how is it linked to entrepreneurship? Experiential learning theory (hereafter ELT), is based on the cognitive and situative

concepts of thinking, feeling, doing, and watching. ELT is a cyclical model of learning, where '*knowledge is created through the transformation of experience*' (Kolb 1984, p.38). Kolb (1984) stresses the importance of the *process of learning*, he further points out that a learning process should be viewed from the perspective of experience transformation, rather than just the outcomes of learning. He distinguishes the difference between learning and knowledge and the interplay between the two: '*to understand learning, we must understand the nature of knowledge, and vice versa*' (Kolb 1984, p.38).

Corbett (2005, p.482) proposes that the opportunity development process should be studied as a learning process: '*ELT focuses on the process. By transforming experience into new knowledge, ELT allows individuals to discover new outcomes from their learning, which is just what entrepreneurs do when they are attempting to uncover new means-ends relationships*'. Corbett (2005, p.474) points to the potential of utilising learning theories when researching entrepreneurship. He states that: '*a search of the primary management and entrepreneurship journals shows no work that directly addresses the role that the process of learning plays in opportunity identification and exploitation*'. This suggests a new approach of studying entrepreneurship by adopting learning theories.

From this perspective, the experiential learning theory provides a useful heuristic tool to study entrepreneurship. The reason is three fold. First, opportunity identification and development can be viewed as a process where, based on prior knowledge, new knowledge (in this context, an idea) is created through the experience of participating in such a development process.

Second, it takes into account both the prior knowledge and the newly acquired information, where knowledge (or business ideas) can be created and re-created. In this sense, it highlights the dynamic interactions and iterative process between an individual's knowledge and newly acquired information, which can lead to the identification and development of an opportunity. In such a process, the framework connects the person with the opportunity (knowledge, information and experience of transformation) and emphasises the interplay between the two.

Third, ELT stresses the importance of the *process* of transformation, rather than the content or the outcomes. Using it as a heuristic tool, it will help to extend entrepreneurship literature by responding calls for more process-orientated studies.

It is worth noting that, as explained in Section 3.3, the entrepreneurial process does not have to be linear, but can be conceptualised as an iterative process. Although, as demonstrated in Figure 1, the ELT is a cyclical model, the entrepreneurial process is more 'messy'. According to Politis (2005, p.407), the process of entrepreneurial learning:

> '*does not necessarily follow a predetermined sequence of steps according to Kolb's (1984) four-stage learning cycle, but rather can be conceived as a complex process where entrepreneurs transform experience into knowledge in disparate ways. Here, alternative modes of transforming entrepreneurs' experiences into knowledge become an essential part of the process of entrepreneurial learning*'.

Based on this perspective, he goes on to point out that, '*when studying the process of entrepreneurial learning, it is important to recognize that Kolb's cyclical model is not fully adequate to understand the complex uncertainties that entrepreneurs have to deal with*' (Politis 2005, p.408).

Figure 1 - The experiential learning cycle
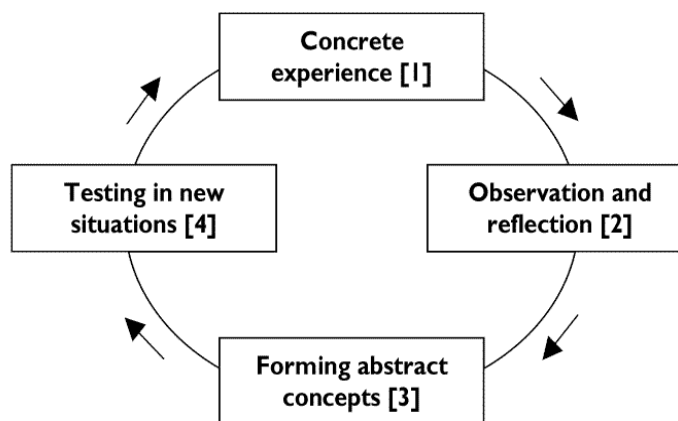
Kolb (1984), adopted from Smith (2007)

Hence, due to differences in types of learning, and specifically learning in the context of a complex and iterative process of opportunity identification and development, the ETL cannot be followed rigorously in terms of the four stages of the learning modes. Rather,

it should be adopted as a heuristic tool to study entrepreneurship. It helps to look at the prior knowledge an individual has before identifying an opportunity, the newly acquired information, and the process which transforms prior knowledge, information and experience.

3.5 Entrepreneurship and learning in the context of BI: becoming an entrepreneur

It is evident that to understand how individuals learn and develop opportunities during their incubation is crucial for the development of business incubation research, and in a wider context, important for entrepreneurship research. A question that should be put forward is how entrepreneurs learn to develop opportunities in a BI environment.

Minniti and Bygrave (2001, p.5) describe entrepreneurial learning as a '*calibrated algorithm of an iterated choice problem*'. This suggests an approach that is person-centred and based on a belief that '*knowledge is acquired through learning-by-doing'* (Minniti and Bygrave 2001, p.5). Entrepreneurs, in this context, are isolated from their environment and make their decisions only according to their accumulated experience from their past successes and failures.

Larty (2005) questions this approach and argues that existing experiential literature, that focuses entirely on the individual does not take the learner's social environment into account. Larty (2005, p.1) stresses the importance of entrepreneurial identity and sees entrepreneurial learning as '*the process of becoming an entrepreneur*'.

Calling for more research in entrepreneurial learning in a social context, Cope (2004 cited in Larty 2005, p.4) points out, '*there is a need to extend the behavioural perspective of entrepreneurial learning beyond new venture creation to how "entrepreneurs learn to adapt their role and develop new behaviour in order to negotiate the management and growth of their businesses"'.*

Thorpe et al. (2006) suggest that the trend in learning research is to focus on learning communities. In the context of this thesis, business incubators can be conceptualised as learning communities. Thorpe et al.'s (2006) claim supports Fry's (1987) view that incubators do not only provide shared administrative services and management assistance, but also the opportunity to network among tenants. Likewise Seidel (2002) believes that a business incubator represents a social network and exhibits characteristics of a community of practice for the development of the incubatees.

McAdam and McAdam (2006, p.92) conducted exploratory multiple case studies over a three-year period in a university incubator in Ireland and concluded that '*the role of the incubator in the development of customer networks and relationships appeared significant'.* These earlier studies attempt to explore the impact of social interactions on the development of the incubatees. Although they are predominately looking at the networking effects of the BI, they established a link between incubatees' development within the social context of a BI.

Bringing these ideas together, how should we study entrepreneurial learning? Cope (2003) argues that entrepreneurs learn from discontinuous (non-routine) events and inward critical self-reflection. However, he also points out that '*more research is needed to explore the social dimensions of the learning process associated with discontinuous events*'.

Looking at the individual as well as the social level, Rae (2005, p.324) suggests that '*learning is a fundamental and integral part of the entrepreneurial process, in which the human, social and behavioural activities are of as much concern as the economic aspects'.* Thus entrepreneurial learning does not only require an entrepreneur's ability to recognise and act on opportunities, but suggests that interacting socially to initiate, organise and manage ventures is also important.

When reviewing his ELT (Kolb 1984), Kolb and Kolb (2005) add the concept of learning space and highlight its importance in enhancing experiential learning. They draw the social concept of learning from the ecology of human development (Bronfrenbrenner 1979; 1977), the situated learning theory (Lave and Wenger 1991) and the theory of

knowledge creation (Nonaka and Konno 1998). It is emphasised that '*learning is not one universal process but a map of learning territories, a frame of reference within which many different ways of learning can flourish and interrelate*' (Kolb and Kolb 2005, p.200). This suggests that individuals can change their styles of learning in order to adapt. In the context of nascent entrepreneurship, when individuals interact with a dynamic environment, they need to learn to adapt to it and to transform from individuals who have business ideas to entrepreneurs with viable ventures. This transformation process is the process of learning and becoming entrepreneurs.

Developed from the theory of situated learning (Lave and Wenger 1991), Wenger (1998) sees learning as social participation. He identifies four elements of learning: identity (learning as becoming), meaning (learning as experience), practice (learning as doing), and community (learning as belonging). These elements suggest that individuals not only learn from self critical reflection, but also by interacting with their environments through relationships in the community.

A number of commentators maintain that entrepreneurship and learning do not take place in isolation, rather they are part of the social process and are socially constructed (Pittaway and Cope 2007; Cope 2005; Rae 2005; Rae 2004; Cope 2003; Rae and Carswell 2001; Cope and Watts 2000; Wenger 1998; Gibb Dyer 1994). Using a narrative approach, Rae (2005) develops a conceptual model of entrepreneurial learning, which consists of three main components and eleven sub-components. Personal and social emergence, negotiated enterprise, and contextual learning are the three main components. This model suggests that entrepreneurs can learn at an individual level and through social interactions.

Likewise, Pittaway and Cope (2007, p.213) describe entrepreneurial learning as '*reflecting, theorizing, experiencing, and action'.* Entrepreneurs are viewed as *'practitioners who operate in social communities of practice'* (Pittaway and Cope 2007, p.213). In the context of opportunity development, this proposition acknowledges the active role entrepreneurs take in the process in which they identify, evaluate, develop and exploit opportunities through self-reflections as well as social interactions.

3.6 Discussion

From the review presented above it is apparent that recent research has pointed to a direction for future research in this area, namely to study how incubatees participate in a social learning community during the incubation period. In the context of incubators, more research is needed to gain a better understanding of how BIs facilitate learning through social interactions.

Drawing on theories of entrepreneurship, experiential learning and learning in a social context will allow me to adopt a holistic approach to the business incubation process. To understand the role of a business incubator and the process of business incubation, we need to look at how individuals develop their ideas within the BI environment, and at the same time, how they interact in a BI community and develop their ideas. This holistic approach can help to provide a more comprehensive understanding of the business incubation, by taking into account the development of the opportunities, the development of the individuals, the interactions between the opportunities and the individuals, and the interactions between the individuals and the BI community.

The study will use ELT as a heuristic tool to explore the process of business incubation. This will enable the study to take account of the prior knowledge of incubatees, newly acquired information as a result of being part of a BI, and the knowledge transformation process that takes place within a BI, which leads to new opportunities and/or development of the opportunities. It is anticipated that ELT will also help to shed light on how an individual's identity is transformed during the BI process through the interactions with other incubatees.

Figure 2 demonstrates how the thesis will bring together theories of experiential and social learning in order to address a gap in extant BI research, which calls for more in-depth understanding of the incubation process. In doing so it acknowledges the important role of the BI as a social space that not only facilitates, but shapes learning.

Figure 2 – Theoretical framework
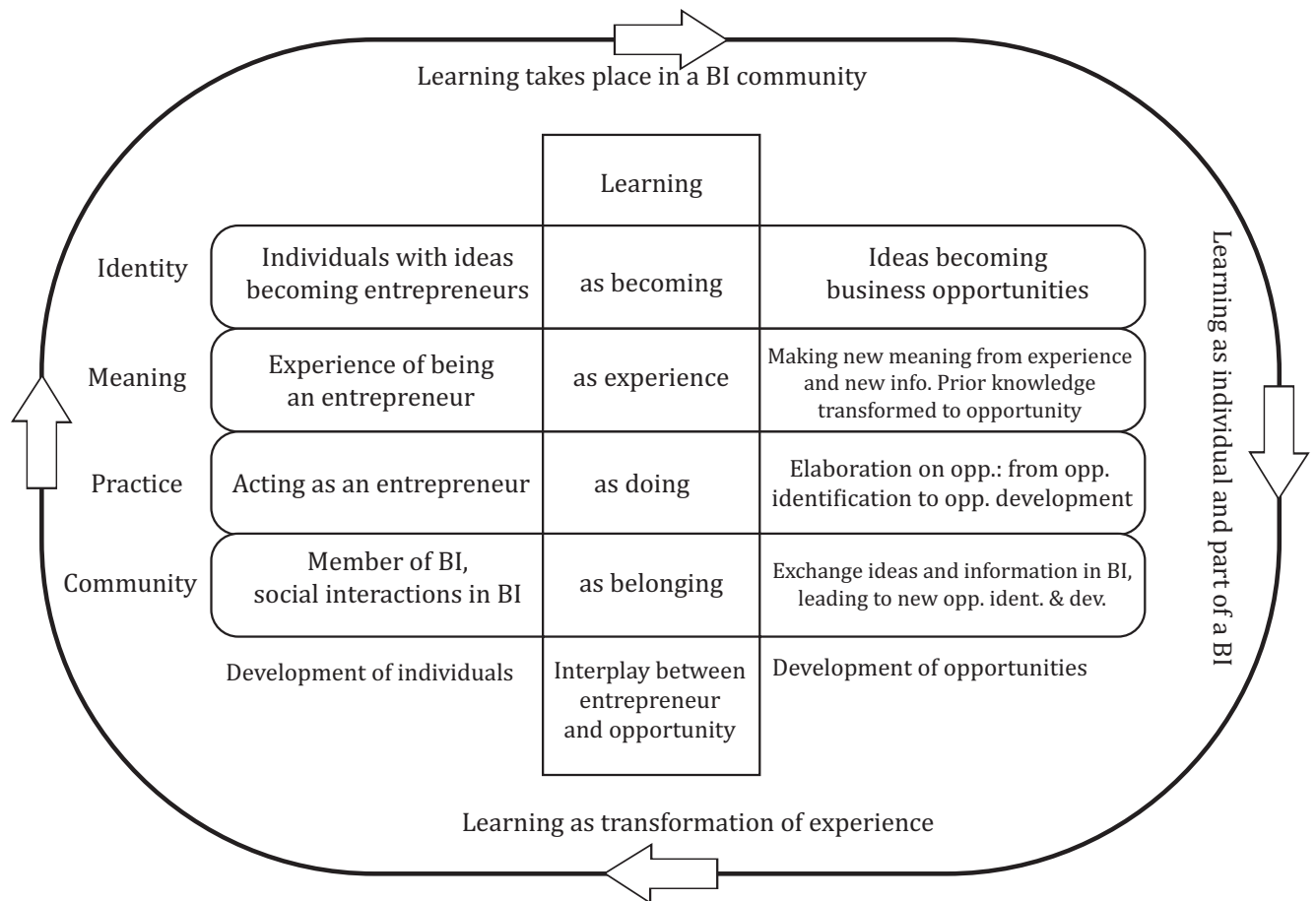
In Figure 2, the left hand column focuses on development of the individual. The right hand column in the diagram focuses on opportunity identification and development. Using the theory of community of practice, the four labels on the left side (identity, meaning, practice, and community) and the middle axis (learning) demonstrate how using learning theories can help to draw out the interaction between the individual entrepreneur and the opportunity. This middle column is also where the individual's and the opportunity's identity 'blend' into each other. It is because when the business is at a very young stage, especially in many cases, at the pre-existence stage where the prospective entrepreneurs have a business idea, very often the individual shares the same identity as the business it is being setting up, In Churchill and Lewis's (1983, p.33) words: '*the owner is the business*'.

The circle around the columns draws the boundary of the study, which is learning in a BI community. Using the ELT as a heurist tool, it demonstrates how learning, in the form

of experience transformation, can take place within the individuals and within the BI community. The arrows around the circle illustrate how individuals and opportunities evolve in the experience transformation process.

3.7 Summary

When reviewing literature in business incubation in Chapter 2, it became apparent that to advance our understanding in BI, it is paramount to explore the learning process during incubatees' incubation period. In order to understand the process and incubation experience, it is important to look at the incubation process in an entrepreneurial context. As discussed in the earlier sections of this chapter, adopting a learning perspective can enrich our understanding in the opportunity identification and development process. Therefore both the business incubation and entrepreneurship research domains can be enriched by a study that adopts a process-orientated approach combined with a learning perspective.

Despite some recent work that aims to build a better understanding of the entrepreneurial process in the context of opportunity identification and development, little empirical work has been devoted specifically to the relationship between opportunity identification and learning, especially in the context of business incubation.

Entrepreneurs learn through experience and events (Cope 2003). As a knowledge, information and network hub, an incubator offers learning experience and experience of social interactions with other incubatees. This may have an impact on individuals' development, especially for the nascent start-ups.

Taken together, the impact of a BI on individuals' opportunity development can be studied by incorporating the experiential and social elements of learning. The whole process of business incubation can be viewed through Kolb's (1984) model, in a way that prior knowledge, newly acquired information and experience of being in a BI are transformed, and where new knowledge is created. On an individual level, the

entrepreneurial process can be studied by exploring the prior knowledge an individual has when identifying an opportunity, the information acquired through a BI (which is crucial for the development process), and the process of how new knowledge (business ideas or opportunities) is generated and developed. At a social level, again, using the experiential learning theory as a heuristic tool can help to explore the experience of becoming an entrepreneur in a BI environment. Using Kolb's (1984) framework in this way can offer a holistic approach to study the role of a BI in developing entrepreneurship, by looking at entrepreneurship through the lens of learning.

The thesis will enrich the BI literature by exploring the entrepreneurial process that takes place in a BI environment. This process is embedded in the opportunity identification and development process, or in other words, how a prospective entrepreneur turns a business idea to a business opportunity, and actualises it as a business venture.

Using learning theories, the study also furthers our understanding of entrepreneurship by exploring the interplay between the individual entrepreneur and the opportunity. Using the ELT as a heuristic tool, the study looks at how individuals and opportunities develop in a BI setting, which in turn, highlights the impact of business incubation on entrepreneurship.

The chapters reporting on the collected data from BIC (Chapter 6-8) are organised to reflect the conceptual framework. In other words, the entrepreneurs and the opportunities in BIC, and the interactions between the three. The thread of learning is running through the themes, to highlight the importance of learning that takes place in a BI setting and the effectiveness of using learning theories to study entrepreneurship and the BI phenomenon.

Using Figure 2 as the conceptual framework to guide data analysis and reporting, Chapter 6 manly explores the left half of the diagram, in other words, the individual entrepreneur's experience in a BI. It presents the pathways through a business incubation journey. Using six case studies, the study exemplifies the experience and

process that takes place in a BI. It also looks at the impact of a BI on the development of the entrepreneurs.

Chapter 7 focuses on the entrepreneurs' prior knowledge. This is mainly reflected on the right half of the conceptual framework. It is where the interplay between the entrepreneur and the opportunity begins. It is also the start of a business opportunity. Using the ELT as a heuristic tool, the chapter explores the effect of prior knowledge on the entrepreneurial process.

Chapter 8 shifts the focus onto the process of opportunity development. The chapter brings together the different elements of the conceptual framework. Again, using the same six chosen case studies from Chapter 6, this chapter continues to tell the stories of how entrepreneurs develop the opportunities they identified. The outcomes of the opportunity development reflects each individual's learning journey within the BI, which is a process of transforming prior knowledge and newly acquired information to new business ideas and opportunities. For the entrepreneurs, it is also a process of becoming, experiencing, practicing as an entrepreneur and as part of a community of new entrepreneurs. For the BI, it is a place, where individuals, knowledge, information, skills, experience and opportunities interact. Through the lens of learning, the chapter looks at the transformation experience that takes place in a BI environment. This in turn, brings out the role of BI in developing entrepreneurship, which is embedded at an individual level as well as in a community of BI.

The following chapter looks at the philosophical stance and the methodology this study will use to develop a better understanding of BI's role in developing entrepreneurship.

Chapter Four
Research Methodology

4.1 Introduction

Research is both a systematic and methodical process of enquiry and investigation, and is a process of gaining and increasing knowledge. Jones and Somekh (2005, p.141) suggest that '*how the researcher understands "being in the world" (ontology) and the nature of knowledge (epistemology) will fundamentally shape both the observation process and analysis of the data collected*'. However, it is worth mentioning, that '*good-quality research does not depend on the adoption of a particular philosophical or theoretical position*' (Seale 2004, p.417).

The objective of this chapter is to review the aims and objectives of the study and to explain philosophical and methodological issues. The chapter therefore begins by stating the principal aims and objectives. It then presents definitions of the principal philosophical concepts underpinning research design, followed by a critical appraisal of the positivist, social constructionist and interpretivist paradigms in relation to the research topic. Limitations of my chosen approach are considered and the chapter concludes with a discussion of my methodological approach.

4.2 Research aims and objectives

Extant literature suggests that business incubators (BIs) are successful instruments for developing nascent entrepreneurship and regional development (Al-Mubaraki and Busler 2010; Todorovic and Moenter 2010; MBS 2006; Wynarczyk and Raine 2005; Robertson and Collins 2003; Adegbite 2001; Lalkaka and Abetti 1999; Campbell 1989; Allen and Weinberg 1988; Brooks 1986; Cooper 1985). The European Commission (2006) lists criteria to measure incubators' performance, such as: admission and exit

rules, incubator space and services, and start-up and survival rates. Hence BIs' performance is very often assessed using hard measures and quantitative methods, resulting in evaluations that are satisfactory on most occasions.

Nevertheless BI studies are criticised as '*atheoretical*' (Hackett and Dilts 2004). For example, the OECD (1999, p.11) points out that '*the lack of systematic evaluation of business incubators is a problem shared all too often with small enterprise support programs generally*', while Autio and Klofsten (1998) maintain that definitions of incubator 'success' are often missing and consideration is needed for potential alternatives to measurement.

The CSES (2002) advise that incubator performance should be evaluated in a long-term context '*rather than short-term measures such as occupancy rate or failure rates.*' Also importantly, a holistic measurement framework is needed including soft as well as hard measures, especially in the non-profit sector, such as university incubators (Bøllingtoft and Ulhøi 2005; Voisey et al. 2005; CSES 2002). It is important then to study the environment in which the incubator operates and the influence it has on the knowledge and skills incubatees acquire. The incubator, in this context, plays a role as the harbour of a learning community, in other words, a '*community of practice*' (Benzie et al. 2005; Wenger 1998).

The overall aim of the study is to explore the role of BIs in developing entrepreneurship using an alternative framework grounded in softer measures of outcome and success. This aim can be broken down into two principal areas of research: entrepreneurial learning and opportunity development. Prospective entrepreneurs may have pre-existing business ideas that they bring to the BI. The study aims to gain an in-depth understanding of the process of entrepreneurial learning, of how these entrepreneurs acquire and transfer knowledge to start and nurture their businesses during the incubation period. It will build on this understanding to explore how individual's entrepreneurial learning interacts with opportunity development during the incubation process. By bringing these two strands of research together the study will provide new insights into the role of BIs in developing entrepreneurship.

The conceptual framework developed in Chapter 3 (see Figure 2) illustrates the key elements of this study. They are: the development from individuals with business ideas to entrepreneurs; the development from existing knowledge to business opportunities; the interplay between the individuals and the opportunities, and the impact of BI on the development of these individuals and opportunities. All these developments are viewed through the lens of learning, to bring out the dynamics of the key elements and highlight the importance of a BI community in nurturing business opportunities and entrepreneurs.

Objectives:

The study will address four principal research questions:
1. How do incubatees experience the process of starting up a business in a BI?
2. In what ways do incubatees use their existing knowledge and newly acquired information, to develop and nurture their businesses during the incubation period?
3. How does the opportunity development process take place during incubation?
4. What is the role of a business incubator in this opportunity development process?

At the first stage of the research, question 1 sets out to explore and identify the process of business incubation from the perspective of the individual entrepreneurs.

The principal objective of question 2 is to gain an understanding of the process of entrepreneurial learning from the perspective of the individual incubatees. It will provide insight into the process of business development during the incubation process. Because the outcomes of entrepreneurial learning determine the success of start-up firms (Deakins and Freel 1998) which in return should have a great influence on BIs' performance, it is crucial to examine how incubators harbour a learning community and facilitate entrepreneurial learning within this community. To explore this question, the prior knowledge the participants had when identifying an opportunity will be examined at the second stage of the research. Building on this, the newly acquired information and the process of transforming the information to new knowledge will be explored at the third stage of the research.

Question 3 will explore how incubatees' learning interacts with the process of opportunity recognition during the incubation process, in order to provide a deeper understanding of opportunity development. Rae and Carswell (2001, p.150) believe that '*entrepreneurial learning is concerned with how people construct new meaning in the process of recognising and acting on opportunities, and of organising and managing ventures*'. Examining opportunity development through the lens of entrepreneurial learning will offer new insights into how the BI can act to sustain entrepreneurial activity.

Finally question 4 will seek to gain a holistic view of the role of the BI in the process of opportunity development by exploring the attitudes and experiences of both incubatees and BI management in relation to the role of the BI. This will allow a holistic view of the BI process to be developed, which conceptualises the entrepreneurial process as a '*co-participation, where learning is dependent on social, historical and cultural factors*' (Taylor and Thorpe 2004, p.204). Knowledge for this stage of research will be used to develop a model, which explains the role of a business incubator in developing entrepreneurship.

4.3 Methodological issues

Fletcher (2006, p.423) stresses the fundamental values of understanding philosophical issues when conducting studies in the field of entrepreneurship: '*knowledge of philosophical issues is needed for the accomplishment of competent entrepreneurship research*'. When looking at methodological issues, it is important to understand paradigms, which have a key influence on understanding the ontological and epistemological foundations of entrepreneurship and social research. A paradigm encompasses four elements: ontology, epistemology, human nature, and methodology.

Definitions

Ontology refers to the study of the nature of being and existence, in other words, it is about '*raising questions with regard to the nature of reality*' (Maykut and Morehouse

1994, p.4). This includes the definition and classification of entities, physical or mental, the nature of their properties and the nature of change. Social ontology is concerned with the nature of social entities (Bryman 2008). The central question is whether they should be considered as objective entities that have a reality external to social actors (Denzin and Lincoln 2000).

Epistemology refers to the study of the nature of knowledge and belief, its boundaries, its foundations and validity. It is interested in *'the origins and nature of knowing and the construction of knowledge'* (Maykut and Morehouse 1994, p.4). Epistemology addresses the primary question of the very understanding of what knowledge is, how it is acquired, what people know, and how they come to know it. It attempts to distinguish true knowledge from false and provides a set of criteria for evaluating knowledge claims and establishing whether such claims are warranted (Krauss 2005).

Methodology refers to a procedure by which knowledge is generated. While epistemology addresses how we come to know reality, methodology identifies the practical means of attaining the knowledge (Krauss 2005), in other words, it guides the research design and data collection (Denzin and Lincoln 2000). Easterby-Smith et al. (2002) mention that understanding philosophical issues is fundamental for our research design because it does not only help researchers to choose the more suitable research methodology but also helps researchers to create designs that are outside of their experience. Thus, different methodologies can be used for a given ontological or epistemological perspective.

Within the epistemological, ontological and methodological perspectives, a variety of paradigms can be identified. These paradigms provide more meaningful ways of addressing a research problem and will give more direction and clarity to the research process. The term paradigm has been defined as the '*progress of scientific practice based on people's philosophies and assumptions about the world and the nature of knowledge*' (Hussey and Hussey 1997, p. 47). Similarly, Denzin and Lincoln (1998, p.185) define a paradigm as '*a basic set of beliefs that guide action*'.

Kuhn (1962) suggests four fundamental elements of a paradigm:

1. What is to be observed and scrutinised
2. The kind of questions that are supposed to be asked in relation to this subject
3. How these questions are to be asked
4. How the results of scientific investigations should be interpreted

Entrepreneurship research today reflects the paradigm diversity of the social sciences in general (Buchanan and Bryman 2009). One reason for this paradigmatic diversity is that this field is a meeting point for numerous disciplines such as psychology, sociology, history, economics and business. Pittaway (2005, p.202) points out the importance of understanding paradigms for researchers in the field of entrepreneurship: '*there are potentially many gains for the study of entrepreneurship if researchers are prepared to learn from the experience of debates*'. Each of these disciplines brings its own distinct perspectives and traditions. From among these three distinct paradigms, positivism, interpretivism and social constructionism are critically assessed to determine their appropriateness for this study.

4.4 Positivist approach

Positivist researchers generally assume that reality is objectively given and can be described by measurable properties that are independent of the observer or researcher and his or her instruments (Myers 2004). Moreover, Maykut and Morehouse (1994, p.12) state that the positivist approach believes that there is only one reality and 'the knower can stand outside of what is to be known'. Positivist studies generally attempt to test rather than develop theory. Therefore, a positivist paradigm is more appropriate if there are testable hypotheses, quantified variables and the ability to draw inferences about a population from a sample of that population. Characteristics associated with a positivist paradigm, measurement, objectivity and the ability to generalise results to a wider population developed in the field of the natural sciences (Orlikowski and Baroudi 1991). Social scientists attempted to apply methodologies from the natural sciences to

the social world to establish 'facts' and so increase the credibility of social research (Hussey and Hussey 1997). Generally positivists use experimental and quantitative methods to gain knowledge (Denzin and Lincoln 2000).

To summarise a positivist epistemology seeks to '*explain and predict what happens in the social world by searching for regularities and causal relationships between its constituent elements*' (Burrell and Morgan 1979, p.5). The approach is grounded in independence, value-freedom, causality, hypothesis and deduction, operationalisation, reductionism, generalisation, and cross-sectional analysis (Easterby-Smith et al., 2002).

Extant BI research tends to be positivist and reductivist. Measurement of BI's performance emphasises 'facts', such as tenant companies' turnover and occupancy rate of the incubators. Soft factors that cannot be quantified are often ignored under this approach. These soft factors can include access to useful information and resources and the help to set up and sustain the opportunities the entrepreneurs have identified. Kirk (1995) argues that positivist approaches do not take people into account and so ignores entrepreneurs as an essential component of business incubation activities. Furthermore Hannon (2005b, p.73) points out that '*incubation is a people business and its future success will heavily depend on building their capability, both as users and as providers and as industry leaders*'.

Moreover Bygrave (1989, p.20) believes, '*in entrepreneurship research, it is nearly impossible to reduce problems to neat constituents that can be examined in isolation. We should avoid, whenever possible, reductionism in our entrepreneurship research*'. The problem with taking up a reductivist stance for this research is that the learning process of entrepreneurs contains far more complex issues than simple 'facts'. The process of learning cannot be reduced to numbers and these numbers cannot help researchers to understand how these entrepreneurs learn in incubators and how they interact with each other. In an incubator, where entrepreneurial learning takes place, activities are contextual and contingent, and have to be situation-specific.

From the discussion above it is clear that a positivist paradigm is not appropriate to address the research questions set out in Section 4.2. A reductivist approach would fail

to capture either individual or shared meanings and interpretations of the incubation process.

4.5 Interpretivist approach

Interpretivist researchers start out with the assumption that access to reality (given or socially constructed) is only achieved through social constructions such as language, consciousness and shared meanings. The main distinction between positivist and interpretivist paradigms is the presumption of social constructionism held by the interpretivists (Orlikowski and Baroudi 1991). Interpretivism assumes a relativistic, often shared, understanding of phenomena, and so rejects the notion that a truly objective account of events and situations exists. From an epistemological point of view, it takes the view that knowledge is the result of social products and so it is inherently bound to the social context in which it was formed (Orlikowski and Baroudi 1991).

An interpretivist paradigm recognises that actions and events come from 'within' human life in ways how they are experienced. Winch (cited in Baert 1998, p.180), an interpretivist, explains that 'people differ from innate objects in that they attribute meaning to the world which surrounds them and then act in accordance with the meaning'. Knowledge of the way phenomena are experienced and interpreted by individuals can therefore only be gained through an interpretive approach (Hughes and Sharrock 1990).

Interpretive studies attempt to understand phenomena through the meanings that people assign to them. Interpretive research does not predefine dependent and independent variables, but focuses on the full complexity of human sense-making as the situation emerges (Myers 2004; Kaplan and Maxwell 1994). In doing so it proposes that there are multiple realities rather than a single objective reality, and that these realities may differ across time and place.

The research questions outlined in Section 4.2 relate to a process that can vary across time and place, and that can be explained from various individual viewpoints. However, taking account only of individual viewpoints would fail to address the objectives in Questions 2, 3 and 4 relating to the collective elements of the BI as a community of learning and co-participation. Therefore the research will not adopt a purely interpretivist approach.

4.6 Social constructionism

Social constructionism, by contrast, does not focus upon '*the meaning-making activity of the individual mind but on the collective generation of meaning as shaped by the conventions of language and other social processes*' (Crotty 1998, p.58). Burr (2003, p.20) suggests two essential differences between constructivism and social constructionism: '*the extent to which the individual is seen as an agent who is in control of this construction process, and in the extent to which our constructions are the product of social forces, either structural or interaction*'.

A focus on language has led some researchers to label social constructionism as '*linguistic reductionism*' (Fletcher 2006), for example Talja et al. (2004, p.90) point out that '*the strong focus of constructionism on language use and discursive practices entails an assumption that real world problems are to a large extent defined, produced and solved in institutionalised discourses*'. An example from the field of information science has shown the danger of such emphasis: '*constructionist studies in IS have mainly remained on a metatheoretical and philosophical level and have not generated sustained empirical research programmes and methodologies*' (Talja et al. 2004, p.90). As a result of this, the practical potential of social constructionism was not realised.

This point is echoed by Fletcher (2006) in her paper about entrepreneurial processes. Fletcher argues that that social constructionist work should not be concerned only with linguistic representations, but should include meaning-making and sense-making processes at the individual or inter-personal level.

A number of commentators maintain that entrepreneurship and learning are subjective, and that they are part of the social process and are socially constructed (Rae 2005; Rae 2004; Cope 2003; Rae and Carswell 2001; Cope and Watts 2000; Gibb Dyer 1994). Winch (cited in Baert 1998, p.180) believes that meaning is '*embedded in implicit rules shared by members of the same community*'. Likewise, Wenger (1998) sees learning as social participation.

Social constructionism offers a novel and appropriate paradigm to develop new understandings of the interaction between individual entrepreneurial learning in the context of the BI community. Heeding the warnings of Talja et al. (2004) and Fletcher (2006) while adopting a social constructionist approach I will avoid the danger of over-emphasising the importance of one element, such as discourse, and focus on the range of social elements, for example, the way '*meanings are negotiated/shared through social processes contributing to the social construction of reality*' (Fletcher 2006, p. 426).

4.7 Methodology

A research strategy, or methodology guides the research design and data collection. Different methodologies are generally associated with given ontological and epistemological perspectives. Qualitative and quantitative methodologies are the two main categories (Collis and Hussey 2003; Crotty 1998; Hussey and Hussey 1997). The qualitative approach is generally associated with social constructionism, while the quantitative approach owes more to positivism.

Qualitative approaches are defined as '*an array of interpretative techniques which seek to describe, decode, translate and otherwise come to terms with the meaning, not the frequency, of certain more or less naturally occurring phenomena in the social world*' (Van Maanen 1983 cited in Easterby-Smith et al. 2002, p.85). This approach is often associated with inductive, grounded, emergent, contextual theory, discovery, patterns, etc.

A qualitative approach is chosen for this research because it fits with the philosophical stance of the study. As explained in the previous sections, a social constructionist approach can help to provide a more holistic and contextual view of the phenomenon and help to explain the interactions between the incubatees and opportunities and between the incubator and the incubatees. This in turn will help to better explore the research questions.

The next chapter reports the data collected for the study and describes how the data is analysed. It also presents the source of the data in detail and reflects on the pilot study conducted. Detailed considerations are presented in terms of data analysis strategy. It also reports how data was stored.

Chapter Five
Data Collection and Analysis

5.1 Introduction

This chapter describes the range of qualitative data collected from the Business Incubation Centre (BIC) and discusses the rationale underpinning methods of data collection and analysis. Four sets of data are introduced: twenty interviews conducted with the BIC incubatees, five interviews with the BIC stakeholders, notes from participant observation when I was a member of the BIC steering group, and documents collected by the BIC management office.

The chapter is organised as follows: I begin with a discussion of data collected from documents held by BIC. These data provide useful contextual background that enriches understanding of the incubation process by shedding light on the initial selection process, incubatee performance review procedures and second year entry selection process; I continue with a discussion of data collected using semi-structured interviews with incubatees.

This is followed by considerations on data analysis. I review methods in data analysis such as grounded theory, analytic induction and template analysis. Finally how data was coded and analysed using the template analysis approach is presented.

5.2 Documentary and participant observation data from BIC

BIC was supported initially by the European Regional Development Fund, the UK University Business School (UKUBS) and the Entrepreneurship Research Centre (ERC)

within the UKUBS. As a result, at the time when the data was collected, the incubatees paid a rent that was much lower than the market price. To qualify prospective incubatees had to apply for a space in BIC. Selection interviews were conducted by a panel of BIC steering group members. Prospective incubatees were required to present their businesses (if they were already trading) or their business ideas (if they were not trading). The posters or presentation files submitted at the entry interviews were retained by the BIC office. These provided a useful source of information about the age of the business where it already existed, or the age of the opportunities where only a business idea was presented to the panel. There was considerable variation across the incubatees. Some had only a rough idea for their business, while others had been in business for several years and had spotted new opportunities, which they intended to develop in BIC.

Successful applicants then signed a contract and became tenants. They agreed a starting date with the management and when they came to pay the rent and collect keys they were asked to complete a BIC Company Support Monitoring Form. After six months of incubation, incubatees met the management for a review meeting, where a BIC Company Support Output Monitoring Form and a BIC Review Form were completed.

After 12 months, incubatees could apply for a second year incubation at BIC. An interview then took place with a panel of steering group members. In most of these second year interviews, the applicants submitted electronic PowerPoint slides to illustrate their business ideas and some submitted paperwork such as a business plan or background to the business ideas.

To complement the documentary data, and enable me to gain an in-depth understanding of the context of the business incubation process, I undertook participant observation by acting as a member of the steering group of BIC. I participated as a panel member in 32 first year and second year BIC entry interviews. Some of these applicants subsequently became participants in this study because of

their regular use of BIC. Participant observation helped to validate my 'insider' identity and so further helped me to gain information about important developments at BIC and access to potential participants. Table 2 lists the source of data collected about each participant.

Table 2 - Sources of information on participants

Case No.	Entry interview form/notes	Company support monitoring form	Company support output monitoring form	BIC Review form	Second year interview form/notes	Other information submitted by participants
1	✔	✔	✔	✔		
2		✔		✔		Business plan
3						
4	✔*	✔	✔		✔*	
5	✔*	✔		✔	✔	Business plan
6		✔	✔	✔	✔*	Business plan
7	✔	✔	✔	✔	✔	
8	✔*	✔	✔	✔		Background
9						
10						
11	✔*	✔	✔	✔		
12	✔	✔	✔	✔		
13	✔*					
14	✔	✔	✔	✔		
15	✔	✔	✔	✔		Business plan
16						
17	✔	✔				
18	✔	✔				
19	✔	✔	✔	✔		
20	✔	✔	✔	✔		

✔* indicates that I was part of the interview panel

5.2.1 Limitations of the documentary and participant observation data

Due to the nature of the forms, not all data was available for each case. There are a number of reasons for this. Firstly, not all participants had decided to stay in BIC for a second year. As a result no data were collected from these participants for the second year interviews. Secondly, some entrepreneurs had left or were leaving BIC when my interviews were conducted and BIC did not keep their records. Therefore there were no files on case no. 3 and 9. BIC's office had some files missing, including participant no. 10 and 13. Finally, one case (No. 16) did not give her consent to accessing her files stored in the BIC office.

5.2.2 Informed consent

Participant observation data and documents from the BIC office provided a rich source of information about the background of individual incubatees. However, in providing this information incubatees had not given permission for this information to be used for research purposes. Therefore at the end of each interview, I asked the participants for their verbal consent to access information and forms retained by BIC management. In the majority of cases consent was given and I was able to collect additional contextual data for each incubatee using documents and information from the BIC office.

5.2.3 The demographic data collection template

Documentary evidence from BIC enabled me to design a demographic data collection template (see Appendix II), to consolidate details of the background of the participants.

Table 3 summarises data from the demographic data collection template and data from BIC's records. On average participants had been in BIC for 13 months when they were interviewed. There are three participants (No. 6, 17 & 18) who participated in the NES (New Entrepreneur Scholarships) programme, and went on to apply to BIC as a result.

Table 3 - Profile of participants

Case No.	Name	Gen-der	Age (yrs)	Ethnicity	Education	Incubation length when interviewed (months)
1	Helen	F	35	Non-minority	Postgraduate	6
2	Tim	M	30	Non-minority	Postgraduate	9
3	Andy	M	27	Non-minority	Undergraduate	8
4	Jane	F	32	Non-minority	Undergraduate	15
5	Ian	M	27	Non-minority	Undergraduate	16
6	Tony	M	32	Minority	Undergraduate & NES	17
7	Nick	M	28	Non-minority	Undergraduate	15
8	Neil	M	48	Non-minority	Postgraduate	18
9	Phil	M	*	Non-minority	Undergraduate	12
10	Jeff	M	24	Minority	Postgraduate	17

* indicates the age is missing from the file

Table 3 (cont.) – Profile of participants

Case No.	Name	Gen-der	Age (yrs)	Ethnicity	Education	Incubation length when interviewed (months)
11	Paul	M	25	Non-minority	Postgraduate	15
12	Peter	M	24	Minority	Postgraduate	13
13	Emma	F	40	Non-minority	Undergraduate	20
14	James	M	33	Non-minority	Postgraduate	12
15	Kath	F	45	Non-minority	Postgraduate	14
16	Laura	F	*	Non-minority	No higher education	18
17	Alex	M	37	Minority	Undergraduate & NES	13
18	Kelly	F	40	Minority	Postgraduate & NES	8
19	Mark	M	32	Non-minority	No higher education	9
20	Karen	F	33	Non-minority	Postgraduate	11

* indicates the age is missing from the file

5.3 Pilot study with individual BIC incubatees

The first three interviews with the incubatees were used as a pilot study. Conducting pilot interviews was valuable because it enabled me to design an initial draft of the interview schedule (see Appendix III) and to reflect on how interviews could be improved after the pilot. For instance, I noted at this stage that I should offer interviewees an opportunity to mention any negative impacts of BIC.

The pilot interviews provided valuable insights into an entrepreneur's learning process and showed that there was a real opportunity to extend the current understanding of the opportunity development process by adopting and possibly refining the current opportunity identification and development frameworks through qualitative investigation.

The pilot study's interview schedule was useful in capturing the rich data needed for the study. However, I felt that the interviews needed to be more structured, in order to ensure that I captured rich data about how an opportunity was identified and

consequently developed by the participants. Therefore I developed the interview schedule (see Appendix III), to reflect experience gained from the pilot study in the following ways:

1. Along with the participant information leaflet presented at the beginning of each interview, I added an introduction and emphasised at the beginning of each new theme with a heading, such as 'so now I would like to move on to talk about coming into BIC'. This helped the respondents to focus on a particular stage of the business development, in relation to BIC.

2. The biggest change I made to the pilot interview schedule (see Appendix IV) was to remove the third question: 'why did you apply to come to BIC?'. On reflecting on the outcomes of the pilot, I found that the reasons participants applied to BIC could be quite different to the direct impact BIC had on their development. Instead, a question was added at the end of the interview schedule, asking for the reasons why the participants had decided to leave or stay in BIC, after the 12 months incubation time.

3. Towards the end of the interview, in addition to questions about future business strategy, I added the questions: 'what are your plans about staying on in BIC or leaving? Can you talk me through why you have decided to stay on/leave?' These final questions helped to explore further the role BIC played in the opportunity identification and development process.

5.4 Contacting respondents

Before the remaining interviews were conducted, official letterheads, an introduction letter see (Appendix V) from the director of the Entrepreneurship Research Centre (which was one of the funding bodies for BIC), and a respondent information leaflet were all used when I wrote invitation letters to potential interviewees. Confidentiality was guaranteed prior to the interview process (see Appendix VI for the invitation letter).

At the pilot stage one potential interviewee expressed a preference of being contacted by the administration team of BIC, rather than directly by the researcher. In case this view was more widely held among incubatees I decided to co-ordinate the interview process with the administrator of BIC (Jenny) to maximise the response rate. I did this by sending a list of potential interviewees on a monthly basis to Jenny and organised interviews with the participants through her (see Appendix VII, to protect the identity of the participants, all names are pseudonyms). According to the list, Jenny sent emails to potential participants one month prior to the planned time of interviews. This helped to smooth the invitation process and increased the likelihood that regular tenants would accept the invitations.

5.5 Interviews with BIC incubatees

Table 4 presents a short description of the 20 participants together with information about the interviews. Interviews were conducted at a place that was convenient and comfortable for the participants. Most of them took place in the meeting rooms of BIC, some were in the meeting room of the Entrepreneurship Research Centre (ERC), which was behind BIC. One interview was conducted in the participant's own office, because he had moved out of BIC. The interviews' durations ranged from 35 to 84 minutes, with an average of 58 minutes. Each interview was recorded and transcribed. Where further information or clarification was required, several interviewees (Andy, Tony and James) were contacted again.

The interviews were organised around the key questions outlined in the revised interview schedule (see Appendix V). Questions were designed to explore the biography of the incubatees' business ideas over time, starting with questions about where the ideas originated and ending with plans for the future. The aim was to capture, as directly as possible, the experience of incubatees during a critical learning period by exploring – through the lens of business idea development - how the incubator helped them to learn both individually, and through any community of practice involving fellow incubatees, academics, business advisors and more experienced entrepreneurs.

Table 4 - List of interviews

Case No.	Name	Place	Duration (minutes)
1	Helen	GBS meeting room	52
2	Tim	GBS meeting room	43
3	Andy	The Bayliss, BIC	53
4	Jane	One-to-one room, BIC	52
5	Ian	One-to-one room, BIC	52+32
6	Tony	One-to-one room, BIC	55
7	Nick	One-to-one room, BIC	69
8	Neil	One-to-one room, BIC	70
9	Phil	Phil's office, city centre	54
10	Jeff	Corner meeting room, ERC	48
11	Paul	One-to-one room, BIC	72
12	Peter	One-to-one room, BIC	63
13	Emma	One-to-one room, BIC	50
14	James	Corner meeting room, ERC	58
15	Kath	Corner meeting room, ERC	67
16	Laura	Corner meeting room, ERC	47
17	Alex	Corner meeting room, ERC	73
18	Kelly	Corner meeting room, ERC	48
19	Mark	Corner meeting room, ERC	62
20	Karen	One-to-one room, BIC	35

5.6 Stakeholder interviews

Ways in which incubatees thought about the support of the management team, as well as other stakeholders, in relation to their learning process during the first 12 months of the incubation period were frequently brought to my attention. This prompted me to investigate further the role of BIC in developing entrepreneurship, by inviting six stakeholders to an interview. Five agreed to attend face-to-face individual interviews. They were:

1. the management team (consisting of a manager who had just left BIC and an administrator of BIC),
2. the former and current directors of ERC which established BIC,
3. a member of the steering group of BIC who was also an academic staff member teaching entrepreneurship in the UKU Business School.

The interviews were conducted immediately following interviews with the incubatees. Stakeholder interviews were not planned at the beginning of the data collection process. However I recognised the importance of carrying them out in order to have a more nuanced understanding of the interactions between BIC and the entrepreneurs.

On average, each stakeholder interview lasted 87 minutes. All of them were recorded and transcribed. Although each interview schedule was individually designed to fit the role of the participant (see Appendix VIII and IX for two examples of the interview schedules), the central themes of the interviews were similar, essentially to investigate the role the participants played in developing BIC and enhancing entrepreneurship.

5.7 Data excluded from the analysis

The five stakeholder interviews and the BIC meetings and events gave me the first hand insights into the challenges facing a university business incubator, such as funding and sustaining the BI, setting up, running and obtaining resources for the BI, and recruiting incubatees. They helped to provide the contextual understanding needed for the study. The stakeholder interviews would be particularly useful in exploring issues such as university support for a BI, sustainability of a university BI, and opportunities and challenges of knowledge transfer in a university BI.

