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Can psychometric testing be used to explain, predict and measure behavioural competences and the funding resource orchestration of the entrepreneur?

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Thesis Summary

Financing is a critical entrepreneurial activity (Shane et al. 2003) and within the study of entrepreneurship, behaviour has been identified as an area requiring further exploration (Bird et al. 2012). Since 2008 supply side conditions for SMEs have been severe and increasingly entrepreneurs have to bundle or 'orchestrate' funding from a variety of sources in order to successfully finance the firm (Wright and Stigliani 2013: p.15).

This longitudinal study uses psychometric testing to measure the behavioural competences of a panel of sixty entrepreneurs in the Creative Industries sector. Interviews were conducted over a 3 year period to identify finance finding behaviour. The research takes a pragmatic realism perspective to examine process and the different behavioural competences of entrepreneurs. The predictive qualities of this behaviour are explored in a funding context.

The research confirmed a strong behavioural characteristic as validated through interviews and psychometric testing, was an orientation towards engagement and working with other organisations. In a funding context, this manifested itself in entrepreneurs using networks, seeking advice and sharing equity to fund growth. These co-operative, collaborative characteristics are different to the classic image of the entrepreneur as a risk-taker or extrovert. Leadership and achievement orientation were amongst the lowest scores.

Three distinctive groups were identified and also shown by subsequent analysis to be a positive contribution to how entrepreneurial behavioural competences can be considered. Belonging to one of these three clusters is a strong predictive indicator of entrepreneurial behaviour – in this context, how entrepreneurs access finance. These Clusters were also proven to have different characteristics in relation to funding outcomes.

The study seeks to make a contribution through the development of a methodology for entrepreneurs, policy makers and financial institutions to identify competencies in finding finance and overcome problems in information asymmetry.

Key Words or Phrases: Access to Finance, Analytic Induction, Behaviour, Clusters, Competencies, Entrepreneur, Longitudinal, Mixed Methodology, Personality, Pragmatic Realism, Psychometric Testing, Regression.

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Chapter 1 - Introduction

This chapter seeks to explain the rationale of this study and why individual entrepreneurs' behavioural competences and access to finance is an important area for further research, and sets out some of the questions that remain unanswered in this field. An outline of the methodology used and the aim of the study are also introduced.

1.1 Macro Economic Environment and Access to Finance for SME

Since the collapse of Lehman Brothers in September 2008 and the subsequent tightening of credit conditions, various Government initiatives have tried to improve the flow of funds to small firms. The Funding for Lending scheme was introduced in 2012 aimed at providing small business loans at a 1% discount to banks' normal rates. This was given further funding in the 2013 Budget which also announced the introduction of a Business Bank. Other initiatives from Government include a bond market for small businesses and a co-investment fund to stimulate non-bank lending. Yet still today, supply side conditions for capital raising for the entrepreneur continue to be severe. Lending to business has reduced every year since 2009 and the total stock of lending still remained lower in 2014 Q3 than at the peak of Q1 2007 (BOE 2014).

This dramatic reduction in bank lending is leading to new forms of finance emerging. Social Lending, by which people side-step banks to lend and borrow from each other via the internet, is taking off around the world. Funding Circle, Thincats.com, and Market Invoice represent new Peer-to-Peer lending models now prevalent in the UK. Crowdfunding, where typically finance is given by "funders' to project "founders' in exchange for anything from an apportionment of company equity to nothing at all, in order to back a particular project (Schwienbacher and Larralde 2010), is also an example of this. The alternative finance market in the UK has been estimated at £1.74 billion (NESTA, 2014).

There are 1.58 million firms employing more than 1 and less than 250 employees in the UK (ONS Business Structure Database 2013). This includes firms above the VAT threshold, paying employees via PAYE and account for 99.6% of the population of all firms. Defined as Small and Medium Sized Enterprises (SMEs), these are a vital part of the UK economy and a dynamic, growing SME sector is likely to contribute significantly to future economic growth. SMEs account for over half of private sector employment and nearly half of all private sector turnovers (BIS 2012). Small businesses have been identified as being responsible for 55% of the innovations and 95% of all “radical innovations” (Robbins et al. 2000).

Both business start-ups and SMEs are important to UK economic growth. A NESTA study in 2009 noted that a small minority of high growth firms boost the economy and drive innovation. These high growth firms are defined by the OECD as those with ten or more employees that have recorded average annual growth rates of 20% or more (in employment or sales) over a three-year period. In terms of employment growth, there were just under 11,500 such firms in the UK in 2005, representing 6% of all firms with ten or more employees (above average compared to other OECD countries).