As explained in Section 5.2, I was a member of the steering group for BIC. This did not only help me to become an 'insider' of BIC, making it easier to gain access to documents and potential participants, but enabled me to attend various events that enriched my understanding of the business incubation process, from the incubatees' point of view as well as from the management's perspective. It was a rare opportunity to observe how a university BI can be established and managed. The events I attended included steering group management meetings, tenant association meetings, and marketing and PR events for BIC. The data collected at these events include meeting notes (for example steering group meetings and tenant association meetings) in addition to the interviews with the stakeholders.

This data allowed me to obtain an in-depth and meaningful understanding of how a BI can be set up and operated and to observe how entrepreneurs and opportunities grow in a BI environment However using learning theories as the key element of the conceptual framework (demonstrated in Figure 2), this study mainly focuses on the development of *entrepreneurs* and the *opportunities* that take place in a BI setting. The rich data collected from the 20 in-depth interviews with the incubatees, the documents from the incubatee selection interviews and the BIC office incubatee files were robust and pertinent to address the research questions (see Section 4.2). While the contextual data provided important insights and understanding, it was not systematically analysed. This enabled me to focus on how learning took place and explore the incubatees' entrepreneurial process in BIC. The results presented below draw only, therefore, on data from interviews with the incubatees.

5.8 Approaches to data analysis

Three decades ago, methods for analysing qualitative data were criticised for being under developed. For example Miles (1979) refers to qualitative data as *'an attractive nuisance'* because they are *'rich, full, earthy, holistic, [and] 'real''*, but collecting such data is highly labour intensive, and moreover *'the most serious and central difficulty in the use of qualitative data is that methods of analysis are not well formulated'* (Miles 1979, p.590).

Two decades later, Bryman and Bell (2003, p.425) point out that one of the drawbacks to qualitative data is that *'unlike the analysis of quantitative data, there are few well-established and widely accepted rules for the analysis of qualitative data'.* It is the job of the qualitative researcher, therefore, to choose carefully which method of data analysis best reflects their philosophical approach and allows them to address their research questions.

As stated in Chapter 4, this study adopts a social constructionist approach. Easterby-Smith et al. (2002, p.117) point out that unlike positivist researchers, who *'see a sharper*

distinction between data and the process of analysis'; researchers who take up a social constructionist position *'attempt as far as possible not to draw a distinction between the collection of data and its analysis and interpretation'.* The discussion is organised around the three iterative approaches, analytical induction, grounded theory and template analysis. An important element of an iterative approach is critical reflection, therefore it provides a framework in which the distinction between data collection, analysis and interpretation are minimised.

5.8.1 Analytic induction

Analytic induction is grounded in the tradition of iterative inquiry: *'iterative approaches involve seeking meaning and developing interpretive explanations through processes of feedback'* (Grbich 2007, p.20). This requires researchers to collect data from the field while going through a critical reflexive process to interpret the emergent meanings of the data and go back to the field to collect more data if necessary. This process is then *'repeated until the research question is answered and no new data are apparent'* (Grbich 2007, p.21).

Researchers begin their data collection with a hypothesis. If the results are inconsistent with the original research hypothesis after analysing the preliminary data, then *'the analyst either redefines the hypothesis so as to exclude the deviant or negative case or reformulates the hypothesis and proceeds with further data collection'* (Bryman and Bell 2007, p.583). Data collection is complete when there are either no deviant cases or when the hypothetical explanation is redefined to exclude deviant cases. *'The two keys to the entire procedure (…) are the definition of the phenomenon under investigation and the formulation of the tentative hypothesis'* (Vidich and Lyman 2000, p.57).

Vidich and Lyman (2000, p.57) suggest that analytic induction is:

> *'Distinguishable from deductive, historical-documentary, and statistical approaches, analytic induction is a non-experimental qualitative sociological method that employs an exhaustive examination of cases in order to prove universal, causal generalization'.*

There are a number of drawbacks to using analytic induction in the field. For example Ryan and Bernard (2000, p.787) point out that *'explaining cases by declaring them all unique is a tempting but illegitimate option'.* Bryman and Bell (2007, p.584) highlight two further limitations:

> '*First, the final explanations that analytic induction arrives at specify conditions that are sufficient for the phenomenon occurring but rarely specify the necessary conditions ... Secondly, it does not provide useful guidelines (unlike grounded theory) as to how many cases need to be investigated before the absence of negative cases and the validity of the hypothetical explanation (whether reformulated or not) can be confirmed.*'

This approach then, does not provide the researcher with detailed guidelines, and so can cause difficulties for researchers at the early stages of their careers who lack experience in conducting qualitative research. Moreover, Ryan and Bernard (2000, p.787) point out the objective of analytic induction is:

> '*not to show the relationships among all codes, but to find the minimal set of logical relationships among the concepts that accounts for a single dependent variable. With more than three variables, the analysis becomes much more difficult*'.

The objectives of this study are to look at the interplay between a business incubator, incubatees and business opportunities, using the experiential and social learning theories rather than to look at relationships that account for a single dependent variable. Given the limitations outlined above I rejected this method of analysis because it would not allow me to address my research questions and moreover, is unsuitable for an early stage researcher.

5.8.2 Grounded theory

Grounded theory is a methodological approach first introduced by Glaser and Strauss (1967). This approach has frequently been referred to '*but infrequently applied in business research*' (Douglas 2003, p.47). Grounded theory is '*derived from data, systematically gathered and analyzed through the research process. In this method, data collection, analysis, and eventual theory stand in close relationship to one another*'

(Strauss and Corbin 1998, p.12). The rational underpinning grounded theory is that theory is developed that is 'grounded' in data, which has itself been systematically collected and analysed (Strauss and Corbin 1998). Theory emerges through the interaction between data collection and analysis phases of the research.

Bryman and Bell (2007, p.579) believe that grounded theory is '*probably the most prominent of the general approaches to qualitative data analysis*'. Grounded theory and analytic induction share some similarities. For example, the process of analysing data is iterative for both methods. According to Ryan and Bernard (2000, p.782) both of these data analysis approaches include model-building phases. In other words, researchers look for negative cases that do not fit the hypothesis.

Grounded theory differs from analytic induction in that it assumes a purely inductive approach that means the researcher has no *a priori* theories that guide the early stages of the research. Rather, the researcher becomes more and more 'grounded' in the data developing increasingly rich concepts and models to reflect the complexity of the phenomenon being investigated (Hunter et al. 2005, p.57).

Grounded theory is widely adopted in the qualitative field '*across a range of different disciplines*' (Hunter et al. 2005, p.57) and has a great influence both on the theoretical framework and practical implications in qualitative data collection and analysis procedures. However, it has attracted a number of critiques. Silverman (2006, p.96) criticises grounded theory for its failure to '*acknowledge implicit theories which guide work at an early stage*'. Silverman also believes that '*used unintelligently, it can degenerate into a fairly empty building of categories … or into a mere smokescreen used to legitimize purely empiricist research*'. In a similar vein Miles (1979, p.591) suggests that: '*research projects that pretend to come to the study with no assumptions usually encounter much difficulty*'. Morse (1999, p.292) points out that inexperienced researchers '*may not know a lot about research methods*'. Pidgeon (1996, p.83) points out a practical weakness: '*some researchers (particularly those who are fairly new to the technique) find themselves unable to theorize beyond the everyday phenomenal worlds and local interactional contexts of their basic data and domain of inquiry*'.

Other critiques point out the inconsistency of using key terms such as 'concept' and 'category' (Bryman and Bell 2007), which make it more difficult for other researchers to understand the overall process. It is also worth mentioning that often the term grounded theory is used '*to denote an approach to data analysis in which theory has emerged from the data. Rarely is a genuine interweaving of data collection and theorizing of the kind advocated by Glaser and Strauss*' (Bryman and Burgess 1994, p. 6).

While grounded theory has potential to develop new conceptual insights into processes and interactions within BIC, the study is guided by theories from an early stage. The research doesn't therefore adopt a purely grounded theory approach.

5.8.3 Template analysis

When discussing the epistemological issues of template analysis, King (2004, p.256) points out that rather than a distinct methodology, thematic analysis is a set of techniques, which '*maybe used within a range of epistemological positions*'. He believes that when using thematic analysis to organise and analyse data, the researcher '*assumes that there are always multiple interpretations to be made of any phenomenon, which depend upon the position of the researcher and the context of the research*'. Therefore similarly to analytic induction and grounded theory, this approach is in line with my methodological position.

However, compared to analytic induction and grounded theory, template analysis is a more flexible and pragmatic way of analysing data: '*analysis often, though not always, starts with some **a priori** codes, which identify themes strongly expected to be relevant to the analysis. However, these codes may be modified or dispensed with altogether if they do not prove to be useful or appropriate to the actual data examined*' (Clarke and Gibbs 2008). King (2004) also mentions that the starting point of constructing a template is to use the interview guide, in other words, the main themes of the interview.

As for my study, a literature review has been conducted and in Chapter 3 theoretical frameworks have been proposed to study the impact of business incubation. Also, as presented in this chapter, a semi-structured interview schedule was used for

interviewing the participants. Furthermore, when discussing the suitability and advantages of adopting template analysis, King (2004, p.268) points out that it '*works very well in studies which seek to examine the perspectives of different groups within an organizational context*'. My study investigates learning, not only at an individual level, but also at a social level. In other words, I research how learning took place in BIC through interactions between different players in the incubation centre.

To sum up template analysis is appropriate for this study for a number of reasons. Firstly it is consistent with my philosophical position. Secondly unlike following grounded theory firmly, I had developed some frameworks before collecting data. Thirdly I am not an experienced researcher, using template analysis would provide some structure and clearer guidance when analysing data. Finally this approach is suitable for the context of my study.

5.9 Data management and analysis

All interviews were transcribed and stored in Word format and exported to NVivo. Transcribing and coding were carried out soon after each interview was conducted. This meant that thoughts generated from the interview could be captured and embraced in the codes while still fresh in the memory. Transcribing the interviews myself allowed me to familiarise myself with the data.

Using NVivo helped to improve data analysis by enabling me to code information and consequently group related parts to easily access the information, as Richards (1999, p.16) points out that '*[NVivo] use document and node descriptions to store information about context etc. define categories and shape ideas*'. Moreover '*using software in the data analysis process … adds rigour to qualitative research*'. The validity and reliability can be increased by using NVivo, as human errors could be reduced by the software package.

5.9.1 Developing codes

Using the template analysis approach, I created the initial template using some a priori codes developed from the research question and the outcomes of the literature review. Following the guidance from King (2004), I also used the themes of the interviews as the initial template (see Appendix X). These codes (impact of BIC, prior knowledge, and ways of developing business ideas) are used as the higher-order codes, with subsidiary lower-order codes. Under the heading 'impact of BIC', for example, there were second level codes. They are: 'experience of BIC', 'reasons of entering BIC', 'skills obtained in BIC', and 'experience of support from BIC'. There were then third level codes under these, except under 'experience of support from BIC'.

Bernard (2000, p.444) suggests that researchers should keep notes about the coding, potential hypotheses and new directions for the research. With this in mind each time changes were made in the coding process, for example, different codes or structure, an older version of the coding structure was stored in a separate file. This helped me to reflect on the process of coding as well as documenting progress in the data analysis process.

After coding five interviews, the first level code 'ways of developing business ideas' had codes that derived from different concepts, including learning, opportunity development and impact of BIC. This did not come as a surprise as these concepts are intertwined in the context of BIC. The concept of entrepreneurship is contextualised in the process of opportunity development, which is studied through the lens of learning. All of the learning activities I investigated had a relation to BIC and this was how these second level codes developed under the first level code 'ways of developing business ideas'. Therefore a revision of the initial template was needed and some first and second level codes needed to be re-defined (see Appendix XI).

5.10 Summary

This chapter has set out the data collected for the study and the method of data analysis. The principal method of data collection is in-depth semi-structured interviews with the BIC incubatees, supplemented with data collected through interviews with the BIC stakeholders, participant observation as member of the BIC steering group and documents collected from the BIC management.

Data from semi-structured interviews provided an insight into the processes and procures within BIC from the perspective of the incubatees; documents from incubatee selection interviews and the BIC management office enabled me to provide a contextualised understanding of the interview participants, and participant observation allowed me to build a relationship with participants in the study and to observe the interaction between incubatees and the incubator management. The study therefore captures data about relationships, procedures and processes within BIC from a range of perspectives and so enabled me to preserve the 'wholeness' of the stories.

After reviewing a number of influential qualitative data analysis approaches such as grounded theory, analytical induction and template analysis, the more flexible and practical approach of template analysis was selected for the study. NVivo qualitative data analysis software facilitated this iterative approach, allowing data to be stored and codes revisited and revised with relative ease.

Chapter 6 presents an initial analysis of the data in the form of a series of narratives that illustrate typical pathways through the incubation process. The narratives develop valuable insights into the incubation process and provide a context for the analysis.

Chapter Six
The BIC Experience

6.1 Introduction

This chapter explores the incubation experience and process in BIC from the perspective of the incubatees by presenting a series of narratives. It addresses Research Questions 1 and 4 (see Section 4.2) by providing insight into individual perceptions and experiences of the incubation process and the role of the BI. In doing so it responds to calls for in-depth, qualitative studies in the incubation process (Todorovic and Moenter 2010; Hackett and Dilts 2008, 2004; McAdam and McAdam 2006; Voisey et al. 2006) and provides a contextual understanding of pathways through BIC.

The 20 interviews with frequent BIC users captured rich data about the incubation process. In order to bring these narratives to life and to explore the incubation experience in detail, a two-stage analysis was carried out. The aim of the first stage was to identify key stages and activities during the incubation period. The key activities at the pre-, during, and post-BIC stages are summarised in Appendix XII, using the individual incubatee as the unit of analysis.

The second stage of the analysis uses 'activities' as the unit of analysis. Figure 3 draws the information from Appendix XII together in order to identify individual pathways through BIC by comparing activities and patterns between cases. Flowcharts are used to illustrate key activities and stages during the BIC process.

6.2 Stage 1: the incubation process

The narratives of each case are included in Appendix XIII. They are life stories of the respondents, which included contextual business histories of some entrepreneurs.

Some of the business ideas in the short stories were generated prior to BIC, but in order to focus on answering the research questions (see Chapter 4) only businesses with a link to BIC are included in the study.

The incubation process is divided into pre-, during, and post-BIC stages, it is summarised in Appendix XII. Although what happened during BIC is the focal point of this study, the pre- and post-BIC stages provide an understanding of the history of the participants and their preference for staying or leaving BIC.

The aim of using Appendix XII is to explore in detail the relevant activities that took place just before, during and after BIC for individual incubatees. At the pre-BIC stage, attention is paid to how ready the ideas were, how the participants got to know BIC and the background of the participants. At the during-BIC stage, the focus is on what activities had been carried out in BIC, whom they spoke to about their ideas, their views on facilities and management of BIC and UKU, and how they evaluated the development of their ideas or businesses. The post-BIC stage mainly looks at whether the participants decided to stay on for another year of incubation.

6.3 Stage 2: individual pathways

Figure 3 brings together the individual narratives summaries in Appendix XII, using 'activities' as the unit of analysis in order to identify distinct pathways through the business incubation process.

Figure 3 – The process of business incubation

Pre-BIC

Had a less developed business idea: Helen, Nick, Neil, Phil, Paul, Kath, Alex, Kelly, Mark

Pre-BIC

Had a mature business idea: Tim, Andy, Jane, Ian, Tony, Jeff, Peter, Emma, James, Laura, Karen

Activities in BIC

Discussed the idea with other tenants: Helen, Tim, Andy, Ian, Tony, Nick, Neil, Phil, Jeff, Paul, Emma, James, Kath, Laura, Alex, Kelly, Mark, Karen

Needed/liked an office environment/facility: Helen, Tim, Andy, Jane, Ian, Tony, Nick, Jeff, Paul, Peter, Emma, James, Kath, Laura, Alex, Kelly, Mark, Karen

Spoke to a business advisor and/or mentor: Helen, Tim, Jane, Ian, Nick, Neil, Phil, Jeff, Paul, Kath, Laura, Alex, Kelly, Mark

Had other tenants/university students working on projects: Tim, Andy, Jane, Tony, Emma, James, Kath, Alex

Working/studying/running other business when starting-up in BIC: Helen, Jane, Neil, Phil, Peter, Emma, Kath, Kelly

Collaborated with other tenants on projects: Helen, Andy, Ian, Neil, Jeff, Paul

Used library/Students Union/lectures or any other UKU facilities: Ian, Nick, Neil, Jeff, Paul, Kelly, Mark

Worked for other tenants: Andy, Tony, Neil, Phil, Jeff, Kelly

Developing/started another idea: Ian, Jeff, Paul, Kath, Alex

Observed and/or learned skills from other tenants: Helen, Jane, Paul, Kath, Kelly

Recruited supplier/clients/partners through BIC: Tim, Neil, Laura, Kelly

Developing/starting new business with other tenants: Andy, Ian, Tony, Jeff, Paul

Business development was delayed due to problems with supplier/working and studying: Peter, Kelly

Used BIC for storage: Tim

Stage of business outside BIC

Developing business further/original idea on hold but developing another business: Andy, Phil, Tim, Emma

Stage of business in BIC

Developing business further/original idea on hold but developing another business: Jane, Ian, Tony, Nick, Jeff, Paul, James, Kath, Laura, Alex, Mark, Karen

Still refining and developing the idea in BIC: Helen, Neil, Paul, Alex, Kelly

Developing / starting new business with other tenants: Ian, Tony, Jeff, Paul

Business was on hold but re-starting again: Peter, Kelly

Post-BIC

Left/leaving BIC for own business: Tim, Phil, Emma

Post-BIC

Left with other tenants for a new company: Andy

Post-BIC

Staying on for another year/ intended to stay for another year: Jane, Ian, Tony, Nick, Neil, Jeff, Paul, Peter, James, Kath, Laura, Alex, Kelly, Mark, Karen

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Common characteristics

Pre-BIC

All twenty participants shared one thing in common before coming to BIC. In order to qualify as a tenant, all of them had a business idea that they had presented to a selection panel during an entry interview. Some ideas or businesses were more developed than others. Helen's business idea, for example, was not completely developed when coming to BIC, as she explains:

> *I think I'm one of the people that came into BIC with a kind of a … a very start, starting of an idea … it was totally really embryotic at that stage … you know … so I came to BIC with kind of very broad idea. I wanna to run my own business, it's in sustainability field, and it's been since I've been in BIC, and sort of talking to my business adviser and got a mentor, free mentor scheme, and other people, that I sort of refining more clearly, what I want to do.*

In contrast, Tim had drawn up a business plan before coming to BIC. He had already done extensive research for the business and was already looking for a venue for his art gallery when moving to BIC. His idea was almost developed before the incubation stage:

> *It was mostly developed in terms of I already had a business plan and the fundamental idea has not changed, so actually once I was in BIC, it was just putting meat on the bones and just fleshing out the ideas.*

During BIC

During their time in BIC, four experiences were common to all twenty participants:

1. Having social interactions with other tenants in BIC;
2. Developing businesses or ideas while in BIC;
3. Having interactions with BIC management;
4. Viewing social interactions and/or the entrepreneurial atmosphere as an important element of being in BIC.

Post-BIC

At the post-BIC stage, 15 participants (Jane, Ian, Tony, Nick, Neil, Jeff, Paul, James, Kath, Laura, Alex and Kelly) were staying or intended to stay in BIC (Peter, Mark and Karen) for another year. Two participants (Andy and Phil) had left to join other entrepreneurs, renting more expensive office spaces in the city and one was leaving

(Emma) at the end of her first year incubation. One participant (Tim) left BIC after his own art gallery opened, so that he could manage it from the store directly. One participant (Helen) was about six months in her incubation time and it was too early to decide on her second year incubation. The fact that the majority of participants stayed in BIC for another year perhaps reflects their positive feelings towards the incubation experience.

Six pathways through the BIC process emerged from the data. Six participants (Andy, Jane, Tony, Ian, Paul and Kath) are selected to represent these pathways. Their experience was so well articulated by them, it can be used to exemplify others and bring their stories to live.

To provide a better contextual understanding of each pathway, a short summary is first presented for each case. Vignettes are then employed to bring their stories to life.

6.3.1 Andy's experience: BIC as a transitional phase
Business idea: web development (WD)

Summary: intending to start his own business as a web developer, Andy heard about BIC from an incubatee and moved in. His original business idea was to use the skills he already had from his previous employment as a web developer to work for the incubatee he already knew. He also thought that the rent was cheap and he liked the office environment, where he could meet more potential clients than working from home. When applying for a place in BIC, Andy presented his idea of developing websites to other incubatees.

Shortly after entering BIC, Andy started to work with another tenant, who designed the layout of websites and whose skills complemented his. Two months after working together, they created another company, which then subcontracted projects to Andy's company. They also teamed up with a third incubatee who was running a marketing and PR business. Andy and his partners employed two university

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students part-time to work on some projects. Before the interview took place Andy had already moved out with his business partners, though he did not terminate the contract with BIC and retained his incubatee status. They had moved to somewhere that had longer opening hours and more professional offices and meeting rooms. Andy's experience is summarised in Figure 4.

Figure 4 - Andy's BIC experience

Pre-BIC

Had a mature business idea
↓
Got to know BIC from a former tenant

⬇

Activities in BIC

Discussed the idea with other tenants
+
Needed/liked an office environment/facility
+
Worked for other tenants
↓
Collaborated with other tenants on projects
↓
Set up a new company with another tenant
↓
Had university students working on projects

⬇

Stage of business outside BIC

Developing the business further outside of BIC with former tenants

⬇

Post-BIC

Left with other tenants for a new company

Andy's story:

Andy came to BIC with a mature business idea, to develop low cost websites for BIC tenants and other SMEs.

> [The] Business idea didn't really come from anywhere, because I've been a web developer before, I was a web developer for a company in [this city], and before I was doing it for myself, just for friends and family …

He got to know BIC through an entrepreneur he worked for:

> before I found out about BIC, another tenant here, Jonathan … and I was going to be the web developer for him … so he already got a place here, and he introduced me to the place, and I then applied to Jenny [BIC administrator].

When visiting BIC, Andy realised that BIC itself could bring business opportunities, because it hosted a lot of start-ups. This contributed to the decision of applying to BIC:

> definitely yeah, for me, come here straight, … I realised obviously gonna be several other tenants who would do similar things and required my skills or I would require their skills and also people who actually wanted to buy products from me, to buy my services. The people here have just started new businesses … and they don't want a huge website, so I knew that a lot of them would be looking to get websites to increase their presence on the internet, or generally for marketing, and erh, obviously they start from a small website, which I was doing anyway at that time … I realised what BIC were looking for, and it's a kind of community as well as successful businesses to work here, erh, I catered my presentation towards small scale, cheap web developments, which I realised would be attractive to current tenants in BIC.

During Andy's time in BIC, two activities (discussed ideas with others and needed/liked an office environment/facility) happened continuously:

> To begin with meeting Frank, if I hadn't met Frank I wouldn't be doing what I'm doing now, networking, meeting other people to bounce ideas off. An example of that is Nick who runs WDD, we have lots of discussions, just general talking about our ideas and there's kind of a trust there that if you talk about what you're doing that it won't go any further than that person, as long as what you're doing isn't similar to them they're not gonna steal your idea … various other people here who if I needed advice on something, I would ask them, because there are lots of people who are specialists in what they do in here. Also the BIC [management] team

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generally, Martin [BIC manager] and Jenny [BIC administrator] mainly are the people who I've spoken to, but if you never need any advice on anything or pointing in the right direction, then those two have been very helpful, and they will continue to be. I've said that I will be in BIC, if not one day a week, at least once every two weeks [although we've got an office somewhere else].

Other activities happened in sequence. The sequential activities that distinguish Andy's pathway were 'getting to know other tenants in BIC' and 'setting up a new company'.

Andy worked for and co-operated with Frank on a number of projects:

… because of the speed I did that and the level of the work I created for him [frank], he then asked me to do more work, and that was after I started in BIC. Then we were doing work for each other, so if I needed that web design, I'd rather asking him, and he needed development doing, he would ask me.

Two months after Andy had been in BIC, he started a new company with Frank:

The level of work that me and Frank were doing grew, so we were giving each other work and I was trading as WD, and he was trading as MC, and it got a point, me and Frank realised we were actually creating the same website just with different designs, lots lots of times, and it was pointless doing that way. So he's got a brand managing background, he's done branding, he's done naming, he's done customer service, we both worked in education …. he's done web design, whereas I'm completely the other side of that, I've done production and management, I've done web development, databases, networking, and in some places we cross over a little bit, but mostly we're two halves of a very complete circle, which works very well … so we developed a kind of a package, which is still in development, but we then decided because we are gonna be doing this, we then started a third company, which is a partnership, called NV, which is going since early December.

The new company Andy and Frank set up employed university students working on projects:

Andy: we have two lads who are doing work experience with us, so one of them was here last week, we got another guy working for us this week. Over the summer, we gonna have one or both working full-time for us.

Interviewer: are they university students?

> *Andy: yeah, I think they both are UKU [students] actually, but I'm not absolutely sure. Hopefully one of them, well at least one of them will turn into a full-time position, and if it's not one of those two, then hopefully we will have somebody else working for us. We are looking at probably, late August, September time, because we believe we will have enough work by then to be doing that.*

Eight months after his incubation period, Andy moved out with two other tenants to a new premise in the same city [City M]. Both in person and in email, Andy and his partner Frank mentioned that they prefer to remain associated with BIC, although they have moved out:

> *Well, to begin with the idea was discussed by Angela [former tenant] and Frank, because both of them are very front facing companies where they need to deal with a lot of clients. Frank does a lot of brand management and it's important to have a business front, and Angela obviously it's the same doing PR, she needs to appear very professional, and one of the, the few downsides of BIC is that it's basically that it's a giant computer room, where you come in, you network, and what Angela and Frank actually needed was an office with a meeting room and I don't mean a meeting room like partitions, I mean a meeting room like an actual sound proof room, which looks very professional. So they began to talk about office space and I said well I don't have an issue with getting office space, I know that I can afford to get office space, and we all did some research and found various different offices, the best of which was the express building in the North Corner of the M City, we actually spoke to one of the directors there and got a very good deal on the office space there ... the walls that make up the offices can be moved, so if you need to make your office a bit bigger, and the people next door, or if the room is empty, they can make that one a bit smaller ... so it's fantastic really, there's not much more we could ask for. It's 24 hours as well, so if you want to work late or come in early ... we don't actually work in BIC anymore, although we come in here occasionally.*

6.3.2 Jane's experience: BIC as a way to separate work and home
Business idea: sports management (SM)

Summary: Jane set up her sports management business when studying a university degree. She organised netball leagues for women in the M City areas. Since the company was established, the business had been growing organically from 7 teams to 18 teams playing at one night and 48 teams in total, despite no extra efforts spent in marketing campaigns or plans for expansion. During her second year BIC entry

interview, Jane mentioned that although there was a decrease in the number of causal employees (from 10 to 8), SM's turnover had increased by 30% to £36,000, after one year's incubation period.

Jane came to BIC two years after her business had been running. Before that, she worked as a sports development officer for five years and learned that there was a market niche in the services she could provide and the business could be very successful. She moved to City M to undertake an undergraduate course and worked part-time in sports. Her part-time work enabled her to have the first facility that was needed to start the business, with very little risk. Her study, however, did not relate to the business, but provided the time that was needed to test her business idea, as summer holidays last quite long for university students. The knowledge she gained from the study was also helpful when there were health and safety issues, relating to her business. Before Jane came into BIC, she just completed her course and her business was growing.

She had worked full-time for her job and worked for her own company in the evenings and weekends. Just before her BIC entry interview was conducted, she negotiated successfully with her employer to take one day off per week and work for her sports business. Jane used BIC one day a week to do administration work for her company, as she felt more efficient when working in BIC. She also liked to work in an office environment than working from home, as she had access to a better printer and professional meeting spaces. She viewed being professional to her clients very important.

Jane had one session with a business mentor and signed up for a press pack with a student, who studied at the same university that harboured BIC. Although she felt that she could not contribute much to the BIC community, Jane liked to be part of it. She gained knowledge about marketing from other entrepreneurs and became much more aware of the importance of the marketing and PR side of the business. She also liked to observe and learned from other fellow entrepreneurs, regarding the ways how they presented themselves and how they marketed their companies. There was also the entrepreneurial atmosphere that attracted Jane to come in to BIC, which

gave her the courage to grow her business and offered her different insights into the potentials of her business. Moreover being with other fellow nascent entrepreneurs offered moral support and exposed her to different information, opportunities and events. Jane viewed BIC as a learning source, such as marketing and networking skills. There were also entrepreneurs with different skills sets, who could help her if she decided to expand her business further. Although the management team of BIC did not have a fundamental influence on the development of Jane's business idea, they were very supportive and yet not pushy. Through the help from the management team, Jane employed other incubatees of BIC, to help her with administration and to set up a website for the company. Jane's BIC experience is demonstrated in Figure 5.

Jane's story:

Jane came to BIC with a mature business idea:

> *I've been running, I set that up [the sports management business] when I was in my first year with my degree. Erh, so it has been running for a couple of years when I came to BIC.*

She liked to work to in an office environment and the facility BIC had:

> *Because the space is brilliant and I work a lot better when I'm here … I just found I've been a lot more productive when I've been here because when I'm here it's just me and a computer and I have to get on with it. There's no distractions things like that. So I feel like my productivity is definitely improved.*

> *It's quite useful as a meeting space, so I have met some people here before, and it's really, it's just invaluable for me to get away from home, to actually have a space I can work and to having access to printer, the printer is better than mine, you know, things like that. You know, the actually office space itself is really good for me. So that's the main thing really. And also having that meeting space if you need it, erh, so it looks a bit more professional.*

Figure 5 - Jane's BIC experience

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┌─────────────────────────────────────────────────────────────────┐
│                            Pre-BIC                                │
│                                                                   │
│                    Had a mature business idea                     │
└─────────────────────────────────────────────────────────────────┘
                                 ↓
┌─────────────────────────────────────────────────────────────────┐
│                        Activities in BIC                          │
│                                                                   │
│             Needed/liked an office environment/facility           │
│                                 +                                 │
│                     Spoke to a business mentor                    │
│                                 +                                 │
│      Hand other tenants and a university student working on       │
│                             projects                              │
│                                 +                                 │
│        Working and starting up a business in BIC the same time    │
│                                 +                                 │
│            Observed and learned skills from other tenants         │
└─────────────────────────────────────────────────────────────────┘
                                 ↓
┌─────────────────────────────────────────────────────────────────┐
│          Stage of business after first incubation period          │
│                                                                   │
│                        Running the business                       │
│                                 +                                 │
│                Developing the business idea further               │
└─────────────────────────────────────────────────────────────────┘
                                 ↓
┌─────────────────────────────────────────────────────────────────┐
│                           Post-BIC                                │
│                                                                   │
│                 Staying in BIC for another year                   │
└─────────────────────────────────────────────────────────────────┘
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While in BIC, a business mentor had a session with Jane, who helped her to clarify ideas:

> *Did have a business mentor, for a little bit, she was quite helpful, erh, at the beginning, because I was at a point where I didn't really know whether to really go for more expansion or whether to just sort of hand back a little back and make sure that what I had was OK enough to manage, and she was good just to have a chat with her, you know just to sort of right, you need to do this this and this. Because I was thinking that I need to get a logo, I need to do this, I need to market it better, and she was going, 'do you really? Because you know, it's working OK as it is', so that was quite useful but I only had one session with her and then she cancelled the meeting, and then never got back to be in touch with me …*

I guess for that session, she was more a sounding board … to say you know, to help me prioritise what was important and what could wait. The other thing she helped with, erh, because at one point I was considering looking at how to franchise it. So then move it another city and try it in another city. And she didn't really feel that it was an option, because you know the amount of work involved and again, because it was, maybe it was just the niche thing that was here, so I wouldn't necessarily rule that out, but it's not, again, is that really a priority … so she was more erh, it was advice that anything like that, but more sort of mediate term about things what happening now...

Coordinated by academics in the UKU Business School and BIC management, Jane had a student worked for her press release:

It was someone Martin [BIC manager] sent email out and I replied to that, and it's a PR student, looking to put together a press pack, for different organisations, so erh, they've accepted me for that, so I am gonna do that for the summer weeks, just also because it will help me actually to learn about what I need to do and you know, how to write a press release (laughed) things like that. Although I'm sure I can do it, is more getting the time to do it as well, so erh, yeah, that's thing I hope would happen and then would allow me to explore expansion in the summer, which is possibly a bit more realistic.

Jane was working as a health professional while running her business from BIC:

It was quite hard to get a job and I was quite lucky, I was offered permanent job almost straight away, so I never really spent a lot of time here, it's always been, sort of you know I've always taken annual leave from work to try to come in and get some work done, or I was coming in on a Saturday to do it. Since May, I managed to negotiate a day-off every week so I can come on a Wednesday.

I was always a little bit afraid of taking on too much when I'm still working, so much as well, so I do fit in two days a week. That's only recently that you know that's come down from 37hours a week, so it's been a little bit tough, I feel like I've not make the most of that opportunity in some ways.
Sometimes the [sports] teams will email me during the day and I cannot access my emails at work, and I don't really feel like it's appropriate for me to check me SM emails when I work either, so it's quite hard sometimes. I say to them I cannot always access my emails, will you phone me instead, but I cannot always use my phone neither. So I just find that I need to be a little bit careful, because I want to appear professional. I don't necessarily want them to know that you know, I just do it as if it's just a bit part-time. I want them to think it's more than that.

So erh, I guess I'm a bit careful how I present it to them. But it definitely helps having somewhere that you can use, you know, [BIC's] city centre address, sort of, trying make myself a bit more professional (laughed) …

I feel like I've got two alternative careers running at the same time and I don't necessarily feel like I do either of them properly so I feel like at work I'm doing as much as other people are doing, not when I'm at work but outside of work, so in terms of attending courses and things like that, and I think maybe I don't do as much that as I should do, and I've got this where I feel definitely don't do as much as I could do, so I actually realise my business's full potential, so I've got two options there and I still don't know which way to go.

While in BIC, Jane was observing fellow entrepreneurs and learning business skills from them:

It's made me a lot more aware of … sounds silly, but a lot more aware of the bits that I'm not very good at. So I watch other people networking, and see how useful that is for them, and how beneficial is for them, and I think that I should do that more. I see how other people market themselves, erh, again, think I should do that a lot more and a lot better.

I feel like I've not make the most of that opportunity in some ways. I think being here has made me a lot more aware of how to market, well knowing that there's none marketing that I do, compared to everyone else. Erh, and how innovative everybody, you know, or other people, the importance of networking, things like that.

Jane was staying in BIC for the second year to develop her business further:

I think for the next year, my strategy will be the same to try to keep my head above water and then respond to any demand as well, so if I do get an influx of teams then to be able to offer them something and have the backup to do that, so have the infrastructure you know have the umpires, have the venue, have an admin person to help me on the night and things like that.

Really keen on being part of the BIC community, Jane explained why she decided to stay on for another year in BIC:

J: So it's all those reasons, but also because I don't feel like I've got the full potential out of the business yet, so I feel like if I was to expand it any more, if I was to do things differently, so trying to market it differently, and things like that, I think I want to tap into the resources that are here. So I don't feel like I could necessarily do it alone, so even if I chose not to use the facility as I do now, I cannot really ever see a time when I

wouldn't want to be part of that community. So I know we were given different options for our second year, and I think if it comes to next year, and you know, if I feel I can set up an office at home where I'm more productive etc. I think I still want to be part of this place as a community and to get those emails and things like that.

6.3.3 Ian's experience: BIC as a physical and social space
Business ideas: social networking events (SNE / Ian$_1$) and hypnotherapy and wellbeing (HW / Ian$_2$)

Summary: Ian's first business was to promote bands and club nights. He had to purchase printing products to promote the business, but was not happy with the products and services. Recommended by a friend, Ian started his own printing company, three years before entering BIC. He was working on a part-time basis first until his employer found out and he had to resign. Then he started to work full-time for the printing business. At the same time, he also started a business services company and a music equipment hiring service. Ian recruited a business partner for the printing business before came to BIC. However his partner had some problems and the printing business was not trading.

Ian and his partner had been to a lot of networking events but were not happy about them. When they saw the facilities in BIC, they thought that it was a very good venue for holding networking events. With their own substantial experience as customers of networking events, Ian and his business partner thought that with the facilities of BIC, it was the right opportunity for them to start their own networking events. The events they hosted in BIC were well received, however they were free of charge, as no one would attend these events if they were not free. Nevertheless Ian viewed these events as an opportunity of meeting new people and selling products from the printing business. The talks and networking events brought other entrepreneurs from the region to BIC, some of which then converted to applicants and ten of them joined BIC. Ian mentioned that although the management could not contribute to the development of his business ideas, they were very helpful in organising the networking events for him.

Ian was very interested in hypnotherapy. During his time in BIC, he attained a diploma in hypnotherapy. He used university library for his studies. He spoke to Tony, who was seen as a fellow entrepreneur and a business advisor, about marketing strategy for the business. Then he was in the process of building up a strategic alliance with people in- and outside of BIC to provide wellbeing services to customers. Enjoyed his time in BIC, Ian had decided to stay in BIC for another year. His entrepreneurial process in BIC is demonstrated in Figure 6.

Figure 6 - Ian's BIC experience

Pre-BIC

Had a mature business idea

Activities in BIC

Discussed the idea with other tenants
+
Needed/liked an office environment/facility
+
Used the library and other UKU facility
↓
Spoke to a business advisor
↓
Collaborated with other tenants on projects

Stage of business after first incubation period

Not ready to leave, running first business
+
Developing a new business idea with other tenants

Post-BIC

Staying in BIC for another year

Ian's story:

Before Ian came to BIC, he had run some businesses already. The business idea he brought in with BIC was unrelated to his previous businesses, but was associated with the physical space BIC had:

> I used to promote band nights, when I left my former employer I actually started up three businesses at once, well three websites really. One was [about business services], one was [about band services] and the other one was to do with PA systems. What I used to do was I actually used to hire out a venue in the M city with engineers and with a PA system for two bands. I also used to do printing for a lot of bands, like flyers, business cards and things like this … so I think it was probably about three and a half years [before coming to BIC].

> When I came to BIC, I was already trading, as businesses, [one of them was] an online printing and design studio. I also formed partnership with my business partner and we formed another print company … [but] it hasn't been trading [lately].

> With that Social Networking Events (SNE) business, we had no intention of setting up a networking event, that was just something which we thought we might as well do to be perfectly honest and so when we came to here we saw what a good state it was and we realised how much potential it had for people to do networking and there wasn't anything going on so we started running these events, and successful as well and so that was something that completely evolved from being here, it was something that we wouldn't have done otherwise so that was really good.

Not only Ian liked the facility in BIC, it was instrumental for constructing the business idea of social networking events (SNE):

> Being at BIC has allowed me to have a better presence, I can do more things because I use the meeting rooms quite a lot you see and I put on quite a lot of talks and events and with that social networking events business (SNE) we had no intention of setting up a networking event, that was just something which we thought we might as well do to be perfectly honest and so when we came to here we saw what a good state it was and we realised how much potential it had for people to do networking and there wasn't anything going on so we started running these events, and successful as well and so that was something that completely evolved from being here, it was something that we wouldn't have done [without BIC] so that was really good.

Using the facility in BIC gave Ian a professional appearance for his business:

Well it's been good because with my hypnotherapies and also with the marketing talks we used to use a friends meeting house behind the library and since we have got like a permanent address and basically like a lecture room, it has enabled us to put on these big talks – and for free because there's no cost to us, well no real cost, obviously it's in the yearly membership but there's no real cost to us so we were able to put on these events for free so I have made money out of it, you know I've been able to do these talks and put the people on and actually get new customers, and get new clients out of it as well and it's also much more professional than erm, well I suppose hiring places was okay but it's nice to have your own actual place where you can invite people to and also I have a lot of people come in for meetings and come in to discuss joint ventures and things like that and its nice to say they can come to my office, knowing that I can book out somewhere, or we can just use the café, well the kitchen … so it has put up a professional image because I used to work in my bedroom so from working in your bedroom to coming and working in a big facility with professional projector screens, flip charts, tables and a kitchen has been really really good!

While in BIC, Ian discussed his business ideas with Tony, a fellow entrepreneur who was a business mentor, associated with Magnolia Consulting:

He helped me through Magnolia Consulting … he helped me with the hypnotherapy he made me look at it as a real world example and he showed me how it would work and did all the costings and showed me how it would be so that was really really helpful. … so he took what my idea in business was and actually laid it down into figures and numbers and actual plans.

Using his connections with BIC, Ian hired equipment from the university and used library and other facilities to promote his businesses:

I've used the library a bit. I've hired some books and I've also hired erm some equipments from the student services or media services, whatever it might be, so I have used that, …oh in fact one of the members of staff has done a speaking event for us about networking, I haven't really used the facilities that much, I haven't been in the library for a while but I have used the library to put flyers in and stuff like that as well for talks which I have done here so I wouldn't have necessarily used the facilities to the best extent.

In BIC, Ian started his second business idea, which was about hypnotherapy. He was building a strategic alliance with a nutritionist outside of BIC and Mark who was a fellow tenant in BIC. As Ian explains:

I'm developing sort of 'strategic alliances' … so I am teaming up with the nutritionist as and also a personal trainer – Mark from BIC and we are going to do some work together… Mark came to one of our events here and signed up to come and work here which is good. So hopefully I am going to do some work with him and so the strategic alliance is that I am looking to work off other people's mailing lists [from the nutritionist] … and all the woman are generally looking for confidence and motivation and these kinds of things which I can obviously help people with and then there's a personal trainer, a nutritionist, so they all go hand in hand… Like a whole package so that's what I am working towards at the moment and that's what I am going to be doing for the rest of the month setting up, hopefully getting the website done this week and setting up, and also I am going to be using this place much more to do talks for like New Years Resolutions which will hopefully involve Mark and the nutritionist because if you think about what New Years resolutions really are they are usually to do with fitness, wealth or health kind of goals and so Mark will be able to tell people about how to keep fitness goals and health goals, the same with the nutritionist and I'll be able to tell people how to get the correct mindset and then from that we are going to take clients because we are going to invite all our client bases, and we'll either use the meeting suite, if we get more people we'll just do it out here, use even more space and it will be a good place to exchange customers ,exchange clients, exchange leads and it won't cost much to put on an event for 45 minutes and it all goes hand in hand … so they are the things I am working towards and that's kind of my strategy is to work with people who already have client bases and also to do joint ventures with similar types of businesses that would have a strategic partnership with.

Having been able to introduce new tenants to BIC, the BIC manager Martin charged Ian the same rent as of first year's. Ian really liked the facility of BIC and the social interactions he had with other tenants:

I like the facilities, I like being here, I genuinely like being here and you will find me here most days, I signed up as soon as it [BIC] became available, I looked around the place when it was still being built (laughs) I was desperate to get in … and if I didn't work here I can't justify paying for an office, a proper serviced office … [The rent for second year entry] hasn't been raised [for us], we have worked something out with Martin [the BIC manager], because we do the networking we have worked out our rates to stay the same as the first year because we have introduced

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about ten people who have joined up so we haven't lost out (laughs) …
but you know it pays for itself very quickly because if I want to do the
events, the speaking events and stuff and if I don't have a base to do it in
then I can't do them, or I will have to pay to use somewhere and I like to
have the city centre address and I like the community element of it and I
like to work with people and I like coming in and talking to people and I
came in today and it's really busy and over the last two months it's really
really picked up which is really good because everyone is really nice and I
like that and everybody eats at 1 o'clock and stuff and goes out on
monthly meals so it's really good.

6.3.4 Tony's experience: BIC as a talent pool
Business idea: life coaching and business advice (LCBA)

Summary: at the age of 14 Tony started a car washing business and it was then sold for £50. He started his first marketing company with friends when he went to university. The company sold environmental friendly products. However it was not a popular idea at that time and was difficult to attract new customers. As a result it was stopped and sold after four years. Tony then started a different company with two friends. This company provided services in events management and marketing, which was sold three years later. Tony spotted a business opportunity when he was one of the first scholars on the NES (New Entrepreneurship Scholarships) programme. He found that the marketing section for NES used strategies for larger organisation, whereas NES is a government initiated programme tailored for nascent entrepreneurs from deprived areas. He then did marketing for NES and started to run workshops for the NES scholars.

Inspired by an article in Times Magazine, Tony travelled to America, to be trained to be a life coach, who then started LCBA, which provided training services in dating, life coaching and business advice. When Tony entered BIC, he started LCBA, with no business partners. Nevertheless, he was planning to re-name LCBA to Marketing Advice (MA), within a month after the interview was conducted. The date training services was not very successful, therefore to prepare for MA, Tony was going to sell his date training business, but to keep the life coaching and business advice services. Tony was also going to have four business partners, three of which were fellow entrepreneurs he met in BIC. One business partner would deal with Web issues, one

would be in charge with sales and the third one would be a project manager. Tony's fiancé would be the fourth partner, who would help with the legal and financial issues.

As an associate of Magnolia Consulting, an enterprise services and consulting firm, Tony acted as a mentor, formally and informally, for some BIC tenants, helping them with marketing strategy. Tony had been a member of BIC for seventeen months and he had passed his second year entry interview, before this interview was conducted. During his second year entry interview, he mentioned that he had set up business targets at the beginning of his incubation period. He had planned to help 100 small businesses and to have three private clients. The targets were well reached as he helped 187 businesses and provided services to six private clients, one year after his incubation time. The turnover of LCBA was £27,000, compared to £0 when he moved into BIC. Despite this big success, Tony had planned to sell one of the daughter companies which provided date training. Furthermore Tony reported that MA would develop new products to the markets by broadcasting his workshops online, with a subscription charge. He believed that this e-strategy will help him to reach more potential clients. Figure 7 demonstrates Tony's incubation process.

Tony's story:

Tony came into BIC with a mature business idea:

> Originally, when I came to BIC, a year and a bit ago the idea originally was called Life Coaching And Business Advice (LCBA). I have mainly been doing lots of life coaching work with a little bit business advice and that is developed from then, very much more business advice, rather than life coaching, because life coaching is a very saturated market. The dating side of stuff has gone well but more of kind of hobby, so I was gonna be teaching about attraction and psychology and things, it's quite fun.

He enjoyed having social interactions with others in BIC and discussed ideas with other tenants:

> Well, because it's a quite open space, and because people are, you know, bump into people and talk to people, that's how I managed to meet David so much and that's how I get to manage to get to know most people I'm working with, it's just by bumping into people.