Most notably, these businesses have been vital to the success of the computer, biotechnology and other high technology industries. As a result of this, increasing prominence has been given to the role of small and medium-sized enterprises in the UK economy by academic researchers, following a period of decline in the 1950s and 1960s (Stanworth and Purdy 2003; Blackburn et al. 2013).

The NESTA Vital Growth Report (NESTA 2011) following on from the NESTA Vital 6% Report (2009) illustrated the continued importance of the growth of small firms to the UK economy. Despite the deepest recession in eighty years, many companies still experienced high growth. In the period 2007 to 2010, the number and share of UK businesses growing at over 20% per year remained broadly similar to that in the periods 2002 to 2005 and 2005 to 2008/9. Growing firms, however, are in a more vulnerable position, as they are likely to be “assessed as having a lower credit rating by the kind of systems banks use to make commercial lending decisions. Using the same criteria (security, for example) banks may fail to distinguish between high growth firms with potential and other types of businesses” (NESTA, 2011: p1).

Small firms therefore remain vital to economic growth in the UK. Fraser et al. (2013: p.4) underlined the importance of SMEs to the economy and that, “the attendant concern is that the prevailing funding gap may be limiting firm growth in the private sector”. Given supply side difficulties in the flow of funds to small firms, conditions for entrepreneurs to raise new capital remain difficult, exacerbated by imperfect or asymmetric information. This in turn leads to the growth of discouraged borrowers, those firms which would like to borrow but which do not apply for bank finance because they either felt they would be turned down or they had made informal enquiries and as a result felt the bank were reluctant to lend (Frazer, 2014).

This research study takes an alternative approach to supply side conditions and examines the demand side of market failure. Given the very different landscape for access to finance therefore, what can the individual entrepreneur ‘do’ in order to successfully fund the firm (Mueller et al. 2012)?

In exploring this question, this research seeks to make a contribution in a number of key areas. Firstly, it will allow for a better understanding of the differences between entrepreneurs and how this impacts behaviour. Secondly, the predictive qualities of this behaviour will be explored in a funding context – is it feasible to identify in advance how individual entrepreneurs will behave in funding context? Thirdly, the study will identify ‘real world stories’ of entrepreneurs and compare these with measurable scores. Fourthly, the study seeks to identify what entrepreneurs ‘do’ in order to actually fund the firm. Finally, the study aims to develop a methodology for entrepreneurs, policy makers and financial institutions to support the process of funding the small firm.

Therefore this study explores the differences in behavioural competences of individual entrepreneurs and how this impacts applications for finance. Wright and Stigliani (2013: p.15) described this as “resource orchestration… after all ventures do not generate entrepreneurial growth – entrepreneurs do.”

The study also seeks to achieve this through meeting the challenges of a longitudinal study, over a three year period of data collection.

1.2 Information Asymmetry and SMEs

It is difficult for financial institutions or investors to assess the risk of a small firm, and together with the often limited security these firms have to offer, this means third parties may be reluctant to invest (Harrison et al. 2004; Rutherford et al. 2001). This information asymmetry means that small firms are more vulnerable to adverse selection costs because entrepreneurs possess more information about their firm, both positive and negative, than potential outside investors and other stakeholders (Sood 2003). The lack of information about a borrower results in a bank, for example, being unable to offer a contract that reflects specific risk. Increasing the price (the interest rate) may also affect the nature of the transaction and those prepared to pay a higher price may actually increase the risk for the bank. Adverse selection therefore impedes markets in the allocation of credit by potentially attracting high “riskier borrowers” (NESTA 2012). The uncertain nature of entrepreneurial firms, particularly in their early years, also makes it difficult for investors and lenders to evaluate their risk and potential. Frequently, investors and lenders lack sufficient information to distinguish valuable, high-quality projects from low-value, low-quality projects. Moral hazard therefore limits the reliability of information directly transferred from entrepreneurs, since substantial rewards may exist for overstating the positive and obscuring the negative; thus information from entrepreneurs cannot be relied on by investors and lenders (Akerlof 1970).

The reality of this, for some good quality firms, is that they are inhibited from raising finance. Information asymmetry takes on greater importance for young SMEs, since they have not yet acquired sufficient level of reputation (Diamond 1989), credibility, and tangible business assets (Berger and Udell 1998) to obtain credit on favourable terms. Thus, for many small businesses, a lack of available cash flow or external finance can result in the firm being unable to adequately fund operations and pursue market opportunities (Baum and Locke 2004; Carter and Van Auken 2005). This is supported by empirical evidence that firms with higher availability of external finance (high leverage firms) grow much faster than low leverage firms (Becchetti and Trovato 2002).