Figure 7 - Tony's BIC experience

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┌────────────────────────────────────────────────┐
│                    Pre-BIC                     │
│                                                │
│            Had a mature business idea          │
└────────────────────────────────────────────────┘
                        ⇩
┌────────────────────────────────────────────────┐
│                Activities in BIC               │
│                                                │
│        Discussed the idea with other tenants   │
│                        +                       │
│        Liked the office environment and facility│
│                        +                       │
│             Worked for other tenants           │
│                        ↓                       │
│        Had other tenants working on projects   │
└────────────────────────────────────────────────┘
                        ⇩
┌────────────────────────────────────────────────┐
│    Stage of business after first incubation period │
│                                                │
│             Original business on hold          │
│                        ↓                       │
│   Starting up a new business idea with other tenants │
└────────────────────────────────────────────────┘
                        ⇩
┌────────────────────────────────────────────────┐
│                   Post-BIC                     │
│                                                │
│             Staying on for another year        │
└────────────────────────────────────────────────┘
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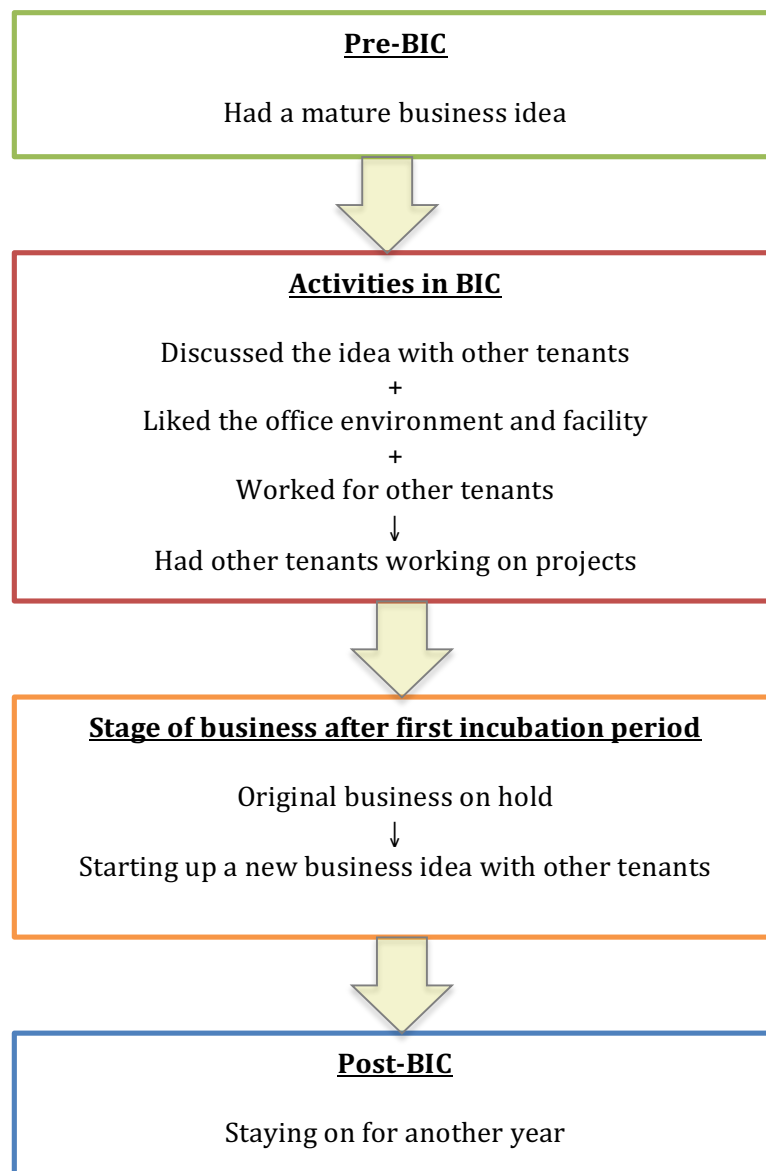
Tony liked the office environment and used BIC to run workshops:

> *The other nice thing is if you got, I think it's just changed the way that I work, because ... when you are working at home, you can be very very blinked at what you are doing, and you just keep going keep going ... I [also] used BIC for the workshops ...*

> *This little room is really helpful, so we draw the stuff, and because it's hot-desking, you can basically meet a lot more people. You know, BIC itself will become too small for this business, and hopefully relatively soon, but without it, it would really exist.*

According to Kelly, as a fellow tenant, Tony helped others to grow their businesses by introducing them to other SMEs and asking them to work for him:

> *I have, as a result of BIC, collaborated loosely with Tony and he is very good at roping people in to help him with different things so in some ways it helps people kick start into doing things and he has got me involved in doing the PR side for his business and he has gave me a client Hair Sense so I have been trying to drum up PR for them and also I realised whilst I was doing my Masters that somehow I still had to make a bit of money so I thought why don't I do small graphic design projects because I have that skill so that's how my business has grown a bit ...[Kelly]*

As an associate of Magnolia Consulting, an SME consulting service that often delivered projects on behalf of the government, Tony provided business mentoring service to fellow tenants, both formally and informally, according to Ian and Alex:

> *Ian: He helped me through Magnolia, oh we met at Magnolia actually but he helped me with the hypnotherapy he made me look at it as a real world example and he showed me how it would work and did all the costings and showed me how it would be so that was really really helpful ... we went through Google Ad Words, we went through Search Engine Optimization, we went through my website and why it wasn't working and also not cash flow but how many sales I would need to get per month from what advertising ... Yeah basically this is how many clients you would have to see per week to make this amount of money per year so he did it all out on a big blackboard or whatever, a big squeaky board thing and showed me you can do this advertising and it will cost this much, this is how many clients you should get... so he took what my idea in business was and actually laid it down into figures and numbers and actual plans.*
>
> *Alex: Tony made me think more about how I could use the facilities and resources at UKU to help me build it and other things that might be going on like Media City and so on and it was good.*

In BIC Tony modified his original business idea and was about to start a new venture with other tenants:

> *Well, basically Marketing Advice (MA) developed because I'm work with Magnolia Consulting, so through Life Coaching And Business Advice (LCBA), I got a contract with Magnolia, now by getting that contract with Magnolia, I've learnt lots of more about the tendering process and about how to get money out of the government. I know where the*

opportunities are, really. And that's why I'm at a very very strong position now with MA, which wasn't before.

I realised if I could get a group of talented people together, and the right people and right motivation, we can then really revolutionise the way that business is taught ... and even with the NES, that was the same reason, so that's when I realised a marketing opportunity.

Having been a tenant of BIC for 17 months, Tony was already in his second year of incubation. He explained the reasons why he stayed on in BIC for another year:

It was when I listen to Neil' speech, I've realised actually it's not just the social side of it, it's the motivation side of it, but also it's meeting the right people. And as soon as I opened my mind, the possibility that we can meet, you know, the right people, so I then met all the right people.

I think they [Tony's business partners] already stayed here, they already were here, I don't think they wanna move, and I don't wanna move them, you know, I'm happy to move downstairs, if the opportunity arises, and it's nice enough than I will do , but also wouldn't you know, at the end of the day, these guys [BIC tenants] gave me my first clients, they are good people, UKU ... I still haven't used UKU enough, basically for me to leave now. I've got lots lots contacts here, so I wouldn't want to leave yet, before I manage to utilise the strength and power of UKU, because as I say, as a brand, as a university brand, you know, you couldn't really sit to a better one anyway for what I'm trying to do, I'm not trying to teach people how to become better entrepreneurs, and UKU is trying to teach me how to become better professionals, or you might move those two things together and that's called a tasty package. I know you can take that over to you know place like China, and stuff, we can export that, but I don't think I can export that under MA, but I could export that under UKU, because it's better well known.

6.3.5 Paul's experience: BIC as a repository of resources
Business idea I: online food specialist (OFS)

Business idea II: digital publishing (DP/ Jeff-Paul, together with Jeff, see Appendix XIII, case no.10)

Summary: Paul aimed to become an entrepreneur when he was studying Geography at a university. He combined his personal interests, knowledge and skills together and formed the first business idea which was to sell environmentally friendly

products online. This idea was also based on the research he conducted and his personal experience in buying green products online.
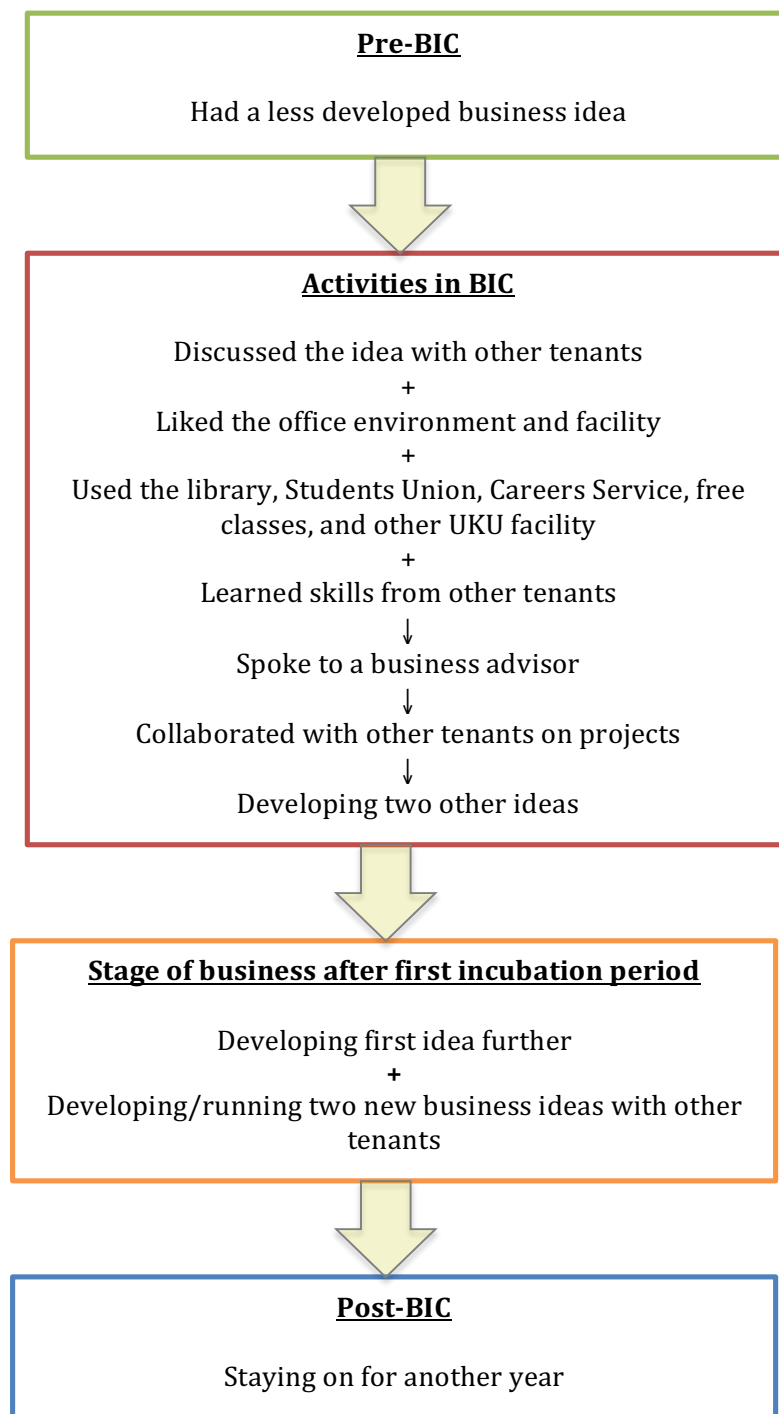
When Paul signed up for BIC, he planned to grow only one business which was OFS. Nine months after he was in BIC, he officially started Digital Publishing (DP) with Jeff and another tenant. Paul and his business associates started to have the idea of writing digital manuals for students while they were studying. As users themselves, they spotted a need in the market. Jeff and his partners conducted quantitative and qualitative studies with the potential users and found that writing easy-to-use computer manuals and publishing them online could be a good business idea.

Despite having had personal experience as a digital green food shopper, Paul mentioned that the Online Food Specialist business (OFS) was a high risk business because he was not familiar with the industry and that the business was at a very early stage. He rated DP as a medium risk business because they did not have specific industry knowledge. Paul found that his skills complemented Jeff's and that he enjoyed working with Jeff. After months' negotiation with Jeff, Paul was becoming a director and shareholder of IT Services (ITS), a business that was started up by Jeff. Paul viewed ITS as a low risk business which generated some income. He also viewed having skilled and resourceful people as partners very important.

Paul believed that to become a successful entrepreneur, he still had a lot of knowledge gaps to fill in. As a tenant of BIC, he contacted the business school and was able to sit in some Maters' modules for free. He believed that attending those classes were useful in developing his businesses.

Paul found that the incubatees were very supportive to each other and that he learned a lot of things from other incubatees. He mentioned that being able to have the access to the human capital in BIC was very important for his businesses. He also believed that staying in BIC would save costs compared to moving out. He had decided to stay on for another year in BIC. Figure 8 illustrates Paul's incubation process.

Figure 8 - Paul's BIC experience

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┌─────────────────────────────────────────────────────────┐
│                        Pre-BIC                            │
│                                                           │
│            Had a less developed business idea             │
└─────────────────────────────────────────────────────────┘
                            ↓
┌─────────────────────────────────────────────────────────┐
│                    Activities in BIC                      │
│                                                           │
│            Discussed the idea with other tenants          │
│                            +                              │
│           Liked the office environment and facility       │
│                            +                              │
│     Used the library, Students Union, Careers Service, free│
│                 classes, and other UKU facility           │
│                            +                              │
│            Learned skills from other tenants              │
│                            ↓                              │
│             Spoke to a business advisor                   │
│                            ↓                              │
│        Collaborated with other tenants on projects        │
│                            ↓                              │
│               Developing two other ideas                  │
└─────────────────────────────────────────────────────────┘
                            ↓
┌─────────────────────────────────────────────────────────┐
│       Stage of business after first incubation period     │
│                                                           │
│               Developing first idea further               │
│                            +                              │
│     Developing/running two new business ideas with other  │
│                         tenants                           │
└─────────────────────────────────────────────────────────┘
                            ↓
┌─────────────────────────────────────────────────────────┐
│                        Post-BIC                           │
│                                                           │
│                Staying on for another year                │
└─────────────────────────────────────────────────────────┘
```

Paul's story:

Paul came to BIC with a less developed business idea:

> *Before I came to BIC I did a Master of Enterprise in Environmental Innovation, so I got an idea that I wanted to sort be an entrepreneur after I had finished my first degree and so but I also wanted to get a*

Masters degree as well so I did the Masters of Enterprise degree which was kind of, well half of it was research and half of it was being taught how to develop a business plan and how to evaluate the market and do a feasibility study and at the end of that I had to use the research that I had done and the stuff I had been taught to write a kind of piece of research and then an extended business plan on how to sort of exploit that piece of research so yes its about six months into that process that I heard about BIC and came and did my interview and then once I graduated I moved in here to start sort of exploiting that piece of research that I'd done.

He believed that being in BIC gave him the extra value to his business, as he could discuss his ideas with other entrepreneurs who were like-minded and supportive. Paul also mentioned that he found useful information and contacts when speaking to fellow tenants:

Yeah I mean the kind of thing was, say if I explained my idea to people outside of BIC then they would say why do you want to do that when you can just get a graduate job and be earning lots of money or why would you want to do that, it might not work and that type of thing, because they can't see what I can see and they can't see the opportunity that is there to be exploited, whereas if you have the same conversation with people in BIC then immediately because they can see the opportunity straight away … say for example you are doing an online business and this is where you want to get to, they will understand where I am coming from and then start to add to the idea or say have you thought about this or this would be a good business model to use or these are really good contacts and you should go and speak to these people or they might say they have experience in this and that might not be the best way to go about doing it but a different way worked for them, and that's the kind of thing, they add extra value to your business idea by giving you extra input which people outside of BIC are less likely to give you because they think in a different way so yeah I think those are the two …

Paul learned useful information and skills from other BIC tenants:

There's probably a third way that being around people in BIC helps and that's that everyone has an area of expertise that is different so the amount of information you can pick up from people which you wouldn't usually pick up is massive because there are web designers, web developers, online retailers in here, recruitment agencies, legal consultants, book keepers, you know there is somebody in here who has some kind of experience into almost all aspects of the business and marketing and all that kind of stuff so I think when you add those kind of three factors' being around other people, having them add to your ideas

*and being able to access their knowledge, skills and experience then that
makes BIC a really really valuable took to help you develop your business.*

Paul liked the office facility in BIC, for a number of reasons: not being isolated, having the access to office equipment with low cost and having a credible appearance for his clients:

I think having a place to come is important, I think lots of people who are starting out, especially if they are graduates and already have quite a lot of debts so they don't have too much money to invest into the business the other alternative would be to work from home and I tried that for a couple of months to begin with and I don't think it's anywhere near as productive as having a place to come and work, I think in terms of your mindset it is much better to come away from where you sort of socialise and spend your spare time and go somewhere different which you associate with working hard and doing business – especially if that place has the kind of facilities that you have got here so having access to the meeting rooms and the kind of networking areas, from a personal point of view that is very good when you are setting up your business because it's the kind of resources you might not have otherwise and I think it's also useful, it helps you when you are dealing with customers or external bodies that you want to meet with because its much more professional to come to a place like this and have a meeting room to sit down with and have access to the projector and things like that and it wouldn't be easy if you didn't have access to those facilities so I think from a personal point of view to make sure that you work hard and that you focus when you are at work is important and its important that when you meet with other people you want to present a professional sort of image to and I think its also useful to have access to the internet, the computers the printing, filing cabinet and those types of things which allow you to develop your business whereas if you didn't have those things it would be more difficult.

Similar to what other tenants experienced, Paul believed that the business advisors were useful in helping with the generic business knowledge and referring the tenants to other advisors, but were not very helpful in terms of very specific business knowledge:

I think it's very depending on who you speak to, I think some of the advisors really do know what they are talking about and they are really useful to speak to, others ... well I think this applies right across the board to all business advisors but I think some aren't really qualified to speak authoritatively to speak about what they're advising on so I think that on the few occasions where we have spoken to an advisor who I didn't really think they understood what we were talking about, for example I had

been to the library and read up on some of the laws to do with directorship and shareholdings ... yeah so the two hours in the library provided me with more knowledge about what we were getting advice on than the advisor did so I think that's not always the case but its probably the case with all business advisors its the same as I have experienced the same when I have sought advice from other business advisors outside of BIC that sometimes they are not very knowledgeable if you ask them a specific question, they can give you sort of general business advice which is useful when you are at the very very early stage of setting up but as soon as you develop some experience yourself they have less to offer in terms of valuable advice because they can only really advise you generically and cannot give you specific details but one thing that was useful was some of the advisors have been able to introduce us to their network of contacts so if they weren't able to answer the question then they referred us to say accountants and solicitors and that type of thing who have been able to offer us free advice as well so that's been useful.

As a graduate entrepreneur, Paul felt that he had gaps to fill in terms of specific business knowledge and experience. He used the connection of BIC to sit in other classes taught in the business school and used this opportunity to gain access to the knowledge the academics and other classmates had:

I thought it would be valuable to sit on some of the modules from the business school as a MA and practicing management and MSc in leadership in some of the modules would be useful for people looking to become sort of entrepreneurs because you do have to manage your business and be a leader and things like that so I have independently contacted staff and I have been allowed to sit in on their modules for free because I am here at BIC.

Having access to academics with specific knowledge was useful because they could obviously lend their advice to the business and also they were able to sort of suggest other sources of information and things like that and then I guess like also having access to some of the students on the courses because when I went to the MA in Practicing Management lectures ... a lot of the students who were there were already managers in business so I was able to access their knowledge and experience as well as the academics who were teaching the modules so that was really useful and I think being able to pick up that extra input is important when you are a university graduate without any experience so I think if you are going to be a successful entrepreneur who is a university graduate you have to be quite honest with yourself in admitting that because you don't have experience there are very large gaps in your knowledge which have to be filled somewhere and have to be filled as

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> *quickly as possible so I think having access to academics at the university who can help you fill those gaps is really important, both in terms of developing yourself as an entrepreneur and also developing your business ideas so that they perhaps are more realistic and more likely to be effective.*

Paul did not only use his connections with BIC to attend classes for free, he also used Careers Services and the Students Union from UKU. The Students Union particularly helped in marketing his businesses:

> *I have used the Business School library to take out books to read and I've got advice from the Careers Service because I wanted to get advice on how following a sort of entrepreneurial career path to begin with would impact my likelihood of getting a job later on in life if that's what I wanted to do so that was useful to get advice from the Careers Service and also advice on how to get a part-time job and get an income to support me whilst I am developing the business, we have also had lots of help from the Students Union who have been quite sort of keen to help us develop our business and the two student-focused businesses; the digital publishing company and the IT support services, so they have gone well beyond what we thought they would be able to offer us kind of in terms of giving us space to set up a computer drop-off point where students come to us and get advice and things like that and helping us with our marketing quite extensively by sending out e-mails to all the students within the university telling them about the service we offer.*

Paul came to BIC with one business idea and he was still developing the idea further. At the same time, he started to collaborate with other tenants of BIC. He was starting up a second business and joining a third one that had already been established in BIC:

> *[I] was going to be an on-line retailer of environmentally friendly products so that's why I initially came here to do that but then after being here for just over a year I am actually now involved in three businesses so I am still working on the initial idea that I had but then I have also started a digital publishing company so with two other of the tenants here at BIC – we are writing e-books for university students.*

Benefiting from the physical space, and the financial and social resources BIC had to offer, Paul had decided to stay in BIC for another year:

> *I think for a number of reasons, firstly purely practical in that it can take longer than 12 months to set up a business to the point which it is successful enough to move somewhere else and that's both in terms of*

financial success and also for the company to grow significantly enough so you don't need access to the resources and the people and things that you have here and I also think I would like to, well I wouldn't like to move out of BIC but I can see it will have to happen once the businesses get to a certain size because we are looking to be expanding with each of these businesses within the next 12 months and that could mean that at some point we are going to have to move out and set up premises somewhere else but until that point we are much more likely to succeed in business if we can stay here until we get to that point I think and not move out and incur the extra financial costs and complications and I think what I would say is that the most valuable thing BIC has to offer is the community on the human capital side, even if we have to move out because we grow too much and have premises elsewhere, I would still like to have access to the community here because I wouldn't like to lose the value that that creates for my businesses, just because I'm growing and have to move out.

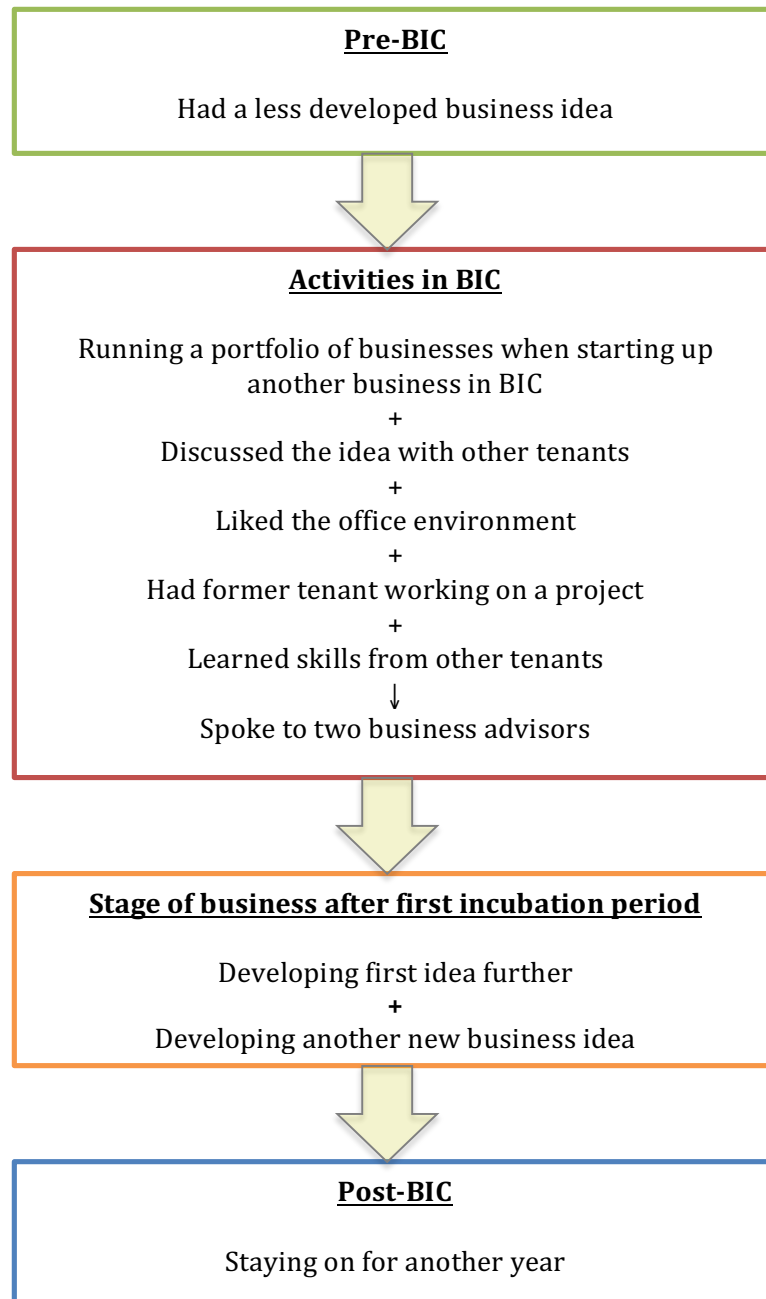### 6.3.6 Kath's experience: BIC as a driver of entrepreneurial spirit
Business idea: childcare vouchers management (CVM)

Summary: with a father and a sister in self-employment, Kath believed that it was natural she was also in self-employment. Kath was a school teacher before she started a childcare business eight years prior to coming into BIC. She mentioned that she was always different than other teachers, in an innovative and entrepreneurial way. Kath ran a portfolio of businesses, including nurseries, out-of-school clubs and holiday clubs. She noticed that childcare vouchers were often used by parents in her nurseries. Despite of many attempts of finding out more details of the vouchers, Kath did not know how the childcare voucher system worked. She then decided to have the business idea of childcare vouchers on hold.

About four years later, Kath attended an event, which was held in BIC. The entrepreneurial and buzzing atmosphere of BIC made Kath thinking of starting another business. She then picked up the childcare voucher idea, which she put on hold four years ago. She decided to become a BIC tenant and spend more time on studying the childcare voucher system while running her nurseries and clubs at the same time. Kath mentioned that the core of the business was to set up an online system, which would be easy to use for various vouchers. She needed a specialist to

design a system and a website for her business. She then asked people in- and outside of BIC and subcontracted the website to a former incubatee.

Figure 9 - Kath's BIC experience

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┌─────────────────────────────────────────────────┐
│                    Pre-BIC                        │
│                                                   │
│          Had a less developed business idea       │
└─────────────────────────────────────────────────┘
                         ↓
┌─────────────────────────────────────────────────┐
│                 Activities in BIC                 │
│                                                   │
│    Running a portfolio of businesses when starting up │
│              another business in BIC              │
│                        +                          │
│          Discussed the idea with other tenants    │
│                        +                          │
│             Liked the office environment          │
│                        +                          │
│         Had former tenant working on a project    │
│                        +                          │
│           Learned skills from other tenants       │
│                        ↓                          │
│           Spoke to two business advisors          │
└─────────────────────────────────────────────────┘
                         ↓
┌─────────────────────────────────────────────────┐
│    Stage of business after first incubation period │
│                                                   │
│            Developing first idea further          │
│                        +                          │
│          Developing another new business idea     │
└─────────────────────────────────────────────────┘
                         ↓
┌─────────────────────────────────────────────────┐
│                   Post-BIC                        │
│                                                   │
│            Staying on for another year            │
└─────────────────────────────────────────────────┘
```

As a very busy entrepreneur, Kath was very happy to have a space in BIC, though she had a home office. She mentioned that being in BIC enabled her to delegate work to her manager and to only concentrate on developing the Childcare Vouchers

Management (CVM) business one day a week. Kath felt that the tenants in BIC gave fresh perspectives that she could not get anywhere else, though she was already an experienced businesswoman, compared to new start-ups. She was happy to receive comments from other incubatees especially because they were not her employees and they gave honest comments to her business ideas, which she found very useful. She also found that there was much trust amongst the incubatees, where she was able to share secrets and ideas with others, without feeling being copied. Being quite entrepreneurial and thought that there were not enough female entrepreneurs, Kath was thinking of another business idea, which would be writing e-books for nascent female entrepreneurs. After a year of incubation, Kath had decided to stay on for a year in BIC, as she felt that she had benefited from BIC in terms of networks and support. Kath's business incubation process is demonstrated in Figure 9.

Kath's story:

Interested in the idea of a Childcare Vouchers Management (CVM) business, Kath had been investigating the idea about four years before came to BIC. It was attending an event in BIC made her want to pick up the idea again and develop it in BIC:

> *When I came into BIC for the very first time … well when I had heard about BIC for the very first time I had had the idea about childcare vouchers for about three or four years but not been able to do it but it was coming to BIC that made me be able to do that. So maybe towards the end of 2004 we tried [to develop the idea] and then we left it for a while and tried again about 12 months later to investigate it all and try and get into it and again nothing but then in November 2007 I went to a meeting at UKU about entrepreneurs or innovation or something like that, something that attracted me and one of the BIC tenants who had just started, Christine, she just gave a very brief talk, couple of minutes just saying what BIC was about and then the talk happened and I just thought, 'That's interesting', and I knew I wanted to go to BIC but at the time I was thinking, 'well what can I do,' and I was thinking more about online businesses and it wasn't until about a week later when I was driving back from my nursery and I thought, 'I'll do childcare vouchers and use BIC to help me to do this thing that I've been wanting to do for ages'.*

Kath discussed her ideas with fellow tenants:

> *You get your ideas don't you from talking as well so you talk and you might develop an idea as you are speaking and if somebody is saying something you might follow it through and say, 'actually yes', it's a bit like coaching, you come out with the idea yourself but you perhaps wouldn't have done if you had somebody hadn't have talked about it and done something over lunch when you didn't know you were going to talk about that.*

Although Kath had her own office from the other business, she liked to come to BIC for her CVM business. This helped her to concentrate on developing the new business idea, without being disturbed by her employees:

> *When I am in my office at home, which is where I run the other business from, I get delayed with everything that is happening there because I have various people who work in the office but if I am there I get asked and I cannot concentrate on what I am trying to do and so coming to BIC completely separated me from that business, I would leave my managers in charge, let them do it, I'd have phone off or whatever and I'm doing something else, something different and that was a real plus for me to sort of not have to worry for a day or an afternoon about what is going on in that other business knowing other people were sorting it because I was doing something else.*

Kath made good use of the free business advisers provided by BIC. She had obtained help from Chris as well as Tony, a BIC tenant and an associate of Magnolia Consulting, to help her with marketing strategy:

> *I have used Chris from Magnolia Consulting and that was through BIC, and I am just about to start on the High Growth programme, I have been accepted on that but I am just literally waiting to find out who I have got but that was through BIC.*

> *Oh Tony as well, I have worked with him. Chris was the business adviser and I just said I wanted some marketing help so they got me in touch with Tony and I think from Chris's point of view … he gave me some routes to market … I had a couple of meetings with Chris but he doesn't advise me now but I see him and he does advise me if you know what I mean, he'll probably make a comment like anybody else does but he knows more about the business because he went into it in detail at the beginning so you know if I see him and he just happens to be in there he will say, 'What are you up to, what's happening,' and I'll explain what is happening and he will make comments or whatever …*

With Tony I went on a little course … I think for both of them they were free … with Tony… I asked at BIC and they said and then I got in touch with him and told him what I wanted and went round to these offices and he did a one-to-one so it was a full day course and we did it in an hour and a half! It was fast it was good, but he started off quite slow but he said, 'Oh I think you'll manage this' so we adjusted it and he said I'll go as fast as you can go sort of thing but it was good because I got a lot of information to do with marketing.

How to develop the information system behind CVM was the core of Kath's new business, after spending a long time on researching it, she decided to let a former BIC company take on the work:

the people I chose, well it was down to 3 people – an outsider, and their office is very close to where I live, they were very good, somebody who is actually still at BIC now and somebody who was at BIC but have left BIC and I went with the one's who are not at BIC now but have gone, so the connection was there and they have done it, and then in addition to that they have done the website as well and that was mainly because I then started asking who could do websites – you ask BIC and anybody you can speak to and various names came up and they came up again and I thought they know so much about the system they can do that as well.

After Kath started up the CVM business, she was already thinking about another business idea:

I have got to get the business up and running so I have got to look at marketing out to clients, I still want to look more at online marketing, using online things and I suppose my strategy is to hold back, I have had a couple of people approach me already about wanting franchises and I am so impatient I am saying YES but I need to do it yes so I can iron out the mistakes and say it is ready for you to pay for, because they have to pay for it for starters so that's a strategy – holding myself back really.

When I was at UKU I did my dissertation on work/life balance and women entrepreneurs … I've wanted to do for a long time, just again one of these things on the back burner, is to write a book for entrepreneurs because there isn't a lot out there for us, so I wanted to write a sort business book but quite a light hearted one, one you would get for Christmas and think, 'oh great do you fancy being your own boss that sort of thing,' and you read it over Christmas, not a heavy book and really intellectual book but one with loads of good ideas in it …

Despite having been a successful entrepreneur, Kath was keen on learning different skills from other tenants:

> *How I learn from other people? Well on a really simple level, I came into BIC there were certain things on the computer that I couldn't do so I would go and ask somebody and they would say, 'come and sit down for a minute or two,' you know literally, 'have you got a minute now,' 'yes,' 'well let me show you then,' tap tap tap, oh right that's how you send a message to a lot of people, you know younger people they're taught that at school and we weren't taught things like that at school because computers weren't as prevalent when I was at school, so really practical things like that.*

> *Or an application of things, you can take what someone has just showed you to do in a practical physical sense but also people talk about, 'oh I went to this meeting and somebody said such and such a thing' and you might actually question that and take that idea and think, 'I could do that,' or 'that relates to me in this particular way,' and you might sort of use it, I mean for example I went to a talk and the person who was talking I just sat there and thought, 'I could do this' and that sort of led me to thinking, 'What would I need to be able to do that', … and that has led me to the route of I haven't done this yet but I have got a list of things to do and find out if I can get funding, so sometimes it isn't what you expect … then you might talk to that person at BIC and say, 'Do you know I was speaking to somebody the other day and I thought it might be a little sideline for your business' and that's what happens in there, people do think about each other and sort of help each other.*

Really enjoying the 'family feel' of BIC, Kath had decided to stay on for another year, as she explained:

> *For the benefits I get out of it and the contacts that I have made, I was going to go downstairs into one of the rooms but I have made a decision not to do that because I have decided because of the family feel and the way I want the business to move forward and because of the support I get … I still want to be at BIC and have contact with everybody and be part of it so that's why I am carrying on.*

6.4 Discussion

This chapter presents an exploration of what takes place in the 'black box' of business incubator (Hackett and Dilts 2008). In particular the chapter offers insights into each participant's incubation process and identifies six distinct pathways through a BI. In doing so it addresses research questions 1 and 4 (see Section 4.2).

Drawing on the rich data, this chapter highlights the lived in experience of individual entrepreneurs starting up and developing their businesses in BIC. This links to the 'development of individuals' and 'development of opportunities' sections on the conceptual framework developed in Chapter 3 (see Figure 2). It also presents how individual's learning takes place in a BI setting. To address research question 1, the chapter presents the activities that took place before, during and after first year in BIC. It puts emphasis on the incubation process by exploring the various pathways through BIC. By focusing on the individuals as well as interactions that took place in BIC, it presents the experience and process of starting up a business in a BI.

To address research question 4, the chapter looks in particular at a number of aspects of the impact BIC had on the development of the incubatees and their ideas. This is particularly articulated through the different ways of how the incubatees used BIC to develop their opportunities. It is noted that BIC did not only help the entrepreneurs as individuals in their silos, but as a social space, where individuals exchanged their knowledge and information and formed partnerships. It is also interesting to point out that some business ideas only developed because of the existence of BIC. Moreover not only the resources, including physical space and mentoring services were useful, but also resources that were from a wider range of services that are associated with BIC, such as the library, classes and so on.

Although recent studies attempt to unravel the incubation process (Hackett and Dilts 2008, 2004), this study proves to be unique in two aspects. First, from a sampling point of view, this chapter looks at the incubation process from the incubatees' point of view rather than the management (Hackett and Dilts 2008, 2004; Grimaldi and

Grandi 2005; Hannon 2005b; O'Neal 2005; Lee and Osteryoung 2004; Hannon 2003; Brooks 1986), which is an under-studied area in BI literature. Second, unlike many other studies seeking causal relationship between the incubator services & resources and incubatee performance (Al-Mubaraki and Wong 2011; Zhang and Sonobe 2011; Todorovic and Moenter 2010; Xu 2010; Hackett and Dilts 2008; Lee and Osteryoung 2004; Hannon 2003; Lumpkin and Ireland 1988), the study's rich data enables a closer and detailed exploration into the interactions between the incubatees themselves as well as incubatees and the incubator. This helps to build a more robust theory of the business incubation process.

Referring to a report from the NBIA (2008), America's National Business Incubation Association, Todorovic and Moenter (2010, p.28) suggest that studying the tenant firms' incubation process is much more important than the incubator facility. However they believe that '*studies on the incubation process are sparse*'. This chapter pertinently provides knowledge to respond to this gap, with details of the incubation process. The following sections discuss the findings of the BIC experience, including the six case studies as well as all participants in general. Key issues rising from the chapter in terms of business incubation are further discussed at the end of the chapter.

6.4.1 Pathways through BIC

When looking at the pathways (as summarised in

Table 5), Jane was the most distinctive one among the six. She was a novice entrepreneur and had a reasonably well developed idea before coming to BIC. As her business was very successful and she could only spend one day a week to work for the business, she only grew one business. Similarly to her, Kath was already a successful businesswoman, owning several nurseries and after-school clubs. She had the childcare vouchers system alongside of her other business. The difference is that once the system was developed and running, Kath was already thinking of the next business idea adding to her portfolio, which was to write a guidebook for new female entrepreneurs.

Table 5 - The BIC process in terms of idea development

Case	Original idea before BIC	The BIC process in terms of idea development
Andy	web developing	same idea, keeping original company and formed a new one with two other BIC tenants
Jane	sports management	keeping the same idea, successful, and thinking of expanding
Ian	networking events	keeping the same idea, and established an alliance with a BIC tenant on a different idea
Tony	life coaching and business advice	thinking of selling the coaching business and was forming a new marketing company with four other tenants
Paul	green food online	developing original idea further and getting involved with two other businesses with two tenants
Kath	childcare vouchers system	developing the idea further and thinking of writing a book as a new business idea

BIC as an important physical and social space

Unlike the other four entrepreneurs, both Jane and Kath did not add other tenants to their businesses. However they both mentioned on different occasions during the interviews that they used BIC to divide their roles from their other work / business roles. They also learned a lot through observing other tenants and being part of the BIC community. This is discussed further in Chapter 8. Although Jane and Kath did not form formal strategic alliance or partnership with other BIC tenants, they had UKU student (Jane) or former BIC tenant (Kath) to work for them.

BIC as a trusted place to forge alliances

The other four case studies were in the process of forming a new business (Ian and Tony) or have already started up new businesses with other tenants (Andy and Paul). Unlike most of the tenants who chose to stay in BIC for another 12 months after their initial incubation period, Andy got to know two other tenants, collaborated with

them on projects. The positive experience he had made him decided to form a new company with the tenants. They then moved out as one company and rented an office space in the city centre, which provided 24-hour access. The new company then sub-contracted projects to Andy's company and he worked on the technical side of the business with web development, whereas the other two worked on web design (the look of a website) and provided marketing consulting to clients. Therefore under the umbrella of this new company, they diversified the services and offered a package of services to clients. Although Andy had left BIC when the interview was conducted, he mentioned that he still would like to be associated with BIC and receive newsletters. This shows that even for a fledgling business, BIC was still useful in providing information and social resources.

Ian's networking events business worked well if they were free. However they did not bring income for Ian. Passionate about hypnotherapy, Ian learned and obtained certificate for it. He then built up a strategic alliance with Mark, a BIC tenant and someone outside of BIC to offer a package of wellbeing service to clients. As for Tony, he was going to sell an arm of his business, which was life coaching and to form a new marketing company with four other tenants. He mentioned that the new company wouldn't exist without BIC, where he met all the 'right' people for the new business. Similarly, Paul's initial business idea took a long time to take off. During his time in BIC, he worked with Jeff, a BIC tenant. After a few months, he became the partner of Jeff's business. At the same, he, Jeff and a third tenant was setting up a third business, writing an ebook for students.

BIC acted as a resource harbour for these entrepreneurs, whose first idea might not have worked very well and needed more time to develop. At the same time, the entrepreneurs in this harbour looked for resources (and in this case, other tenants), so that other people's knowledge and skills could be utilised to form new ideas. In a sense, these entrepreneurs are very good at re-organising resources and identifying new opportunities that they could exploit.

BIC could also be seen as a trampoline, where it cushioned the entrepreneurs when they fell and bounced them back when they were ready. Without BIC, these

entrepreneurs might have given up on their initial ideas, when they took a long time to develop. Because they formed partnerships with other tenants, which could potentially bring them some income, they had the leeway to develop the initial idea further. Although some participants did not have more than one business idea, they mentioned that without BIC, they would have already given up. This was mainly due to the 'entrepreneurial community' effect, which is discussed in Chapter 8. From this perspective, BIC increased entrepreneurial activities, sustained and enhanced entrepreneurship.

6.4.2 The physical facility of BIC

Some findings of the study are consistent with the literature (Arlotto et al. 2011; Zhang and Sonobe 2011; Todorovic and Moenter 2010; McAdam and Marlow 2007; McAdam and McAdam 2006; Wynarczyk and Raine 2005) in terms of the usefulness of the physical space of a BI. Most of participating tenants needed or liked the office environment and facility in BIC. This is also supported by the six chosen cases. Most tenants benefitted from the cheap rent, the professional city centre address (rather than a home address or PO box), and felt that the facility enhanced their credibility and professionalism.

6.4.3 The shift from a physical space to a social one

Interestingly, it is not the cheap rent the participants emphasised, rather it was the office environment, which separated their work and life. This could also be seen as an enactment of being an 'entrepreneur' or a 'business person', so that they felt as if they were working, rather than being distracted by working from home. This is consistent with the literature, and suggests that BIC may play a role in increasing the professional identity of the entrepreneurs. The participants were happy that they had professional office space to meet business associates and to hold events. Booking meeting rooms and space without extra charges also encouraged the tenants to hold events and meetings in BIC, which in turn made BIC busier and filled with entrepreneurial activities, which again, aggregates entrepreneurialism. This

shifts the 'physical' meaning of a BIC to a more personal and social one and mirrors the findings of Bøllingtoft and Ulhøi (2005) which suggest that in a private owned, networking enabled business incubator, tenants viewed the social aspects as very important.

6.4.4 Instrumental for business ideas

Quite distinctively, BIC was instrumental to the core of the business ideas for Andy and Ian. In the case of Andy, he got to know BIG when he was working for a tenant of BIC. When visiting BIC, Andy identified an opportunity of constructing websites that were simple with minim costs, which could be specifically tailored to business start-ups in BIC. He then applied to be a tenant company, who could make business out to the tenants.

In the case of Ian, he and his business partner had been to many networking events but were not particularly happy about them. After they attended an event in BIC, Ian felt that BIC itself was an opportunity for them to set up their own networking company, where he could implement all the improvements he thought of from his own experience. Again because there were no extra costs to hold events in BIC, it saved the running cost of the business. Ian could put on events as often as he liked, as far as there were no bookings at the same time.

6.4.5 Social activities in BIC

As the emphasis of BI studies has shifted from incubator centred to incubator-incubatee impact centred, more recent literature (Todorovic and Moenter 2010; McAdam and McAdam 2006; Bøllingtoft and Ulhøi 2005; Hannon 2005b; Voisey et al. 2005) looks at impact of social activities and networking on the incubatees. In line with the literature, most of the participants discussed their ideas with other tenants. This is also consistent with five of the chosen cases (except Jane). This could be a result of being the only participant (among 20) who possessed all three types of prior knowledge (markets, customer problems and means to serve markets). Having

had these types of prior knowledge was a powerful mix, which formed a mature business idea for Jane before coming to BIC. The impact of prior knowledge on opportunity identification is further discussed in Chapter 7. Although Jane did not discuss the actual business idea with her fellow tenants, she felt it was important for her to start up the business in BIC as a member of the entrepreneurial and business community. This is also the case for Helen, Paul, Kath and Kelly. Kath is a very interesting case. Although she had the Childcare Vouchers Management idea a few years before coming to BIC. It was only attending an event in BIC made her decided to pick up the idea again. Chapter 8 looks further at the social activities in BIC as a learning community.

6.4.6 Business support

In BIC, there were master classes in accounting, finance and legal issues. The tenants could also apply for more personalised business support in the format of business advisory and mentoring. According to Rice's (2002) definition, these personalised services are the reactive and episodic counselling, in a sense that the tenants initiates the request of the service and that it is ad-hoc, based on the agreement of the service provider.

Like the majority of the other participants (8 out of 14), four out of six chosen cases (Jane, Ian, Paul and Kath) spoke to a business adviser or mentor during their incubation time. For most participants, the business support service was useful when the business was at a very early stage, where entrepreneurs needed the general knowledge of starting up a business. However as a business grew, the advice was less useful as the advisers did not have enough specific knowledge in the business or industry. Tony, as an associate of Magnolia Consulting advised some fellow tenants on marketing and planning. The tenants used the service generally found it very useful.

This can be seen as a paradox of business support in a BI. On one hand, a BI needs to run a wide range of generic business support programmes with a limited budget, but

on the other hand, as businesses develop, specialised, targeted support is required. It could be viewed as a matter of how to manage expectation, or to better understand the needs of the tenants, in order to provide services more pertinently. To meet the diverse needs of the tenants in terms of business support, rather than having a number of advisers who have similar knowledge in start-ups, a BI might consider using a broad range of business advisers, so that more specialist support in different topics could be covered.

6.4.7 Resources associated with BIC

As a member of BIC, the tenants were entitled to access to the library, though the majority of the participants did not take advantage of this. However it is quite interesting in terms of how some tenants utilised the link with BIC to promote their businesses. Among the participants who used the library, it was quite common that they used it to disseminate promotional flyers for the business. Officially having access to the library was the only UKU resource that was offered to the BIC tenants. However some participants were very entrepreneurial and used their association with BIC to negotiate and get support from different departments of UKU. Mark, for example got support from HR and he was going to add wellbeing tips to staff's payslips. Ian rented IT equipment from the technicians for his events.

Paul was the most distinctive one among the others. He negotiated with the Business School and attended classes for free, where he was also building a social network with local managers who were the students on the course. After he became a business partner with a fellow tenant Jeff, he spoke to the Students Union, who helped to promote their business, which was to provide IT support for students. Paul even went to the Career Services, to see how he could enhance his skills and what career path he could have if he decided to look for a job. This in a way provided a safety net, if the businesses did not do well or if he and his associates wanted to sell the businesses.

When looking at the link between a university incubator and the resources a university has, extant literature tends to focus on knowledge transfer. However this

is not really the case of BIC. Most participants did not think of contacting any academic staff within the university in order to collaborate, nor were the academic staff (except one) keen on working with BIC. There was however some linkage between the tenants and the students from the Business School. Some participants had students working on projects, such as web development and press packs. The increasing demand of academic staff's workload, did not give time to seek collaboration with the entrepreneurs in BIC.

Much of the BI literature refers to knowledge transfer in science and technology focused incubators. As the tenants in BIC were not generally high-tech start-ups (see Appendix XIV, a distribution of all regular users of BIC (i.e. potential interviewees), using UK SIC 2007 Standard Industrial Classification), it could be that having small, flexible and student focused projects with BIC was the best way forward. From the university point of view, the students gain experience in working for a real micro firm, which would still enhance their skills and employability prospect. From the tenants' point of view, they save costs by having the students working on projects where they are the experts. It can represent a win-win situation for a business school. However, the narratives suggest that if universities want to have more integration and collaboration between an incubator and academic faculties, then further support would be needed for the academic staff, especially in terms of time allocation and workload.

6.4.8 Collaboration between tenants

Some tenants collaborated with each other, in terms of working for other tenants, collaborating on projects, and in extreme cases, forming partnerships and even starting up new businesses together. This refutes the findings of the study conducted by McAdam and McAdam (2006), which is a longitudinal study on entrepreneurial networking within a university science incubator in Ireland. They found a number of negative aspects of networking such as lack of co-operation, hostility, and competition. There could be two reasons why such difference exists in the two studies. First, BIC's tenants came from a broad mix of backgrounds, across various

business sectors, whereas the incubator McAdam and McAdam studied (2006), was a high-tech incubator. This may have created a more competitive atmosphere. Second, it could be the perception the tenants of BIC have and the values the BIC community created that is very different to the incubator in McAdam and McAdam's (2006) study. Bøllingtoft and Ulhøi's (2005) ethnographic study in Denmark looks at the networking activity in a BI and they point out the importance of pre-creating the perception and values of social networking. The privately owned incubator in their study emphasised the importance of networking at the selection stage and during companies' incubation period. As a result, the tenant companies had a low failure rate. Although it can be argued that the selection criteria played an important role in the success rate, it also suggests that the fact that the incubator stressed the values of networking and trust may have played an important role in encouraging the firms to collaborate.

The participants in this study often mention the word 'trust', even when they were not specifically asked about it. This adds support to the notion of trust as the 'glue' of networking activities among microbusinesses (Chell and Baines 2000). Most of them recognised the importance of being a member of BIC. In fact when the tenants had their selection interview, one of the questions was 'what can I bring to BIC' and many applicants mentioned that they could bring a wide range of knowledge and skills. This can be seen as a way of 'pre-installing' the notion of networking in the tenants' mind. The selection panel often pointed out tenants of BIC who had similar or complementary skills to the interviewees. Some participants mentioned that they were then told this information again by the BIC management, when it was their first day at BIC. In such a way, the referral connected the tenants and encouraged collaborations in BIC. The BIC community is further discussed in Chapter 8.

Chapter Seven
The Role of Prior Knowledge in Opportunity Identification

7.1 Introduction

The six pathways presented in Chapter 6 highlighted a number of different ways that ideas evolved during the incubation process (see Figure 3 in Section 6.3). In this chapter I explore this further using the concepts of prior knowledge and opportunity identification as analytical frameworks. The ability to discover and develop business opportunities is often considered to be among the most important abilities of a successful entrepreneur (Politis 2005). A number of scholars have pointed out that experienced entrepreneurs have valuable prior knowledge about contacts, markets, products and resources that improve their ability to identify and develop entrepreneurial opportunities (Shepherd et al. 2000; Hudson and McArthur 1994; Starr and Bygrave 1992; Ronstadt 1988). Politis (2005) expands on this to suggest that it is the total stock of prior information and knowledge that influence an individual's ability to recognise opportunities. This might be prior knowledge of business start up, but could also include industry specific knowledge as a former employee or customer and experience of management, where skills such as leadership, communication or problem-solving have been acquired (Shane 2003). The interaction between different types of prior knowledge and opportunity has potential, therefore to provide an insight into the way how businesses developed during their time in BIC. Moreover, it represents an important point of departure to investigate knowledge that is *newly acquired* during the incubation process.

I begin the chapter by discussing how I define an entrepreneurial opportunity. Drawing on the case studies presented in Chapter 6 and Appendix XIII, several types of prior knowledge are identified. The interaction between prior knowledge and opportunity identification is then explored. The analysis is anchored therefore, in the literature of both prior knowledge and opportunity identification. The chapter

concludes with three emerging themes, which are achieved by linking the analysis with the empirical data and the literature.

7.2 Definition and selection of entrepreneurial opportunities

Shane and Venkataraman (2000) state that not all recognised entrepreneurial opportunities are exploited. In line with Shane and Venketaram's definition I use the word *opportunity* to refer to all business ideas included in this study, regardless of whether they are exploited or not. As discussed in Chapter 3 (Section 3.2.2), for the sake of simplification, the word *opportunity* is used here to refer to *entrepreneurial opportunity*. They both imply the identification of new means-ends relationship rather than the optimisation within an existing organisation.

There were a total of 20 respondents who mentioned altogether 23 business opportunities. Three respondents, Ian, Paul and Alex were each developing two business opportunities. Because Ian and Alex had more than one business when coming into or after entering BIC, subscripted numbers are used in this chapter next to Ian's and Alex's names, to distinguish the different opportunities and to signify the order in which the respondents identified them. This has the benefit of showing the sequence of opportunities, which in turn presents a contextual story of the respondents. There is one opportunity, which uses two respondents' names (Jeff-Paul). This is because the opportunity was identified and developed by both respondents.

Using the same name for the respondents and their opportunities is also in line with Churchill and Lewis's (1983) Five Stages of Small Business Growth model, which advocates that at the existence stage of the business (and in this study some are at the pre-existence stage), the entrepreneur and the business share one identity. In Churchill and Lewis's (1983, p.33) words: '*the owner is the business*'.

Some respondents had developed opportunities outside of BIC, for example Phil had invested in a tailoring business established by a friend. He played the role of an investor, with little involvement in the decision making process. Because this business was not directly created by Phil and the business had little connection to BIC, it is excluded from the study. However, it is part of Phil's narrative and provides an insight into his experience and interests.

Shane and Venkataraman (2000, p.219) suggest that '*entrepreneurship does not require, but can include, the creation of new organizations*'. As discussed in Chapter 3 (Section 3.2.2), adopting a development view of entrepreneurship suggests that the foundation of such a process is the *idea* development, rather than whether an opportunity is exploited. It is worth noting that this study focuses on the *process* of how *ideas* develop into business, rather than the outcomes or outputs of opportunities. It explores the process of how prior knowledge and learning moderate such a process and how a business incubator affects the process. Hence whether the businesses had been established when the interviews took place is not a decisive factor for including or excluding the opportunity in the study. Therefore there were 10 opportunities that were developing but the corresponding businesses had not started trading when the interviews were conducted.

7.3 Prior knowledge

According to Kolb's (1984) ELT, a learning process begins with existing knowledge, which is then combined with newly acquired information and transformed into new knowledge, and in this context, a new business idea. The notions of perception, existing knowledge and prior knowledge, suggest that entrepreneurs are heterogeneous individuals (Alvarez and Busenitz 2001) who have different experiences and values and possess different knowledge at the very early stage of opportunity development. Differences in prior knowledge therefore have a varying impact on the opportunity identification and exploitation process (Shane 2000). This

section focuses on the first stage of an opportunity development process, namely how prior knowledge plays a role in identifying an entrepreneurial opportunity.

Since the mid-nineties, how an owner-manager's human capital affects small firm's survival and growth has attracted the attention of scholars (Ucbasaran et al. 2009, 2008, 2006; Davidsson and Honig 2003; Dahlqvist et al. 2000; Deakins 1999; Basu and Goswami 1999; Cooper et al. 1994; Brüderl et al. 1992). Prior knowledge which is linked to the asymmetries of information is derived from the Austrian school and human capital literature. It emphasises the term *knowledge*, and more specifically the three dimensions of prior knowledge, proposed by Shane (2000). They are: prior knowledge of markets, prior knowledge of means to serve markets, and prior knowledge of customer problems.

These three dimensions of prior knowledge from the literature acted as a heuristic tool when I started the first stage of data analysis. I listed all prior knowledge in relation to an identified opportunity (see Appendix XV). The definitions of the three dimensions of prior knowledge were adopted from Shane (2000). Using these definitions I investigated the interview data and looked for evidence of where these types of knowledge existed. I then extracted them and listed them in Appendix XV.

While investigating the beginning of the opportunity identification process, the domain of personal interests emerged from my interview data as having a strong association with opportunity identification. This supports Ardichvili et al.'s (2003) second domain of prior knowledge, called special interest, which refers to an area that is described as fascination and fun to the entrepreneurs. Personal interests played an important role in seven opportunities (Ian$_2$, Tony, Neil, Paul, Alex$_1$, Alex$_2$, and Kelly). It helped to provide an in-depth explanation of why and how some opportunities were identified. Thus I include personal interests when examining the impact of prior knowledge on opportunity identification. All four dimensions were developed from this stage. These are prior knowledge in terms of markets, customer problems, ways of serving markets and personal interests.

The second stage of data analysis explores respectively what impacts each form of prior knowledge had on opportunity identification. I then explored these factors further by comparing cases and investigating deviate cases. As a result I found that in some cases (Helen, Andy, Ian_1, Ian_2, Nick, Phil, Peter, James, Laura, $Alex_1$, $Alex_2$, Mark and Karen) only one form of prior knowledge was present when an opportunity was identified and it was sufficient to explain how it affected opportunity identification. However in other cases it was a combination of different forms of prior knowledge that was present when identifying an opportunity. Isolating each form of prior knowledge was not sufficient to offer a comprehensive and contextual explanation of how opportunity was identified.

This led to the third stage of data analysis investigating the combination of these forms of prior knowledge. At this stage, nine different combinations of prior knowledge were identified and presented. By linking the interview data with literature, this stage helped to draw out three emerging themes, which identify the impacts of prior knowledge on opportunity identification.

To illustrate this rich and complex data, quotations and information demonstrating the existence of prior knowledge in the opportunity identification process are presented in Appendix XV, together with details of personal interests.

7.4 Prior knowledge

Among the 20 participants, 11 of them (Helen, Andy, Ian_1, Ian_2, Nick, Phil, Peter, James, Laura, $Alex_1$, $Alex_2$, Mark and Karen) had identified opportunities when only one form of prior knowledge was present. On the other hand prior knowledge of means to serve markets could not act alone to stimulate opportunity identification. This form of prior knowledge needed to be combined with other prior knowledge to result in opportunity identification. The form of knowledge that is most frequently mentioned is prior knowledge of markets, whether being present as the only

knowledge or together with other knowledge. Figure 10 demonstrates the different combinations of knowledge when an opportunity was identified. There are altogether 9 different combinations of prior knowledge and personal interests. The following sections present these combinations.

Figure 10 - Distribution of prior knowledge and personal interests
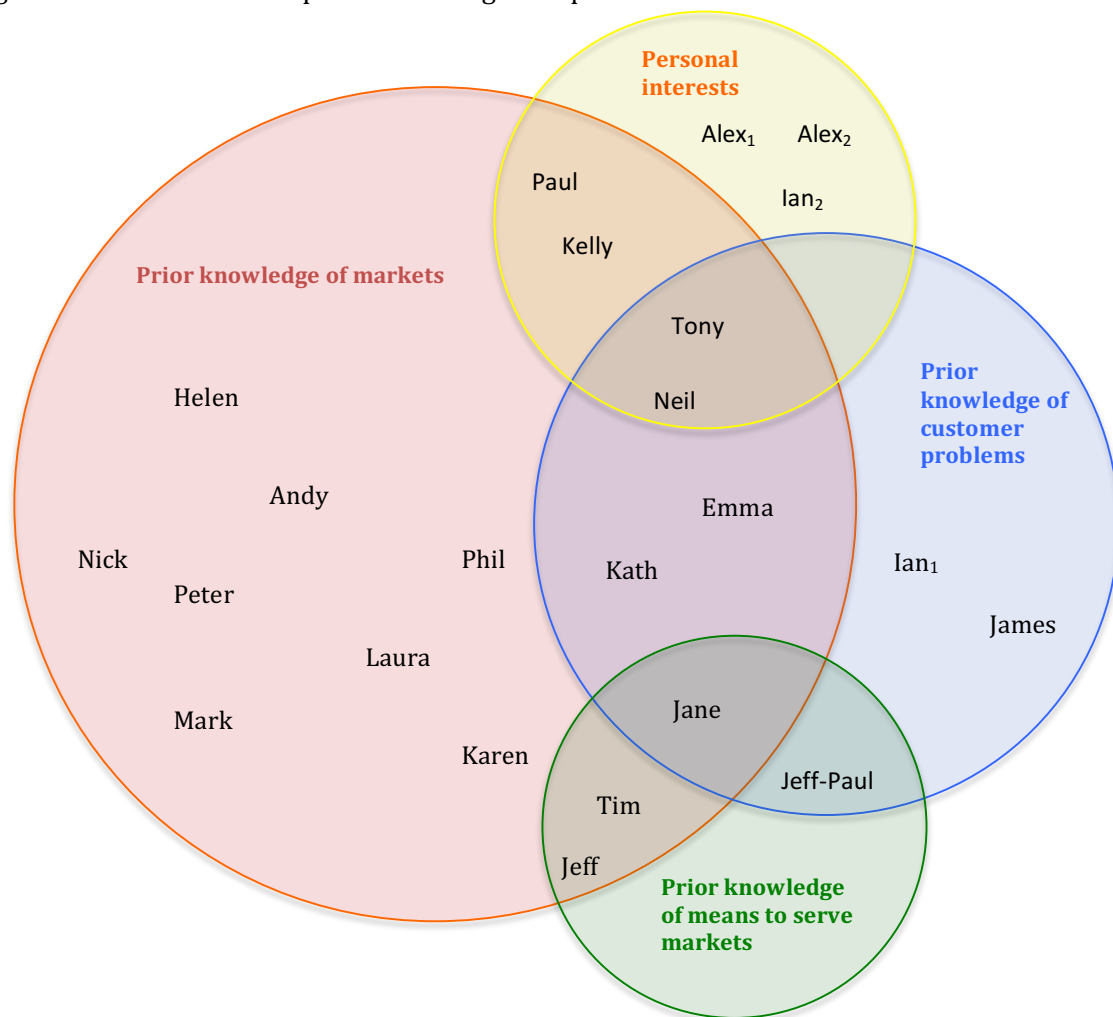
7.4.1 Prior knowledge of markets

This section looks into how prior knowledge of markets influences opportunity identification. As discussed in Chapter 3 (Section 3.2.2), prior knowledge of markets can be information about supplier relationship, sales techniques, or capital equipment requirements that differ across markets. The knowledge can be gained through work experience or by being a customer in the particular markets.

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Education and personal events are also sources of prior knowledge of markets (Shane 2000).

Box 1 - Prior knowledge of markets

Prior knowledge of markets	Prior knowledge of customer problems
Personal interests	Prior knowledge of means to serve markets
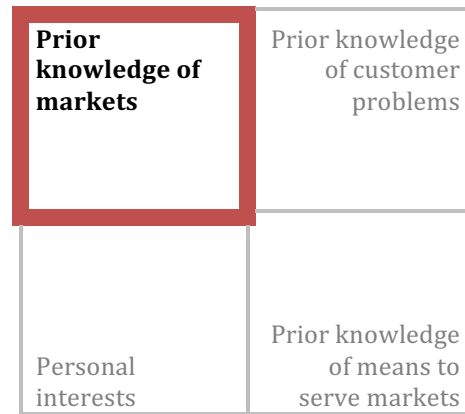
Eight respondents identified opportunities when only prior knowledge of the markets was present. They are: Helen, Andy, Nick, Phil, Peter, Laura, Mark and Karen. When looking deeper into the interview data and the BIC records about the respondents and linking them to the literature, two themes related to the impacts of prior knowledge of markets on opportunity identification became apparent. They are education and business experience.

Education

Within the dimension of prior knowledge of markets, 5 out of 8 opportunity identification events are linked to education (Helen, Andy, Nick, Phil, and Karen). From a human capital and information asymmetry point of view, it increases the likelihood of success, if entrepreneurs choose an area that is familiar to them but may not be other people's speciality (Ucbasaran et al 2008; Peña 2004; Shane 2003; Dahlqvist et al. 2000; Shane 2000; Cooper et al. 1994). It could also be that the areas the entrepreneurs chose to study were the subjects they were interested in at the first place and when they identified an opportunity, it was something that linked to their interests. After conducting a longitudinal study of women entrepreneurs, Dolinsky et al. (1993) discovered that education has a positive effect on the entering, staying and re-entering self-employment. In particular Deakins (1999) found that

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education boosts confidence in business starters. To start a business in an area that is familiar to the entrepreneurs gave them the confidence, or sometimes the intuition, to identify an opportunity. Therefore, this specialist knowledge attained from education may have helped entrepreneurs to recognise values in new information that others did not identify.

Taking Helen as an example. She only processed prior knowledge of markets when identifying an opportunity, which was to provide environmental sustainability management and consultancy. Helen's business idea was very much based on the degree she studied, which led her to believe that a lot of work could be undertaken in the environmental management consultancy sector, as she described:

> *I did a Masters last year in Environmental Management and Sustainable Development, and it kind of came out of that really that there's a lot of work to be done in that. My business idea is about providing consultancy in environment management sustainability and people development linking the two together very much with that.*

The specialist prior knowledge of markets Helen had from her studies provided her with extra knowledge and skills in the field, which helped her to identify an opportunity in environmental consultancy:

> *My ideas are all about promoting collaboration between different organisations, and sort of networking and researching, you know, consultation, so I've got a few things that I've got, an assessment tool that I developed off the back of my Masters programme. Hmm, in terms of, you know, how organisations are doing and compared to best practice.*

Asymmetry in prior knowledge not only helped to build a stronger knowledge base, but also enabled Helen to be more sensitive to new ideas than others, who might not perceive them. This in turn further influenced the process of transforming new information, and helped to identify opportunities others might not recognise. The use of prior knowledge in this way supports Shane's (2000) finding that entrepreneurs may identify an area that is familiar to them but not to others. As Helen demonstrates in her narrative:

> *If you look at all the networking clubs and stuff, that that are out there, they are all very generic and when you go and attend them, you know*

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and you talk to people about environmental sustainability, nobody ever thinks it really applies to them …

Business experience

Business experience includes both work experience while working for an employer and experience in running your own business. Business experience is present in all opportunity identification events in the dimension of prior knowledge of markets, suggesting a strong positive influence on opportunity identification. My interview data indicates that having had business experience in an industry helped entrepreneurs to identify an opportunity in the same sector. This is consistent with the study carried out by Davidsson and Honig (2003). They found that tacit knowledge, such as experience in small businesses, enhances nascent entrepreneurs' ability in identifying opportunities. More importantly, the specific business knowledge gained from experience gave them insights into how some industries worked. Having such experience helps entrepreneurs to cope with uncertainties. From the perspective of information asymmetry (Shane 2003), these insights gave them the prior knowledge others did not have. This enabled the respondents to become more alert to new information.

In line with the studies from Ucbasaran et al. (2009; 2008), Politis (2008) believes that having experience in setting up businesses can help entrepreneurs cope better with the uncertainty of new venture creations. The experience is an important source of learning and it enhances understanding of new opportunities. In addition, having had specific business experience in the industry where entrepreneurs identified an opportunity may be also an indicator that these industries were the areas they were interested in per se. Taking Phil as an example, he had some experience of setting up his own businesses. Similar to the third business (online job searching and management) he was setting up during his time in BIC, both of his earlier businesses were related to online technology:

> *I used to sell those [hats] on Ebay and I built it up and had an on-line store but I sold that while I was at uni and that did really well so that's what spurred me on and I was at University … then set up WD, which is a web design company that offers web design solutions and things like that to various clients… When I finished uni I never thought I would work for*

myself straight away, I thought I would get a job and then work for myself, I always knew I would work for myself at some stage but not straight away, so I looked for jobs and that's where the idea of Online Job Search and Management came in.

Although Phil explained the differences between WD (Web Design) and OJSM (Online Job Searching and Management), it is apparent that his knowledge in the online service business was transferred from previous businesses:

> *WD is a web design company which offers bespoke web design to various clients, erm small to large. Online Job Search and Management is completely separate and is an on-line service … and whilst I was doing that [running WD] I gained experience in the kind of market and knew what was going on, different technologies and had the idea of Online Job Search and Management (OJSM).*

Phil's knowledge in the digital industry was transferred and used to help him to set up a different business in the same industry. The business experience he had enabled him to gain insights of the industry in terms of technology.

It is intriguing to find out that unlike other respondents in the group, Peter, Laura and Mark did not have education that is linked to their business ideas. Instead business experience alone played a fundamental role in identifying an opportunity. When looking closely into these three cases, all of them had extensive experience in the industry they have chosen to run their businesses in. This high stock of business experience moderates the lack of formal education in the specific field. Moreover extensive experience itself could be converted into knowledge to fill the gap in formal education.

> *Laura: It was very much like my original [job] … so it's the same sort of model … I have worked in the recruitment industry for over 20 years and I was developing training and development programmes for recruitment consultants and managers in specialist recruitment businesses and when I was made redundant, which was just before I came into BIC. I was basically approached by a lot of my previous people who I had trained myself … ask[ing] me if I would do consultancy with them with regards to helping them develop their businesses and their consultants … I thought about that and I started to do some sales training for people generally in the North West and I actually met up with … one of the business advisors [in BIC], and I thought to myself, 'Should I start to look at this as a*

business idea?' as opposed to doing some market testing with people who I knew, so I came to BIC.

7.4.2 Prior knowledge of customer problems

Box 2 - Prior knowledge of customer problems

Prior knowledge of markets	**Prior knowledge of customer problems**
Personal interests	Prior knowledge of means to serve markets
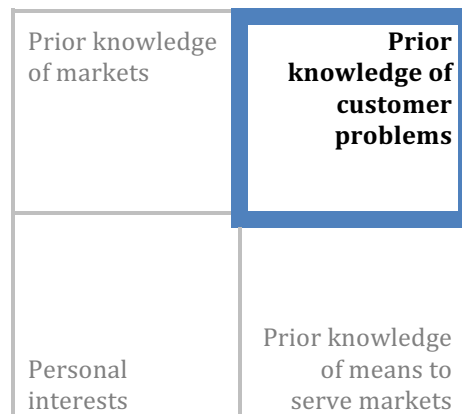
Two participants (Ian$_1$ and James) identified an opportunity, when only prior knowledge of customer problems existed. A shared pattern across both cases is that both respondents were customers for a particular business (Ian$_1$ as a networking event user and James as a landlord). They both were not happy with the services they received and thought that they could do something better, solely based on their negative experience. This experience turned out to be a foundation of the entrepreneurial opportunity. Both Ian$_1$ and James tried to improve the current system they worked with and to build up a better system as the basis of their business ideas:

> *Ian1: because myself and Tom (business partner) have been to a lot of networking events and we were coming home one night and a lot of them are really bad and we just sort of said we should run our own and that was all the planning that went into it to be honest.*

> *James: Typically I had lots of problems, I had letting agents that stopped paying me rent, taking money from tenants with me, went bust, I had letting agents who put tenants in and when I found the paperwork I wouldn't have put them into my own property ... so I have seen because the market has been booming and the way they work hasn't been particularly customer focused and hasn't been particularly competitive in terms of cost so I was already aware of that as a background and I saw this idea ...*

7.4.3 Personal interests

Box 3 - Personal interests

Prior knowledge of markets	Prior knowledge of customer problems
Personal interests	Prior knowledge of means to serve markets

Three opportunities (Ian$_2$, Alex$_1$ and Alex$_2$) were identified when only personal interests were present. In all three opportunities, the respondents were fascinated by an idea or a hobby. The interests were so strong, the participants really enjoyed pursuing them, without having knowledge of the markets or knowing how to serve the customers. The strong passion and firm belief in an idea also gave the entrepreneurs confidence to look at the hobby as a business. These 'life style entrepreneurs' tend to look at the logic of the business at a later stage of opportunity development, compared to other participants. This is illustrated both in the case of Ian$_2$ and Alex$_2$:

> *Ian2: I met somebody who was a hypnotist and he offered to hypnotise me so I went along, got hypnotised and really enjoyed it, did a few sessions with him, thought it was really interesting and decided … he said, 'You should train, you'd be really good', and I didn't need any more convincing than that to be honest … the thing is … before I get into a business I don't really sit there and do a business plan and everything like that, I generally just do what I enjoy and then try to make money out of it which I know is the wrong way around to be perfectly honest (laughs) but I start doing something and if I enjoy it then I'll make a business out of it…*

> *Alex2: I became obsessed with a camera, (laughs) it was an antique camera … it's completely beautiful and I saw it on Ebay and lusted after it and I knew I shouldn't get this camera because it would become an obsession for me … there's film but it's expensive and I cannot afford it and I had actually had this obsession for a while, about two or three years ago and I put it down because of this reason and when I saw this*

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camera I knew I had to get it so I did and it was sitting there and I bought some film and I said to myself if I am going to justify taking pictures with this camera I have to make this thing pay for itself and I thought the best way to do this was to look at places which were a novelty situation where I could be paid and I thought 'nightclubs', I could take pictures of people in nightclubs and they could pay me!

In the case of Alex$_1$, for the online social maps opportunity, the interests were so overwhelming, he even questioned the necessity of having any knowledge of the markets when asked about whether he had investigated the market needs:

No not in the slightest, I am not interested in the market need, this is the wrong way to look at the internet, I need to look at technology and this never goes towards the market need ... the market need isn't there for a lot of things which then become critical to the web, for instance Twitter...Twitter is now exploding, what is the market need? I don't know. If anyone can tell me what the market need for Twitter is I will buy them a beer tonight because I can see no market need whatsoever for Twitter, however it is exploding ... what I can see within what I am doing, within my maps idea ...I can see tremendous personal utility and I think that utility extends beyond myself, the market need I don't know but I think there is tremendous utility in it and I think around that a market may cohere, I couldn't guarantee it but I think there is something in it ...

Alex$_1$'s scenario reflects literature in entrepreneurs' personality, which suggests that those who have confidence and strong beliefs, are opportunistic and willing to live with uncertainty and risks (Kolereid and Isaksen 2012; Burns 2011; Legge and Hindle 2004; Krueger and Brazeal 1994). It also indicates a strong sense of need for achievement and internal locus of control.

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7.4.4 Prior knowledge of markets and customer problems

Box 4 - Prior knowledge of markets and customer problems

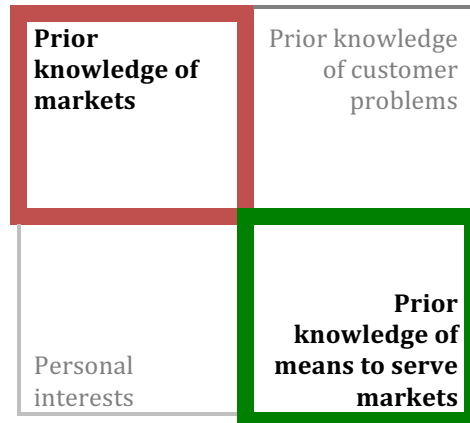| Prior knowledge of markets	Prior knowledge of customer problems
Personal interests	Prior knowledge of means to serve markets
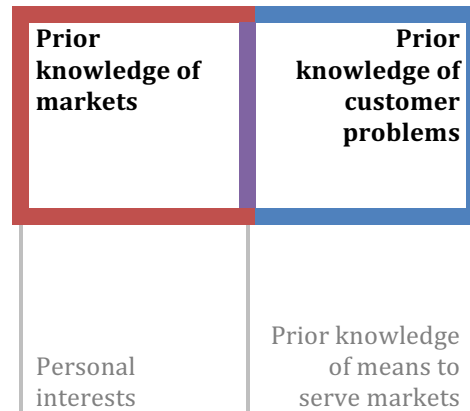
Emma and Kath identified an opportunity when they had both the prior knowledge of markets and customer problems. In both cases, the entrepreneurs were the users of the services. Emma was a buyer purchasing aviation parts and Kath provided services to parents who used Childcare Vouches. Both respondents' business ideas were in the markets where they had obtained their knowledge of customer problems. The substantial experience the respondents had in the markets enabled them to observe and experience the problems customers had in the particular markets. It is worth noting that both participants' knowledge in markets came from their business experience as opposed to education. This indicates that business experience offers insights and practical knowledge that may not be obtained from education. It is the concrete experience that provided the knowledge that was necessary to spot the gap in the market. At a later stage of the opportunity process, when they began to solve the problems they had identified, this knowledge inspired them to develop better products and services to pursue as a business idea. This combination of having knowledge in the markets and knowing what problems the customers had led to a problem-solving opportunity identification, as Emma's experience demonstrates:

> *Emma: I worked with a buyer for airlines for the last 17 years and because of that I picked up on a need for a website that showed approved suppliers, well the approvals that suppliers have because we weren't allowed to buy from any suppliers who didn't meet our 'approval criteria' but it was very annoying when I could find 20 suppliers on part-searched*

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databases that had spare parts that I required but I couldn't go ahead
and buy from, until they'd gone through the approval process …

7.4.5 Prior knowledge of markets and means to serve markets

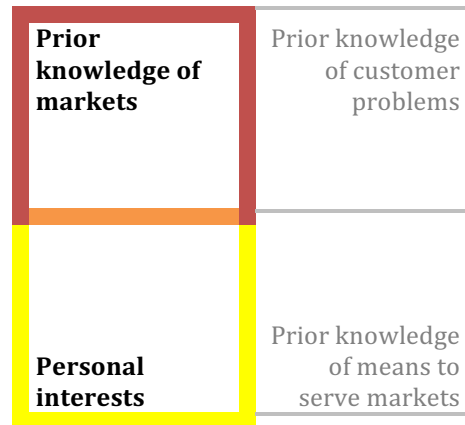Box 5 - Prior knowledge of markets and means to serve markets

<table>
<tr>
<td>Prior knowledge of markets</td>
<td>Prior knowledge of customer problems</td>
</tr>
<tr>
<td>Personal interests</td>
<td>Prior knowledge of means to serve markets</td>
</tr>
</table>

Tim and Jeff identified an opportunity when they had prior knowledge of markets as well as means to serve markets. Tim gained his knowledge in retailing through his seven year's work experience as a buyer. He combined this knowledge with what he learned from his friend's art gallery business. Jeff's knowledge of the markets came both from education and work experience. He studied Computer Science and Enterprise and worked part-time for a computer store. He also provided IT support to family and friends during his free time. Having had the knowledge in markets and means to serve markets, and possibly with an optimistic feeling towards the market, it felt like a natural progression in having a business in the field that the entrepreneurs were familiar with:

> *Jeff: It was well, I was just doing it for like a part time job really so I was*
> *just doing it as a steady income, so I decided in my masters to try and do*
> *it on a larger scale with more people and that's basically the business*
> *idea.*

7.4.6 Prior knowledge of markets and personal interests

Box 6 - Prior knowledge of markets and personal interests

Prior knowledge of markets	Prior knowledge of customer problems
Personal interests	Prior knowledge of means to serve markets

Paul and Kelly had prior knowledge of markets and personal interests when they spotted an opportunity. Personal interests seem to be dominant when such a combination of knowledge plays a role in opportunity identification. Both respondents indicated their passion in the chosen markets: online environmentally friendly food for Paul and marketing for Kelly. Without knowing customer problems or means to serve markets, they both were quite positive about their ideas at the opportunity identification stage. Paul's comments are typical of their approach:

> *Paul: when I was looking into what career that I wanted to follow I both looked at what my interests were and what kind of things I was passionate about and also the type of person I was ... so I wanted something kind of more exciting to help me actually create new things which is what I wanted to do and then I also thought about the things I am passionate about, the other thing is the environment and protecting the environment because my under-graduate degree was in geography so I looked at kind of climate change and that type of thing, so I got to the end of my degree and kind of thought because I had done three years of studying and research into climate change and whatever I was fairly sure that there was a big problem and people had to do something about climate change so I wanted to follow a career that was something to do with that, also creating things and being entrepreneurial which I thought I would be and that's what kind of made me embark on sort of thinking about the environmental idea.*

7.4.7 Prior knowledge of customer problems and means to serve markets

Box 7 - Prior knowledge of customer problems and means to serve markets

Prior knowledge of markets	Prior knowledge of customer problems
Personal interests	Prior knowledge of means to serve markets
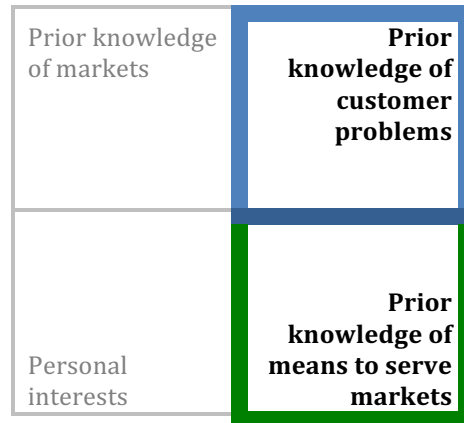
There was one opportunity identified when prior knowledge of customer problems and means to serve markets were present. The opportunity (Jeff-Paul, digital publishing) was identified by two BIC tenants together with another former classmate. As former university students and classmates, Jeff and Paul had experience of being users of computer manuals. Although they did not have any knowledge of the digital publishing business, the negative experience they had as customers made them think of solutions of this problem. This led to the identification of an opportunity. In this case, the knowledge they developed to solve the particular problems they had as customers moderated the lack of knowledge of the markets:

> *Jeff: when you are at university the text books that you are given specifically on things like how to use software programmes on your computer, they are not written in the way that students would like because if you are a busy student working hard on your research and you have to learn how to use a new programme ... so they'll be that thick and loads and loads of writing and the way it is written is almost like they want to teach you everything there is to know about it and the only reason that the student is using that computer programme is because they have got something to do and that is all they care about, getting their work done.*

> *Paul: three of us who were working on it were all students at the time when we started doing it and it was out of our direct experiences because we were working on projects together whilst students and learning how to use these computer programmes and by the end of our course the*

three of us knew so much more about what the computer programmes did than we did at the start that we kind of said if only there had been a book that was really quick to go through and had we read it at the start it would be much more useful …

7.4.8 Prior knowledge of markets, customer problems and means to serve markets

Box 8 - Prior knowledge of markets, customer problems and means to serve markets

Prior knowledge of markets	Prior knowledge of customer problems
Personal interests	Prior knowledge of means to serve markets
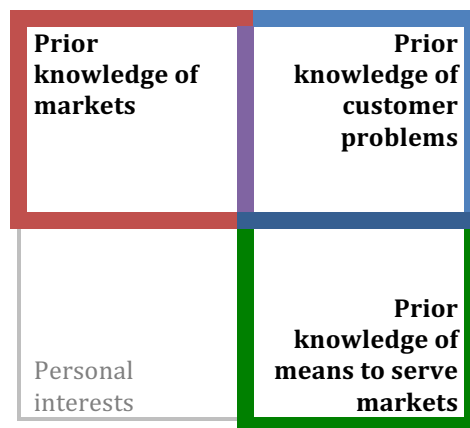
When Jane identified the opportunity in sports management, she had prior knowledge of markets, customer problems and means to serve markets. Jane worked as a sports development officer, where she gained experience in organising sports events as a social activity. When travelling abroad she learned cultural and gender differences in sports and realised that there were not enough sports events available for women to play, not as competitions, but as social and fitness events. When she worked in London, she witnessed how another entrepreneur became successful when providing services in organising sports for large companies' employees. These different types of prior knowledge acted as pieces of a jigsaw, which then portrayed a picture, or in other words an opportunity, for Jane.

Jane: … trying sort to tapping into the fact that there's very few team sports available for women whereas compared to men, who can gladly play football or cricket and etc. … Because in this country you need to be good at sports whereas you know place like Australia or New Zealand, it's seeing more as a social thing and you just go and have fun and play. And you can participate whereas over here women just sort of competing in that sport whereas a lot of people just wanna do it for fitness and fun

and don't want it take it that seriously. So I feel like it's hit a bit of a niche in in that respect.

I used to work for a football club in London. Working for their community programme ... that was basically where my understanding came from about how sport works in this country. And also I travelled quite a bit and spent quite a bit in Australia ... So my skills to actually run the business come from there. And then one of the projects I was working on was working within the community in east London, and it was to target women and girls who's in a certain area. ... An Australian girl set up in London, and she sort of again found this niche where she was targeting companies that worked around Canary Wharf, you know, a lot of these large companies have lots of money for social activities for their employees. So she was targeting those really, to sort of trying to get those teams to play in her leagues, and I just realised how successful it was but also, how much she was making from it.

7.4.9 Prior knowledge of markets, customer problems and personal interests

Box 9 - Prior knowledge of markets, customer problems and personal interests

Prior knowledge of markets	**Prior knowledge of customer problems**
Personal interests	Prior knowledge of means to serve markets
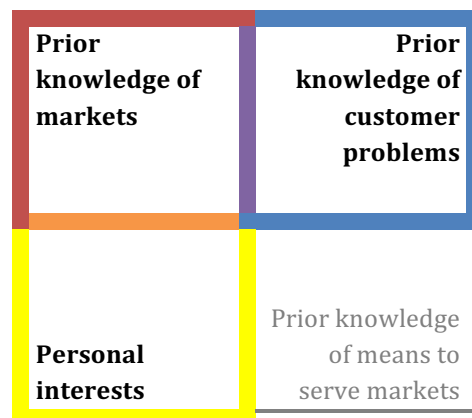
Tony and Neil identified their opportunities when prior knowledge of means to serve markets was absent. In terms of prior knowledge of markets, they both gained knowledge in the relevant industry from their education and they obtained work experience in the markets, though in different ways. Tony had a series of his own businesses, which were related to marketing and coaching. Neil on the other hand worked in the training and consultancy industry over many years. Both of them had strong personal interests that were related to their business ideas. The personal interests itself acted as a strong drive for them to pursue businesses in the industries they were passionate about. This powerful knowledge combination of markets,

customer problems and personal interests moderates the lack of knowledge in ways to serve markets. Furthermore there is a pattern shared between Tony and Neil. They both spotted problems the customers had when they were service providers. Again, this could be driven by their strong personal interests in the field and their intentions in creating something that was better than what was available in the market. Taking Neil as an example:

> *For many years I have seen leadership and training programmes and I have delivered many of them in many kinds of organisations and they seem to operate in a language that people don't understand. They operate in the made-up language of academic organisational development and they talk about synergies and leverage and teamwork, they speak in analogies of sport to people who don't play sport...*
> *I have always been interested in sociology and psychology, those have always been my primary interests.*

7.5 Emerging themes

Bhave (1994) believes that there are two types of opportunity identification. When externally stimulated, the entrepreneur filters the opportunities by aligning prior knowledge with market needs. When an opportunity identification process is internally stimulated, the entrepreneur experiences the market needs that cannot be fulfilled by the available product or service providers. Then the entrepreneurs try to create their own solutions to the customer problems or new means to serve the markets. Indeed such identification is a process of learning by transforming knowledge and/or by creating new ideas. This interaction between the tenant, learning and creation is also captured in this chapter.

Venkataraman (1997 cited in Shane 2003) believes that specific experience gained from personal life can offer the access to information others might not have. This in turn helps to identify opportunity. Shane (2003) mentions that high stock of prior knowledge cannot only help to interpret new information in a meaningful way but also to enhance the ability to find a solution to a problem. When examining factors influencing opportunity, Ardichvili et al. (2003) explain that together with prior

knowledge, creativity also plays a role in identifying opportunities. Therefore opportunity can be identified not only by expanding or transferring the existing knowledge to an industry, but it can also create solutions to problems, in other words to innovate (Deakins and Freel 2012; Burns 2011; Stokes and Wilson 2010).

Drawing on extant literature when comparing different cases, I investigated the impact of prior knowledge on opportunity identification in detail and found three different streams that became apparent in the data: change and innovation, knowledge transfer and knowledge replication (see Figure 11). The interview data indicates that prior knowledge and personal interests enabled entrepreneurs to identify problems where they worked and acted as a foundation to motivate them to make *change and innovate*. On the other hand, prior knowledge and personal interests also acted as a testing ground, where the entrepreneurs could try out their knowledge gained from education and/or work experience and find out whether they could set up a business with the ideas they had. Such change and innovation are often externally stimulated, defined by Bhave (1994).

Figure 11 - The role of prior knowledge in opportunity identification
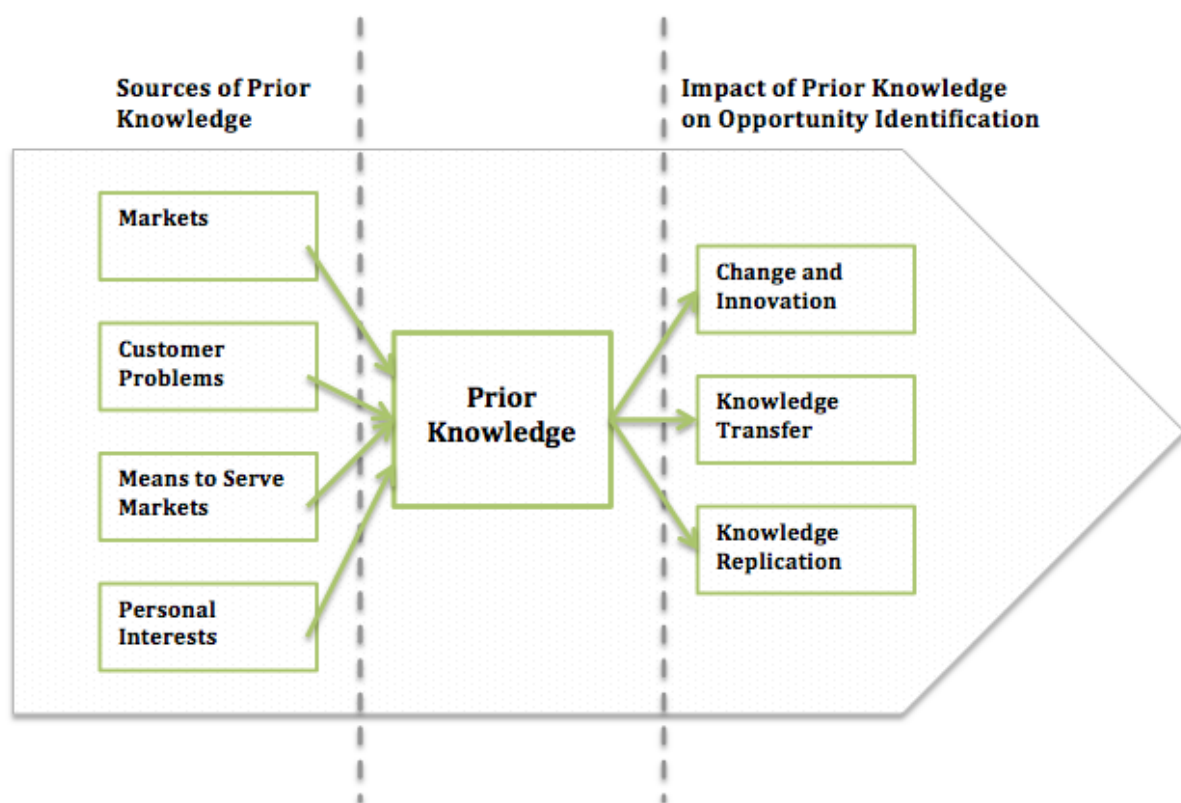
The second stream is *knowledge transfer*. As for this stream, the knowledge the respondents had was not exactly the same as the businesses they wanted to set up. Nevertheless they were able to transfer their prior knowledge to a different business idea.

In line with what Lumpkin et al. (2004) call the incubation stage of opportunity identification, the purpose of testing did not have to be explicit during the time they worked for the industry, but at a later stage of the entrepreneurial process. With the catalyst of new information, it could stimulate entrepreneurs to look at it as a serious business opportunity (Shane 2000), which would take place at the insight stage (Lumpkin et al., 2004).

In this opportunity identification process, prior knowledge also helped some participants' *knowledge replication* process. The prior knowledge gained from an industry the participants worked for remained stable, with no or minimum changes or innovation added to the new business, which the entrepreneurs tried to establish.

Since Schumpeter's (1942) definition of entrepreneurship, which highlights the important role it plays in disruptive creation and innovation, a number of scholars have viewed the process of entrepreneurship as a process involving interactions of creative thinking (Sanz-Velasco 2006; Corbett 2005; Lumpkin et al. 2004; Ardichvili et al. 2003; Long and McMullan 1984). However the extant literature calls for more in-depth understanding of how knowledge interacts in such a process. The three streams identified in the chapter shed new light on such query. On the creative spectrum, these streams are organised below from being most to least creative. I discuss all these streams in the following.

7.5.1 Stream 1 - Change and innovation

There are 7 opportunities in this stream: Ian_1, Tony, Neil, Paul, Emma, James and Kath. Taking Neil as an example, he worked as a consultant in various areas, such as marketing, public relations, sales and operations management. These business experiences helped him to gain prior knowledge in specialised fields, which related

to his business idea of providing consultancy services to organisations using unconventional approaches to consultancy. As he described, his insights into other consultancy services gained from business experience were helpful:

> *One of the key problems of most organisational development is that it insists on certainty that if you do X, Y will result, it's an American positivist parody and it doesn't actually understand that in the heat of organisations things are taken, decisions are taken on partial information through gut feelings, panic and jumping to conclusions and that kind of degree of rationality and certainty of cause and effects doesn't exist in the real world. It also prioritises written disciplinary procedure over the political and emotional realities of people dealing with people, if you look at the CIPD website, 95% of it is about dealing with, and I quote, 'problem staff', its not about developing organisations, it's become a disciplinary procedure as opposed to an empowerment and development procedure. Its whole purpose to me seems to have become inverted and corrupt. People admire certain traits in others, they admire integrity, they admire shrewdness and by using words like integrity and shrewdness you will never actually find those in old organisational development literature. You won't find terms like, 'good personal relationships', the stuff that matters doesn't actually reach the pages of the training manual.*

Neil accumulated this knowledge during his employment and before he had the idea of establishing his own company delivering different approaches to consultancy. His prior knowledge of markets, customer problems and personal interests had a direct link to the opportunity he identified at a later stage. This stock of knowledge became more apparent when used as a basis for adding new information to transform into an opportunity. When working as a consultant, he gained understanding of the consultancy business, how services were usually delivered, what the norms of the industry were, the pitfalls he perceived from the relationship between clients and service providers and so on. These types of insights enabled him to scrutinise the industry as well as gave him the confidence to try out his ideas when other new information reached him and blended with his experience.

7.5.2 Stream 2 - Knowledge transfer

Unlike the other two streams, Tim, Jane, Phil, Peter and Mark all had some work experience in the industries where later they spotted an opportunity. Tim, Jane and Peter transferred their prior knowledge from working for other businesses, whereas Phil and Mark transferred knowledge from their own businesses.

Peter for example, identified an opportunity in selling mobile phones to corporate clients. The experience Peter had in selling mobile phones is quite mixed. He mentioned buying and selling mobile phones when he was 13 years old. He also worked in sales and administration in a large mobile phone retailing chain, where he gained more professional experience in selling mobile phones to end users. This work experience also gave Peter the access to gain knowledge in terms of how the mobile telecommunication industry worked, from the perspectives of sales as well as administration. Peter then worked for his friend's company where he obtained knowledge in selling mobile phones to corporate clients, which motivated him to set up his own company. Peter believed that the knowledge he had in the mobile industry gave him sufficient knowledge and he saw it as an opportunity for himself:

> *What I was going to do is do the same thing, as I was working for somebody else I was going to do it for myself so and it was just a stage of waiting to get a VAT number because you need a special VAT number to get into telecommunications and you have to pass extensive credit checks and money laundering checks and they have to come and see you check all your bank statements, passport, they see all your ID – both business and personal identification and bank accounts to make sure you are not involved in anything illegal, so I passed all these like very hard security checks ...*

In contrast Phil had some experience setting up his own businesses. Similarly to the third business he was setting up, both of his earlier businesses were about online technology. Although there are differences in the web design business and the online job services, it is apparent that his knowledge in online service business was transferred from previous businesses:

> *Web Design Co. is a web design company which offers bespoke web design to various clients, erm small to large. Online Job Search and Management is completely separate and is an on-line service.*

And whilst I was doing that (running Web Design Co.) I gained experience in the kind of market and knew what was going on, different technologies and had the idea of Online Job Search and Management (OJSM).

His knowledge in the digital industry was transferred and used to help him to set up a different business in the same industry. The business experience he had enabled him to gain insights of the industry in terms of technology and trends of customer needs.