A number of observable firm characteristics, including historical earnings, size, market share and total assets, for instance, are used by investors and lenders to evaluate the firm. In addition, it is likely that entrepreneurs in the firm will attempt to send signals to potential investors to indicate their belief in the value of the firm (Spence 1973; Chaganti et al. 1995).

Prospective investors often find it very hard to assess the viability of new ventures because they have no track record, the uncertainty of the technology or products is high and information asymmetry between the prospective investors and the entrepreneurs exists. This is particularly the case if the firms operate in high-tech industries (Baum and Silverman 2004; Venkataraman 1997). Hence, prospective investors are usually very hesitant to make an investment (Bhide and Stevenson 1992).

The approach taken in this study is to therefore focus on a group of entrepreneurs operating in the same industry with similar growth ambitions. A psychometric testing tool developed by Aston Business Assessments (ABA 2011) is used in order to provide additional data on each entrepreneur. 'Trait' (Aston Business Assessments 2011) is a personality inventory assessment which measures thirteen dimensions of personality and nine behavioural competences. This type of analysis could be used to assist policy makers or financial institutions in assessing the competency profile of entrepreneurs and overcoming difficulties associated with information asymmetry.

1.3 Focus on the Entrepreneur

The definition of the entrepreneur has developed since Schumpeter (1934) used the description of an innovator introducing new combinations of resources. Shapero and Sokol (1982) developed this and defined the entrepreneur as a business owner who takes initiative, organises social and economic mechanisms and accepts the risk of failure. Cole (1959) noted the profit motive and described an individual or group of individuals who initiate, maintain or expand a profit-orientated business unit for production or distribution of economic goods and services. Brockhaus (1980) described the entrepreneur as a major owner and manager of a business venture. In the context of this study, it is also important to distinguish between an entrepreneur and a small business owner. Carland et al. (1984: p.358) attempted to define this difference:

> *"An entrepreneur is an individual who establishes and manages a business for the principal purpose of profit and growth. The entrepreneur is characterised principally by innovative behaviour and will employ strategic management practices in the business. A small business owner is an individual who establishes and manages a business for the principal purpose of furthering personal goals. The business must be the primary sources of income and will consume the majority of one's time and resources. The owner perceives the business as an extension of his or her personality, intricately bound with family needs and desires."*

It is this focus on growth, and consequently the need to finance this growth, that best defines the entrepreneurs participating in this study.

A number of economic theories of entrepreneurship are principally theories of the firm and explain entrepreneurship as the existence and survival of firms and do not consider the individual entrepreneur (Sarasvathy 2004; Barreto 1989). The goal of this study is to take a more individual approach and therefore distinguish between the firm and the entrepreneur as well as the differences between entrepreneurs.

Finding the right level of finance to support a growing business is a critical issue for the entrepreneur (Dobbs and Hamilton 2007; Carpenter and Petersen 2002; Sexton et al. 1997). This funding strategy will form the basis of other factor inputs (Barringer and Jones 2004, Baum and Locke 2004). The study also distinguishes between nascent entrepreneurs, who have low-growth intentions and preferences, and those who intend to start ventures that have the potential to have a relatively larger impact upon the economy (Gundry and Welsch 2001; Cassar 2007). It is this latter group which is the focus of this study.

The importance of the individual entrepreneur therefore becomes critical when considering these vital decisions for the small firm. In the seminal article by Sandberg and Hofer (1987 p.22) the authors noted ”the primary linkage between new venture success and the entrepreneur seems to involve the entrepreneur's behavioural characteristics”; and went on to note that this was actually quite a positive point as these determinants “can be learnt”.

The focus on the entrepreneur is also important from the perspective of funding providers, and this can be summarised by George Doirot, founder of the American Research and Development Corporation, the first US venture capital firm, who said that it was better to invest in “a grade 'A' man with a grade 'B' idea, than a grade 'B' man with a grade 'A' idea,” (Hofer and Sandberg 1987 p.21). A similar philosophy was expressed by MacMillan et al. (1985 p.119):

> *”There is no question that irrespective of the horse (product), horse race (the market) or odds (financial criteria), it is the jockey (the entrepreneur) who fundamentally determines whether the venture capitalist will place a bet at all.”*