7.5.3 Stream 3 - Knowledge replication

Knowledge replication is different from knowledge transfer. There are 11 opportunities where prior knowledge and personal interests play a role in knowledge replication at the identification stage (Helen, Andy, Ian_2, Nick, Jeff, Jeff-Paul, Laura, $Alex_1$, $Alex_2$, Kelly and Karen). Knowledge or experience in a specific industry provided the entrepreneurs not only with the knowledge, but also the confidence, in setting up their own businesses in the same area. Jeff and Karen had been working part-time and recognised that they could carry out the businesses formally in full-time self-employment. Andy and Laura worked full-time for other companies as employees and in the case of Laura, when she was made redundant, she decided to set up her own business in the same industry because she considered herself to be a very experienced trainer in her sector and that she had accumulated a lot of business contacts through her career which would be beneficial when starting her own company. Laura's comments are typical of this group:

I have worked in the recruitment industry for over 20 years ... for a large recruitment business where I ... [developed] training and development programmes for recruitment consultants and managers in specialist recruitment businesses and when I was made redundant, I was basically approached by a lot of my previous people who I had trained myself who had moved on from my old company who had basically set up their own recruitment businesses and basically started to ask me if I would do consultancy with them with regards to helping them develop their businesses and their consultants where they didn't necessarily want the cost of a training manager to be full-time within the business but where they could use me on an ad-hoc as and when basis and basically I thought about that and I started to do some sales training for people

generally in the North West and I actually met up one of the business
advisors [from BIC} and I thought to myself, 'Should I start to look at this
as a business idea?'

7.6 Discussion

Since Shane and Venkataraman's (2000) seminal paper on the domain of entrepreneurship research, several studies have looked at entrepreneurship as a process, rather than outcomes. There has been some work on how an entrepreneurial process can be better understood when using learning theories (Man 2012; Holcomb et al. 2009; Huovinen and Tihula 2008; Corbett 2007; Hughes et al. 2007; Pittaway and Cope 2007; Sanz-Velasco 2006; Corbett 2005; Politis 2005; Rae 2004; Taylor and Thorpe 2004; Ardichvili et al. 2003; Cope 2003; Honig 2001; Minniti and Bygrave 2001; Rae and Carswell 2001; Cope and Watts 2000), or in other words, when it is more process orientated. However the literature in opportunity identification and learning is still divergent, which calls for more robust work to bridge the different theoretical frameworks. Also little research is focused on the origin of a business idea, where an opportunity may or may not be exploited.

To respond to calls for more in-depth studies in opportunity identification and learning, this study looks at opportunities that are just being identified and developed by entrepreneurs who used BIC.

Among the 20 respondents, prior knowledge of markets was the most common factor that contributed to opportunity identification (appearing in 17 of the 23 opportunities). The prior knowledge stage is in line with Lumpkin et al.'s (2004) preparation stage, in the creativity based model of entrepreneurial opportunity recognition. They believe that '*more than 50 percent of start-up ideas emerge from a person's prior work experience*' (Lumpkin et al. 2004, p.78-79), which is a form of prior knowledge of markets. The data that emerges from this study looked deeper into the role prior knowledge plays in the opportunity identification stage and found that both education and work experience play a very important role in this process.

More importantly, in contrast to generic knowledge gained from education and work experience, it is the specific knowledge that is relevant to the markets that is fundamental to this process. This is consistent with Ucbasaran et al.'s (2008) findings that entrepreneurship-specific human capital is more important than general human capital, in identifying opportunities.

Prior knowledge of customer problems is present in 8 opportunities, making it the second most important factor for opportunity identification. However compared to prior knowledge of markets, it is much less dominant. Among these 8 opportunities, Jane is the only participant who did not have a negative experience of the particular service. Also in contrast to the others, she is the only one who had prior knowledge of markets, customer problems and means to serve the markets. The experience gained from various sources evolved and formed her own business idea. The positive experience she had in the industry made her *transfer* her prior knowledge to an opportunity that is slightly different to the opportunities she observed.

In contrast, Ian_1 only had prior knowledge of customer problems when identifying an opportunity. When opportunity is mainly based on negative experience, it is more opportunistic than when possessing high levels of prior knowledge. The fact that Ian_1 identified opportunities with limited prior knowledge, especially without knowing how to solve customer problems suggests that Ian may be more entrepreneurial and risk taking than Jane (Kolvereid and Isaksen 2012; Burns 2011).

Personal interests is present in 7 opportunities at the identification stage. It can act alone or combined with other prior knowledge as a motivation to identify an opportunity. When acting alone as the motivation it signals that the respondents did not have knowledge or experience in the field and it is often a life style choice. When combined with other forms of prior knowledge, it often indicates that the respondents found a gap in the market (in the case of Paul), or intended to change and improve the market.

Prior knowledge of means to serve markets is only present in 4 opportunities. In all cases, they transferred knowledge or experience gained from their friends or

themselves to the opportunities. For many entrepreneurs the idea of how to fill a gap might come at a later stage, when they can combine various information with their own situations and prior knowledge. It does not come as a surprise that at the opportunity identification stage, possessing prior knowledge of means to serve markets is rare.

It is worth noting that opportunity identification is complex and that isolating each type of prior knowledge cannot offer a whole picture of the phenomenon, the dynamism involved and the interactions between the knowledge and the opportunity. Therefore the chapter not only examines each type of prior knowledge, but more importantly explores the varying combinations of prior knowledge and their impacts on opportunity identification.

The chapter represents an important first step in addressing research questions 2 and 3 about how incubatees use their *existing* knowledge and acquire new knowledge to develop their businesses. More specifically, the chapter explores how different types of prior knowledge and varying combinations of prior knowledge have an effect on opportunity identification. It also looks into how the opportunity development process takes place under the influence of starting up a business in a BI environment. As illustrated in Figure 2 (Section 3.6), this chapter mainly focuses on the right half of the conceptual framework, in other words, the development of opportunities. That is, the process of transformation of business ideas, from existing knowledge to business opportunities.

A cross case study is carried out to compare the varying combination of prior knowledge and their role in opportunity identification. Consequently three different impacts are discovered, listed from most to least creative, they are:

- **change and innovation:** in this scenario, the opportunity was often externally stimulated. The entrepreneurs discovered problems in the products or services they have received. They then created solutions to the problems, which were perceived as an opportunity;

- **knowledge transfer:** this is the least common stream. For this stream, the entrepreneurs have accumulated knowledge through studying and work experience. They then transferred the knowledge to a related but different business, which formed the opportunity identification stage;

- **knowledge replication:** the most common stream, with 11 out of 23 opportunities. In this scenario, the entrepreneurs applied their knowledge and interests in an area where they had worked and/or studied and where they felt confident.

The findings of the chapter also highlight four other interesting issues, in terms of personal interests, prior knowledge of means to serve markets, prior knowledge of customer problems, and implications of future studies in opportunity identification. Firstly, personal interests play an important role in opportunity identification. It corresponds to what Ardichvili et al.'s (2003) call a second domain of prior knowledge, or special interests. In three opportunities, it is the only reason the entrepreneurs saw the opportunities. Linking this finding with literature in entrepreneur's personal traits, the participants in this category exhibited typical characteristics of being an entrepreneur, for example, risk taking, opportunistic behaviour and self-confidence (Burns 2008). Therefore when an entrepreneur has a low stock of prior knowledge but strong interests in the opportunity they identify, the business is likely to be risky and/or life-style based.

Secondly, when prior knowledge of means to serve markets occurs alone, it is not sufficient to identify an opportunity. This is because this type of prior knowledge represents a solution to a problem. For it to be effective in identifying an opportunity it is necessary to combine it with prior knowledge of customer problems, and/or prior knowledge of markets, and/or personal interests. Without these additional forms of prior knowledge, knowledge of means to serve markets would not have existed in the first place. In this sense, compared to other types of prior knowledge, prior knowledge of means to serve markets plays a distinctive role. It is a catalyst, where standing alone it does not help in identifying an opportunity, but it can be utilised when other forms of prior knowledge are present.

Thirdly, Lumpkin et al. (2004) studied entrepreneurs from the Chicago Area Entrepreneurship Hall of Fame and other business owners from the Chicago area with turnover between $5 million and $100 million. They found that more than 90% of the respondents strongly agreed that opportunity recognition was from a specific problem or need identified among customers. However this is not the case with the BIC participants. There are only two opportunity identification (Ian_1 and James) that are solely linked to prior knowledge of customer problems; and including these two opportunities, there are only 8 out of 23 opportunities (Tony, Neil, Emma, Kath, Jane and Jeff-Paul) where prior knowledge of customer problems played a role in the identification process. This may be due to the age of the businesses. The entrepreneurs Lumpkin et al. (2004) surveyed are more mature and successful than the (prospective) entrepreneurs in BIC. This suggests that prior knowledge's role in opportunity identification may vary depending on the age of a business and/or experience of the entrepreneur. Also knowledge of customer problems may not be present at the opportunity identification stage but at a later stage of opportunity development. This reflects the nature of opportunity development process as a journey of learning, where, with other necessary information transformed and skills & resources acquired, an identified opportunity can be developed. This is discussed further in Chapter 8.

Finally, for the majority cases, it was a combination of different types of prior knowledge that helped to identify an opportunity. This suggests that studying the dynamic interactions between prior knowledge and opportunity identification is an important step in understanding opportunity identification. The emphasis of studies to explore opportunity development should perhaps therefore focus on interactions and process, as opposed to content or isolating factors.

The next chapter continues to explore the opportunity development process, specifically where new information was acquired through BIC, and transformed into experience and new knowledge. Also as a continuation of Chapter 6 (the BIC experience), Chapter 8 explores further at the role BIC played in such a learning process.

Chapter Eight
The Process of Opportunity Development in BIC

8.1 Introduction

In Chapter 6, I explored the process of business incubation that took place in BIC. After looking at all the pathways the participants went through, six individuals were selected to demonstrate their incubation experience and to explore the role of BIC in such a process. To gain a more in-depth understanding of the entrepreneurial process I explore the core of such a process, which is opportunity identification and development. In order to achieve this aim, in Chapter 7 I began by looking specifically at the relationship between prior knowledge and opportunity identification.

In this chapter I continue to explore the development stage of an opportunity by exploring the opportunity development process through the lens of learning. The outcomes from the two previous chapters suggest that BIC played an important role in developing entrepreneurship, not only by providing physical facility, mentoring and business advice, but also by creating a social space and providing resources that are crucial in the entrepreneurial process.

This chapter aims to shed more light on the opportunity development process through the lens of learning, and to look further at the role BIC played in such a process. It takes the experiential learning framework used in Chapter 7 and builds on it to explore opportunity development within BIC.

Conceptual framework

Writing about the five stages of opportunity recognition, Lumpkin et al. (2004) point out that the opportunity recognition process is recursive, not necessarily liner and

'*may not follow any predetermined sequence*' (p.80). Similarly Politis (2005, p.408) argues that the process of entrepreneurial learning:

> '*does not necessarily follow a predetermined sequence of steps according to Kolb's (1984) four-stage learning cycle, but rather can be conceived as a complex process where entrepreneurs transform experience into knowledge in disparate ways.*'

Thus both opportunity identification and development and entrepreneurial learning can be conceptualised as complex processes, where individuals may reverse or repeat stages. From a learning point of view, business concepts or ideas can be derived and constantly moderated or transformed by experience (Man 2006). Viewed from this perspective, it is possible to investigate opportunity development as a process by first exploring prior knowledge (Chapter 7), and then investigating what information was acquired and how it was transformed by entrepreneurs during the opportunity development process.

I begin this chapter by presenting my analysis of that transformation process. In order to do this it is important to have an understanding of the context in which learning and opportunity development are interacting. Therefore I draw on the six case studies used in Chapter 6, as their pathways have already been presented in detail.

In Section 8.3 I build on analyses presented in Chapters 6 and 7 by combining them with the analysis of the transformation process presented in Section 8.2 of this chapter. This allows me to present a holistic view of the learning process within BIC that takes account of context, the type of prior knowledge the six participants possessed when identifying an opportunity (Chapter 7) and the transformation process that took place (Chapter 8) during the participants' incubation period.

The chapter concludes by discussing the role of BIC in developing entrepreneurship.

8.2 Opportunity development in BIC

As discussed in Chapter 3, an opportunity is new knowledge. It is created by three fundamental elements. They are prior knowledge, the process of acquiring new information and the process of combining the prior knowledge with new information, in order to transform them into new knowledge (Corbett 2007; Kolb 1984), and in this context, develop them into an opportunity. This section focuses on how this transformation process takes place.

8.2.1 Andy

Developed knowledge of customer problems

While in BIC, Andy developed knowledge of customer problems. He believed that to have a viable business idea, the key is to set up easy to use websites for customers, rather than confusing them with technical jargons. He understood that the problem a lot of customers had was being confronted with too many technical details, as he explains:

> *Well, a lot of people don't know. They know the internet exists, and they know how to use it, but they don't understand what makes it work or makes it tick, and as far as we are concerned, they don't need to, they shouldn't have to and they don't want to. So our idea has always been to make everything do as simple as possible, including the support ... especially with the internet, there's a lot stuff that people, would go straight over people's heads, in one ear and out the other, and that's the way it should be, because they are concentrating on their businesses ... they don't need to worry about how or why their website is working, just the content about the website, really.*

Developed means to serve markets

After teaming up with Frank, Andy and his partner reflected on the process of website productions and came up with new ways of serving the markets. In this way, not only did they became more effective, it also made cost saving possible and therefore increased customer numbers and satisfaction:

> *The first three of our website we just did and then gave to the client and then said right, there you go, and I think three of the four came back and*

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they just asked just to do changes on the website. So straightaway, there's things we got to do that we are not being paid for, because that's included in the quote, the original quote. We realised that actually they can change themselves, or all the websites are very easy for us to update then it would save us time, make us more money, customers will be happier, so it was pointless producing one off website again and again and again, when actually what we needed was this system for doing it.

we realised we were sitting down and spending, say a week, creating almost exactly the same website, as we did the week before, except the way it looked. So we decided to come up a system for re-using what we already done in the past. To save us some time and make us some more money, and also speed up the process for the client. So we came up with what we are currently developing which is a content management system.

Teamed up with other tenants with complementary skills for a new company

Having been in BIC enabled Andy to meet other entrepreneurs and find people who had complementary skills and knowledge to his. He formed a new company with Frank and other tenants because of BIC:

It's very difficult to work on your own, it's very hard to be a sole-trader, with no body to lean on, with no business partner, or at least people who are doing similar things. The benefits I got from working with Frank, although we work in the same industry, we've got complete opposite sides of knowledge, without his side of knowledge, I would either not be able to sell products that need that, or I have to employ somebody else to do that. With Frank, I literally have somebody on the end of the phone, whenever I need him.

Becoming a freelancer was always gonna be something to do until I have a business idea that would bring me regular income. I don't wanna be a freelancer for the rest of my life and going from freelancer to what I am doing now is has taught me massive amounts of all sorts of different businesses as well, so I've learnt a lot from Frank, I've learnt a lot from Angela, I've learnt a lot from Tom, and I continue to do so. It's been a good eight months, is it? Felt just started, it's going really well.

8.2.2 Jane

A space to learn practical skills to further the business

For Jane, BIC was not only a physical space which she used for as an office and to meet associates, importantly, she viewed BIC as a resource for learning, where she could learn business skills that she could not gain from anywhere else:

> *J: I feel like I've still got a lot to learn, and I feel like that the resources that are here and the people here could help me achieve what I would want to achieve, you know, to learn, I feel like I would have no where to go to get those skills or to learn those skills otherwise.*
>
> *Interviewer: so what skills do you want develop?*
>
> *J: things you know, things like the marketing and networking skills. You know, things like that, you know, considering getting a new website, and I know there's a lot of people like graphic designs, website design in here, you know, it's nice to be able to go to them and say 'could you please do this for me' but also know that you are generating a bit of income for them as well. You know, it's I think having that as your first port of call, I think it's quite comforting almost, I feel like I'm someone will help me (laughed) someone some where will help me, if I need it. So I think that's quite important where I come from a public sector background, you know, voluntary background, not necessarily a private, you know, a commercial company, and I don't feel like I've learnt some of the skills that maybe would need to actually when you are in business.*

Acquired information and resources needed to develop the business

BIC's management acted as a broker between the different resources and tenants. They helped Jane to acquire the information and resources to further develop her business:

> *I do feel quite supported and you know, I feel like if I had a problem, even if they couldn't help me, they would know who to put me in touch with and you know, I've gone to Martin [the BIC manager] and said I need I need some help with administration, I've got a load of fixtures to do, I need to sort the website out, you know I cannot take any time off work, I need some help and he said: 'right well, you know there are a number of people in here you know, they could help you'. So they let me sort it out and then put me in touch with Anne, and she was great. So in the short term, they can help with things practical solutions, things like that. So if I want to access to that support, it would be there, and it's nice just to have those emails coming around so, if you feel you can, then great go for*

it, and there's no pressure if you cannot, if you don't have the time to do it.

The entrepreneurial experience

Jane was inspired by the entrepreneurial atmosphere in BIC. It was a direct contrast to the public sector she worked as her main career:

I think this place in itself has a good energy about it, so you come in here, and if I compare it to where I work which is in an old hospital with people that have been there since they were 21, and they work there for like you know, 15, 20 years, and they are very entrenched in that, and they are very limited in what they can do. So you might want to buy a piece of equipment that is 50 pounds, but the amount of hoops you have to go through, to actually get that equipment whereas you come here and you just feel that people are that much more sort of that lateral thinking and you know, have that autonomy to go out and do what they want to do and there's a lot more drive, if I think about them, here, you feel, you can feel the people there are around are very driven and really want to succeed and they've got these great ideas.

The BIC management helped to create an inspiring environment for Jane, while not being too pushy:

I also felt they are quite encouraging of you to think of the bigger picture and to have a bit of plan about where you want to go and things like that. I think they are supportive, but they are not too pushy, so like Martin knows I work, and it's quite hard for me to trying to fit every thing in, so he's not sort you need to do this, need to do this, need to do this. It's just like trying, you know, 'have you thought about doing that?'.

Being part of the BIC community

I feel quite supported here as well. So you get you know, a number of emails about different opportunities coming up and different things you can attend and you do feel like you are part of this little community. I'm not saying that I contribute that much, to the community, because again, it's quite difficult when I've got one day a week … but you know, it has changed the way I think about my business and what it could do in a potential for it, because I think well, if I can achieve this, with doing minimum really, just to keep it going, if I was to actually concentrate on it and put a lot more time into it, then it could actually achieve, you know, so it's made me think about it slightly differently, I think.

8.2.3 Ian

Acquiring social contacts to develop the business

BIC management helped Ian to attract more clients to his social networking events by introducing social contacts:

> *They've helped us put on the networking events. We spoke to Martin [BIC manager] and Jenny [BIC administrator] about it and they were very positive about it and so they said we will help you and we will help you to put them on, so we started running them and next year Martin is going to start advertising, well hopefully resourcing it out to external companies so they can come in and promote their businesses to pay the advertising basically. Because he has already got these contacts and he's wanting to bring more external people in to our events so they have helped us to grow it in that sense.*

Continued with the first not-for-profit business, while developing a second business idea

Ian came to BIC with the idea of setting up the Social Networking Events (SNE) business. However it did not work out as he assumed:

> *SNE didn't have a strategy, it didn't have a plan, it didn't have a real goal, it was just something I decided to do, like a side-project, we did try to charge in for it and it would have been nice but as soon as we started charging for it nobody turned up, so it was weird, it went from 40-50 people to zero, just people being cheap, so we decided to keep it free and we might get some sponsorship and we might get some people to have stalls and sell stuff something like that, I don't know.*

At one of the events Ian organised he got to know someone who was in the hypnotherapy business. Prior to that, Ian had been to some hypnotherapy sessions and had been interested in it as a hobby and a business:

> *I became really friendly with a girl who comes to my networking events actually who runs a hypnotherapy training company and so she helped me with a lot of things, so I've done three diplomas I think, I'm not quite sure. Standard hypnotherapy, another standard hypnotherapy and an advanced hypnotherapy/psychotherapy diploma.*

As SNE was not making any income for Ian, he shifted his focus to the new business idea, hypnotherapy. The rent BIC charged was very low, compared to a commercial rate, and it did not charge any fees for renting meeting space. Because of this Ian

decided to keep SNE, which might generate business leads when he networked with other business people in the networking events he organised. The low rent charged by BIC also helped Ian to sustain the business and to try out his ideas for longer:

The on-line printing [business] is making money, it's making residual income at the moment so I can't knock it. SNE and the actual value of making money out of it is nothing but that's fine and I don't want to make money out of it really. The hypnotherapy is potentially very large so that's where I am going to be putting most of my time and efforts because that's where I am going to make the most money and it's the most interesting area of the three as well out of printing, networking and hypnosis so that's an area where I am very interested in, so that's where I am gonna to be putting a lot of time and focus over the New Year.

I'm not going to let it [SNE] take up too much time because again its more of a social enterprise thing rather than a money generating business so I can only put so much time into it so I don't want it to grow too big but I will keep the events going, keep the website going and hopefully it will carry on to be successful like I hope and I don't see no reason why not.

In the meantime, Ian was developing a new way of serving the markets for SNE, so that it could be a success:

For next year I have been contacted by some people who run marketing companies in this city and they are interested in coming in and doing a talk each month on a different specific area of marketing. Now they are also possibly interested in putting some money into the event as well which would make it a bit more profitable which would mean I could then do some ad words and have a little snowball effect on it.

While having the hypnotherapy idea as the main business, Ian was still trying to understand customers' problems with social networking, and developing ways to serve the markets:

I will ask the people who come to it what they want because its not really my business it's the people who come to it and if no people came then there wouldn't be anything so we will continue asking them what they would like to see at the event and we will probably try all these, well speak to Martin [BIC manager] and see what we can do for next year. Hopefully if we can get some people to come in and advertise at the events that would be great as well so we are just going to see where it goes. I do have a bit of a strategy, I'm going to have speakers at every event and that's something which I really want now.

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Teamed up with another tenant for the new business idea

From the knowledge he gained in the industry regarding means to serve markets, Ian planned to setup his hypnotherapy business as a joint venture. He successfully recruited one of the business partners in BIC:

> *Right okay well basically just because I wanted to do joint ventures before but have never bothered doing them and then I've read a lot of marketing materials and also by speaking to my external influences which are the other people who do hypnotherapy around the country, they say they do joint ventures with other people and its very successful so that's given me the motivation because the thing is I've been building up contacts for quite some time and now I'm going to start using them.*

Establishing an entrepreneurial community

The BIC management provided support for Ian to run his networking events smoothly and professionally. In the meantime the networking events also helped to enhance the entrepreneurial environment in BIC:

> *Because I do a lot of speaking events here and they've always been very supportive, they've always come along and I have always handed out leaflets and flyers and I've always had either Martin, Christine [BIC marketing coordinator] or Jenny actually start the event in speaking introducing what BIC is, so our events do work hand in hand, you know, and they sort of help me to do them and I then promote BIC and people have joined up as a result, which is good.*

8.2.4 Tony

Developed knowledge of means to serve markets

Tony came to BIC with the idea of running his Life Coaching and Business Advice (LCBA) business. However it didn't work well as he thought. He got to know David in BIC and changed the delivery methods for the business:

> *I've lost the date training side of it, because it was not making any money. Also when I originally moved into BIC, I thought BIC would be a better area to do workshops than it is, even though it has got the facilities do workshops, the actual location, really looks very good, isn't! Because no one can find it and no one can park here, it's a bit annoying.*
>
> *So now I'm not … I've moved my goal post slightly, or I've moved the idea, so instead of people coming here for the workshops, I'm going to do it as a web casting. I'm gonna to put it on the Internet. So we've got somehow*

utilise what BIC have got, like those small spaces, but doing it across the Internet, so people don't have to come here.

So we launch, hopefully, we've got our first 10 customers now, we launch in January. So yeah the idea has developed lots, because of the external, not external, the internal problems I suppose, with BIC. But also BIC has given me the opportunity to meet David, and without David, we wouldn't have that product.

Because of the other four tenants Tony met in BIC, his business idea evolved in the process. Instead of running workshops on marketing and date training, he shifted his focus entirely on giving marketing advice online. This process helped him to develop knowledge in means to serve markets:

The refinement of the idea I suppose comes from just market researching more. With LCBA I thought I did enough market research, but I hadn't and I just launched it on my gut feeling, and it works, because half the business works, but the date training side of it didn't, so now for [the new business], Marketing Advice (MA), I'm actually doing the opposite, I'm going to bring in four people, those business partners, but each one of them has a specialism. We've got David who's our web guy, we've got a sales guy, we've got a project manager, and then we've got Tania as well who is finance ... and that's really through BIC.

This idea wouldn't happen without BIC. MA would happen without BIC, full stop, really. A, because of the people I met; B, because of the, I suppose, the atmosphere; C, design of this room, this room is really helpful as well.

From now on, doing a lot more PR stuff, as soon as MA launches, lots more PR, a lot more PR online, much more spokespersons for small businesses and for enterprise.

Teaming up with other BIC tenants was a way for Tony to cope with the newness of the business:

This is MA, LCBA will be destroyed, because LCBA will just be part of ... because LCBA was just me, I was just basically working, I had a job really, I had 3 or 4 clients, that was really a job. Whereas this is a company, another plan of this, is as they said in Entrepreneur, you know, it's not a business unless you can walk away from it or unless you can be ill and you know, things still work. The problem is I cannot be ill, at the moment with LCBA, if I'm ill, if I stop working, I don't make any money, there's not much, just me, so I gonna to make this into a business, and hopefully with that thing there (knocking on the white board), a residue business, it

makes my life, if we have a hundred people signing up, and I have to do one workshop, and two audio, that's a lot easier for a large amount of money. And that means, this sales job is a lot harder, but that's why I'm bring in that sales guy.

Because I've brought other people into the roles, my job can be can be exactly which should have been, which is basically PR, marketing, and being an entrepreneur, and being a flagship for the whole thing, that's the reason I brought these guys in, so I don't wanna bogged down by doing a sales role, or bogged down doing the finance, or the delivery, or the websites. So my role is really just to be out there and shouting MA from the tallest buildings.

Being and acting as an entrepreneur

Tony read books about entrepreneurs and was inspired by them. In BIC, after he met all the 'right people' with the right skills, he recruited them as his business associates for MA. When he was setting up MA, his plan was to behave as an entrepreneur, in terms of his role in the new company and the future plan for the company – like other entrepreneurs who sell their start-ups and set up new ones:

Interviewer: So what would be your role then?
Tony: Entrepreneur.
Interviewer: Entrepreneur.
Tony: Entrepreneur guy, comes up with the mad ideas … And then my plan is to sell in three years and I leave after three years, and that's good.

I didn't realise there's actually a bigger opportunity, until couple of a month ago, I suppose, when the internet changed a bit, when I read a bit about Entrepreneur again, and these are the books I'd read years years years ago, and I just hadn't been in the situation that I'm now, and I've had the life experience and it's suddenly all made more sense to me.

I started to read a lot more autobiographies, so things like Peter Jones, Richard Branson, which is pretty good. Bare Entrepreneur, fantastic, so I re-read it again. And the E-myth, another brilliant book, because they are all good. I think it's been more effective, because books have been more influential than people, and I cannot wait until John Leech and his crew, because that's, I mean that's what I realised is I've got to a certain level, which is great, but I need to get another level, which can only happen through meeting better people.

In fact, BIC made a huge difference, well, otherwise I won't have met any of these people, I haven't been much now, that's not true, I've met all of them, but I wouldn't have met them in BIC without BIC.

Being part of the BIC community

Influenced by his fellow tenant Neil, Tony felt the importance of being part of BIC, not only for enhancing motivation, but also to acquire the right people, with the right skills, in order to develop his business idea further. Benefitting from the community effect, Tony was also building up his own community and integrating it with BIC by choosing to stay on for another year and not to rent a separate room in BIC for the new company:

> *Interviewer: In what ways has being with other people starting a business affected the development of your business ideas?*
>
> *T: Yeah, massively, wouldn't it? Without it, without the energy levels that you get from working around other people, I don't think, I think a lot of these businesses survive, because they can come to BIC and have a bad day but still be around people that are smiling, I think it's, you know, if you have a bad day, you by yourself at home, and ultimately if you are at home, half time you spend it watching telly.*
>
> *It was when I listen to Neil's speech, I've realised actually it's not just the social side of it, it's the motivation side of it, but also it's meeting the right people. And as soon as I opened my mind, the possibility that we can meet, you know, the right people, so I then met all the right people.*
>
> *And it was listening to Neil, doing things on culture development training and consultancy (CDTC), and his point was, you know, not a lot people here use this as a base, for creating ideas and having partnership, it's a very good point, so that's why I started working with David, I then got the sales guy, Joe, they just moved in now, I got those guys to move in, Tania, I got to know completely through BIC, and Tania does my finance. So everyone else will be BIC based.*

8.2.5 Paul

Developing first idea while developing two other ideas with other tenants

When Paul came to BIC with his own idea, it was about setting up a specialist online food business (OFS), selling environmentally friendly food via the Internet. However it took much longer than Paul planned. In the meantime, he looked at some other options in BIC. He teamed up with Jeff and another tenant, working on a Digital Publishing (DP) business and he became the business partner of Jeff, who was already trading as IT Support (ITS):

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When I first set up I thought you set up a business and three months later you are making money … but in reality I think it takes six months before the company is making a decent amount of money and then another six months before the company can afford to pay you as a director money and if you haven't got lots of money to plough into the company upfront to begin with, so I was attracted to the third idea ITS just because it was already trading and it could provide a source of income much more quickly than the other ones.

I guess the kind of personality I have I sort of analyse the environment around me a lot and I find it quite easy to pick out trends and spot opportunities and things and I could do that with Jeff's ITS idea because … I could see there was need for it and I was also attracted to it because it's a relatively low risk business and the investment required is quite low and he was already trading so there's hardly any sort of barriers to entry for us because we've got the links with the university which the competitors don't have and so it just seemed like a sensible venture to get involved in and I think additionally it was attractive because my first idea was quite a high risk business because it requires quite a lot of financial investment to grow it to the scale I want to grow it to.

So the first one [Online Food Specialist (OFS)] was quite high risk and it might not have worked so we potentially could spend a lot of money developing it and it not work. The Digital Publishing (DP) business was kind of a medium risk so it was more likely to work, quite a lot less money but both of those things had been taking quite a long time to develop … so I was attracted to the third idea [ITS], just because it was already trading and it could provide a source of income much more quickly than the other ones.

Teamed up with other tenants with complementary skills

When I'd started the transfer becoming an entrepreneur and so when I started to work with Jeff on the digital publishing business I started to notice that this was the type of person that I wanted to work with because he was from a different background with kind of technical and IT skills and a different type of personality which complemented mine … We seemed to be working quite well together and we seemed to compliment each other quite well and right from the very start I had always wanted to work in teams for my projects because I think you are much more likely to succeed having a team of people with complimentary skills than you are working alone.

Making the first idea more sustainable by joining other ventures and offsetting the risks

Paul was passionate about his first OFS idea. However he needed investment to actualise the idea. By joining other tenants' ventures, he was trying to offset the risks of OFS while working on developing the business idea:

> ITS has potential to make less money but it is more likely to make money but if it does make money it won't be as much. The digital publishing business is likely to make more money if it does make any money but it's slightly more risky because the probability of success is slightly less and OFS is likely to make an awful lot more money but the likelihood of success for that is less again. I think whilst we have been at BIC working on the business and accessing the resources the probability of success has definitely been increasing as we've developed.

> With OFS, the first strategy was to get a small amount of finance on so that I could develop a concept, or proof of concept so that should be finished soon … we can then start trading for perhaps maybe six months proof that it is working and then we can start looking to put proposals in to various people to get funding.

> Coming to BIC and working on the first business [OFS] started to make us think that sort of maybe we should take the other idea more seriously and start developing it so yeah that's how that second business started.

As for the other two businesses, Paul and his associates were developing the means to serve markets:

> With the digital publishing company we are trading with that and our next strategy is to focus on marketing and products, probably again looking to attract a non-executive board of directors and we will be continuing to approach various people high up in the publishing industry.

> Martin has the experience of working in the digital publishing industry so he was able to sit down with us and give us lots of really valuable advice which we have factored into our business plans and some of his ideas actually form the basis of our marketing strategies so that was useful.

> Because I have only been involved [in ITS] for the last six months I haven't had too much to do with the strategy but I think in reality we have tested the concept to a certain extent in the last six months and now the biggest limiting factor to growth at the moment is our marketing and if that is successful and we can prove that the model we have developed is a profitable one, we will probably be looking at expanding.

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Being and acting as an entrepreneur

It was quite clear with Paul that he wanted to become an entrepreneur. He was thinking as an entrepreneur and wanted to do what creative entrepreneurs did by planning to bring other entrepreneurs and investors on board:

> *I wanted to follow a career that was something to do with that, also creating things and being entrepreneurial which I thought I would be.*

> *I've always been what I would call 'a creator' and I am very good at sort of analysing situations, spotting opportunities, being pro-active and sort of going out meeting people and gaining their support and that type of thing so I thought, 'that's what I'm sort of pretty good at'. The thing that I really really didn't want to do was to get into a situation where I was just kind of like a little slot in a company, just a tiny little role which I had to do everyday for the rest of my life and I really wouldn't want to do that, so I wanted something kind of more exciting to help me actually create new things which is what I wanted to do.*

> *At the moment I am very happy to be an entrepreneur and to accept the kind of levels of pressure and things you are under and the financial uncertainty that comes along with owning your own business.*

> *My expertise is more about being the entrepreneur and having experience with an environmental background so the web development and things are being done by a team of other people. I am strategically looking for people around the country who could join the team as like an advisor with a small share hold, just to kind of build up the team because I think as a university graduate who has just left university and is starting something I think on paper you are not very investable because you've got no experience and probably not very much money and all you have is an idea so now that I am getting close to having something to actually show people because OFS' web development is almost finished, I am now looking at getting a team of people on board who will, on paper, make the company look a lot more prestigious so I am looking for the type of people that I could use so people from sort of Google, Ebay, Amazon, the Sustainable Consumption Institute and all those type of people.*

Being part of the BIC community

Paul really liked the supportive and entrepreneurial community feel BIC had to offer. It not only enabled him the access to useful information for the business, but also provided an environment where likeminded entrepreneurs motivated and supported each other:

I think the human capital side of BIC and being in an entrepreneurial community is by far the best thing that BIC has to offer and it's almost the only reason why I came into BIC to be with other people.

I mean the social capital side of things works in more than one way because it's nice just to be working in an environment with other people so from in terms of like a motivational point of view and just having other people around you and it doesn't even matter if they are not doing the same thing, just having other people around you is much more enjoyable than say sitting at home in your home office just by yourself and I think being around other people who have a sort of entrepreneurial way of thinking is incredibly valuable because that is really really unique – especially in Britain, well with British culture because people in Britain generally tend to, if you say you want to do something people usually find reasons to advise you not to do it so kind of; 'it's risky, it would be easier to get a job', and those kind of things and so to get a community of people who all think the same way that you do as an entrepreneur and they can see the reason why you should be doing something and they can see the opportunity and therefore they can sort of see why you want to be doing it, I think that's really useful.

Martin and Jenny seem to understand what everyone is going through in here so like I said they are very supportive because again they are not outside people who question why you are doing it or that type of thing, so I find that really useful.

8.2.6 Kath

Developed means to serve markets

In BIC, Kath spent 12 months developing her business idea further. She worked on the business concept, the target market and the name of the business:

It developed from scratch really … so it has taken 12 months … and I think we would be ready then but everything has happened in the business since then, the organisation of how we are going to do it … I changed the name [of the business] and that was a big change because what we wanted to do was to develop it not just as a childcare voucher business but just in case the government decide you can have the vouchers for older relatives who go to homes etc. … the model I have set up is going to be a maximum 2000 customers because to me 2000 customers, a bit like my childcare company, I know everybody, people know me … and that is really nice and important and that is the bit that I think is very good about the other business, so I have transferred that onto this business. So to keep it small but yet still profitable and the way I

am going to expand it is to franchise it out and that idea only came whilst I was at BIC, probably about September or October of last year.

After witnessing a major competitor in the same region selling their childcare business, Kath learned that her competitor was growing too fast and the owners could not manage the business anymore, due to too many employees and clients. To tackle with this future potential problem, Kath thought of developing a system that would be suitable for a two-people team, with a manageable amount of clients. That also made her think of franchising her business:

> *I am developing it and we have refined it and refined it so the process is dead dead simple, the strategy is that it will be easy and simple and it wont be time consuming, when I first did my business model I thought that for 2000 clients you would need about five people and now I have got it down to two [employees] … I have developed that strategy because what I am now thinking because of the franchise that we talked about earlier if I can franchise that to a husband and wife team so I suppose my strategy has been to try and reduce the number of employees so that it could be a husband and wife team so that again you have got the family vouchers side of it so it's a husband and wife team or a couple who can run the business so that's the strategy I am working on.*

Kath used BIC's tenants to get information and feedback on her idea, in order to improve a system she was developing for the business:

> *That's where BIC came in, because I was at BIC and I mean I can work a computer and I have basic skills but I cannot design things but I am creative and I know what I want and that is exactly what happened. By the summer of last year I had worked out, you know I said I did a lot of research and working out the system that I wanted, so when I had got the system that I wanted I took the system and went to BIC and I said does anybody know who could design a system, not even the web design, I was more interested in the system because the system is almost like a little banking system that operates behind it all and I just put out a thing out to the BIC people saying, 'This is what I want, is anybody interested in me telling them more', and then of course various people came by, I also went outside, I went outside BIC and went to companies as well and said the same thing 'was anybody interested?'. So I did use BIC for that. At first everybody told me I was being too ambitious and the system I wanted could be done but would cost tens of thousands of pounds and had I got that kind of money and was I prepared to put all much that in and all that sort of thing, so I did tone it down and then put it down again saying it was different this time and not as mad and chose [a former tenant company] to do it.*

A well-run system was needed to realise Kath's business idea. Kath was testing the system in BIC and improving it until one day she could sell this business idea as a franchise:

> *Just through trial and error really, I mean certainly when we have been testing the system things have come up and we thought, 'We don't want that, that doesn't make good sense to us or that doesn't fit in with what we did yesterday on this part of the system,' so it's mainly through using the system, although its not ready to go out to the public yet we have been using it since before Christmas, we've been testing it and pulling it apart and trying to get things right and that's how its been being refined, so for three months we have been doing that to make sure that when it does go out it does exactly what it says, if we say, 'If you do that you will get an e-mail', you will get an e-mail no matter what because that is what we have said will happen and that e-mail will trigger off to say to me to go and check the bank account to see if they have paid us and if they have then we will it has and then the whole thing pays everybody but we have to say yes they have paid us which is where the cash positive thing comes in that I mentioned before.*

Acquired relevant information through BIC management

> *I think one of the main ways they have affected things is by continually sending us courses, conferences, meetings, seminars, we get a lot of information from them and obviously I don't go to everything but I do look at everything they send and I do sort of think if that would benefit me and that's another benefit, you obviously don't get that from the tenants you get that from the management and they are the ones who look at a course or look at a seminar and think it might be useful to somebody and then send that out so you get the e-mail so it's very beneficial for that.*

Being and acting as an entrepreneur

Kath mentioned that she was creative and entrepreneurial. It made her feel more like an entrepreneur in BIC than a boss in her other business. She also felt that other entrepreneurs were able to offer her 'refreshing' and 'different' points of view for setting up a business:

> *I think if you are an entrepreneur you can't help it, I was an entrepreneurial teacher as well.*

> *It was like it was always going to happen. My Dad is self-employed and my sister is self-employed so it was always going to happen.*

With this particular idea I have bought a website, that's a little hobby of mine, I collect websites with good names – just in case.

The main thing I have found with BIC is that the other people who are around are able to offer you advice and encouragement and a different perspective on what you think is clear-cut, someone then comes in and turns it completely on its head by just asking a simple question or making a comment and you think, 'oh right I hadn't thought about it like that' and I think that is a strength of BIC as far as I am concerned, is the contacts that you make, I mean a lot of the people already in there look at me and think, 'oh well she's already got a business, she's a successful business woman, she has done X, Y and Z,' and I have and I know a lot of things that they perhaps don't know but I also get so much back from those people who possibly because they haven't had the experiences that I have had don't see what I can see and so they put a completely different view point forward and it's really refreshing and as well with BIC people. In my other business I'm boss ... whereas here I am just Kath, so nobody has to be careful what they say to me, do you know what I mean? Whereas here it's really really positive, I think, that, you can get some honest opinions and honest feedback.

Being part of the BIC community

Being a tenant in BIC made Kath think all members of BIC share the same identity. This also helped to build up trust between her, fellow tenants and management. This trust enabled her to share her ideas with other entrepreneurs and get feedback to improve her ideas:

K: I think BIC has affected it [the business idea] 100% or whatever. Because when I come here everybody is excited about business and everyone is going for the same goals, although in completely different businesses, and I find that very very refreshing. When I come into BIC there is always somebody to talk to for a start-off, there is always somebody to say something to and there is the sort of family atmosphere that it's almost like an unwritten rule that you can trust people in BIC, so like I have just said to you about the franchise and that's a secret and loads of people know that secret in there but I know nobody is going to nick the idea off me because the trust is there as well.

Interviewer: and why do you have this kind of trust?

K: I don't know ... I suppose it's a bit like teachers we are the same, if somebody says to me, 'oh I'm a teacher,' I immediately have the impression that I can trust them, because I was a teacher, I know what you've been through ... I don't know, I suppose it's because we have all been endorsed by Martin or somebody like him, anybody else who is on

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that little team and if you trust that team you trust the people that they have said, 'oh you're okay to come into BIC'.

8.3 Discussion: the role of BIC in developing entrepreneurship

Building on Kolb's (1984) experiential learning framework, Corbett (2007, p.100) believes that the process of learning consists of three elements: '*the existing knowledge, the process through which individuals acquire new information and experiences, and the manner in which individuals transform new information and experiences into new knowledge*'. In the context of opportunity identification and development, the existing knowledge referred to by Corbett can be conceptualised as the prior knowledge identified by Shane (2000). In Chapter 7, I discussed the impact of prior knowledge on opportunity identification and mapped out the type of prior knowledge each participant had when identifying an opportunity.

Building on the work in Chapter 6 and 7, this chapter continues to address research questions 2, 3 and 4. The nature of the research questions highlights the evolving *process* of the individual's and opportunity's development. Relating it to the conceptual framework developed in Chapter 3 (as illustrated in Figure 2, Section 3.6), this chapter brings together the left and right hand sides of the diagram to examine the development of the incubatees and their business opportunities. It explores how learning takes place as a process of experience transformation in a BI. Through the lens of learning, it also demonstrates the interaction between the entrepreneurs and their business ideas. The outcomes of the learning process, or in other words, the transformation of knowledge and information helps to draw out the role a BI played on the individual incubatees, the businesses and the BIC community.

Exploring the role of business incubation through the process of opportunity development and entrepreneurial learning, suggests that some key concepts overlap. Therefore to simplify the analysis, the following discussion is divided into four sections.

In Section 8.3.1, I discuss the information and skills acquired through BIC. This corresponds to the 'development of opportunities' part of the conceptual framework.

In Section 8.3.2 the final element of a learning process, that is the transformation process, is discussed. In particular, it looks at how knowledge and identity were transformed. This links to the 'development of individuals' and 'development of opportunities' parts of the conceptual framework.

Section 8.3.3 discusses BIC's role as a learning community and Section 8.3.4 reports on the role of a business incubator in developing entrepreneurship. These two sections bring together the theme of learning in a BI community, which is embedded in the process of developing individuals and opportunities. This allows me to examine the conceptual framework as a whole and brings all elements / concepts of the framework together, including the role of a business incubator in developing entrepreneurship.

Before presenting the analysis it is worth noting that learning is conceptualised as a continuous and evolving process. Tenants developed their ideas formally and informally, inside and outside of BIC and therefore the idea development process itself was not physically restricted in BIC. However, as a principal objective of this study is to explore *the role of a business incubator* in developing entrepreneurship, it is essential to draw the boundary of such a learning process. Therefore the discussion is limited to information and skills acquired that can be directly linked to BIC.

8.3.1 Acquired information and skills

In order to understand what role BIC played in the opportunity development process, this section looks at the information and skills obtained from BIC, which then transformed into new knowledge and aided opportunity development.

The study supports extant literature in learning and entrepreneurship, which suggests that information plays a number of important roles in the transformation process, where learning occurs. For example Kolb (1984) mentions that one of the vital elements for learning is to acquire information. In the context of entrepreneurship, Dimov (2007a, p.722) believes that '*information to which individuals are exposed has a considerable effect on the ideas that they generate*'. A number of commentators stress the role of information asymmetry in the opportunity development process (Minniti 2004; Ardichvili et al. 2003; Shane and Venkataraman 2000; Shane 2000) and more recent work by Corbett (2007) highlights the importance of learning asymmetries in identifying an opportunity. This study found that in an entrepreneurial learning process, not only information can be acquired, but also skills, and that both information and skills helped to develop an opportunity. Table 6 summarises the sources of information and skills provided by BIC that aided opportunity development for each of the six case studies.

Table 6 - Sources of information and skills acquired in BIC

Case	Information	Skills
Andy		acquiring skills directly from other tenants
Jane	administrative and web design support from BIC Management	acquiring skills by observing other tenants
Ian	social contacts through BIC management	acquiring skills directly from other tenants
Tony		acquiring skills directly from other tenants
Paul	industry specific information from BIC management	acquiring skills directly from other tenants
Kath	information from tenants for improving ideas	

So, in the case of Jane, she was aware that BIC management was helping to link the tenants and their talents. She got information from BIC management, in terms of which tenants could help her with administrative work and building a web site for her business. As for Ian, the BIC management used their external contacts to introduce speakers and advertisers for Ian's Social Networking Events business. Ian's future strategy for the business was then developed around the type of contacts he got from the management. In this way, Ian's SNE business acquired

relevant information through BIC, his learning process was based on such information and as a result the strategy was directly influenced by the contacts. As for Paul's Digital Publishing business, he acquired information about the publishing industry from the BIC manager, who had worked in the publishing business. Again, similar to Ian's case, this information was then integrated in the learning process, where the information was then transformed to new knowledge, which in turn shaped the marketing strategy for the DP business.

Unlike the other tenants, Kath acquired information directly from the fellow tenants. She used other tenants' specific knowledge in systems design to experiment on her ideas, to reflect on the feedback, and to use this information to transform it to new knowledge of means to serve markets.

In terms of acquired **skills** in BIC, it was mainly the skills from other tenants the participants (Andy, Ian, Tony and Paul) acquired. They acquired these by forming a new business with the tenants who had such skills. Jane was the only one who acquired skills by observing other tenants. Except for Paul, who knew his newly acquired business partners before coming to BIC, Andy, Ian and Tony did not know the new business partners prior to entering BIC. In other words, these three participants would have not started a new business, without the skills of partners they met in BIC.

Jane's learning took place in BIC by observing how other tenants used their marketing and networking skills, and reflecting on them. She transformed these skills through extension, defined by Kolb (1984) as a process where reflective observation is carried out. Jane had a career in physiotherapy, where she worked four days a week, while spending one day a week in BIC, running her Sports Management business. She mentioned that the public sector she worked was very different to BIC, in terms of the colleagues / tenants, way of thinking, and skills. It is apparent that Jane would have not been able to learn these skills, if she did not start up and run her business in BIC. Rae and Carswell (2001, p.155) argue that '*skills are learned from other practitioners by working with them*'. Jane's case suggests that, within an incubator, extension (Kolb, 1984) may represent an important additional

dimension to this process whereby skills can also be learned by observing and reflecting on other's actions.

For the four participants who acquired skills by forming new partnerships (Andy, Ian, Tony and Paul), it was a quick way for them to acquire the complementary skills they did not have and could not learn in a short time frame. Andy partnered up with Frank, who was good at designing website, whereas Andy's skills lied at the web development side of the business. For Ian, his second business in BIC was hypnotherapy and well-being. He formed a strategic alliance with Jonathan who was a fitness trainer and a nutritionist from outside of BIC to deliver a new package of services to customers. Tony acquired four skilful tenants to form a new company. These tenants would work on accounts, marketing, clients, and website for the new company, where Tony could concentrate on developing workshop materials. As for Paul, he formed a partnership with Jeff, who owned IT Support. Paul viewed the business as a low-risk business which generated steady incomes. Paul's specialism was not IT but marketing, so he helped Jeff to expand the market base, whereas Jeff was leading the IT support side of the business. Similarly to IT Support, Paul also formed a partnership with Jeff and another tenant to develop the Digital Publishing business, where his marketing skills and his knowledge in IT manuals could be used.