One frequently pursued avenue has been the attempt to develop a psychological profile of the entrepreneur and to measure such psychological characteristics as 'need for achievement' (DeCarlo and Lyons 1979; Hornaday and Aboud 1971; McClelland 1961; McClelland and Winter 1969; Schwartz 1976). However, other researchers have not found 'need for achievement' useful in describing entrepreneurs (Brockhaus 1980; Litzinger 1965; Schrage 1965). Still others have questioned the value and validity of using psychological characteristics of any kind to describe entrepreneurs (Brockhaus 1982; Glueck and Mescon 1980; Jenks 1965; Kilby 1971; McCain and Smith 1981). In more recent years, however, there has been a resurgence in the study of entrepreneurs, from a personality trait based perspective exploring what the entrepreneur 'is', to a behavioural perspective exploring what the entrepreneur 'does'.

In a seminal article, 'What Do Entrepreneurs Actually Do? An Observational Study of Entrepreneurs' Everyday Behaviour in the Start-Up and Growth Stages', Mueller et al. (2012: p.996) are critical of academics' approach to the study of behaviour, relying on vague behavioural constructs, or capturing only one selected behaviour at a time (e.g. planning, registering a business or acquiring resources). As a result of this, entrepreneurial behaviour is not well understood and is fragmented as an area of study and “prevents the advancement of research on the contributions that specific behaviours can make to the emergence and growth of new business ventures”. Bird et al. (2012: p.334) remarked that there is “a paucity of empirical research and a lack of conceptual clarity on entrepreneurial behaviour”. The authors encouraged the advancement of research on the contributions that specific behaviours can make to the emergence and growth of new business ventures, encouraging scholars to examine the important topic of entrepreneurs' behaviour as a research topic that needs much more attention and development.

This research therefore seeks to address the issue of how entrepreneurs access finance, through a closer examination of what they actually 'do'. In order to achieve this, and to address the requirements for measurement and to understand the range of behaviours involved, this research uses psychometric testing in order to identify and measure the effectiveness of behavioural competences.

1.4 Behavioural Competences

O'Gorman et al. (2005: p.2) commented that the study of managerial behaviour is a missing field of research within small business literature and that a "potential contribution researchers can make in this area means policy makers can gain guidance on how to develop managerial skills of owner managers".

Past research on entrepreneurs' behaviours has considered the period leading up to organisational creation, and separately, the later period as the venture develops (Mueller et al. 2012). This distinction is consistent with life cycle theory and is supported by empirical research (e.g. Hambrick and Crozier 1985; McCarthy et al. 1990) showing that entrepreneurs' behaviour can change but remains in a definable state for some period of time, and that given a specific range of conditions, including industry and market dynamics, these states and their changes may be fairly consistent across firms (Mueller et al. 2012). This study addresses the phase of the small firm post start-up; entrepreneurs raising finance to facilitate the next stage of growth.

In the literature, 'how' entrepreneurs behave is cluttered with an array of concepts stemming, in part, from the ambiguities associated with the field of organisational behaviour, where behaviour may be an individual, group, organisational, and even industrial-level construct (Bird et al. 2012). The array of concepts also stems from the adjective 'behavioural' that includes an abundance of related constructs. Rauch and Frese (2007) for example prefers the use of the term 'action' to behaviour since, in their view, action always includes goals whereas behaviour does not.

One of the key challenges for academic researchers is how to measure behaviour and how to determine critical behaviours and appropriate granularity of events. Taxonomy, for example, allows us to consider types of behaviour and partonomy allows us to "chunk" behaviours (Zacks et al. 2001: p.3). In “Entrepreneurs Behaviour: Elucidation and Measurement” Bird et al. (2012: p.902) describe most studies of behaviour as being cross-sectional in nature and largely produced from mail-delivered questionnaires, using ad hoc measures and self-reports. An important issue was “many if not most studies dealt inadequately with measurement validity”. There was a lack of triangulation in the qualitative studies, and the authors summarised “behaviour in entrepreneurship research remains a surprising void”. There is, therefore, a recognised requirement for “useful insights into behavioural constraints on investment/financing decisions and growth” (Fraser et al. 2013: p45).

In order to make a contribution, this research uses behavioural competences as a method of studying entrepreneurs in the context of accessing finance and aims to identify both a taxonomy and partonomy of behaviour used to successfully fund the firm.

1.5 Methodology

In order to examine the entrepreneur, it is necessary to isolate the individual from both strategy and industry structure. Sandberg and Hofer (1987: p.25) emphasised that success of a venture can be enhanced by any one of three basic variables – industry structure, strategy and the entrepreneur and concluded that future research should “examine more carefully the impact of the entrepreneur’s behavioural characteristics on new venture performance”. (Gartner 1988) argued that ideas about entrepreneurship would benefit from recognising the influence of environmental factors in moderating and mediating the effect of the personality traits and characteristics of entrepreneurial behaviours. This study selects a single sector (Creative Industries) as a lens through which to examine the entrepreneurs, all of whom meet the definition of an SME and all of whom have an objective of growth and a track record of growth. This is defined in Chapter 5.

This research therefore involves the study of sources of opportunities, the processes of discovery and exploitation and why, when and how some entrepreneurs, and not others, discover these opportunities in a funding context. This emphasis on ‘process’ which occurs over time is in response to the call that researchers should attempt wide time frame research to account for the broadest range of factors affecting this process (Low and MacMillan 1988). This study therefore makes use of a longitudinal study, over a three-year period, to examine both behaviour and the outcome of behaviour.

The study also seeks to overcome the difficulties of validation commented on in earlier studies by using a mixed method approach. The methodology makes use of psychometric testing and recognises the fundamental nature of psychology in examining the characteristics, behaviour, relationships and effects of people, individually and in groups, as noted by Robertson et al. (2002: p.260) who explain “there are few areas of organisational life to which psychology cannot legitimately claim some interest”. This method argues for a more balanced approach, described as scholarly consultancy and has the aim of filling the gap between organisational research and management practices. Using this approach, the objective is to seek out management practice where tension exists. Face-to-face experience is emphasised with more interaction between academics and practitioners; in short a more holistic perspective.

At the outset of this study, each of sixty entrepreneurs completed a ‘trait’ competency tool (Aston Business Assessments 2011), which on a scale of 0 to 10, gives an assessment of the entrepreneur across nine behavioural competencies. Three semi-structured interviews are then conducted with each entrepreneur over the period 2011 to 2014. In each case, the study examines finance finding behaviour and incorporates convergent mixed method analysis using the behavioural competency scores (BCS) for each participant and coded interview data. The data on funding outcomes is also collected in each year of the study.

This combines both the ‘stories’ of funding the firm with the statistics of competency measurement of the individual, in order to provide a better understanding of funding applications, successful and unsuccessful, and the behavioural competency differences between entrepreneurs. Through this methodology, the study also seeks to overcome the limitations of many studies (Rauch and Frese 2007) which are biased towards successful enterprises.

Gartner et al. (1992) also encouraged the use of more methodologies for describing specific activities of individuals, and noted that the primary complaint about the managerial work area has been its a-theoretical orientation (Hales 1986; Fondas and Stewart 1990; Scharifi 1988). Gartner et al. (1992: p.21) viewed “this lack of a theoretical lens for viewing managerial activities” as providing the opportunity to use a more diverse approach to data collection. Indeed, in certain circumstances, a lack of theory is helpful when attempting to understand a phenomenon (Glaser and Strauss 1967). The authors summarised “we concur with (Aldrich 1990) observation that the entrepreneurship area’s pursuit of ‘rigor’ has been narrowly construed to encompass only large sample sizes and the use of the latest sophisticated numerical analyses” (Gartner et al 1992: p22).

1.6 Aims of the Research

Bird et al. (2012: p.890) emphasised the goal of research into entrepreneurial behaviour is to “explain, predict, and control (shape and change) behaviour at the individual or team level.” In a seminal article from 1977, Low and MacMillan identified three elements indispensable to an understanding of entrepreneurial success: process, context, and outcomes. The authors emphasised the importance of research design and social context and that this should integrate the outcomes of entrepreneurial efforts and the processes that led to those outcomes. In a critical assessment of the research into what makes or motivates an entrepreneur, Low and MacMilllan (1988) emphasised the more critical question of how these individuals manage to create and sustain successful organisations, despite severe obstacles.

Although, more recently, knowledge of entrepreneurial activities has increased, there is still a requirement to understand more about how process and context interact, in order to understand the outcome of entrepreneurial efforts; Aldrich and Martinez (2001: p41) described this as “integrating context and process into research designs remains a major challenge”. Wright and Stigliani (2013) called for research using more rigorous qualitative methods of all types, in order to complement quantitative studies, and through this mixed approach, thereby provide real insight into the processes behind entrepreneurial growth. The use of qualitative studies also allows for the adoption of an interpretist agenda mixed with a positivist approach (Leitch et al. 2010 b). Wright and Stigliani (2013: p.4) conclude that this combination will help produce more “fine grained theorising”. For some time, there have also been calls for more longitudinal studies and the creative use of original data, which together are able to identify causal linkages (Gartner et al. 1992). This study aims to address this challenge in the context of how entrepreneurs ‘bundle’ funding resources in order to fund the firm.