Similar to Jane's learning experience in BIC, Andy, Ian and Tony might not have been able to form partnerships without being a tenant in BIC and meeting tenants who possessed complimentary skills to theirs. In the case of Ian, Tony and Paul, when their first business idea did not work out as they planned, BIC helped in enhancing entrepreneurship by sustaining their businesses while working on other ideas with other tenants (Ian and Paul) or helped them (Tony) in finding the people with the 'right skills' to form a new business.

BIC helped the tenants to cope with newness of the businesses, by quickly gathering skills that were difficult to attain in a short time frame, and at a time, when the entrepreneurs have to fight with scare resources and the smallness of business. Taking Andy as an example, alone, Andy had a web development company. By teaming up with Frank, they started up a new company, which offered web design,

web development and marketing. The diversity in skills helped them to attract more customers to the company and also helped to make the company bigger than Andy's.

8.3.2 Learning in BIC: a process of experience transformation

Based on the framework proposed in Chapter 3 regarding the learning process, Chapter 7 has laid out the type of prior knowledge each participant possessed; Section 8.3.1 presented the newly acquired information and skills, and in this section it is the transformation process that is studied.

As discussed in C3, apart from existing knowledge and newly acquired information, the process of transforming information and experience is one of the three important elements of learning (Kolb 1984). In a social context, Wenger (1998) argues that the experience of participation and engaging in a community of practice helps to construct new meanings of identity. Bringing personal, social and contextual learning together, Rae's (2007, p.40) entrepreneurial learning model explains that '*people construct meaning through experience in a context of social interaction, and create new reality*'.

Using these three frameworks as a heurist tool, the following two sections explore how information and experience are transformed during the learning process within BIC. Drawing on data from Chapter 6, 7 and 8, and linking it to the three learning frameworks, two key themes can be identified. Theme 1 focuses on opportunity development and explores how information is transformed into new *knowledge*. Theme 2 puts emphasis on how the participants' experienced the transformation process of *themselves* when they were developing opportunities in BIC.

Theme 1 – transformation of knowledge

In Chapter 7, prior knowledge in the form of markets, customer problems, means to serve markets and personal interests were explored in relation to opportunity *identification*. Building on that analysis, this section looks at opportunity

development, focusing in particular on the type of knowledge that is developed and transformed into a more mature business opportunity.

Figure 12 summarises the types of knowledge the six participants were developing. There are two columns recording opportunity development. The third column lists the type of knowledge that is still being developed and the fourth column lists the learning outcomes, in other words, the type of knowledge that has been developed during the incubation time. Bringing the data together in this way demonstrates the process of opportunity development in the context of time, from prior knowledge to knowledge developed in BIC. Ian and Paul identified more than one opportunity (see Chapter 7), and because each opportunity had different prior knowledge, the table takes opportunity as the unit of analysis.

Figure 12 - Knowledge development in BIC

Case	Type of prior knowledge	Still developing knowledge of ...	Developed knowledge of ...	Maturity of idea
Andy	markets		customer problems + means to serve markets	trading
Jane	markets + customer problems + means to serve markets			trading and making profit
Ian$_1$ (SNE)	customer problems	customer problems + means to serve markets		implemented but no incomes
Ian$_2$ (HW)	personal interests		means to serve markets	not trading yet
Tony	markets + customer problems + personal interests		means to serve markets	not trading yet
Paul$_1$ (OFS)	markets + personal interests	customer problems + means to serve markets		not trading yet
Paul$_2$ (DP/Jeff-Paul)	customer problems + means to serve markets	markets		trading
Kath	markets + customer problems		means to serve markets	trading in 1 month

The process of knowledge development in BIC

There are three opportunities (Andy, Tony and Kath) which had all three types of prior knowledge (markets, customer problems and means to serve markets) developed through the process of incubation. Chapter 7 found that personal interests were important in identifying an opportunity. In contrast, in this chapter, no personal interests were found to be important at the later stage of opportunity development. Because of this, the following discussion excludes personal interests, as the focus is on the post- prior knowledge stage. Where 'all types of knowledge is mentioned', it refers to knowledge of markets, customer problems and means to serve market.

Jane is an extra-ordinary case. She is the only one who had all three types of prior knowledge before coming to BIC. None of these types of knowledge were developed in BIC. However Jane believed that she had benefitted from being in BIC in a number of ways. This is discussed further in Section 8.3.3.

Including Jane, four opportunities developed a complete set of knowledge to exploit an opportunity. These four opportunities had been either exploited or were near to exploitation at the time of the study, suggesting that a robust mixture of knowledge may be useful in effectively exploiting opportunities.

However this does not necessarily mean that all entrepreneurs wait until all forms of knowledge are fully developed before exploiting an opportunity. In the case of Paul$_2$ (digital publishing), it was an opportunity developed between Paul, Jeff and another tenant. It could be the alliance that made them more confident in experimenting with their idea. Both Paul and Jeff had other businesses either being developed (OFS) or already trading (ITS). This may represent a way for them to balance the risks associated with some ideas while experimenting with others.

Theme 2 – transformation of identity

Jane noted her awareness of *becoming an entrepreneur.* Wenger (1998, p.149) mentions that *'we define who we are by the ways we experience our selves through participation as well as by the ways we and others reify our selves'.* Taking Jane as an

example, the entrepreneurial environment in BIC made her aware of differences in people's behaviour compared to her public sector job. The tenants in BIC made her think of her own identity as an entrepreneur and how she would do things differently compared to the other work place. This supports the entrepreneurial learning model developed by Rae (2007, p.42), which suggests that learning is a transformation of identity, in other words, '*becoming an entrepreneur*'.

On a slightly different note, Ian, Tony, Paul and Kath mentioned how they were *practicing as an entrepreneur*. This is similar to Wenger's (1998) concept of learning as practice. For example, for Tony being in BIC made him read many entrepreneurs' autobiographies. According to Kolb's (1984) definitions of learning styles, Tony learned about being an entrepreneur through assimilative learning. BIC provided Tony with the opportunity to practice what it really means to be an entrepreneur. He formed a new company, where he could play the role of entrepreneur by running workshops for SMEs online. Rae's model (2007, p.42) suggests that '*what we do shapes our identity*'. The case studies discussed above provide some evidence to support this model of entrepreneurial learning.

8.3.3 Being part of the entrepreneurial community

There was strong sense among the participants of being part of or *belonging to* (Wenger 1998) the BIC community. While there were some similar businesses in BIC, each business had a unique business idea/angle. Nevertheless all participants shared a common identity in perceiving themselves as being or becoming an entrepreneur. The meaning of starting up a business and being an entrepreneur was negotiated through conversations (discourse), their understanding of starting up and running a business (concepts), and events taking place in- and outside of BIC.

Data from interviews and documents suggest that this community did not only belong to the tenants of BIC, but rather it included management, the steering group of BIC, business advisers and mentors, and guest speakers at BIC events. The concept of a community was explicitly articulated by tenants and management, while the other actors implicitly articulated the idea. There was a strong sense of identity and

membership of BIC, suggesting the type of mutual engagement identified by Wenger (1998). Participants' shared stories and ideas, developing what Wenger (1998) refers to as a 'shared repertoire'. In this context BIC can be seen as a joint enterprise (Wenger 1998) that participants were building and maintaining through negotiated meaning & learning, and sharing ideas & goals.

For example Paul mentioned how other entrepreneurs would share their understanding of starting up a business, whereas people outside of BIC would not. He also mentioned that the BIC management was supporting the entrepreneurial community by sharing their understanding and enhancing engagement in activities. When explaining the concept of negotiated enterprise in the entrepreneurial learning model, Rae (2007, p44) suggests that negotiated enterprise includes '*negotiating meaning, structures and practices – developing shared beliefs about the venture*'. In Paul's case, these shared beliefs were about being an entrepreneur and setting up business ventures.

Similarly Kath mentioned that BIC had affected the way she developed her business idea. She noted that although everyone in BIC was running a different business, they shared the same goal of becoming a successful business owner. Because of the joint enterprise they built together, Kath and other tenants had trust in each other. This is demonstrated through their mutual engagement. They readily exchanged ideas without fear of being copied and they helped each other to improve the business ideas.

8.3.4 The role of BIC in developing entrepreneurship

From the discussions above it is clear that the transformation process would have not been taken place without the existence of BIC. BIC not only provided a physical space, but a social space where the tenants, management, advisers & mentors, and external speakers could meet and interact with each other. The social space was not used only for networking activities, but as a space for the tenants to discuss ideas and work towards a common goal: to start up and grow their businesses. This

finding supports Dimov's (2007a, p.723) proposition that in a social context, '*the social audience with which individuals engage to discuss their ideas affects the processes of interpreting and integrating through providing information, interpretation, resources, and reinforcement that help shape/develop the individuals' ideas*'.

Taking together the findings from Chapter 6, 7 and 8, this study follows the pathways the participants took during their business incubation period, and explores the BI process in detail. Using this holistic view, Figure 13 illustrates the role of a business incubator in the opportunity identification and development process.

At centre of the model is the individual's opportunity identification and development process. This is shaped by a complex interaction of knowledge, skills and learning that begins prior to entering the BI and continues throughout the incubation process. The green arrows represent prior knowledge gained before entering a BI. The yellow arrows represent the information, skills, experience and resources the incubatees gain from a BI. The outer circle represents the BI community where new skills are learned and new information is acquired, embedded within this are the learning activities whereby knowledge and skills are transformed into opportunity identification and development.

Within the first circle learning occurs at a personal level, and also through the interaction between the individuals and the BI community. These interactions take place between different types of prior knowledge, the information, skills, experience and resources acquired through a BI, and through becoming a member of the BI community. Moving towards the centre of the model, the learning process allows the transformation process to be completed. Newly acquired information, skills, experience and resources from BI are combined with existing knowledge, new information and transformed into new knowledge, in this context, opportunity.

Figure 13 - The role of BIs in the opportunity identification and development process
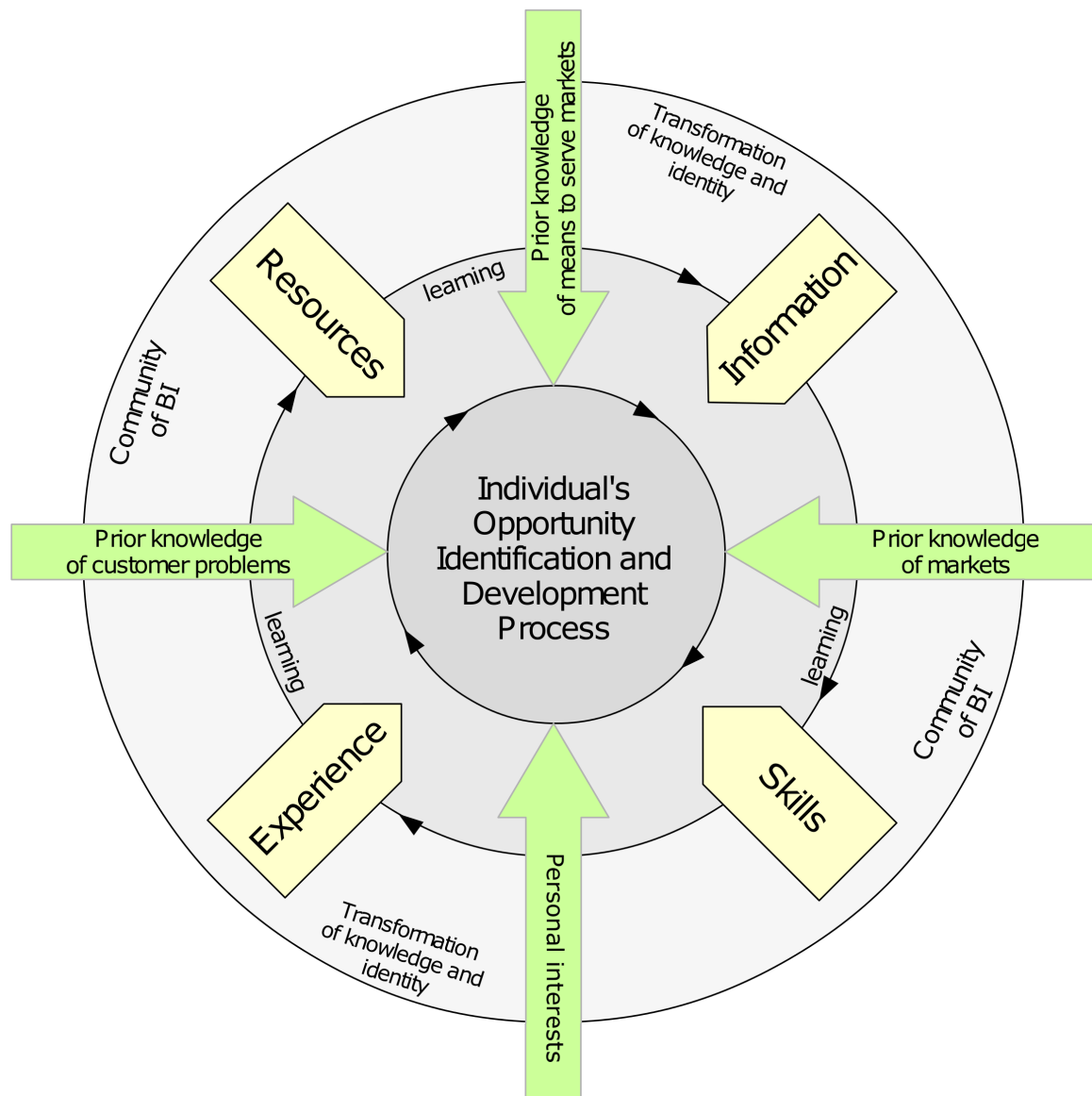
The circular arrows in the model demonstrate the transformation stage, where the individuals negotiate the meanings of new information and their identity as an entrepreneur. The process is circular because knowledge and identity are created and re-created (Kolb 1984).

Drawing together the findings from Chapter 6, 7, and 8, the role of BIC in developing entrepreneurship can be summarised as follows:

An important physical and social space to start up a business. BIC was an important space where the incubatees met. The open office space encouraged them to engage with each other and to discuss their ideas, share valuable contacts and exchange experiences. The cheap rent also helped the incubatees to overcome the financial liabilities of a start-up.

A trusted place to forge collaborations and alliances. The informal and friendly environment helped to build trust between the incubatees. Meeting other people who were starting up a business made the incubatees feel that they were having similar experiences regarding risk taking, which their family and friends might not understand. This shared understanding made them trust each other. Also it is often difficult for start-ups to build their reputation quickly. By collaborating and working for each other, the incubatees often got their jobs done quite cheaply at the same time building up a long list of testimonials and recommendations. Some incubatees started strategic alliances with other incubatees, so that they could acquire each other's knowledge and skills quickly. Others developed alliances so that they could diversify themselves and spread the risks to other businesses.

A resource harbour. It was not only physical space and office resources BIC provided, but resources at a much wider sense. BIC itself provided professional services to the incubatees, such as a city centre location and postal address, business mentors & advisers, social events, guest speakers and master classes. Through the link between BIC and the university (UKU), the incubatees had free access to the library, professional audio and video equipment, the Students' Union, the Careers Services, and even university classes. These resources are useful, not only to save the cost of starting up and running a business, but in providing high quality and relevant information to the incubatees that helped to shape their business ideas.

A catalyst for business ideas. Quite distinctively, BIC was instrumental in identifying business ideas for two incubatees. Andy thought of starting up his own business in BIC, because he saw a lot of start-ups and thought that many of them would need a cheap and easy-to-run business website. Ian was not happy about many of the networking events he attended, he considered BIC as a really good place

to run his social networking events. In both cases, BIC added new information to their existing knowledge, which helped them to identify opportunities.

A learning space where further information and skills can be acquired. As discussed earlier in the chapter, the incubatees acquired new information and skills through BIC, which were crucial for them in creating new knowledge. The data suggest that it was often the specialist knowledge incubatees learned that was important for idea development. The incubatees also found a fast track to acquiring skills, by collaborating and partnering up with other incubatees.

A community where tenants learn to become an entrepreneur. In this chapter, it has been demonstrated that the incubatees learned to become entrepreneurs by engaging with the BIC community, which included other incubatees, the BIC management, the BIC steering group, the Tenants Association, business mentors & advisers, and guest speakers. Through the interactions with the BIC community, and by participating in BIC activities, the incubatees thought and behaved more like entrepreneurs and distinguished themselves from their family and friends, but the same time, became more similar to each other. The significant transformation process, not only transformed their start-up experience, but also their identity. The process itself is also a learning process.

Chapter Nine
Conclusions: Contribution, Implications and Future Research

9.1 Introduction

This chapter draws together findings from the study in order to discuss how it has contributed to knowledge. I also discuss the implications of the research for those running or managing a business incubator, prospective and existing incubatees, and policy makers. The overall aim of the research was to explore the role of business incubators in developing entrepreneurship. In order to achieve this I addressed the following four research questions:

1. How do incubatees experience the process of starting up a business in a BI?
2. In what ways do incubatees use their existing knowledge and newly acquired information, to develop and nurture their businesses during the incubation period?
3. How does the opportunity development process take place during incubation?
4. What is the role of a business incubator in this opportunity development process?

After mapping the process of starting up a business in BIC, I used stories of six selected cases to demonstrate the varying pathways through business incubation. Chapter 6 unravelled the experience of starting up a business in a BI environment. This helped to address Research Question 1.

Chapter 7 mainly focused on the impact of prior knowledge on opportunity identification. While Chapter 8 explored the effects a BI has on the opportunity development process. Joining together, Chapter 7 and 8 looked at the type of prior knowledge the incubatees had when coming into BIC and how this knowledge was used to develop into business opportunities, when combined with newly acquired information and skills obtained from BIC. These aimed at addressing Research Question 2 and 3. Research question 4 is addressed in Chapter 6 and 8. Chapter 6 put

emphasis on the individual entrepreneurs and Chapter 8 looked at the BIC community as a whole.

Figure 14 illustrates how each research question was addressed in the three data chapters (Chapter 6-8). The figure demonstrates the inter-relationship between the key elements of the study: the individual (Chapter 6), the opportunity (Chapter 7), and the development of both in a BI environment (Chapter 8). It also shows that to understand the complex impact of business incubation, it is important to unravel the *process* of learning, in other words, the development and transformation of entrepreneurs and their business ideas.

Figure 14 – How the research questions are addressed
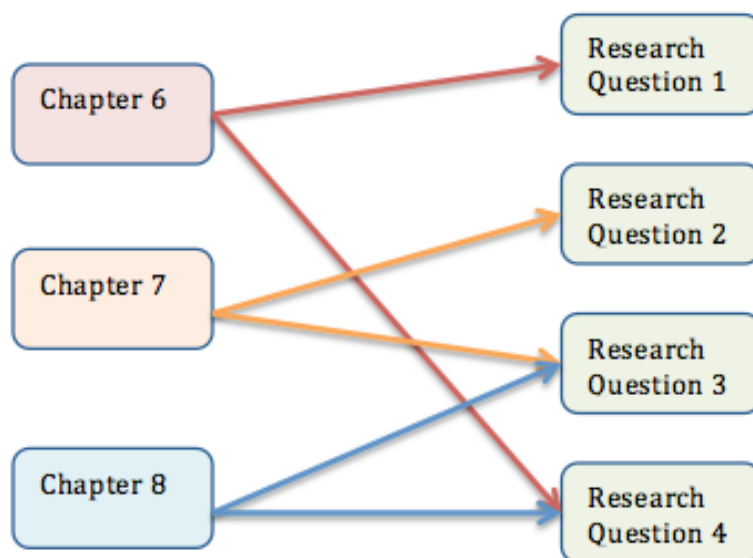
The chapter is organised as follows: the first section discusses how the research contributes to knowledge; this is followed by a critical reflection of the strengths and limitations of the study and suggestions are made for future research; the final section of the chapter discusses the practical implications of the study.

9.2 The contribution of the study

A principal aim of the study is to understand the role of business incubators in developing entrepreneurship, from the incubatees' perspectives and experience. Influential studies of business incubation conducted by Hackett and Dilts (2008; 2004) use business incubators as units of analysis. In contrast, this study focuses on the experience of the incubatees and the learning and opportunity development process that took place in a BI. This relatively novel approach allows for more in-depth exploration of the entrepreneurial process from the perspective of the incubatees.

The outcomes of the study contribute to knowledge by advancing understanding of the process of business incubation. Specifically it advances understanding by exploring how individual incubatees experience the incubation process in terms of opportunity identification and development, and learning that is embedded in the knowledge and identity transformation process.

In order to address research questions 1 and 4, Chapter 6 of the study looked at how the incubatees experienced the process of starting up a business in a BI. It also explored the role of a business incubator in this start-up process to provide insight into what Hackett and Dilts (2008) describe as the 'black box' of the business incubation literature.

Unlike many existing studies that look at BIs from the management's point of view (Hackett and Dilts 2008; Grimaldi and Grandi 2005; Hannon 2005b; O'Neal 2005; Hackett and Dilts 2004; Lee and Osteryoung 2004; Hannon 2003; Brooks 1986), in Chapter 6 of this study, it is the incubation process from the perspectives of the incubatees that is explored in depth. This pertinently responds to calls for more incubation process focused studies (Todorovic and Moenter 2010; Hackett and Dilts 2008).

Moreover, drawing on individual narratives has allowed me to build a conceptual framework of the distinct pathways that individuals follow during the incubation process. This novel approach draws on rich qualitative data, which has enabled a closer and detailed exploration of the interactions between the incubatees themselves, as well as between incubatees and the incubator. This explorative approach distinguishes itself from many other studies of BIs, which focus on seeking causal relationships between the incubator services & resources and incubatee performance (Al-Mubaraki and Wong 2011; Zhang and Sonobe 2011; Todorovic and Moenter 2010; Xu 2010; Hackett and Dilts 2008; Lee and Osteryoung 2004; Hannon 2003; Lumpkin and Ireland 1988). The distinct pathways developed in Chapter 6 help to build a more robust theory of the business incubation process. Using the narratives as a powerful tool to shed light on the incubation process, the chapter helped to explore the left column of the conceptual framework as demonstrated in Figure 2 (see Section 3.6).

Among the many different roles BIC played in the incubation process, Chapter 6 found a quite distinctive one, which is instrumental for business ideas. For two participants (Andy and Ian), they combined their prior knowledge with the existence of BIC and that helped them to identify business opportunities.

Chapter 7 addressed research questions 2 and 3. Using the concept of prior knowledge and opportunity identification as a heuristic tool allowed me to develop a conceptual framework to understand the different roles prior knowledge can play in the opportunity identification stage. Drawing on the four different types of prior knowledge, identified by Shane (2000) and Ardichvili et al. (2003), the study explored each of them in depth by looking at the varying interactions of prior knowledge and their role in opportunity identification. By doing so, this chapter put its emphasis on the right column of the conceptual framework (see Figure 2), in other words, the transformation of business ideas.

Drawing on the rich qualitative data and existing literature, three themes in terms of the role prior knowledge plays in opportunity identification emerged (change and innovation, knowledge transfer, and knowledge replication). This finding enriches

the extant literature in opportunity identification by detailing the effects of prior knowledge. In other words, it not only suggests that prior knowledge has an impact on opportunity identification, but offers some explanation of *how* it may affect the process of opportunity identification.

When looking at each form of prior knowledge alone, the study found that prior knowledge of markets was the most common form among participants in the study. This is followed by prior knowledge of customer problems, personal interests and means to serve markets, suggesting that education, work and personal experience played a very important role in identifying an opportunity. The study also found that when opportunity identification is based mainly on negative experience as a customer, it often indicates that the entrepreneur is more opportunistic and willing to take risks.

Prior knowledge of means to serve markets was the least common form of knowledge among participants. The findings from Chapter 7 suggest that knowledge of means to serve markets alone is unlikely to be sufficient to identify new opportunities. However, where opportunities have already been identified, knowledge of means to serve markets can act as a catalyst and increase the likelihood of developing the opportunity further.

Compared to studies (Lumpkin et al. 2004) with more mature and successful businesses, this research underlines the differences between very new start-ups and more established ones. In this research, the role of prior knowledge of customer problems is much less important than in other studies, such as Lumpkin et al.'s (2004) findings. This suggests that prior knowledge may play an important role in understanding the dynamic process of business start-up, where knowledge of customer problems is developed at a later stage, as demonstrated in Chapter 8.

Chapter 7 found that in most participants studied, it is a combination of prior knowledge, rather than a single form that led to opportunity identification. This suggests that it is important to study the interaction between knowledge, learning, and opportunity identification and development. This finding suggests that it is

important to adopt a process- and interaction-orientated approach to study opportunity and entrepreneurial learning, rather than an outputs or factor-focused approach.

The outcomes of Chapter 6 and 7 laid a meaningful foundation for the data analysis in Chapter 8. Based on incubatees' prior knowledge, the chapter looked at the newly acquired information, skills and the resources obtained from BIC. This then led to an exploration of how knowledge and experience are created and transformed during the incubation process. In this way Chapter 8 was able to draw the data from previous chapters together in order to explore research questions 2, 3 and 4. This reflects the holistic approach of this study, in other words, looking at BIC as a learning community, where individuals develop their business opportunities. This is demonstrated by the circle in Figure 2, which illustrates the transformation of learning experience.

To understand the role a business incubator played in the opportunity identification and development process, Chapter 8 specifically explored the incubatees' learning process that was directly linked to BIC. In terms of entrepreneurial learning and opportunity development, the outcomes of the chapter suggest that it is BIC that helped the incubatees to obtain specialist knowledge and skills to develop their business ideas. A novel finding of the chapter is that the incubatees used BIC as a 'fast track' to acquire skills by collaboration and forging alliances with other incubatees. Developing skills in this way helped the incubatees to start up and grow their businesses much quicker than otherwise it would be. This also helped them to overcome the newness of a start-up.

It is also interesting to find that it was not only the information and skills that helped in creating new knowledge and transforming it into business development; it was also the identity and the BIC community that was transforming and evolving at the same time. Being in BIC helped the incubatees understand the process of business start-ups, the importance of learning, the meaning of becoming an entrepreneur, and the bond and mutual engagement within the BIC community.

A model is developed in Chapter 8 (see Figure 13, Section 8.3), which demonstrates the important components of the entrepreneurial learning and opportunity development process. It represents a new conceptual framework that attempts to capture the complex process of opportunity identification and development within a BI. Viewing the incubation process in this way could help BI management to identify important elements that can help incubatees to learn and develop their businesses. The model can be used as a heuristic tool to guide future research that seeks to understand the complex interactions between learning, opportunity development and business incubation.

Taken together, through the lens of learning, Chapter 7 and 8 offer a fresh perspective on how the entrepreneurial process could be studied in a BI environment, where opportunity identification and development take place. Specifically, Chapter 6, 7 and 8 build on existing BI literature by providing in-depth empirical data that traces incubatees' experiences back to prior knowledge (in Chapter 7) and link this directly to the incubation process (Chapter 6 & 8).

The outcomes of the study demonstrate the effectiveness of using learning theories to study the impact and process of business incubation, which is identified as a knowledge gap at the beginning of the study. It illustrates the value of using learning theories as a heuristic tool to understand the complex interplay between the entrepreneur and the opportunity, and how individuals with business ideas can develop opportunities by acquiring new information and skills in a BI setting.

The findings indicate that knowledge alone may not fully explain the entrepreneurial process. It is the dynamics of learning that offers a greater understanding of how information, experience, skills and identity can be transformed into new knowledge, which in turn leads to opportunity identification and development. By doing so, the study advances our understanding of the process of BI and highlights the importance of learning. It also suggests that although a high stock of knowledge is important prior to entering a BI, it is learning that is even more crucial to the opportunity development process, where new knowledge is created by combing prior knowledge and new information & experience. This suggests that encouraging and supporting

learning should be paramount for BIs, and underlines the importance of understanding learning in a BI environment.

Finally, in contrast to existing studies that look at the physical facilities, professional appearance and social networks of a BI (Arlotto et al. 2011; Zhang and Sonobe 2011; Todorovic and Moenter 2010; McAdam and Marlow 2007; McAdam and McAdam 2006; Bøllingtoft & Ulhøi 2005; Voisey et al. 2005), the research suggests the strong influence of a learning community in shaping incubatees' identity and encouraging opportunity development.

9.3 Critical reflections and future research

Firstly, in terms of the development of literature, the study focuses on a university business incubator which hosts entrepreneurs from a diverse background, in other words, not all the start-ups are high-tech or from the same industry. This makes it more difficult to compare the outcomes with existing literature that tends to focus on high-tech BIs (Ahmad and Ingle 2011; Cooper and Park 2008; Aerts et al. 2007; Hughes et al. 2007; McAdam and McAdam 2006; Koh et al. 2005).

Moreover unlike other research based on university BIs that highlight the importance of encouraging trust between the incubatees (McAdam and McAdam 2006; McAdam and Marlow 2007), this study demonstrates how trust between the incubatees helped them to forge alliances and to overcome the smallness and newness of business start-ups. This may be due to the nature of the BI studied.

BIC is a mix incubator, with companies from various sectors (see Appendix XIV). This mixed nature may have helped in bringing entrepreneurs from different backgrounds together, with a diverse range of prior knowledge and complementary skills. Instead of a hostile, highly competitive environment, BIC encouraged individuals to exchange their knowledge, skills and information. Future research could include comparative studies of mixed and, for example, high-tech incubators to explore the role of BIs in the context of knowledge transfer, learning and

opportunity recognition. Another avenue for future research is to explore whether the positive experience of BIC could be transferred into other incubators, including university high-tech ones.

Also because the majority of university BIs are (partially) subsidised by public funding, much research based on university BIs looks at the outputs in relation to public funding, policy and implication. This, on one hand, highlights the unique nature of this study, however it restricts the possibilities for drawing comparisons with other studies.

Nevertheless, the theoretical framework in terms of knowledge and identity transformation developed in the study offers the possibility for future researchers to explore similarities and differences between a university BI and other types of BI, as well as between different types of non-academic incubators.

Secondly, as for the methods used for the study, the 20 in-depth interviews with incubatees, documents from the 1st and 2nd year incubatee selection interviews, and documents from the BIC office provided very rich, in-depth and meaningful data for the study. Other forms of data collected but not systematically analysed were collected through interviewing the BIC stakeholders, attending steering group management meetings, tenant association meetings, and other BIC events. These forms of data enriched my understanding of how a university BI was set up and run as well as what challenges the management group had. These data therefore provided context and aided understanding. However to be able to specifically focus on the incubatees' entrepreneurial process, and to enable an in-depth exploration of how individual's learning took place in a BI, these data were not systematically analysed. Future research could take account of these issues and extend the conceptual framework to include factors such as the alignment of policy, BI management strategy and their interaction with the personal development of incubatees.

Thirdly, as an exploratory study, this research has its advantages, as well as limitations. The study offers meaningful insights into how incubatees experience

their start-up process in a BI environment. By exploring the learning process that took place in BIC, the study goes some way to opening up the 'black box' of BI, described by Hackett and Dilts (2008), who criticise the BI literature for failing to shed light on the process of business incubation and highlight the importance of learning in a BI. However, as an exploratory, qualitative study seeking to develop theory, the outcomes of BI are not measured in numeric terms. This makes it difficult to locate the study among existing research that seeks to measure a BI's role in terms of outputs, such as turnover and employee numbers.

The conceptual framework developed in this thesis provides an important starting point for future research based on a qualitative approach. It is important that future research based on such an approach of BI flourishes. This will allow more balanced literature to evolve, where not only outputs, but the incubation process are studied.

9.4 Implications of research

Having discussed the contributions to knowledge in Section 9.2, what are the implications for business incubator practitioners, prospective and existing incubatees, and policy makers? One of the important findings of the research shows that it is the learning environment, which is important for idea generation and development of the incubatees. Hence how to develop and maintain this supportive learning environment has crucial implications to incubator managers, users and policy makers.

9.4.1 Implications for BI practitioners

The study suggests a number of factors that impact on opportunity identification, and which in turn can contribute to the effectiveness of business incubators in nurturing and developing nascent entrepreneurs. By identifying the important components and process of opportunity development, the research has the potential

to raise awareness among BI practitioners of the need to support and develop learning strategies.

In particular, the study found that the information acquired during the incubation period is crucial to the learning process. This suggests that it is important to provide incubatees with the relevant information, in order to help them to start up and nurture the businesses. This information might be master classes in accounting, legal issues, marketing, PR or enterprising skills. Being *relevant* to the incubatees is the key point here. This requires the management to have a closer relationship with the incubatees, and to ensure that information regarding incubatees and their businesses is frequently communicated, systematically recorded and updated.

In contrast to the hostile and highly competitive environment McAdam and McAdam (2006) referred to, incubator practitioners should develop and maintain a friendly working environment for the incubatees. This environment should also be a place where the incubatees can trust each other so that more effective networking activities can be stimulated (Chell and Baines 2000). One way to achieve this might be by having a less formal leadership style, organising informal social events, explaining this 'family feel' to the new incubatees, and reinforcing the idea throughout the incubation process. This suggests that not only formal 'business' events should be organised, but incubatee-led, out of office hours social events should be highly encouraged by the management, so that incubatees develop personal bonds and begin to trust each other. There is some evidence of good practice found in the study, which suggests that the incubatees benefitted from the supportive environment. This enabled them to share business ideas, which they wouldn't even share with family and other friends, and it encouraged alliances between the tenants, even new ventures branched out from these relationships.

The study also suggests that the role of BI management should perhaps not always be restricted to acting as a 'manager'. For example, the findings of the study show that incubatees often didn't know how long it would take to start up a business. The managers, on one hand, can act as mangers; on the other hand there is a need for them to play the role of 'mentors'. This can help to ease the anxiety incubatees may

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have when they learn how long it might take for a business to take off. Management need to provide a tolerant environment, where the incubatees will not give up too early, and learn throughout the process to become entrepreneurs.

Finally for the BI practitioners, it may be important not only to select incubatees on the merits of their business ideas, but also their notions of developing a supportive learning community. The findings of the study suggest that the incubation period is a crucial time for incubatees to develop and transform their entrepreneurial identity. Such a process needs support from the BI management and the incubatee community to reinforce confidence and self-belief, so that the incubatees can better cope with uncertainty within the opportunity development process. Such support, of course, does not mean blindly encouraging over-confidence in any high-risk ideas. But, a friendly and supportive learning community built by the BI management and the incubatees can help to encourage the exchange of ideas and experiences in a 'worry-free' environment as well as gaining useful social contacts, which will help the incubatees critically reflect and improve on the ideas. This, in turn, enhances confidence and likelihood of success.

9.4.2 Implications for prospective and existing incubatees

As for the prospective and existing incubatees, the outcomes of the study highlight the importance of the transformation process (experience, knowledge and identity) that can take place in a business incubator. The key to the process of opportunity identification and development is learning, which requires the incubatees to obtain relevant information, combine it with prior knowledge and swiftly transform it to new knowledge. Some information and experience may not appear to be relevant before identifying an opportunity, however as the findings indicate, education and work experience can help identifying opportunities. This also means, to increase the stock of knowledge and experience prior to discovering an opportunity may be fruitful.

The study also finds that it is not only one type of prior knowledge that is important to opportunity identification, but a powerful mix. Therefore incubatees would benefit from broadening their knowledge and experience by actively networking with other fellow entrepreneurs, who may have a different set of knowledge, experience, skills and social contacts. This may even lead to strategic alliance, as demonstrated among BIC's incubatees. Such alliances can help start-ups to overcome some of the liability such as newness. In some cases, it can even help incubatees to buffer their liability, by working together with others on different business ideas, so that eventually they can realise their own dreams. This is demonstrated by Ian and Paul's stories, where they formed partnerships with other tenants, while working on and sustaining their own original ideas.

Personal interests, which plays an important role in some opportunities, should not be overlooked by the (prospective) incubatees. The fascination of some hobbies / ideas is often the origin of creation and innovation. Incubatees, and indeed any entrepreneurs, should not be stopped from chasing their passion. However, this study suggests that they need to look at whether / what other knowledge they have in the industry they are interested in, and how a business incubator can help them to develop the knowledge needed to launch a business motivated by personal interests.

Finally a note for the prospective incubatees. In line with Dimov's (2007a) proposition, that social context plays an important role in developing ideas, the findings of the study reveal that it is not only the physical space that helps the businesses to grow, but more importantly the social space and the supportive community learning environment. When choosing a business incubator, one of the key selection criteria for the prospective incubatees, should be whether the incubator has a friendly learning environment. This requires a caring management, who can provide pertinent information to the incubatees, and who can nurture a supportive learning community. It also means that it may be worthwhile to speak to the managers as well as the incubatees, to get a 'flavour' of the incubator, before applying for one. Indeed, a friendly and supportive learning environment is difficult to spot on paper, but easier to recognise by observation and participation. Also a learning environment needs to be populated by incubatees, a state-of-art incubator

without actively networked incubatees, would not be an effective learning community.

9.4.3 Implications for policy makers

The outcomes of the study highlight the importance of the learning process that takes place in the start-up process. It also provides 'fresh' views of how an effective business incubator could be operated. The deeper understanding of how incubatees explore, identify and develop opportunities suggests a fresh approach to the policy agenda.

The outcomes of the study suggest that by gaining a deeper understanding of the process of business incubation, policy makers may be able to better target funds in areas such as a more nuanced approach to recruitment in BIs, providing relevant information to individual incubatees, building knowledge and experience, developing a supportive community and importantly encouraging and supporting learning. This will help to set up and maintain a more effective BI and enhance entrepreneurial activities in the BI and local areas. Ultimately, the growth in entrepreneurship will have an impact on the regional economy (Pickernell et al. 2011; Packham et al. 2010; Matlay 2009; Matlay 2006; Neck et al. 2004).

These initiatives do not require a large financial investment in facilities, but rather an investment in training among BI staff. This study suggests that, it was not modern facilities that helped the incubatees learn most effectively, but the supportive and friendly learning community. Setting up a successful business incubator doesn't require a huge amount of public funds, but rather, BI management and incubatees, who can, together build an effective learning community. In the study, the incubatees often enjoyed the open office space, open kitchen and the hot-desking policy, where incubatees could be introduced on a very informal basis. This resulted in discussions of ideas, collaborations and even partnerships.

Rather than focussing future public spending on state of the art divided office space, money may be spent more effectively on organising pertinent events (including inviting good guest speakers and investors) for the incubatees, so that relevant information can be acquired and transformed to new knowledge, and in this sense, into new opportunities. Public funds could also support some relevant sessions on enhancing enterprising skills for the incubatees, which in turn, can help them to develop and nurture their businesses.

Last but not least, the outcomes of the study demonstrate how a BI with tenants with mixed backgrounds and a broad range of prior knowledge can encourage and facilitate learning, which leads to developing new business opportunities. This is an important finding for policy makers, who should consider shifting funding from high-tech incubators to mixed incubators.

Bibliography

ABDUH, M., D'SOUZA, C., QUAZI, A. and BURLEY, H. T. 2007. Investigating and classifying clients' satisfaction with business incubator services. *Managing Service Quality,* 17**,** 74-91.

ADEGBITE, O. 2001. Business incubators and small enterprise development: the Nigerian experience, *Small Business Economics*, 17(3), 157-166.

AERTS, K., MATTHYSSENS, P., and VANDENBEMPT, K. 2007. Critical role and screening practices of European business incubators, *Technovation*, 27, 254-267.

AHMAD, A. J. and INGLE, S. 2011. Relationships matter: case study of a university campus incubator, *International Journal of Entrepreneurial Behaviour & Research*, 17(6), 626-644.

ALLEN, D. N. and MCCLUSKEY, R. 1990. Structure, policy, services, and performance in the business incubator industry. Entrepreneurship: *Theory & Practice*, 15, 61-77.

ALLEN, D. N. and WEINBERG, M. L. 1988. State investment in business incubators*. Public Administration Quarterly*, 12, 196-215.

AL-MUBARAKI, H., and BUSLER, M. 2010. Business incubators models of the USA and UK: a SWOT analysis. *World Journal of Entrepreneurship, Management and Sustainable Development,* 6(4), 335-354.

AL-MUBARAKI, H. and WONG, S. 2011. How valuable are business incubators? A case illustration of their performance indicators. *European, Mediterranean & Middle Eastern Conference on Information Systems*, Athens, 30-31 May 2011. Uxbridge: Information Systems Evaluation and Integration Group (ISEing), Brunel Business School.

ALSOS, G., HYTTI, U. and LJUNGGREN, E. 2011. Stakeholder theory approach to technology incubators, *International Journal of Entrepreneurial Behaviour & Research,* 17(6), 607-625.

ALVAREZ, S. and BUSENITZ, L. 2001. The entrepreneurship of resource-based theory. *Journal of Management*, 27, 755-775.

ARDICHVILI, A., CARDOZO, R. and RAY, S. 2003. A theory of entrepreneurial opportunity identification and development. *Journal of Business Venturing,* 18**,** 105-123.

ARLOTTO, J., SAHUT, J-M, and TEULON, F. 2011. What is the performance of incubators? The point of view of coached entrepreneurs, *International Journal of Business,* 16(4), 341-352.

AUTIO, E. and KLOFSTEN, M. 1998. A comparative study of two European business incubators. *Journal of Small Business Management*, 36, 30-43.

BAERT, P. 1998. *Social Theory in the Twentieth Century,* Cambridge, Polity Press.

BARBOUR, R. S. and SCHOSTAK, J. 2005. *Interviewing and Focus Groups*, London, SAGE Publications Ltd.

BASU, A. and GOSWAMI, A. 1999. Determinants of South Asian entrepreneurial growth in Briain: a multivariate analysis. *Small Business Economics,* 13**,** 57-70.

BENZIE, D., MAVERS, D., SOMEKH, B. and CISNEROS-COHERNOUR, E. J. 2005. Communities of Practice. In: SOMEKH, B. and LEWIN, C. (eds.) *Research Methods in the Social Sciences*. London: SAGE Publications Ltd.

BERGEK, A., and NORRMAN, C. 2008. Incubator best practice: a framework, *Technovation*, 28(1), 20-28.

BERGER, P. and LUCKMANN, T. 1966. *The Social Construction of Reality: A Treatise in the Sociology of Knowledge,* London, The Penguin Press.

BERNARD, H. R. 2000. *Social Research Methods: Qualitative and Quantitative Approaches,* Thousand Oaks, Sage Publications, Inc.

BHAVE, M. 1994. A process model of entrepreneurial venture creation. *Journal of Buisness Venturing,* 9**,** 223-242.

BIRLEY, S. 1985. The role of networks in the entrepreneurail process. *Journal of Buisness Venturing,* 1**,** 107-117.

BIS, 2010. *Statistical Press Release.* Department for Business Innovation & Skills, 13th October 2010, Sheffield: BIS Enterprise Directorate Analytical Unit.

BIS, 2012. *Statistical Release: Business Population Estimates for the UK and Regions 2012.* Department for Business Innovation & Skills, 17th October 2012, Sheffield.

BLAIKIE, N. 1993. *Approaches to Social Enquiry,* Cambridge, Polity Press.

BØLLINGTOFT, A. and ULHØI, J. P. 2005. The networked business incubator – leveraging entrepreneurial agency? *Journal of Buisness Venturing,* 20**,** 265-290.

BROOKS, O. 1986. Economic development through entrepreneurship: incubators and the incubation process. *Economic Development Review,* 4**,** 24-29.

BROOKSBANK, D. and JONES-EVANS, D. 2005. *Graduate Entrepreneurship in the UK 2005: preliminary policy paper based on GEM 2004 data.* Birmingham: National Council for Graduate Entrepreneurship.

BRONFRENBRENNER, U. 1977. Toward an experimental ecology of human development. *American Psychologist***,** 513-530.

BRONFRENBRENNER, U. 1979. *The Ecology of Human Development,* Cambridge, MA, Harvard University Press.

BRÜDERL, J., PREISENDÖRFER, P. and ZIEGLER, R. 1992. Survival chances of newly founded business organizations. *American Sociological Review,* 57**,** 227-242.

BRYMAN, A. 2008. Social Research Methods, 2nd ed. Oxford, Oxford University Press.

BRYMAN, A. and BELL, E. 2003. *Business Research Methods,* Oxford, Oxford University Press.

BRYMAN, A. and BELL, E. 2007. *Business Research Methods,* Oxford, 2nd ed. Oxford University Press.

BRYMAN, A. and BELL, E. 2011. *Business Research Methods,* Oxford, 3rd ed. Oxford University Press.

BRYMAN, A. and BURGESS, R. G. 1994. Developments in qualitative data analysis: an introduction. *In:* BRYMAN, A. and BURGESS, R. G. (eds.) *Analyzing Qualitative Data.* London: Routledge.

BUCHANAN, D. and BRYMAN, A. 2009. *The Sage Handbook of Organizational Research Methods*, London: Sage Publications.

BUCHE, M. W. and SCILLITOE, J. L. 2007. Influence of gender and social networks on organizational learning within technology incubators. *Mid-American Journal of Business,* 22**,** 59-67.

Burns, P. 2008. *Corporate entrepreneurship: building the entrepreneurial organization.* 2nd ed. Basingstoke: Palgrave Macmillan.

BURNS, P. 2011. *Entrepreneurship and Small Business,* Basingstoke, Palgrave MacMillan.

BURR, V. 2003. *Social Constructionism,* East Sussex, Rouledge.

BURRELL, G. and MORGAN, G. 1979. *Sociological Paradigms and Organisational Analysis,* Hants, Ashgate Publishing Limited.

BYGRAVE, W. D. 1989. The entrepreneurship paradigm (I): a philosophical look at its research methodologies. *Entrepreneurship: Theory & Practice,* 14**,** 7-26.

CAMPBELL, C. 1989. Change agents in the new economy: business incubators and economic development. *Economic Development Review,* 7**,** 56-59.

CSES (CENTRE FOR STRATEGY & EVALUATION SERVICES). 2002. *Benchmarking of Business incubators*. Available at:
<http://ec.europa.eu/enterprise/entrepreneurship/support_measures/incubators/summary_benchmarking_bi_2002.pdf> [Accessed 03Aug 2006].

CHALMERS, A. F. 1999. *What is This Thing Called Science?,* Buckingham, Open University Press.

CHANDRA, A., and FEALEY, T. 2009. Business incubation in the United States, China and Brazil: a comparison of role of government, incubator funding and financial services. *International Journal of Entrepreneurship*, 13, 67-86.

CHANG, W.-L. and HSIN, J. 2006. The study of the motivation and performance of incubators' strategic alliances: strategic groups perspective, *Journal of American Academy of Business*, 8(2), 126-133.

CHARMAZ, K. 2003. Ground theory: objectivist and constructivist methods. *In:* DENZIN, N. K. and LINCOLN, Y. S. (eds.) *Strategies of Qualitative Inquiry.* 2nd ed. Thousand Oaks: Sage Publications, Inc.

CHELL, E. and BAINES, S. 2000. Networking, entrepreneurship and microbusiness behaviour, *Entrepreneurship & Regional Development*, 12(3), 195-218.

CHURCHILL, N. C. and LEWIS, V. L. 1983. The Five Stages of Small Business Growth. *Harvard Business Review,* 61**,** 30-39.

CHURTON, M. 2000. *Theory and Method,* Basingstoke, MacMillan Press Ltd.

CLARKE, D. and GIBBS, G. R. 2008. *Constructing The Template* [Online]. Huddersfield: University of Huddersfield. Available at: <http://onlineqda.hud.ac.uk/_REQUALLO/FR/Template_Analysis/The_Template.php> [Accessed 28th September 2012].

CLARKE, T. and CLEGG, S. 2000. Management paradigms for the new millennium. *International Journal of Management Reviews,* 2**,** 45-64.

COHEN, B. and WINN, M. I. 2007. Market imperfections, opportunity and sustainable entrepreneurship. *Journal of Business Venturing,* 22**,** 29-49.

COLLIS, J. and HUSSEY, R. 2003. *Business Research : A Practical Guide for Undergraduate and Postgraduate Students,* Basingstoke, Palgrave Macmillan.

COOPER, A. C. 1985. The role of incubator organizations in the founding of growth-oriented firms. *Journal of Buisness Venturing,* 1**,** 75-86.

COOPER, A. C., GIMENO-GASCON, F. J. and WOO, C. Y. 1994. Initial human and financial captial as predictors of new venture performance. *Journal of Business Venturing,* 9**,** 371-395.

COOPER, S. Y. and PARK, J. S. 2008. The impact of "incubator" organizations on opportunity recognition and technology innovation in new, entrepreneurial high-technology ventures. *International Small Business Journal,* 26**,** 27-56.

COPE, J. 2003. Entrepreneurial learning and critical reflection. *Management Learning,* 34(4)**,** 429-450.

COPE, J. 2005. Toward a dynamic learning perspective of entrepreneurship. *Entrepreneurship: Theory & Practice,* 29**,** 373-397.

COPE, J. and WATTS, G. 2000. Learning by doing: an exploration of experience, critical incidents and reflection in entrepreneurial learning. *International Journal of Entrepreneurial Behaviour & Research,* 6**,** 104-124.

CORBETT, A. C. 2005. Experiential learning within the process of opportunity identification and exploitation. *Entrepreneurship: Theory & Practice,* 29**,** 473-491.

CORBETT, A. C. 2007. Learning asymmetries and the discovery of entrepreneuiral opportunities, *Journal of Business Venturing*, 22(1), 97-118.

COSTA-DAVID, J. 2004. The role of business incubators in post-2006 EU - what are the priorities? . *Best Practices in Science Based Incubators - Conference & award.* Oxford.

CRABTREE, B. and MILLER, W. 1999. Using Codes and Code Manuals: A Template Organizing Style of Interpretation. *In:* CRABTREE, B. and MILLER, W. (eds.) *Doing Qualitative Research.* 2nd ed. London: SAGE Publications Ltd.

CROTTY, M. 1998. *The Foundations of Social Research: Meaning and Perspective in the Research Process,* London, SAGE Publications Ltd.

CSES. 2002. *Benchmarking of Business incubators* [Online]. Centre for Strategy & Evaluation Services. Available at: <http://ec.europa.eu/enterprise/entrepreneurship/support_measures/incubators/summary_benchmarking_bi_2002.pdf> [Accessed 03Aug 2006].

DAHLQVIST, J., DAVIDSSON, P. and WIKLUND, J. 2000. Initial conditions as predictors of new venture performance: a replication and extenstion of the Cooper et al. study. *Enterprise and Innovation Management Studies,* 1**,** 1-17.

DAVIDSSON, P. 2004. *Researching Entrepreneurship,* New York, Springer Science+Business Media, Inc.

DAVIDSSON, P. and HONIG, B. 2003. The role of social and human capital among nascent entrepreneurs. *Journal of Business Venturing,* 18**,** 301-331.

DEAKINS, D. 1999. *Entrepreneurship and Small Firms,* Maidenhead, McGraw-Hill Publishig Company.

DEAKINS, D. and FREEL, M. 1998. Entrepreneurial learning and the growth process in SMEs. *The Learning Organization,* 5**,** 144-145.

DEAKINS, D. and FREEL, M. 2012. *Entrepreneurship and Small Firms,* Maidenhead, McGraw-Hill Education.

DENZIN, N. K. and LINCOLN, Y. S. 1998. Major Paradigms and Perspectives. *In:* DENZIN, N. K. and LINCOLN, Y. S. (eds.) *The Landscape of Qualitative Research: Theories and Issues.* Thousand Oaks: SAGE Publication, Inc.

DENZIN, N. K. and LINCOLN, Y. S. 2000. Introdution: the discipline and practice of qualitative research. *In:* DENZIN, N. K. and LINCOLN, Y. S., (eds.) *Handbook of Qualitative Research.* 2nd ed. California: SAGE Publication, Inc.

DEY, I. 2004. Gounded Theory. *In:* SEALE, C., GOBO, G., GUBRIUM, J. F. and SILVERMAN, D. (eds.) *Qualitative Research Practice.* London: SAGE Publications Ltd.

DICKINS, T. E. 2004. Social constructionism as cognitive science. *Journal for the Theory of Social Behaviour,* 34**,** 333-352.

DIMOV, D. 2007a. Beyond the single-person, single-insight atribution in understanding entrepreneurial opportunities, *Entrepreneurship Theory and Practice*, 31(5), 713-731.

DIMOV, D. 2007b. From Opportunity insight to opportunity intention: the importance of person-situation learning match, *Entrepreneurship Theory and Practice*, 31(4), 561-583.

DOLINSKY, A. L., CAPUTO, R. K., PASUMARTY, K. and QUAZI, H. 1993. The Effects of Education on Business Ownership: A Longitudinal Study of Women. *Entrepreneurship Theory and Practice,* 18**,** 43-54.

DONOHOE, S. and WYER, P. 2005. Towards a model examining and explaining growth in entrepreneurial small business. *Illuminating Entrepreneurship: Institute for Small Businesses & Entrepreneurship 28th National Conference.* Blackpool.

DOUGLAS, D. 2003. Inductive theory generation: a grounded approach to business inquiry. *Electronic Journal of Business Research Methods,* 2**,** 47-54.

DOUGLAS, D. 2004. Grounded theory and the 'and' in entrepreneurship research. *Electronic Journal of Business Research Methods,* 2**,** 59-68.

DOWNING, S. 2005. The social construction of entrepreneurship: narrative and dramatic processes in the coproduction of organizations and identities. *Entrepreneurship Theory and Practice,* 29**,** 185-204.

DTI MANUFACTURING ADVISORY SERVICE. 2005. *Innovation and New Technology: Business Incubations* [Online]. Available at: <http://www.manufacturingadvice.org.uk/pluto-resources/1130404187593.pdf> [Accessed 03 Aug 2006].

DUBEY, M. P., AGRAWAL, S. K., SINGH, M. P. and SHEERY, A. M. 2005. Benchmarking of technology park/incubator: the new paradigm for SMEs. *Illuminating Entrepreneurship: Institute for Small Businesses & Entrepreneurship 28th National Conference.* Blackpool.

DYER, W. G. 1994. Toward a theory of entrepreneurial careers. *Entrepreneurship: Theory & Practice,* 19**,** 7-21.

EASTERBY-SMITH, M., THORPE, R. and LOWE, A. 2002. *Management Reserch: An Introduction,* London, SAGE Publications Ltd.

EUROPEAN COMMISSION. 2006. *Benchmarking the management of incubators* [Online]. Available at:

<http://ec.europa.eu/enterprise/entrepreneurship/support_measures/incubators/index.htm> [Accessed 03 Aug 2006].

FIET, J. O. and PATEL, P. C. 2008. Entrepreneurial discovery as constrained, sytematic search. *Small Business Economics,* 30**,** 215-229.

FLETCHER, D. E. 2006. Entrepreneurial processes and the social construction of opportunity. *Entrepreneurship & Regional Development,* 18**,** 421-440.

FRY, F. L. 1987. The role of incubators in small business planning. *American Journal of Small Business,* 12**,** 51-61.

GABRIELSSON, J. and POLITIS, D. 2012. Work experience and the generation of new business ideas among entrepreneurs: an integrated learning framework, *International Journal of Entrepreneurial Behaviour & Research*, 18(1), 48-74.

GAGLIO, C. M. and KATZ, J. A. 2001. The psychological basis of opportunity identification: entrepreneurial alertness. *Small Business Economics,* 16**,** 95-111.

GERGEN, K. J. 1999. *An Invitation to Social Construction,* London, SAGE Publications Ltd.

GIBB DYER, W. 1994. Toward a theory of entrepreneurial careers. *Entrepreneurship Theory and Practice,* 19**,** 7-21.

GIOIA, D. A. and PITRE, E. 1990. Multiparadigm perspectives on theory building. *Academy of Mangement Review,* 15**,** 584-602.

GLASER, B. G. and STRAUSS, A. L. 1967. *The Discovery of Grounded Theory: Strategies for Qualitative Research,* Chicago, Aldine.

GRBICH, C. 2007. *Qualitative Data Analysis: An Introduction,* London, SAGE Publications Ltd.

GRÉGOIRE, D. A., NOËL, M. X., DÉRY, R. and BÉCHARD, J.-P. 2006. Is there conceptual convergence in entrepreneurship research? A co-citation analysis of frontiers of entrepreneurship research, 1981-2004. *Entrepreneurship: Theory & Practice,* 30**,** 333-373.

GRIMALDI, R., and GRANDI, A. 2005. Business incubators and new venture creation: an assessment of incubating models, *Technovation,* 25(2), 111-121.

GSTRAUNTHALER, T. 2010. The business of business incubators: an institutional analysis – evidence from Lithuania. *Baltic Journal of Management*, 5(3), 397-421.

GUBA, E. G. and LINCOLN, Y. S. 1998. Competing Paradigms in Qualitative Research. *In:* DENZIN, N. K. and LINCOLN, Y. S. (eds.) *The Landscape of Qualitative Research: Theories and Issues.* Thousand Oaks: SAGE Publications, Inc.

HACKETT, S. M. and DILTS, D. M. 2004. A systematic review of business incubation research. *Journal of Technology Transfer,* 29**,** 55-82.

HACKETT, S. and DILTS, D. 2008. Inside the black box of business incubation: study B-scale assessment, model refinement, and incubation outcomes, *Journal of Technology Transfer*, 33(5), 439-471.

HANNON, P. D. 2003. A conceptual development framework for management and leadership learning in the UK incubator sector, *Education + Training*, 45(8/9), 449-460.

HANNON, P. D. 2005a. Graduate entrepreneurship in the UK: defining a research and education policy framework. *Illuminating Entrepreneurship: Institute for Small Businesses & Entrepreneurship 28th National Conference.* Blackpool.

HANNON, P. D. 2005b. Incubation policy and practice: building practitioner and professional capability. *Journal of Small Business and Enterprise Development,* 12**,** 57-75.

HARDING, N. 2003. *The Social Construction of Management: Texts and Identities,* London, Routledge.

HEYLIGHEN, F. 1997. *Epistemological Constructivism* [Online]. Principia Cybernetica. Available at: <http://pespmc1.vub.ac.be/construc.html> [Accessed 24 Jun 2007].

HOLCOMB, T. R., IRELAND R. D., HOLMES JR, R. M., and HITT, M. A. 2009. Architecture of entrepreneurial learning: exploring the link among heuristics, knowledge, and action. *Entrepreneurship: Theory & Practice,*, 33(1), 167-192.

HONIG, B. 2001. Learning Strategies and Resources for Entrepreneurs and Intrapreneurs. *Entrepreneurship: Theory & Practice,* 26**,** 21-35.

HUDSON, R. and MCARTHUR, A. 1994. Contracting strategies in entrepreneurial and established firms. *Entrepreneurship: Theory & Practice,* 18(4), 43-59.

HUGHES, J. and SHARROCK, W. 1990. The philosophy of social research. 3rd ed. London: Longman.

HUGHES, M., HUGHES, P., and MORGAN, R. E. 2007. Exploitative learning and entrepreneurial orientation alignment in emerging young firms: implications for market and response performance. *British Journal of Management*, 18, 359-375.

HUGHES, M., IRELAND, R. D., and MORGAN, R. E. 2007. Stimulating dynamic value: social capital and business incubation as a pathway to competitive success, *Long Range Planning*, 40, 154-177.

HUNTER, K., HARI, S., EGBU, C. and KELLY, J. 2005. Grounded theory: its diversification and application through two examples from research studies on knowledge and value management. *The Electronic Journal of Business Research Methodology,* 3**,** 57-68.

HUOVINEN, J. and TIHULA, S. 2008. Entrepreneurial learning in the context of portfolio entrepreneurship. *International Journal of Entrepreneurial Behaviour & Research*, 14(3), 152-171.

HUSSEY, J. and HUSSEY, R. 1997. *Business Research: A Practical Guide for Undergraduate and Postgraduate Students,* London, Macmillian Press Ltd.

JACKSON, N. and CARTER, P. 1993. Paradigm wars: a response to Hugh Willmott. *Organization Studies,* 14**,** 721-725.

JOHNSON, P. 2004. Analytic Induction. *In:* CASSELL, C. and SYMON, G. (eds.) *Essential Guide to Qualitative Methods in Organizational Research.* London: SAGE Publications Ltd.

JONES, L. and SOMEKH, B. 2005. Observation. *In:* SOMEKH, B. & LEWIN, C. (eds.) *Research Methods in the Social Sciences.* London: SAGE Publications Ltd.

JONES, P. JONES, A. PACKHAM, G. and MILLER, C. 2008. Student attitudes towards enterprise education in Poland: a postive impact, *Education + Training,* 50(7), 597-614.

KAMEI, K. and DANA, L.-P. 2010. Business incubation and the pursuit of opportunity: focus on Kobe. *Journal of Asia Entrepreneurship and Sustainability*, 6(2), 3-17.

KAPLAN, B. and MAXWELL, J. 1994. Qualitative research methods for evaluating computer information systems. In: ANDERSON, J.G., AYDIN, C. E. and JAY, S. J. (eds). Evaluating Health Care Information Systems: Methods and Applications. Thousand Oaks: Sage.

KAPLAN, R. S. and NORTON, D. P. 1996. *Translating Strategy Into Action: the Balanced Scorecard,* Boston, Harvard Business School Press.

KELLEY, D., SINGER, S., and HERRINGTON, M. 2012. *The Global Entrepreneurship Monitor 2011 Global Report.* London: Global Entrepreneurship Research Association, London Business School.

KHILSTROM, R. and LAFFONT J. 1979. A general equilibrium entrepreneurial theory of firm formation based on risk aversion, *Journal of Political Economy*, 87(4), 719-748.

KILCREASE, K. 2011. Multi-factor assessment of service delivery in business incubators: perspectives from incubator tenants, *Journal of Applied Management and Entrepreneurship,* 16(2), 80-95.

KING, N. 2004. Using Templates in the Thematic Analysis of Text. *In:* CASSELL, C. & SYMON, G. (eds.) *Essential Guide to Qualitative Methods in Organizational Research.* London: SAGE Publications Ltd.

KIRK, D. 1995. Hard and soft systems: a common paradigm for operations management? *Internation Journal of Contemporary Hospitality Management,* 7**,** 13-16.

KIRZNER, I. M. 1997. Entrepreneurial discovery and the competitive market process: an Anstrian approach, *Journal of Economic Literature*, 55(1), 60-85.

KOH, F. C. C., KOH, W. T. H. and TSCHANG, F. T. 2005. An analytical framework for science parks and technology districts with an application to Singapore. *Journal of Business Venturing,* 20**,** 217-239.

KOLB, A. Y. and KOLB, D. A. 2005. Learning styles and learning spaces: enhancing experiential learning in higher education. *Adademy of Management Learning & Education,* 4**,** 193-212.

KOLB, D. A. 1984. *Experiential Learning: Experience as the Source of Learning and Development* Englewood Cliffs, N.J., Prentice-Hall, Inc.

KOLVEREID, L. and ISAKSEN, E. J. 2012. The Psychology of the Entrepreneur. *In:* MOLE, K. and RAM, M. (eds.) *Perspectives in Entrepreneurship: A Critical Approach.* Basingstoke: Palgrave MacMillian.

KRAUSS, S. E., 2005. Research paradigms and meaning making: a primer. *The Qualitative Report*, 10(4), 758-770.

KRUEGER, N. and BRAZEAL, D. 1994. Entrepreneuiral potential and potential entrepreneurs. *Entrepreneurship Theory and Practice,* 18**,** 91-105.

KUHN, T. S. 1962. *The Structure of Scientific Revolutions.* Chicago: The University of Chicago Press.

LALKAKA, R. and ABETTI, P. A. 1999. Business incubation and enterprise suport systems in restructuring countries. *Creativity and Innovation Management,* 8**,** 197-209.

LARTY, J. 2005. Becoming a franchisee" – exploring narratives. *Illuminating Entrepreneurship: Institute for Small Businesses & Entrepreneurship 28th National Conference.* Blackpool.

LAVE, J. and WENGER, E. 1991. *Situated Learning: Legitimate Peripheral Participation,* New York, Cambridge University Press.

LEE, S. S. and OSTERYOUNG, J. S. 2004. A comparison of critical success factor for effective operations of university business incubators in the United States and Korea. *Journal of Small Business Management,* 42**,** 418-426.

LEGGE, J. and HINDLE, K. 2004. *Entrepreneurship: Context, Vision and Planning,* Basingstoke, Palgrave MacMillan.

LENDNER, C. 2004. *How University Business Incubators Help Start-Ups To Succeed: An International Study* [Online]. Babson College. Available at: <http://www.babson.edu/entrep/fer/BABSON2003/VI/VI-S2/VI-S2.html> [Accessed 27 Jan 2007].

LITTLE, D. 1991. *Varieties of Social Explanation: an Introduction to the Philsophy of Social Science,* Oxford, Westview Press.

LORD YOUNG, 2012. *Make Business Your Business: Supporting the Start-Up and Development of Small Business.* London: Department for Business Innovation & Skills.

LONG, W. and MCMULLAN, W. 1984. *Mapping the new venture opportunity identification process, Frontiers of Entrepreneurship Research*, Wellesley: Babson College.

LUMPKIN, G. T., HILLS, G. E. and SHRADER, R. C. 2004. Opportunity Recognition. *In:* WELSCH, H. P. (ed.) *Entrepreneurship: The Way Ahead.* London: Routledge.

LUMPKIN, J. R. and IRELAND, R. D. 1988. Screening practices of new business incubators: the evaluation of critical success factors. *American Journal of Small Business,* 12**,** 59-81.

MAN, T. W. Y. 2006. Exploring the behavioural patterns of entrepreneurial learning. *Education + Training*, 48(5), 309+321.

MAN, T. W. Y. 2012. Developing a behaviour-centred model of entrepreneurial learning. *Journal of Small Business and Enterprise Development*, 19(3), 549-566.

MARKMAN, G. D., PHAN, P. H., BALKIN, D. B. and GIANIODIS, P. T. 2005. Entrepreneurship and university-based technology transfer. *Journal of Buisness Venturing,* 20**,** 241-263.

MATLAY, H. 2005. View point: researching entrepreneurship and education. Part 1: what is entrepreneurship and does it matter? *Education + Training*, 47(8/9), 665-677.

MATLAY, H. 2006. View point: researching entrepreneurship and education. Part 2: what is entrepreneurship and does it matter? *Education + Training*, 48(8/9), 704-718.

MATLAY, H. 2009. Entrepreneurship education in the UK: a critical analysis of stakeholder involvement and expectations, *Journal of Small Business and Enterprise Development,* 16(2), 355-368.

MAYKUT, P. and MOREHOUSE, R. 1994. *Beginning Qualitative Research: A Philosophic and Practical Guide,* London, The Falmer Press.

MBS. 2006. *Incubator* [Online]. Manchester Business School Available at:
<http://www.mbs.ac.uk/services/incubator/index.htm> [Accessed 03 Aug 2006].

MCADAM, M., and MARLOW, S., 2007. Building futures or stealing secrets? Entrepreneurial cooperation and conflict within business incubators, *International Small Business Journal,* 25(4), 361-382.

MCADAM, M. and MCADAM, R. 2006. The networked incubator: the role and operation of entrepreneurial networking with the university science park incubator (USI), *Entrepreneurship and Innovation*, 7(2), 87-97.

MCCLENLLAND, D. 1961. The achieving society. New York: A Free Press Paperback, The MacMillan Company.

MERRIFIELD, D. B. 1987. New business incubators. *Journal of Buisness Venturing,* 2**,** 277-284.

MILES, M. B. 1979. Qualitative data as an attractive nuisance: the problem of analysis. *Administrative Science Quarterly,* 24**,** 590-601.

MILES, M. B. and HUBERMAN, A. M. 1994. *Qualitative Data Analysis: An Expanded Sourcebook,* London, SAGE Publications Ltd.

MINNITI, M. 2004. Entrepreneurial alertness and asymmetric information in a spin-glass model. *Journal of Business Venturing,* 19**,** 637-658.

MINNITI, M. and BYGRAVE, W. 2001. A dynamic model of entrepreneurial learning. *Entrepreneurship: Theory & Practice,* 25**,** 5-16.

MOLE, K. F. and MOLE, M. 2010. Entrepreneurship as the structuration of individual and opportunity: a response using a critical realist perspective: comment on Sarason, Dean and Dillard, *Journal of Business Venturing*, 25, 230-237.

MORSE, J. M. 1999. The role of data. *Qualitative Health Research,* 9**,** 291-293.

MORTON-WILLIAMS, J. 1985. Making Qualitative Research Work: Aspects of Administration. *In:* WALKER, R. (ed.) *Applied Qualitative Research.* Hants: Gower Publishing Company Limited.

MYERS, M. 2004. Hermeneutics in information systems research. In: MINGERS, J. & WILLCOCKS, L. (eds.) *Social Theory and Philosophy for Information Systems.* Chichester: John Wiley & Sons Ltd.

NECK, H. M., MEYER, G. D., COHEN, B., and CORBETT, A. C. 2004. An entrepreneurial system view of new venture creation, *Journal of Small Business Management*, 42(2), 190-208.

NONAKA, I. and KONNO, N. 1998. The concept of "ba": building a foundation for knowledge creation. *California Management Review,* 40**,** 40-54.

NUMBER 10 DOWNING STREET, 2012. *News Stories: £80 Million Start-Up Loans for New Businesses [online].* 28th May 2012, London: Number 10 Downing Street – the Official site of the British Prime Minister. Available at: <http://www.number10.gov.uk/news/lord-young-report-enterprise> [Accessed 29 January 2013].

OECD. 1999. *Business Incubation: International Case Studies* [Online]. Oranisation for Economic Co-operation and Development. Available at: <http://cdnet.stic.gov.tw/ebooks/OECD/24.pdf> [Accessed 02 Aug 2006].

O'NEAL, T. 2005. Evolving a successful university-based incubator: lessons learned from the UCF technology incubator, *Engineering Management Journal*, 17 (3), 11-25.

ONS, 2012. *Labour Market Statistics April 2012*. New Port: Office for National Statistics.

ORLIKOWSKI, W. J. and BAROUDI, J. J. 1991. Studying information technology in organizations: research approaches and assumptions, *Infomration Systems Research*, 2 (1), 1-28.

OZGEN, E. and BARON, R. A. 2007. Social sources of information in opportunity recognition: Effects of mentors, industry networks, and professional forums. *Journal of Business Venturing,* 22**,** 174-192.

PACKHAM, G. JONES, P. MILLER C. PICKERNELL, D. and THOMAS, B. 2010. Attitudes towards entrepreneurship education: a comparative analysis, *Education + Training,* 52(8/9), 568-586.

PATTON, D., WARREN, L., and BREAM, D. 2009. Elements that underpin high-tech business incubation processes, *Journal of Technology Transfer*, 34, 621-636.

PEÑA, I. 2002. Intellectual capital and business start-up success. *Journal of Intellectual Capital,* 3**,** 180-198.

PEÑA, I. 2004. Business incubation centers and new firm growth in the basque country. *Small Business Economics,* 22**,** 223-236.

PERÄKYLÄ, A. 2004. Reliability and Validity in Research Based on Tapes and Transcripts. *In:* SEALE, C. (ed.) *Social Research Methods: A Reader.* London: Routledge.

PETERS, L., RICE, M. and SUNDARARAJAN, M. 2004. The role of incubators in the entrepreneurial process. *Journal of Technology Transfer,* 29**,** 83-91.

PICKERNELL, D. PACKHAM, G. JONES, P. MILLER, C. and THOMAS, B. 2011. Graduate entreprenerus are different: they access more resources? *International Journal of Entrepreneruial Behaviour & Research*, 17(2), 183-202.

PIDGEON, N. 1996. Grounded theory: theoretical background. *In:* RICHARDSON, J. T. E. (ed.) *Handbook of Qualitative Research Methods for Psychology and the Social Sciences.* Oxford: Blackwell Publishing.

PITTAWAY, L. 2005. Philosophies in entrepreneurship: a focus on economic theories. *International Journal of Entrepreneurial Behaviour & Research,* 11**,** 201-221.

PITTAWAY, L. and COPE, J. 2007. Simulating entrepreneurial learning: integrating experiential and collaborative approaches to learning. *Management Learning,* 38**,** 211-233.

POLITIS, D. 2005. The process of entrepreneurial learning: a conceptual framework, *Entrepreneurship Theory and Practice*, 29(4), 399-424.

POLITIS, D. 2008. Does prior start-up experience matter for entrepreneurs' learning? A comparison between novice and habitual entrepreneurs, *Journal of Small Business and Enterprise Development,* 15**,** 472-489.

RAE, D. 2004. Practical theories from entrepreneurs' stories: discursive approaches to entrepreneurial learning. *Journal of Small Business and Enterprise Development,* 11**,** 195-202.

RAE, D. 2005. Entrepreneurial learning: a narrative-based conceptual model. *Journal of Small Business and Enterprise Development,* 12**,** 323-335.

RAE, D. 2007. *Entrepreneurship: from Opportunity to Action*. Basingstoke: Palgrave MacMillan.

RAE, D. and CARSWELL, M. 2001. Towards a conceptual understanding of entrepreneurial learning. *Journal of Business and Enterprise Development* 8**,** 150-158.

REYNOLDS, P. D. 1997. Who starts new firms? - Preliminary explorations of firms-in-gestation. *Small Business Economics,* 9**,** 449-462.

RICE, M. 2002. Co-production of business assistance in business incubators: an exploratory study. *Journal of Business Venturing*, 17(2), 163-187.

RICHARDS, L. 1999. *Using Nvivo in Qualitative Research,* London, SAGE Publications Ltd.

RITCHIE, J. and LEWIS, J. 2003. *Qualitative Research Practice: A Guide for Social Science Students and Researchers.,* London, SAGE Publications Ltd.

ROBERTSON, M. and COLLINS, A. 2003. Developing entrepreneurship in West Yorkshire: West Yorkshire universities' partnership and Business Start-Up@leeds Met. *Education + Training,* 45**,** 33-307.

RYAN, G. W. and BERNARD, H. R. 2000. Data management and analysis methods. *In:* DENZIN, N. K. & LINCOLN, Y. S. (eds.) *Handboook of Qualitative Research* 2nd ed. Thousand Oaks: Sage Publications, Inc.

RONSTADT, R. 1988. The corridor principle. *Journal of Business Venturing*, 3(1), 31-40.

SANZ-VELASCO, S. A. 2006. Opportunity development as a learning process for entrepreneurs. *International Journal of Entrepreneurial Behaviour & Research,* 12**,** 251-271.

SARASON, Y., DEAN, T. and DILLARD, J. F. 2006. Entrepreneurship as the nexus of individual and opportunity: a structuration view. *Journal of Business Venturing,* 21**,** 286-305.

SAUNDERS, M., LEWIS, P. and THORNHILL, A. 2000. *Research Methods for Business Students,* Essex, Pearson Education Limited.

SAUNDERS, M., LEWIS, P. and THORNHILL, A. 2012. *Research Methods for Business Students,* Harlow, Pearson Education Limited.

SCHILDT, H. A., ZAHRA, S. A. and SILLANPÄÄ, A. 2006. Scholarly communities in entrepreneurship research: a co-citation analysis. *Entrepreneurship: Theory and Practice,* 30**,** 399-415.

SCHUMPETER, J. A. 1942. *Capitalism, Socialism and Democracy.* Oxford: Taylor & Frances Books.

SCHWARTZ. M. 2009. Beyond incubation: an analysis of firm survival and exit dynamics in the post-graduation period. *Journal of Technology Transfer*, 34(4), 403-421.

SEALE, C. 2004. Quality in Qualitative Research. *In:* SEALE, C., GOBO, G., GUBRIUM, J. F. & SILVERMAN, D. (eds.) *Qualitative Research Practice.* London: SAGE Publications Ltd.

SEIDEL, V. 2002. *The dynamics within high-technology incubators: the impact of incubator management practices on resident start-ups* [Online]. Babson College. Available at: <http://www.babson.edu/entrep/fer/Babson2001/XIX/XIXC/XIXC.htm> [Accessed 27 Jan 2007].

SHANE, S. 2000. Prior Knowledge and the Discovery of Entrepreneurial Opportunities. *Organization Science,* 11**,** 448-469.

SHANE, S. 2003. *A General Theory of Entrepreneurship: The Individual-Opportunity Nexus.* Cheltenham, Edward Elgar Publishing Limited.

SHANE, S. and VENKATARAMAN, S. 2000. The promise of entrepreneurship as a field of research. *Academy of Management Review,* 25**,** 217-226.

SHAVER, K. and SCOTT, L. 1991. Person, process, and choice: the psychology of new ventrue creation. *Entrepreneurship Theory and Practice*, Winter, 23-42.

SHEEHAM, M. J. 2004. Learning as the construction of a new reality. *The Journal of Workplace Learning,* 16**,** 179-196.

SHEPHERD, D., DOUGLAS, E., and SHANLEY, M. 2000. New venture survival: ignorance, external shocks, and risk reduction strategies. *Journal of Business Venturing*, 15(5/6), 393-410.

SILVERMAN, D. 2006. *Interpreting Qualitative Data,* London, SAGE Publications Ltd.

SMITH, M. K. 2007. *David A. Kolb on experiential learning* [Online]. London: infed.org. Available at: <http://www.infed.org/biblio/b-explrn.htm> [Accessed 08 Apr 08].

SOFOULI, E. and VONORTAS, N. S. 2007. S&T parks and business incubators in middle-sized countries: the case of greece. *Journal of Technology Transfer,* 32**,** 525-544.

STARK, S. and TORRANCE, H. 2005. Case Study. *In:* SOMEKH, B. & LEWIN, C. (eds.) *Research Methods in the Soical Sciences.* London: SAGE Publications Ltd.

STARR, J. and BYGRAVE, W. 1992. The second time around: The outcomes, assets, and liabilities of prior start-up experience. In S. Birley & I. MacMillan (Eds), *International perspectives on entrepreneurship research 1991: Proceedings of the first annual global conference on entrepreneurship research (pp. 340–363).* Amsterdam: North Holland.

STOKES, D. and WILSON, N. 2010. *Small Business Management and Entrepreneurship,* Andover, Cengage Learning EMEA.

STRAUSS, A. L. and CORBIN, J. 1998. *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory,* Thousand Oaks, SAGE Publication, Inc.

SUN, H., NI, W., and LEUNG, J. 2007. Critical success factors for technological incubation: case study of Hong Kong Science and Technology Parks, *International Journal of Management*, 24(2), 346-363.

TALJA, S., TUOMINEN, K. and SAVOLAINEN, R. 2004. "Isms" in information science: constructivism, collectivism and constructionism. *Journal of Documentation,* 61**,** 79-101.

TAYLOR, D. W. and THORPE, R. 2004. Entrepreneurial learning: a process of co-participation. *Journal of Small Business and Enterprise Development,* 11**,** 203-211.

TAYLOR, S. J. and BOGDAN, R. 1998. *Introduction to Qualitative Research Methods: A Guidebook and Resource,* New York, John Wiley & Sons, Inc.

THIERSTEIN, A. and WILHELM, B. 2001. Incubator, technology, and innovation centres in Switzerland: features and policy implications. *Entrepreneurship & Regional Development,* 13**,** 315-331.

THORPE, R., JONES, O., ZHANG, M., SHARIFI, S., MACPHERSON, A., HOLT, R., BROAD, J., OAKES, H. & GHECHAM, A. 2006. Evolution of business knowledge in SMEs. *Competitiveness of Small Firms in the North West.* Manchester: Manchester Metropolitan University Business School.

TITCHEN, A. and HOBSON, D. 2005. Phenomenology. *In:* SOMEKH, B. & LEWIN, C. (eds.) *Research Methods in the Social Sciences.* London: SAGE Publications Ltd.

TODOROVIC, Z., and MOENTER, K. 2010. Tenant firm progression within an incubator: progression toward an optimal point of resource utilization. *Academy of Entrepreneurship Journal*, 16(1), 23-40.

TREANOR, L. and HENRY, C. 2010. Gender in campus incubation: evidence from Ireland. *International Journal of Gender and Entrepreneurship*, 2(2), 130-149.

UCBASARAN, D., WESTHEAD, P. and WRIGHT, M. 2006. *Habitual Entrepreneurs,* Cheltenham, Edward Elgar Publishing Limited.

UCBASARAN, D., WESTHEAD, P. and WRIGHT, M. 2008. Opportunity identification and pursuit: does an entrepreneur's human capital matter? *Small Business Economics,* 30**,** 153-173.

UCBASARAN, D., WESTHEAD, P. and WRIGHT, M. 2009. The extent and nature of opportunity identification by experienced entrepreneurs. *Journal of Buisness Venturing,* 24**,** 99-115.

UKBI. 2004. *Membership of Incubators* [Online]. Birmingham UK Buisness Incubation. Available at: <http://www.ukbi.co.uk/index.asp?SID=129> [Accessed 05 Feb 2007].

UKBI. 2006. *Stakeholders Benchmarking* [Online]. UK Business Incubation. Available at: <http://www.ukbi.co.uk/index.asp?PID=312> [Accessed 02 Aug 2006].

UKBI, 2012. *Business Incubation* [online]*.* Birmingham: UK Business Incubation. Available at: <http://www.ukbi.co.uk/resources/business-incubation.aspx> [Accessed 25 January 2013].

VAGHELY, I. P. and JULIEN, P. 2010. Are opportunities recognized or constructed? An information perspective on entrepreneurial opportunity identification, *Journal of Business Venturing*, 25(1), 73-86.

VANDERSTRAETEN, J. and MATTHYSSENS, P. 2010. Measuring performance of business incubators: a critical analysis of effectiveness approaches and performance measurement systems. *Entrepreneurship: Bridging Global Boundaries, ICSB (International Council for Small Business) Conference,* Cininnati, 24-27 June 2010. Washington: ICSB, GWU School of Business.

VANDERSTRAETEN, J. and MATTHYSSENS, P. 2012. Service-based differentiation strategies for business incubators: exploring external and internal alignment, *Technovation,* 32(12).

VESEY, G. and FOULKES, P. 1990. *Collins Dictionary of Philosophy.* London: Collins.

VIDICH, A. J. and LYMAN, S. M. 2000. Qualitative methods: their history in sociology and anthropology. *In:* DENZIN, N. K. & LINCOLN, Y. S. (eds.) *Handbook of Qualitative Research.* 2nd ed. Thousand Oaks: Sage Publications, Inc.

VOISEY, P., GORNALL, L., JONES, P. and THOMAS, B. 2006. The measurment of success in a business incubation project. *Journal of Small Business and Enterprise Development,* 13**,** 454-468.

VOISEY, P., GORNALL, L. and THOMAS, B. 2005. The measurement of success in a business incubation project. *Illuminating Entrepreneurship: Institute for Small Businesses & Entrepreneurship 28th National Conference.* Blackpool.

WADDINGTON, D. 2004. Participant Observation. *In:* CASSELL, C. & SYMON, G. (eds.) *Essential Guide to Qualitative Methods in Organizational Research.* London: SAGE Publications Ltd.

WAGNER, K. V. 2006. *Business development incubator programs: An assessment of performance in Missouri.* PhD, Capella University.

WEICK, K. E. 1995. *Sensemaking in Organizations,* Thousand Oaks, Sage Publications.

WELSH, E. 2002. Dealing with data: using NVivo in the qualitative data analysis process [online]. *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research,* 3(2). Available at: <http://www.qualitative-research.net/index.php/fqs/article/view/865/1881> [Accessed 28 Oct 2013].

WENGER, E. 1998. *Communities of Practice: Learning, Meaning, and Identity,* Cambridge, Cambridge University Press.

WYNARCZYK, P. and RAINE, A. 2005. The performance of Business Incubators and their potential development in the north east region of England. *Local Economy,* 20**,** 205-220.

XU, L, 2010. Business incubation in China: effectiveness and perceived contributions to tenant enterprises, *Management Research Review*, 33(1), 90-99.

YIN, R. K. 2003a. *Applications of Case Study Research,* Thousand Oaks, Sage Publication, Inc.

YIN, R. K. 2003b. *Case Study Research: Design and Methods,* Thousand Oaks, Sage Publications, Inc.

ZHANG, H. and SONOBE, T. 2011. Business incubators in China: an inquiry into the variables associated with incubatee success. *Economics: the Open Access, Open-Assessment E-Journal,* 5(7), 1-27.

ZHENG, Y. 2005. Dynamism in capabilities and networks: implications for wealth creation in technology-intensive start-ups. *Frontiers of Entrepreneurship Research 2005: the 25th Annual Entrepreneurship Research Conference.* Babson College.

Appendices

Appendix I – Success indicators and the role of BI

Author(s)	Date	Hard Factors	Soft Factors	Type of incubator	Future Research Direction
Cooper	1985	- Location - Patterns of geographic mobility for entrepreneurs - Nature of incubatee business relating to type of incubator - Type of incubator - Size of incubator		All incubators	
Brooks	1986	- Pooled support services - A link to a university	- Support network	All incubators	
Fry	1987		The role of incubator managers in fostering business planning amongst incubatees	All incubators	- An incubatee-centred approach should be used - Incubator managers' involvement with incubatees
Lumpkin & Ireland	1988	- Financial ratios: liquidity, profitability, asset utilisation, price earnings, debt utilisation - Personal characteristics of management team: age, sex, technical skills, management skills, financial skills, marketing skills, aggressiveness/persistence, creativity, personal investment, references from others - Market factors: current size, growth rate, uniqueness of product/service, marketability of product/service, written business plan		All incubators	- The relationship between the screen process for incubatees and occupancy rate - Type of incubator (retail, high tech etc.) and performance

Author(s)	Date	Hard Factors	Soft Factors	Type of incubator	Future Research Direction

Allen & McCluskey	1990	- Administrative effectiveness
		- Economic efficiency
		- Occupancy rate
		- Job created
		- Firms graduated
				All incubators	More in-depth empirical work is needed to develop sophisticated performance measures in term of:
					  - synergistic effect between incubatees
					  - service quality and how service can be delivered
					  - subsidy and sustainability of incubators
					  - impact on local economy

Peña	2004		- Human capital of entrepreneur: business owners with advanced education and management experience - Business courses, individual consulting assistance and monitoring services provided by incubator	All incubators	- Additional refinements for the measurement of growth for entrepreneurial ventures - To measure the benefits and costs of BI as a growth tool

Author(s)	Date	Hard Factors	Soft Factors	Type of incubator	Future Research Direction
Bøllingtoft & Ulhøi	2005		- How incubator is constructed affects networking activities - Social connections between the tenants are very important to networking and cooperation - The values which the incubator is based on (as opposed to a top-down management style) affects networking activities - Size is important for networking. If there are too many firms, networking activities decreases	All incubators	- A participatory approach is needed to study the social activity in a BI -No universal solution to study BI, specific context and circumstances should be given when studying it - To compare ventures in- and out-side of a BI environment: how the networking activities differ and what are the dis/advantages.
Grimaldi & Grandi	2005	- Reduced start-up costs - Local networks - Local economic growth - Accelerated start-up process for highly promising enterprises - As above plus improved knowledge transfer		Non-Profit For-Profit University	
Hannon	2005a		Human capital capability within professionals and practitioners in the incubation community	All incubators	- To enhance human capital in incubator projects - A learner centred approach is needed for incubators to succeed

Author(s)	Date	Hard Factors	Soft Factors	Type of incubator	Future Research Direction

Voisey et al.	2005	- Incubator specific:
		  sales turnover, profitability, growth of enterprise, graduation to independent trading
		
		- Incubatee specific:
		  number of client, number of business trading independently, meeting targets, continued operation
			- Incubator specific:
			  growth in expertise of staff, recognition by enterprise support community, continued support from stakeholders, internal evaluation based on needs of incubatees
			
			- Incubatee specific:
			  Increased client professionalism, improved client business skills, increased confidence in self and business, increased and productive networking with peers, increased client knowledge, cost savings due to use of BI resources, positive publicity
				All incubators	

Wynarczyk & Raine	2005	Location; type of incubator; business support; flexibility; job creation; ownership and purpose		All incubators	

McAdam & McAdam	2006	- Incubator resource:
		  provision of infrastructure office space & facilities, canteen, secretarial services
		
		- University service:
		  access to equipment, access to students
			- Incubator resource:
			  credibility with customers & suppliers, shared values
			- University service:
			  access to university reputation, specific programmes and research
			- Clustering effects:
			  network opportunity, trust, personal links
				University	Disadvantages of incubation:
					  - Isolation
					  - Incubator layout feeds suspicion
					  - Highly competitive and hostile environment

McAdam & Marlow	2007	Provision of infrastructure	- Credibility with customers and suppliers - Incubator image - Firm proximity - Managing trust amongst entrepreneurs - Managing change and entrepreneurial transition - How to help firms to gain incremental independence	All incubators	To identify potential areas of tension arising from proximity between ventures

Author(s)	Date	Hard Factors	Soft Factors	Type of incubator	Future Research Direction
Bergek & Norrman	2008	- Selection criteria - Business support	- Mediation	All incubators	- Do best practice models differ based on different goals - Selection strategy - Efficiency in using resources
Todorovic & Moenter	2010	- Infrastructure support	- Coaching and business support - Networking opportunities	University	- Studies outside of the U.S. - Further work on case studies and quantitative analysis
Vanderstraeten & Matthyssens	2010	- Average incubation time - Share of start-ups - Share of high-tech firms - Client satisfaction - Overall survival - Employment growth after graduation		All incubators	- To develop validated scales to measure success
Arlotto et al.	2011	- Functional services - Infrastructures - Access to resources and services	- Work quality of incubator management team - Social performance of incubatees	All incubators	
Zhang & Sonobe	2011	- Infrastructure - Financial resources - Location	- Human resources of incubator	University and Non-Profit	
Vanderstraeten & Matthyssens	2012			Non-Profit	- Quantitative analysis - For profit incubators - Type of entrepreneurs or incubator's geographical segment

Appendix II – Data collection template

Case code	
Date interviewed to enter	
Incubation starting date	
Date interviewed by researcher	
Incubation length when interviewed by researcher	
Age	
Gender	
Ethnicity	
Education (relating to current business? NES?)	
Notes from 1st interview	
Notes from company support monitoring form	
- date when form filled in	
- website	
- no. of employees	
- turnover	
- age of business	
- sector	
Notes from BIC review form	
- trading since	
- summary	
- current turnover	
- other notable activity (e.g. customers, sales,	

advertising, awareness raising etc.)	
- requirements	
- BIC actions	
- business adviser and comments	
- mentor and comments	
- Inospace exit strategy	
Notes from 2nd year review	
Notes from company support output monitoring form	
- date when form filled in	
- website	
- no. of employees	
- turnover	
- initiated any schemes to develop new environmental technology/techniques?	
- developed new products or new methods of working	
- increased turnover by	

Appendix III – Interview schedule for pilot study

I am really interested in your business idea, where it came from, how it has developed and how BIC has affected that process if at all.

(contents in brackets or with bullet points are just prompts, for contingent uses)

1. So could you start by telling me where your business idea came from initially?

2. So how did your business idea develop before you came to BIC?

- Where did these ideas come from?
  - ➤ Did you see the opportunity yourself?
  - ➤ Was it because of you studied?
  - ➤ Was it because you were familiar with this industry sector?
  - ➤ Did someone like your friends told you about this opportunity?
- Did you have any knowledge or experience in the business you are doing, before you started your own company?

3. Why did you apply to come to BIC?

- ➤ Meeting spaces?
- ➤ Exhibition spaces?
- ➤ Meeting other entrepreneurs?
- ➤ Admin support?
- ➤ City centre postal address?
- ➤ Mentoring services?
- ➤ Business advisors?
- ➤ Network events?
- ➤ Sub-contractor opportunity?
- ➤ Supplier opportunity?
- ➤ Client opportunity?
- ➤ Product development opportunity?

 (and what made you think any of these (services) would help to develop your idea?)

4. How did the interview to enter BIC affect your thinking about your business idea, if at all?

5. And now, could you try to tell me in as much detail as you can what has happened since you entered BIC and how this has affected your business idea, if at all. So please start from Day 1 in BIC and tell me the story of your business.

6. Just to clarify, what influence has BIC had on the development of your business idea up to now?

7. And what do you think about your business idea now?

8. What are you going to do next with your business?

Appendix IV – Interview schedule for BIC incubatees

I am really interested in how you have developed your business ideas. Where they came from, how they have developed and how the Business Incubation Centre has affected that process.

1. First of all, could you briefly tell me about the business idea or ideas that you were developing when you came into BIC?

I would like to explore how your business idea(s) developed before you came to BIC.

2. So could you tell me where this/these business idea(s) came from initially?
   - Did you develop the business idea(s) yourself or did it develop from talking to someone else?
   - And in what ways, if any, did your initial idea relate to courses you have studied?

3. And when did you first have your business idea?

4. And how did your business idea develop before you came to BIC?

5. Did you have any knowledge or experience in the industr(ies) related to your business idea(s)?

So now I would like to move on to talk about coming into BIC.

6. Could you please start from Day 1 in BIC and try to tell me about the development of your business idea(s) in as much detail as you can.

7. Just to clarify, what influence has BIC had on the development of your business idea(s)?
    - In what ways has being with other people starting a business affected the development of your idea(s)?

    - And how have the people managing BIC affected the development of your idea(s)?

    - What about having a place to come, and an address in Manchester – how has that affected the development of your idea(s)?

    - And the advisors and mentors available in BIC, how have they affected the development of your idea(s)? (knowledge and skills)

    - And what about the general knowledge held by the university – how has access to the library or the knowledge of academic staff affected your business idea(s)?

8. And how have people outside of BIC affected the development of your business idea(s)?
    - Family and friends
    - External advisors
    - Networks

So now I would like to move on and talk about your strategy in making the business succeed.

9. What has your strategy been so far?

10. What is your strategy from now on?

11. So overall what do you think about the potential of your business idea(s) now?

12. And what are your plans about staying on in BIC or leaving?
    - Can you talk me through why you have decided to stay on/leave?

Appendix V – Invitation letter from director of ERC

Dear Helen

The Impact of *BIC*

I am writing to introduce PingPing Hong who is a full-time PhD student in the Entrepreneurship Research Centre, UKU Business School. BIC is an important initiative for the centre and the university – and we are therefore very keen to ensure that the project is successful in supporting all our tenants. PingPing is currently conducting research on the impact of BIC. The outcomes of this research will contribute to the improvement of our service and help promote more effective business start-ups in the future. In order to make this project possible, PingPing intends to interview all the regular users of BIC. I hope you can provide your support by participating in this study.

You are assured that the information you provide will be strictly confidential and your identity as well as that of your organisation will be completely anonymised. The intention of this research is to improve the general understanding of how useful business incubators are in supporting new entrepreneurs. The views of individual tenants will not be reported to those responsible for the day-to-day management of BIC.

PingPing will contact you to arrange a time and place for the interview. Your participation in this research is much appreciated and if you have any further questions about the interviews or about the purpose of the research please do not hesitate to contact me by phone (0111 123 1234) or email (director.erc@uku.ac.uk)

Yours sincerely

Director (professor of innovation and entrepreneurship)

Appendix VI – Invitation to interviews

Dear Helen

Impact of Business Incubation

Thank you for your interest in this research project. The aim of this research is to investigate the impact of business incubators on business start-ups. The outcomes of this research will contribute to the improvement of incubators' quality in terms of administrative effectiveness and economic efficiency, and in turn, this will help to provide a better service for the business start-ups.