1.7 Summary

This chapter introduces the very different funding landscape faced by entrepreneurs following the banking crisis of 2008. It examines the demand side of market failure and looks at what individual entrepreneurs can ‘do’ in order to access finance. The study considers individual entrepreneurs who have growth as an objective, and through the application of psychometric testing, seeks to overcome the difficulties of information asymmetry. Behavioural competence is used as a lens through which the differences between entrepreneurs will be identified and analysed, examining the impact this has on funding outcomes. The aim is to achieve this through a longitudinal methodology.

1.8 Organisation of the Thesis

The presentation of the thesis is organised as follows:

Chapter 1: Introduction: Presents the background to the research topic, the focus of the study on entrepreneurial competences and highlights the problems of information asymmetry and the study of small firms. The mixed method methodology is also introduced together with the broad aims of the thesis.

Chapter 2: Access to Finance and the Context of the Study: Presents a review of the latest trends in commercial finance, the decline in traditional lending sources and the growth of new forms of lending. The chapter also introduces the Creative Industries sector, which is the chosen context for the entrepreneurs in this study.

Chapter 3: Literature Review: Considers established tools and models within the financial literature on how entrepreneurs access finance. The personality and entrepreneurial behaviour literature is then reviewed, describing how academics have studied this domain in order to provide an insight into what entrepreneurs “are” and what they ‘do’. Opportunities for further study are highlighted.

Chapter 4: Objectives of the Research: Details the objectives of the study and how the work aims to make a contribution to both academic literature and practice.

Chapter 5: Methodology and Research Design: Outlines the philosophy of a pragmatic realism perspective and justifies the choice of a mixed method longitudinal study. Introduces the ‘trait” competency tool (Aston Business Assessments 2011) - ABA; this provides a measure of behavioural competences scores (BCS). The approach taken to coded interview analysis is also presented.

Chapter 6: Results and Analysis: This describes the analysis derived from the BCS data and compares this with the interview analysis produced in each of the three phases of data collection.

Chapter 7: Interpretation of Findings and Contribution: Considers the results from each phase of the research in the context of established literature and the aims, objectives and contribution of the study.

Chapter 8: Conclusion, Limitations and Recommendations for Further Research: Draws together the key findings and their contribution from an academic and practitioner perspective and the limitations of the study.

Appendices

References

Chapter 2 - Access to Finance and the Context of the Study

2.1 Introduction

This chapter outlines the current funding environment for small firms. It outlines how funding sources have changed, and are changing, particularly since the financial crash of 2008. The way in which small firms are financed is also discussed and the context of the study is outlined with a review of the Creative Industries Sector.

For an entrepreneur, having the opportunity to access finance forms a vital part of an individual's activity and is vital to facilitate investment in the firm. Half of SMEs use at least one form of external finance, most commonly using bank funding (either loans, credit cards or overdrafts (SME Finance Monitor, Q2 2014). A minority use equity finance (raised through the sale of shares), from either venture capitalists or business angels. Whilst around half of businesses use external finance, a smaller proportion actually seeks finance at any one time. The BIS (2012) survey suggested around 20% of SME employers sought finance over a twelve-month period. The half of SMEs which use no source of external finance, instead rely on trade credit from their suppliers or retained earnings

Of those seeking finance, most seek debt finance (7% seek loans and 16% seek overdrafts); only around 1-2% of those seeking finance use equity finance (SME Finance Monitor Q2 2014). Some smaller businesses and start-ups also use personal finance to fund investment and growth or seek finance from informal sources like friends and family (BIS 2012).

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Figure 1 - SMEs Uses of External Finance (SME Finance Monitor Q2 2014)

Finance is used to fund working capital and investment, although during the recession from 2008-2012 a greater proportion of businesses were seeking finance for cash flow, with a lower percentage seeking finance for investment (SME Finance Monitor, Q2 2014).

Figure 2 - SME Reasons for Seeking Finance (SME Finance Monitor, 2012)

Entrepreneurs seek finance for a variety of reasons. Providing more working capital in the business is the biggest reason and this has grown more recently as the economy moved into recession. However, the different types of finance available reflects the diversity of SME characteristics and their specific finance needs. Within the literature, a funding escalator is often put forward, with different types of finance corresponding to different stages of business development and this is discussed in more detail in Chapter 3.2.3.

Debt finance is a widely used form of finance as it is generally one of the least expensive ways to raise finance. It is used typically in lower risk businesses with a stable cash flow which then facilitates debt repayment. Equity finance is a higher risk form of funding and includes funding from VC's and business angels, which seek to sell a stake in a business at a profit in the future. As equity sits behind debt in the event of a default, it is riskier for the investor.

Finance is considered a disproportionately important obstacle for high-growth firms compared to other businesses as the entrepreneurs seeks ways of funding growth. 18% of high-growth firms consider funding, either short-term cash flow (13%) or longer-term finance (5%), to be the most important barrier to growth that they face (NESTA 2011). There is also good evidence to suggest that access to finance does have a beneficial impact on business start-ups and growth, which will subsequently contribute to economic growth (BIS 2011).

2.2 Recent Trends in SME Funding

2.2.1 Decline in Bank Lending

Bank lending to SMEs peaked in 2008 and since then has declined every year (BOE 2014). Indeed, during the recession, there is evidence of firms de-leveraging. In January 2008, for example, data from the British Banking Association indicated cash deposits for SMEs, with less than £1 million turnover, exceeded lending by £3.7 billion (BIS 2012).

Lending to SMEs has not yet shown any recovery continuing to decline annually (Figure 3) and lending to SMEs with less than £1 million turnover has shown a greater decline (BOE 2012).

Lending has clearly been affected both by supply side factors – banks reduced appetite for risk in a recession in addition to meeting the requirements of Basel II (a set of banking regulations presented by the Basel Committee on Bank Supervision, setting the minimum capital requirements of financial institutions with the goal of ensuring liquidity). In addition, demand side factors, with entrepreneurs hesitating over investment plans given greater economic uncertainty.

Figure 3 - Trends in Lending (Bank of England. April 2014, combined BIS/BOE data)

There is evidence emerging that this decline in lending over the past six years is beginning to change the way small firms behave in regard to funding applications. The SME Finance Monitor for Q3 2013 noted the following:

- Successful loan applications continue to decline; 61% of all loan applications made in 2013 were successful – down from 70% previously.

- There is evidence that banks are retaining the ‘good’ clients they currently have; 9 out of 10 renewals (of loans or overdrafts) were successful in 2013, and this has been stable over the recession.

- SMEs are beginning to think more laterally of potentially other methods of financing growth. In the survey, 66% of those planning to apply in the future would consider something other than the ‘core’ products of loan, overdraft or credit card, the highest level to date. Most though, would consider one of the core products (71%). Conventional funding would have a role, but only alongside new, non-core facilities. 19% of applicants would only consider a core product.

- Although there appears to be more clarity regarding the requirements from Banking Loan Managers in terms of approval criteria, still 59% of SMEs were not confident the bank would agree to a new request (although this was a reduction from 70% in Q2 2013).

- Perhaps not surprisingly, appetite for future finance was limited; only 12% of SMEs in Q3 2013 planned to apply for new or renewed facilities.

- Despite the difficulties surrounding loan applications, only a minority of applicants sought advice before they applied. This remained more common for loans (19%) than overdrafts (10%), and increased by size of facility applied for.

Figure 3 indicates a relatively sudden changes in bank lending. In the immediate years prior to 2008, the banking market was highly competitive with a sales driven culture seeking market share which inevitably included the pursuit of riskier, more highly leveraged businesses, with interest rates not fully reflecting the risk involved. Since then, in a new climate, funding is therefore harder to find.

2.2.2 Cyclical Trends

More recently, although banks' lending criteria has tightened, it is important to note the recession has increased the underlying credit riskiness of SMEs due to market pressure and greater uncertainty. Fraser (2008) shows that the percentage of businesses with a low probability of going out of business in the year ahead (low credit risk businesses) declined from 58% in 2004 to 11.5% in 2008. In addition, unauthorised overdraft lending increased from 29.5% of firms in 2003/4 to 36% of firms in 2007/8. Both are indicators of the difficulties associated with finding finance.

Although there has been a trend towards increased bank margins, as a result of the sector readjusting its balance sheets post-recession and greater uncertainty in a recessionary market, the consequence of the Bank of England maintaining rates at 0.5% (BOE 2014), has meant the actual net borrowing rates to small firms has actually reduced. For example, average interest rates on variable rate lending were 5.39% in November 2008 compared to 3.5% in November 2013 (FT.com, November 2013).

Lending is falling, and there is also evidence that where banks approve loans, they are requesting more security. The SME Finance Monitor (2014, Q2), for example, indicated the proportion of overdrafts that were secured increased from 22% of those granted in the first half of 2011, to 37% to those granted in the second half of 2013.