For this reason, I need your participation in this interview and I would like to know about your experience in using BIC. Your experience is highly valued in this research and your answers will help to provide a better understanding of the process of business incubation.

You will be asked several questions as to how your business ideas change before and during your time in the Business Incubation Centre, if at all. Each interview will last approximately one hour. The interview can be conducted at a convenient place and time to you and it will be a single face-to-face interview.

The interviews will be recorded and transcribed but the interviews are for academic research purposes only. The information you provide will be treated with strict confidentiality and the identity of yourself and your organisations will be kept confidential.

Your participation in this research is much appreciated and if you would like to receive a summary of the findings, please contact me.

If you have any further questions about the interviews please do not hesitate to contact me: PingPing Hong, the Entrepreneurship Research Centre, UKU Business School or at p.hong@uku.ac.uk.

I really look forward to meeting you and hearing about your experiences!

Yours sincerely,

PingPing Hong
Doctoral Researcher

Appendix VII - Outline of the potential interviewees

Start Date	No. of Businesses	Name of Entrepreneurs	If Interviewed in …	Incubation Length when Interviewed (months)	No. of Interviews to be Conducted in the Month
Jul 07	3	*Tony, Ian, Neil*	Nov 08	16	
Aug 07	2	*Phil, Jane*	Nov 08	15	**5 (Nov 08)**
Mar 08	1	Alexandra	Dec 08	10	
Sep 07	1	*Jeff*	Dec 08	15	
Oct 07	2	*Paul, Nick*	Dec 08	14	**4 (Dec 08)**
Nov 07	0				
Dec 07	2	David, **Laura**	Jan 09	13	
Jan 08	1	*Peter*	Jan 09	12	**3 (Jan 09)**
Feb 08	2	Jonathan, Kath	Feb 09	12	
Mar 08	0				
Apr 08	3	**Emma**, Terry, Keith	Feb 09	11	**5 (Feb 09)**
May 08	1	Nicola	Mar 09	11	
Jun 08	3	Nicky, Joe / Alistair[1], Alison	Mar 09	10	**4 (Mar 09)**
Jul 08	4	Robert, James, Karen, Mark	Apr 09	10	**4 (Apr 09)**
Aug 08	4	Mahmood, Nigel, Ahmed, Kelly	May 09	09	**4 (May 09)**
Sep 08	0				
Total	**29**				**29**

[1] Joe and Alistair are from the same firm, only need to interview one of them

Already interviewed: Helen, Tim, Andy, Tony, Ian, Neil, Phil, Jane, Jeff, Paul, Nick, and Peter

Interviews have been re-scheduled: Laura and Emma

Still negotiating: David (has left BIC)

Contacted by Jenny (BIC administrator) but no responses: Alex, Jonathan, Kath, Terry, and Keith

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Appendix VIII – Interview schedule for the first manager of BIC

First of all, I will be focusing on the development and impact of BIC

1. Can you tell me when and where the initial idea of setting up a business incubator was from?

2. Can you tell me how it was then developed from this idea?

3. Just to clarify, what challenges did the management have when establishing BIC?

4. What were the initial aims of this incubator (in terms of ... UKU, students, ERC)?

5. Have the aims changed since its establishment? Why?

6. So what has been done to achieve these aims?

7. There is a steering group as well as a board for BIC, can you tell me where the ideas were from to form these groups and what actions did you carry out to form these groups?

8. Was there a formal/informal system implemented to monitor the performance of BIC? (If yes, how does this system work? If no, why not?)

9. What challenges did the management have when running BIC (- funding, politics, tenants, managing facilities, support from ERC, support from UKU, support from external organisations)?

10. How much influence you think the university and the business school executives have on the development of BIC?

11. What impact do you think BIC has on its tenants, the business school, and the wider entrepreneurial community in this city?

12. To date, do you think that BIC has achieved its potentials (why/why not?)?

Now I'd like to move on and explore the relationship between the management team and the tenants

13. I understand that in summer 2007, just before BIC was launched, the management tried to bring as many qualified entrepreneurs as possible to BIC. What was your ideal number of tenants? Have you reached this number? (If not, what do you think the problems were that caused this?)

14. When BIC was established, there were not as many people as hoped using the space, do you know why? What actions did the management take to improve this situation?

15. BIC holds a number of courses and events. Could you talk me through these courses and events and what impact they had on the tenants, the university students, and any other participants?

16. There's a website and a BIC Wiki, could you tell me the reasons why they were created, and whether they have met their expectations?

17. From talking to some tenants, I got to know that BIC liaises university students with the tenants. Some students did projects for the tenants here. I think it's a very good idea, could you tell me where did this idea come from?

18. Most of the tenants I met have very positive views towards BIC, however I have been made aware of mainly two areas of concerns in terms of BIC services. First is about communications between the management and tenants. I was told that originally according to the tenant agreement, tenants could have BIC as their business addresses when registering with a bank and at the Companies House. However this item was removed from the agreement. The tenants got to know the news from an email. Could you tell me why it happened?

19. The second area of concern is the free business advisory and mentoring services provided by BIC. Some tenants applied for the services but could not get one mentor and some had one session but could not get more. Could you tell me whether there was a formal system to monitor these

services and what challenges you had when managing these services (was there enough support from the university)?

20. Was there a formal selection process to choose the advisors and mentors?

Finally, I would like to know a bit more about the management of BIC. We will first talk a bit about your role in managing BIC, then move on to the management.

21. So in what ways, you think that you have contributed to the development of BIC?

22. Are there any factors that restrained you from contributing even more to BIC? (allocation of time, budget, …)

23. Now we move on to the management team, what were the aims and responsibilities of the management team?

24. Do you think that the management team as a whole has achieved its expectations?

25. There were often changes in the admin team, could you tell me the reasons behind this?

26. You have seen changes in the management of BIC, it has had two directors and will have another new director in May; you have just left BIC and the current manager is on a six-month contract; the admin team also had changes in team members. Did you notice any impact on the tenants because of the personnel changes?

27. You have just left BIC, could you talk me through the reasons why you left?

28. Looking back at your involvement in BIC, is there anything that you would have done differently?

29. Are there any other things you would like to tell me relating to BIC?

Appendix IX – Interview schedule for a member of the steering group of BIC

First of all, I would like to know about your role in BIC.

1. When was the first time you heard about the setting up of the Business Incubation Centre?

2. So what did you think about this idea of having a business incubator, in relation to the business school, to the students, to the entrepreneurs, and to the wider entrepreneurial community?

3. I understand that you are a member of the steering group, so when and how your joined this group?

4. So what responsibilities do you have as a member of the steering group?

5. Just to clarify, what were your reasons to join the steering group for BIC and what you intended to achieve from this role, in terms of your professional development and the development of BIC?

6. So do you think that your expectations of these developments have been achieved? (why/why not?)

7. In what ways, do you think that you have contributed to the development of BIC?

8. Are there any factors that restrained you from contributing even more to BIC? (allocation of time, budget, …)

9. Do you think that the steering group has achieved its expectations?

Now I'd like to move on and explore your relationship with BIC.

10. When you saw BIC the first time, what did you think of it?

11. What is your relationship with BIC now?

12. And what is your relationship with the management of BIC?

13. I see you quite often in BIC, can you tell me how you use this space?

14. So when you needed to use BIC for your events and courses, how was the reaction from the management?

15. What impact do you think BIC has had on the people you brought here, on BIC itself, on BIC tenants, and on the business school?

16. Ideally, how would you think BIC should be used, in terms of promoting and developing entrepreneurial cultural, entrepreneurial aspiration, entrepreneurship education, UKU publicity, and so on?

17. What potentials do you see in BIC?

18. So do you think that BIC has achieved its potentials (why/why not?)

19. BIC had business mentors were you one of them? (-- If yes, why did you choose to be one? and why are you not one anymore? -- If not, why not?)

Finally I would like to explore your views on the development of BIC.

20. You have seen changes in the management of BIC, it is having a third director, the previous manager has left and the current manager is on a six-month contract. The admin team also had changes in team members. What do you think of all these changes and have these changes had any impact on the way how you use BIC?

21. How much influence you think the university and the business school executives have on the development of BIC?

22. What impacts do you think BIC has had on its tenants, the business school, the students, and the wider entrepreneurial communities in Manchester?

23. Looking back at your involvement in BIC, is there anything that you would have done differently?

24. Are there any other things you would like to tell me relating to BIC?

Appendix X – First template of coding

<u>**Tree nodes:**</u>

- **Impact of BIC**
  - ➢ <u>experience of BIC</u>
    - collaboration
    - don't want to work alone at home
    - getting work done through other tenants
    - networking
    - share peer experience
    - working in office environment
  - ➢ <u>reasons for entering BIC</u>
    - cheap rent
    - don't want to work alone at home
    - networking
    - share peer experience
    - space
    - university link
    - working in office environment
  - ➢ <u>skills obtained in BIC</u>
  - ➢ <u>experience of support from BIC</u>
    - space
    - structured time frame
    - supported but not pressurised

- **Incubatees' prior Knowledge of**
  - ➢ markets
  - ➢ customer problems
  - ➢ ways to serve markets
  - ➢ personal interests

- **Incubatees' ways developing ideas**
  - ➢ by testing in new situations
  - ➢ forming abstract concepts
  - ➢ in BIC
  - ➢ through business advisor & mentor
  - ➢ through concrete experience
  - ➢ through networking
  - ➢ through reflection

Free nodes:

- business strategy formation
- comments on the idea
- engagement
- entrepreneurial alertness
- entrepreneurial aspiration
- future business plans
- initial idea
- learning as experience
- learning through observation and reflection
- opportunity discovery
- opportunity exploitation
- opportunity searching
- personal interests
- risk assessment
- values

Appendix XI – Final template of coding

Tree nodes:

- **Impact of BIC**
  - ➢ experience of BIC
    - collaboration
    - do businesses with other tenants
    - don't want to work alone at home
    - getting work done through other tenants
    - share peer experience
    - work for other tenants
    - working in office environment

  - ➢ reasons for entering BIC
    - cost savings
    - don't want to work alone at home
    - networking
    - premises and resources
    - share peer experience
    - university link
    - work for other tenants

  - ➢ experience of support from BIC
    - business advisor-mentor
    - cost savings
    - from management team
    - increased alertness to opportunity
    - increased professionalism
    - information hub
    - knowledge pool
    - location- (not) important
    - management - encourage strategic thinking
    - premises and resources
    - skill inputs
    - structured time frame
    - supported but not pressurised
    - university resources
    - university supportive courses

  - ➢ Problems of BIC
    - not supported by university
    - pitfalls of BIC facilities
    - pitfalls of BIC communication management

- problems of BIC advisers and mentors

- **Learning**
  - ➢ experiential learning
    - prior knowledge
    - new information
    - skills
    - new knowledge
    - transformation of experience
    - transformation of identity
  - ➢ community of practice
    - community - learning as belonging
    - identity - learning as becoming
    - meaning - learning as experience
    - practice - learning as doing
  - ➢ in BIC

- **Opportunity development**
  - ➢ Incubatees' prior Knowledge of
    - customer problems
    - personal interests
    - markets
    - ways to serve markets
  - ➢ business strategy formation
  - ➢ entrepreneurial alertness
  - ➢ opportunity development
  - ➢ opportunity creation
  - ➢ opportunity identification
  - ➢ opportunity evaluation & reflection
  - ➢ opportunity exploitation
  - ➢ opportunity searching
  - ➢ personal interests
  - ➢ resources

Free nodes:

- comments on the idea/business stage
- entrepreneurial aspiration
- financial motivation
- future business plans
- initial idea
- intuition
- risk assessment
- values
- work creation

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Sets:

- **Mutual engagement**
  - collaboration
  - do businesses with other tenants
  - don't want to work alone at home
  - getting work done through other tenants
  - networking
  - work for other tenants

- **Share repertoire**
  - business advisor-mentor
  - networking
  - share knowledge
  - share peer experience
  - skill inputs
  - university supportive courses

- **Experiential learning**
  - by forming abstract concepts
  - by testing in new situations
  - through concrete experience
  - through observation and reflection

- **Learning perspective of opportunity development**
  - **Knowledge**
    - of customer problems
    - of the markets
    - of ways to serve markets
  - skills
  - opportunity creation
  - opportunity discovery
  - opportunity exploitation
  - opportunity searching
  - opportunity development
  - resources
  - business strategy formation
  - entrepreneurial alertness
  - initial idea

- **Social learning**
  - community - learning as belonging
  - identity - learning as becoming
  - meaning - learning as experience
  - practice - learning as doing

Appendix XII - The process of incubation

Respondent	Pre-BIC	During BIC	Post-BIC
Helen	- Masters degree in Environmental Management and Sustainable Development - Freelance work for local airport in climate change - Planned to provide consultancy in sustainability management - A raw idea with assessment tools developed from the studies - Knew about BIC while studying and had a visit before applying	- Talked to a business advisor - Got a mentor - Refining and narrowing down the idea - Learning generic business skills from other incubatees - Got feedback from other incubatees on the idea - Submitted a tender with a fellow incubatee - Wouldn't have carried on without BIC - Viewed the business as an experiment	N/A - still in first year of incubation
Tim	- Worked seven years as a retail buyer - Idea fully formed and had a business plan	- Implemented the idea while in BIC - Used BIC's space to store artwork before finding a gallery - Held an exhibition in BIC - Talked to a business advisor - A fellow tenant designed the logo and did branding - Updating business plan	Just left BIC after own gallery was open
Andy	- Studied Design and Technology - Worked as a web developer, and decided to start own business - Worked with a tenant and got to know BIC - Saw BIC itself as an opportunity which hosted many start-ups who needed websites	- Got to know a web designer (a tenant) and gave work to each other - Started a company with the tenant and sub-contracted work to own company - Spoke to another web developer a lot about ideas - Spoke to BIC management when needed information - Had two students working on projects	Moved out with two other tenants to form a new company, preferred a place with a sound proof meeting room and 24-hour access
Jane	- Organising sports events as a social activity - Worked as a sports development officer - Studying and working for UKU when started the business - Had a full-time permanent job when running own business - Business was already running when coming into BIC	- Managed to get one-day off a week from work to come to BIC and work for own business - Felt much more productive when working from BIC - Learned how innovative other tenants were and the importance of networking - Had a business advisor discussing on expansion - Had a student doing a press pack - Felt BIC management were very supportive - Had a tenant to help with the administration of the business	Staying on for another year

Respondent	Pre-BIC	During BIC	Post-BIC
Ian	- Experience of being a customer at many networking events - Already trading as a business when coming to BIC, but came to BIC with a different business idea - Thought BIC was a good networking venue when visiting it - Was really interested in hypnotherapy	- Use BIC and its meeting rooms a lot for networking events and talks - Talk to a business advisor, who was also an incubatee (Tony). He helped Ian with marketing - BIC management helped running networking events - Brought in new incubatees for BIC through networking events - Used library and other university facilities - Teamed up Mark and some external people for the hypnotherapy and wellbeing business	Staying on for another year
Tony	- Had much experience in doing marketing and training - Had an events and marketing company with friends	- Got to know other tenants in BIC and was forming a new marketing company - Disappointed by the location (difficulty with car parking space) and facilities of BIC (limited workshop rooms), the date training business could not be developed further - Planning to sell the date training business when having the new marketing company - Mentioned that the marketing company would not have existed without BIC	Staying on for another year
Nick	- Experience in building websites - Had a business plan before joining BIC	- Met other incubatees and got their opinions on the business idea - Met some advisors and a mentor for general business ideas - Developing the business while in BIC - Trying out the new system for web design while having the first client - Developing marketing strategy - Viewed the business as an experiment - Used the library for journals - Unhappy with BIC's procedures in changing Tenants Agreement - Viewed the BIC community very important - Set up the Tenants Association	Staying on for another year
Neil	- Experience in providing consultancy in knowledge-based and operational management - Studying a PhD, linking motivation, change, psychology and sociology - Had own ideas of how consultancy should be provided	- Viewed the BIC community very important - Set up the Tenants Association - Encouraged others to network actively - Formed a working partnership with another tenant - Got help from Tony on marketing strategy - Did some work for Laura's business - Read a lot of books from the library - Mentioned only one academic staff was interested in BIC	Staying on for another year

Respondent	Pre-BIC	During BIC	Post-BIC
Phil	- Had an online shop on ebay while studying - Was running a web-design business, specialising in blog design - Was working from home and wanted to separate work and private life - Was looking for office space and other places were much more expensive	- Developed another business idea while in BIC - Helped James building a website - Often spoke to Nick about ideas	- Moved to an office where Phil invested in the tailor business - Organising events with associates in nightclubs - Still socialising with James
Jeff	- Providing IT services to family and friends - Business was trading for a month before coming to BIC	- Spoke to advisors and changed pricing and marketing strategy - Spoke to university and Students Union staff and promoted the business to them - Set up a stall at the Students Union - Got business from BIC tenants and their friends - Used library for books - Recruited a former classmate as a business partner (Paul) after one year in BIC - Started another business with Paul three months after being in BIC - Viewed city centre address useful	Staying on for another year
Paul	- Was studying Masters in Enterprise in Environmental Innovation when got to know BIC - Wanted to become an entrepreneur and applied for BIC six months before graduation - Moved into BIC after graduation	- Preparing for the online food specialist business - The website for the business was near completion - Became Jeff's business partner for the IT services business - Started to develop a third business idea with Jeff and a friend - When to classes to gain more business knowledge - Felt that BIC tenants should be able to go to any classes at UKU - Used the library and Careers Advice at UKU - BIC helped the business to look more professional - Good facilities - Had a business mentor	Staying on for another year
Peter	- Was in the process of re-establishing the business before coming to BIC	- Had problems because the supplier was merged with another company - Working full-time while changing to a different supplier - Due to the problems Peter encountered, BIC Management gave the first 12 months for free - Viewed BIC as a professional place to meet clients and suppliers	Intended to stay for another year

Respondent	Pre-BIC	During BIC	Post-BIC
Emma	- Was made redundant after 17 years - Had a business idea two years before being redundant - Worked part-time while developing the idea - Had the website set up when coming into BIC	- Been to some networking events at BIC and benefited from them, but felt that they were not specialised enough for her business 's contacts - In the beginning, used BIC everyday when was not working part-time - Felt the city centre address made the business more credible - Although did not have much to do with other tenants, found BIC an inspirational place - Had a business advisor and was not very useful - Had an MBA student to do a press pack	As the rent was more expensive for 2nd year tenants, would work from home after the first 12 months and save the money.
James	- Not happy as a landlord and wanted to set up own business - Had the idea before coming to BIC - Chose BIC because it did not take a stake of the business	- Liked the social interaction in BIC - Had Phil to set up the website - Felt that BIC added credibility to the business - Liked the facilities in BIC but would have liked longer opening hours	Staying on for another year
Kath	- Already had a very successful business, with 10 childcare sites - Had the business idea for 3, 4 years but didn't have time to develop until coming to BIC - When to an entrepreneurial talk at UKU and got to know BIC. Wanted to start another business and thought of the idea that she had for a few years	- Use BIC as a separate place for a different business so that Kath could concrete on this business and not being disturbed - Spent a lot of time on researching the idea and the competitors - Developing an online system for the business - Asked the tenants to develop the system and the website. A former tenant's company then did it. - Although being a very experienced and successful business woman, Kath liked the entrepreneurial environment of BIC and the honest opinions she received - Another idea came up during time in BIC - Used a business advisor but not very helpful - Tony helped with marketing	Staying on for another year
Laura	- Worked in recruitment for 20 years before being redundant - Doing ad hoc training - Doing training for NES at UKU and got to know BIC - Business was trading for 6 months before BIC	- Used BIC as an office for preparation, planning and training courses - Used BIC to network to gain new businesses - Ran free courses for graduates and tried to recruit them for clients - Developing new clients and projects while working on current ones - Liked the informal relationship in BIC - Had been helped and was helping other tenants for their businesses - Viewed exchanging ideas in BIC important - Liked city centre location and facilities for running training courses - Used a business advisor and found it useful	Staying on for another year

Respondent	Pre-BIC	During BIC	Post-BIC
Alex	- Had an idea for online social maps - Had been to a different university incubator but left (not many activities and wanted a percentage of the business)	- Needed investment in the business to develop technology for the idea - Didn't have enough money and thought of a different idea to make a living - After six months in BIC, put the first idea on hold - After six months in BIC, started the second business, making snapshots in nightclubs - Had a tenant working for the second business, admin and outreach - Enjoyed having conversations and debates with other tenants, seeing it as a source of ideas - Liked the office environment but would have preferred 24h access - Spoke to Tony as a business advisor and fellow tenant about ideas - Spoke to the research office at UKU but got an informal complaint to the BIC manager	Staying on for another year and planning to go to Germany to develop business ideas
Kelly	- Got redundant and wanted to start own business - Just completed NES and drew up a business plan - NES offered graduates free first year rent at BIC, so took the offer	- Worked part-time and was studying a Masters degree - Worked for Tony's business on PR - Tony introduced a client - Doing a graphic design project - Was very excited about the business but had to slow down due to Masters dissertation and part-time work - Just started working on the business again after completing the dissertation - Viewed BIC as a supportive learning environment - Had a business mentor but was not helpful	Would pay for the basic rent for BIC for second year, keeping the address and network. But since working for UCU part-time, no other facilities were needed.
Mark	- Had been providing personal fitness training on an ad-hoc basis for 8 years - Intended to have a separate business in the corporate market, 8 months before moving to BIC	- Changed business strategy and networked more purposefully with HR managers in large organisations - Felt BIC made good PR for tenant companies - Had meetings with other SMEs at BIC and liked that the venue was 'free' - Mentioned BIC manager was very helpful - Used the library a lot and was helpful when writing training courses	Intended to stay for another year
Karen	- Worked for a production company in media as a journalist and producer - Just set up own company	- Purchased necessary equipment for making documentaries - Tendering for projects - Producing radio programmes - Making podcasts for a Scottish university - Used BIC to have a business address, to meet clients and interviewees, to structure a working day, and to have admin support (sending and receiving letters etc.) - Informally networked with other tenants and to share experience of starting up	Intended to stay for another year

Appendix XIII - Narratives of case studies

Case No.1: Helen

Opportunity: environmental sustainability management (ESM)

Before studying for her Masters degree in Environmental Management and Sustainable Development, Helen had been an HR manager and a nurse. While completing her degree, Helen identified an opportunity providing consultancy in environment sustainability management and people development. She came to BIC with a very broad idea about running her own business in the field of sustainability. Feeling the need to work away from the study room at home, Helen came to BIC for a more structured working environment and to share the experience of setting up a business with other incubatees.

She mentioned three impacts of BIC. These were: to refine ideas with other incubatees; her business mentor and adviser; and to learn how other people set up and grow their businesses. While in BIC, Helen learnt that just having an idea was not enough, she also needed to learn how to market her ideas. Helen also mentioned that she would not have carried on after 3 or 4 months without being in BIC. She found that it was very useful to be with other nascent entrepreneurs and to share their experiences. As part of the process, she met a fellow tenant and they prepared some tenders together. This provided Helen with an opportunity to learn what was involved in the process of tendering for contracts in environmental sustainability management.

Case No.2: Tim

Opportunity: art gallery (AG)

Had been work seven years as a retail buyer and completed an MBA degree, Tim spotted a gap in the market for paintings. He intended to bring original middle market affordable art to customers by introducing more customer-focused art pieces to the market. He came to BIC with the aims of having a place to work, storing artwork and networking with other entrepreneurs. Rather than working form home, Tim also needed an office environment to refine his business plan. As Tim already had a business plan before entering BIC, he met other incubatees in BIC who helped him with branding. He also recruited artists through BIC's networking events and from BIC's incubatees directly. Tim used BIC as an exhibition premise for artwork while looking for more suitable retail space. He also used these exhibitions to test his ideas. Being quite research focused, Tim used different ways to refine his business idea, such as trade magazines, publications, feedback from other incubatees, potential buyers and business advisers from BIC. The interview took place two weeks before Tim's own art gallery opened, by when he fledged from BIC.

Case No.3: Andy

Opportunity: web development (WD)

This case is presented in Section 6.3.1

Case No.4: Jane

Opportunity: sports management (SM)

This case is presented in Section 6.3.2

Case No.5: Ian

Opportunity I: social networking events (SNE / Ian$_1$)

Opportunity II: hypnotherapy and wellbeing (HW / Ian$_2$)

This case is presented in Section 6.3.3

Case No.6: Tony

Opportunity: life coaching and business advice (LCBA)

This case is presented in Section 6.3.4

Case No.7: Nick

Opportunity: web design and development (WDD)

Nick had his own web design company and also formed partnership with two other associates who are not tenants of BIC. After having had the web design businesses for over three years, Nick intended to change the business model to a more sustainable one for the business he ran with his partners. He chose BIC where he could experiment the new ideas. Nick liked working from BIC and benefited from having conversations with other tenants to reflect on his own ideas. He found it helpful to be able to work away from home when planning for the new business idea. Although he was not happy about the way how the management of BIC made changes to the Terms and Conditions of the tenants agreement, he suggested that other tenants should have a more regular use of the space, rather than just using it for meetings. Having had a couple of meetings with business advisers and mentors, Nick felt that it was not particular useful for him because it is too general. When the interview was conducted, Nick had already been a second-year tenant and had already started to implement his new

ideas though he thought that the marketing strategy could have been launched earlier than planned.

Case No.8: Neil

Opportunity: culture development training and consultancy (CDTC)

Neil had worked in the knowledge-based consultancy and had experience in raising seed capital. He mentioned that he had been delivering leadership training programmes and worked in PR and marketing and understood finance at an advanced level before came to BIC and to pursue his own business idea, which is organisation culture and communication consultancy. As he explained that he was aboard for 12 years and only back to the country for 2, 3 years, Neil was very keen on networking and getting to know everyone while coming to BIC. He believed that it would be beneficial for him to network.

Neil was very passionate about building up a community in BIC and together with Nick he was forming a BIC association. Neil recognised the heterogeneous nature of the tenants and understood that they were all at different stages of their businesses. Therefore he believed that productive networking would be beneficial for all the incubatees. Neil also found that meeting other entrepreneurs helped him to reflect on his business ideas. Having spotted problems of current training programmes available in the market, Neil was very confident about his own ideas. He was studying a PhD degree at UKU and he mentioned that the PhD studies was a spin-off of his business ideas. While in BIC Nick formed a partnership with Christine (a fellow tenant of BIC) for his communication consultancy. Nick and his partner had gained two clients since he started the business, however they had not decided their strategy in which

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market to target on. Keen on building a supportive community in BIC, Neil had already decided to stay another year in BIC.

Case No.9: Phil

Opportunity: online job searching and management (OJSM)

Phil wanted to own his business since his childhood. While he was studying a business degree, he and his classmates won a few enterprise awards. He was also Inspired by a classmate at the university, and started his first online hat store while studying. After made some money from the business, Phil sold it and moved onto his second business, which was web design. As the business grew, Phil also subcontracted tasks to specialist who worked on some technical parts of the projects. Two years before entering BIC, Phil started a nightclub events business with two business partners. When moving into BIC, Phil registered his web design company. However his main purpose of being in BIC was to develop a new business idea he had which was about online job searching and management. When Phil was interviewed, he had left BIC for seven months and moved into an office, where one of his business partners already had. That was a tailoring business in the city centre, which Phil invested in.

Phil really liked networking with other tenants when he was in BIC. He found it useful for him to reflect his own ideas. He often mentioned Nick and Mark and despite the fact he had some business partners, he still met with these two sometimes and discussed business ideas. Phil met some business advisors to help with his ideas but found that it was not very helpful.

Case No.10: Jeff

Opportunity I: IT support (ITS)

Opportunity II: digital publishing (DP/ Jeff-Paul, together with Paul, see case no.11)

Jeff had the ideas of running his own business in IT support when he was studying a Masters degree. As part of his dissertation, he drew up a business plan in IT support for students. Jeff had some experience in providing IT support to family and friends and he spotted a gap in the market where the university did not provide this service. One month before he moved into BIC, Jeff started to run his business. Jeff viewed having an city centre address and a linkage to the University very important to the growth of his business, where a few university organisations such as the Students' Union have endorsed and gave support to his business. Jeff also benefited from the business advisers from BIC, who helped him to refine the marketing strategy.

While in BIC, Jeff developed a digital publishing (DP) idea further with two other BIC tenants who were also classmates in his Maters course. All of them wrote easy-to-use IT manuals for students, which were sold only online. Having two businesses running the same time and a part-time job, Jeff viewed ITS as his core business. Because of all the benefits Jeff gained from BIC, he was already a second year tenant when the interview was conducted. His business partner for ITS was also one of the partners for DP, which is presented in case no. 11.

Case No.11: Paul

Opportunity I: online food specialist (OFS)

Opportunity II: digital publishing (DP/ Jeff-Paul, together with Jeff, see case no.10)

This case is presented in Section 6.3.5

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Case No.12: Peter

Opportunity: mobile phone provider for businesses (MPPB)

Peter was making money when he was a teenager, he made and sold computers to friends. Later in his life, he worked in a mobile phone store where he gained knowledge of sales and administration. After two years, he went to work for a friend in the same industry using business-to-business model. About two years before entering BIC, Peter started his own business in the mobile phone sector. He got to know about BIC on radio and thought that he would benefit from a city centre address and meeting rooms. Peter's business was delayed as the company who subcontracted his business went bankrupt. He was working full-time while waiting to get all the paperwork ready and to get subcontracted from a mobile phone provider. Peter had just started his business again when he was interviewed. He saw a lot of benefits of being with other people who started their businesses. He also viewed a professional business environment very importantly where he could meet clients. He had decided to stay in BIC for another year and the management had agreed to offer him a space free-of-charge, due to the problems Peter had from his business.

Case No.13: Emma

Opportunity: approved aeroplane parts database (AAPD)

Emma had worked as a buyer for airlines for 17 years before came to BIC to start up her own business. As a user she spotted problems with databases for buyers sourcing for aeroplane parts and had the idea of a more integrated and comprehensive system a few years before coming to BIC. When Emma got redundant by her employer and got some compensation she decided to start up her business in BIC. To generate more income to support the family, Emma also

worked part-time for an aviation company and was doing some freelance work in the same industry. To be able to concentrate on developing her own business idea, Emma chose to work as an administrator for her part-time job. She also got a partner for the business, who worked on marketing strategy. Emma was about to formally launch her business when the interview was conducted. She provided the service for free to some clients so that she could try out the system and made it credible before she introduced the company to one of largest expo in her industry. Through the connection of BIC, She also had an MBA student worked on her press pack ready for the expo. Emma mentioned that she did not attend many networking events in BIC as she worked on Wednesdays (when the networking events were held) and that the people who attended the events were not suitable for her business, which was very specifically in the aviation sector. However she still benefitted from networking as she found her bookkeeper from one of the events. She also found the city centre address useful as it helped the business to appear more professional. Emma decided to move on from BIC, as the rent for a second year tenant was three times of the first year's. She was willing to pay for a smaller fee so that she could keep the city centre address but she would prefer to spend money on a system upgrade for her website, which was very important at that stage.

Case No.14: James

Opportunity: online letting and estate agent (OLEA)

James's idea initially came about a year before moving to BIC, he saw a business for sale which was a property website. He spotted a few problems of the website and thought that he could run his own online letting and estate agent. Having been a landlord before and dealt with letting agencies, James knew the problems he had as a customer and was confident that he could provide a service that

would be much more customer focused and more cost effective. James had worked a large corporations and gained insights of how to be more customer oriented. He also noticed that many large companies were moving businesses online and thought that an online letting agent would be a good idea to pursue. James started to prepare for trading four months before moving into BIC. During that time he was raising funds, sorting out the website and conducting research for the business. When the interview was conducted, OLEA has had an investor and a part-time employee. While having day-to-day tasks to manage including dealing with landlords, James was also busy developing the strategy to grow his business further. James had a former incubatee who designed his website. He liked being in BIC as it separated private and working life. Although his had very specific ideas of his business, he still found it useful being with other entrepreneurs and exchanging ideas. James mentioned that he chose BIC also because they did not ask for an equity stake as an exchange for the space. He found that an office environment gave his business more credibility when meeting clients. James was very keen on growing his business and he actively looked for advice from different sources, such as different universities and high growth programmes. Although James would have preferred longer opening hours in BIC, he intended to stay on in BIC for another year.

Case No.15: Kath

Opportunity: childcare vouchers management (CVM)

This case is presented in Section 6.3.6

Case No.16: Laura

Opportunity: training services for recruitment agencies (TSRA)

After worked as an Operations and Training Director for over 20 years, Laura was made redundant by her employer. After that a former colleague of her, who started own business in the recruitment industry, asked her to provide training for the employees. Laura spotted as an opportunity for her to start her own business in providing training services for recruitment agencies. Laura provided some training sessions for entrepreneurs who were on the NES, which was associated with the research centre. She then got to know about BIC and applied to use it to develop her own business. After six months being in BIC, Laura's business started to trade. Laura used BIC in various ways: running training courses, doing preparing work and business planning. She also found the city centre address useful for her business. Having had experience in sales, Laura was aware that she needed to keep the current clients while the same looking for new ones. After speaking to a business advisor from BIC, she decided to set up a website to promote her business to new potential clients. The website was developed by a company in BIC. Laura enjoyed the informal friendship in BIC, where tenants exchange ideas and supporting each other. When Laura was submitting some tenders, she had other incubatees giving feedback on her work. With her expertise and experience, she also helped other recruitment companies that were based in BIC. Liked the city centre location, the resources and networks available from BIC, Laura was already in her second year of incubation when being interviewed.

Case No.17: Alex

Opportunity I: online social maps (OSM / Alex$_1$)

Opportunity II: nightclub snapshots (NS / Alex$_2$)

When Alex had a business idea of developing an online social map, he looked around where he could start the business. He first went to a different university's incubator. After he was successful at the selection interview, he started his incubation there. However he was not happy that the incubator did not have many activities and that he had to give a percentage of the company to the incubator. He resigned from that incubator and moved to BIC. Alex's idea was initially inspired by a brief presentation at a conference. Using the examples of Google, Face and Twitter, He mentioned that he did not believe that it was important to find out whether there was a market need for his service. Alex had been looking for a technical team to work on the online social map idea and he was also thinking of obtaining the technical knowledge himself. Six months after having the idea and looking for investment, Alex put it on hold. He had decided to move to Berlin in five months time, from where he would build up a team and work solely on developing this idea.

Alex was always fond of photography and he bought an antique Polaroid online. To justify for the money he spent on the equipment, he came up an idea of taking photos for customers in nightclubs. He started the snapshot business when he decided to put the online map idea on hold. The photography business is profitable and as a result, Alex had employed a fellow tenant to work on the business part-time. Alex enjoyed being in an open-plan environment, where he could have a lot of interactions with fellow incubatees. He also liked to debate with other tenants, from which, he was thinking of a third business idea, which was about online publishing. He liked to have a place to go to work and wished BIC to have longer opening hours. Although Alex is moving to Berlin in five

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months' time to develop the online social maps idea, he had decided to stay on in BIC for another year. He liked to have connections with the tenants in BIC and he found that for a bit more extra he could store his equipment in BIC, which was good for his business.

Case No.18: Kelly

Opportunity: marketing, PR and graphic design (MPRGD)

Kelly had worked in media for five years before she was made redundant. She was happy that she had a chance to pursue her own business ideas in marketing. Ten years before Kelly had the business idea, she had tried to get a job in marketing but was not successful at that time. Had completed the NES programme, Kelly was studying a Masters degree in marketing when coming to BIC. When drawing up the business plan, Kelly thought she needed something unique about her marketing business. As a black consumer, she found that many small businesses run by black people were not very good at marketing and she decided to shape her business especially for this minority. Kelly did not have much time to develop her ideas as she was at the final stage of her postgraduate studies and she was working part-time for the university. Tony brought the first client to Kelly, who needed someone to help with PR. Kelly used her skills in graphic design for the company. While not having much work experience in marketing, Kelly has learnt marketing from books, other people's stories and from observing Tony's work in BIC. Kelly also was reading journals and magazines to keep up with the latest trends in marketing. Being a graduate of the NES programme, Kelly was offer a one year free rental from BIC and she took this opportunity to set up her business in BIC. Kelly liked the professional working environment in BIC and it felt that it's a good place to meet her clients. More importantly, she found that coming to BIC motivated her working on the idea.

She really liked the interactions she had in BIC, compared working from home. She found very useful when she could learn from other tenants' experience. However Kelly felt that some procedures could be more formal in BIC, such as induction and business advisor services.

Case No.19: Mark

Opportunity: corporate wellbeing consultancy (CWC)

Left school at the age of 16, Mark started his job in the construction sector as a labourer. He used his free time to study construction engineering and set up his own construction consultancy company about eight years ago. Mark had some health issues when he was a teenager. He started running and recovered from the problems. His friends then asked him to train them to run. Mark enjoyed being a personal trainer and through word-of-mouth, Mark worked as a personal trainer on an ad hoc basis when he was working as a construction consultant. About four years ago, Mark made profit from selling a flat he owned in London and he decided to run his own construction company. However he once had an accident and his wife asked him to leave the construction industry. At that time Mark had been a personal trainer for about four year.

Mark then set up his personal training company and it had been very successful. Mark took the business very personally and he only employed the best trainers he could find, even if it meant turning down customers due to not having enough trainers. At the same time, Mark was very keen on getting all the qualifications that are related to training and wellbeing. He believed that this helped him selecting the best trainers and also enabled him to talk professionally to his potential clients in the corporate environment. After two years running his personal training business, Mark started to consider offering wellbeing

consultancy to large organisations. While being very personal about his personal training business, Mark would like to make a lot of money from large corporate organisations. About one year after Mark had the corporate wellbeing idea, Mark joined BIC. After attending many networking events and hoping to get HR directors' contacts, Mark realised that he needed a better way of getting into the corporate world. He then became a member of the CIPD (Chartered Institute of Personnel and Development). He used BIC as a venue to organise some local CIPD branch meetings and got to know local HR directors. When the interview was conducted, Mark mentioned that he had received a wellness audit contract from an organisation, which had over 4,500 staff.

Mark had one session with a business mentor from the High Growth Programme, associated with the research centre. Mark found it useful in a way that the mentor helped him to structure his time. Mark really liked the community feel of BIC, where other entrepreneurs gave him honest feedback on his ideas. He also used tenants for his informal market research. Mark found that BIC made his business more credible because of the professional meeting places and he used it to organise the regular CIPD meetings. The venue was free to use, which was very good for him and his attendees who are also SME owners. He also mentioned that BIC offered many PR opportunities for businesses. Being a tenant also enable his access to the library which he used a lot when writing up training programmes for his trainers. While only being in BIC for 9 months, Mark has already decided to stay on in BIC for another year.

Case No.20: Karen

Opportunity: radio documentary productions (RDP)

Karen had worked as a middle-level manager for a large insurance company before moving to a production company with 5 employees. For both posts she felt that she would like to have more control over her roles and that she would like to set up her own company. Karen studied Journalism at a Masters level during her free time. She considered a radio production company as a low risk route to start up. Before coming to BIC, Karen already purchased all the equipment needed for the production but did not have any clients at that time. Karen found that BIC helped to structure her time. She also used it to meet clients or subject matter, as it was much more professional than meeting people at home or in a café. Karen also liked that the administrator at BIC did their posts. Although having had knowledge and experience in documentary productions, Karen did not have any experience in setting up her own business. She found being with other people who were also in the process of starting up was very important. Although Karen was looking for another premise for professional documentary production, she still decided to be in BIC for another year.

Appendix XIV – Distribution of all regular users of BIC

All regular users are potential interviewees. Categorisation uses UK SIC 2007 Standard Industrial Classification
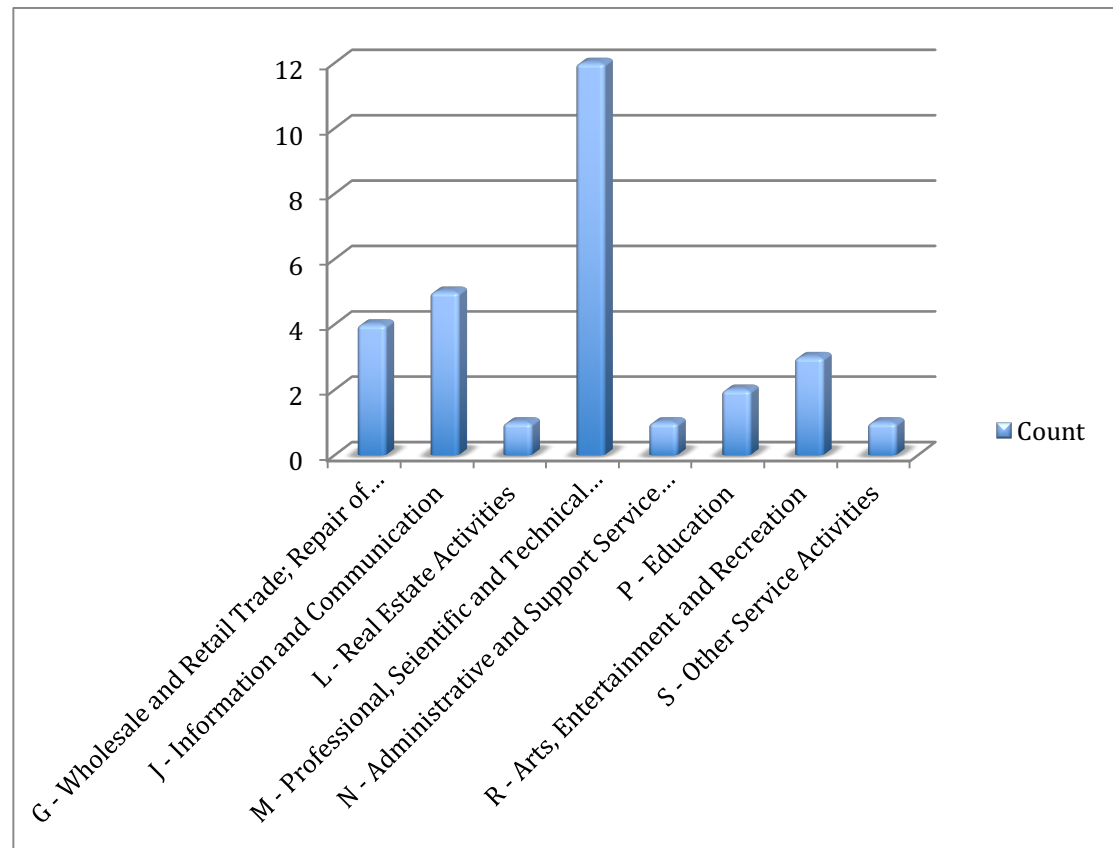
Appendix XV – Dimensions of prior knowledge and personal interests

Respondent	Opportunity	Prior Knowledge of ...			Personal Interests
		Markets	**Customer Problems**	**Means to Serve Markets**	
Helen	Environmental sustainability management	1)Masters degree in Environmental Management and Sustainable Development 2)Freelance work for local airport in climate change			
Tim	Art gallery	Worked seven years as a retail buyer		A friend of Tim had a gallery. Tim knows that having artwork appealing to the customers is important.	
Andy	Web development	1)Studied Design & Technology 2)Worked as a web developer			
Jane	Sports management	1) Organising sports events as a social activity 2) Worked as a sports development officer	In the UK there were very few sports for women to play as a fitness and fun social activity after work.	A friend of Jane targeted at young professionals in a different city made a very good profit by organising sports events.	
Ian$_1$	Social networking events		Experience of being a customer at many networking events, believed that many networking events were not good.		
Ian$_2$	Hypnotherapy & wellbeing				'I've always been interested in hypnosis and NRP which is a like a form of hypnosis and I was reading about it and I was learning about it.'

Respondent	Opportunity	Prior Knowledge of ...			Personal Interests
		Markets	**Customer Problems**	**Means to Serve Markets**	
Tony	life coaching and business advice	1) Studied psychology when doing a Law degree. 2) Experience in doing marketing. 3)Had an events and marketing company with friends.	Having had experience in being a customer for marketing advice and knew that it could be improved.		Interested in psychology, communications, and life coaching.
Nick	Web design and development	1)First degree in Electronic Imagining in Media Communications. 2)Teaching web design in college. 3)Experience in building websites.			
Neil	Culture development training and consultancy	1)First degree in Sociology and Politics 2)Studying a PhD, linking motivation, change, psychology and sociology. 3)Experience in providing consultancy in knowledge-based and operational management	'For many years I have seen leadership and training programmes and I have delivered many of them in many kinds of organisations and they seem to operate in a language that people don't understand. They operate in the made-up language of academic organisational development and they talk about synergies and leverage and teamwork, they speak in analogies of sport to people who don't play sport...'		'I have always been interested in sociology and psychology, those have always been my primary interests.'
Phil	Online job searching and management	1) First degree in E-Business. 2) Had an online shop on ebay. 3) Was running a web-design business, specialising in blog design			
Jeff	IT support	1)First degree in Computing Science and Masters degree in Enterprise 2)Worked part-time in a mass-market computer superstore 3)Providing IT services to family and friends		Practical knowledge of IT support gained from working for family and friends	

Respondent	Opportunity	Prior Knowledge of ...			Personal Interests
		Markets	**Customer Problems**	**Means to Serve Markets**	
Jeff	Digital publishing, Jeff-Paul		Experience of being a reader for computer manuals.	'When you are at university the text books that you are given specifically on things like how to use software programmes on your computer, they are not written in the way that students would like because if you are a busy student working hard on your research and you have to learn how to use a new programme, the books tend to tell you everything there is to know about that programme, so they'll be that thick and loads and loads of writing and the way it is written is almost like they want to teach you everything there is to know about it and the only reason that the student is using that computer programme is because they have got something to do and that is all they care about, getting their work done.'	
Paul	Online food specialist	First degree in Geography and Masters degree in Enterprise in Environmental Innovation			To protect the environment.
Peter	Mobile phone provider for businesses	1) Buying and selling mobile phones when 13 years old. 2)Experience in sales and administration in a large mobile phone retailing chain aiming at end users. 3)Worked for a friend who sold mobile phones to companies.			

Respondent	Opportunity	Prior Knowledge of …			Personal Interests
		Markets	**Customer Problems**	**Means to Serve Markets**	
Emma	Approved aeroplane parts database	Having been a buyer, purchasing parts for airlines.	Suppliers often did not provide enough information on whether the parts had been approved and the approval process took a long time for aircraft parts.		
James	Online letting and estate agent		Having been a landlord, understood problems of being a customer for an estate agency.		
Kath	Childcare vouchers management	Had childcare business and was receiving childcare vouchers.	As a childcare voucher recipient, Kath experienced lots of difficulties of using vouchers from different sources and systems.		
Laura	Training services for recruitment agencies	1) Worked in the recruitment industry. 2) Worked as an Operations and Training Director. 3) Experience in developing training and development programmes.			
Alex$_1$	Online social maps				1)Interested in blending art with technology. 2)Interested in maps.
Alex$_2$	Nightclub snapshots				Obsessed with an antique camera.

Respondent	Opportunity	Prior Knowledge of …			Personal Interests
		Markets	**Customer Problems**	**Means to Serve Markets**	
Kelly	Marketing, PR and graphic design	1)First degree in Fashion Promotion and masters in Marketing. 2) Worked as an office manager and was also involved in marketing for a magazine.			Interested in marketing.
Mark	Corporate wellbeing consultancy	Experience in providing personal fitness training on an ad-hoc basis for 8 years.			
Karen	Radio documentary productions	1)Journalist. 2)Radio producer. 3)Worked for a production company in media. 4)Masters degree in Journalism. 5)Experience in making radio programmes and doing research.			