2.2.3 Decline in Venture Capital

The venture capital market has also been heavily affected by the recessionary economic environment and has been described as a state of "collapse" (Harrison 2014). In the context of this research project, venture capital is considered as one part of private equity and relates to the financing of young, early stage businesses with the potential for high growth. Other parts of private equity include Management Buy Outs (MBO's) and expansion capital for larger businesses.

In 2012, British Venture Capital Association's (BVCA's) 57 members invested £313 million into 397 UK venture capital stage companies. This is a 31% decrease in the value of investment compared to the previous year, indicating the effect of the 'credit crunch' on this finance class (Baldock, 2014).

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Figure 4 - UK Private Equity/VC Investments (BVCA, 2013)

The average value of a venture capital deal also fell in the period, from £1.2 million in 2009 to £0.8 million in 2010. This could be down to a number of factors; "It is not known whether the decrease in venture capital deal size is due to a greater number of smaller investments made in SMEs affected by the equity gap, or companies are receiving smaller investments when they actually require larger amounts of funding, which could then constrain their growth" (BIS 2012: p. 24).

This activity also includes a degree of Government backed interventions, as policy makers have attempted to increase liquidity to firms during this period. NESTA (2009) noted that 20% of all deals in 2002 involved public funds, and this increased to 42% in 2009. These investments have been particularly targeted at early-stage funding.

Equity investments have therefore been adversely affected by the Credit Crunch, which as well as increasing uncertainty and risk, has also resulted in fewer exit routes in the form of public equity markets or trade sales. The result is that Fund Managers have focused on the performance of existing investments.

2.2.4 Growth in Business Angels

Business angels have become an important source of equity finance to SMEs. Business angels are high net worth individuals that invest their own money in small growing businesses through an equity stake. Business angel activity has grown over the last decade with a threefold increase in the number of investments between 2001 and 2007 (BIS 2012). More recently this has been as a result of the reduction in debt and VC finance already noted. Estimates of the size of this activity are difficult for researchers to ascertain; Business angels themselves are private individuals who typically are very guarded about releasing information concerning their own investment activity. In addition, not every business angel is part of the British Business Angel Association (BBAA) or Linc Scotland, the two trade associations in this area.

Estimates for the whole market, including both visible and non-visible components, suggest angel investment activity in the UK in 2009/10 was £318 million (BIS 2012). Reports from the BBAA in 2010 indicated there were 4555 members, although estimates are that only 1800 of these are registered as active and less than 10% actually made investments in the period (Harrison and Mason 2010). The structure of the market is changing and moving from an atomistic, fragmented, invisible market of individuals to a structured and visible market comprising groups and syndicates (Harrison 2014). Advantages are improved deal flow, more due diligence and better evaluation; however disadvantages are a move away from smaller seed investing to larger follow on deals. This has resulted in more pay-to-pitch models and additional fee structures (Harrison 2014). Yields rates for investors are circa 6-7%, 85% of deals have co-investors and 45% groups have a technology focus. There are fewer exits and a low number of failed investors, so called 'living dead'.

Business angels tend to make smaller investments and so target the lower end of the equity gap not served by venture capitalists. Angels themselves typically invest less than £200,000 per deal, although the use of angel syndicates can result in consolidated funding packages, where more than one form of finance is used. Thus, the total size of a funding round raised through angel networks and syndicates is typically less than £500,000. Only a small proportion of deals are large, with less than 10% of deals being in excess of £1 million. Investments are predominately in small, early stage companies and there is also a strong focus on investments in technology companies (BIS 2012). The Enterprise Investment Scheme (EIS) was used by 70% of angels in 2010 (Harrison and Mason 2010) to maximise the tax efficiency of any investment. Investors who use these schemes can claim 50% tax relief plus an exemption from 28%tax on any capital gains after three years. (HMRC 2014) reported an 87% increase in the amount invested through EIS schemes.

Figure 5 indicates the stages of the small firm when angel investment is made:

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Figure 5 - Business Angel Stages of Investment (Mason and Harrison, 2011)

As illustrated in Figure 5, for Angels the start-up or seed stage is not an attractive proposition; this is the highest risk stage of a venture when the likelihood of failure is at the greatest. It is in the early growth and expansion stages where angel investment is most prevalent, when the business concept is (relatively) proven and new funds are required to accelerate the growth potential of the firm.

The goal of the business angels is achieving a return on their investment, indeed a further causal effect of a prolonged period of low interest rates has been the growing attractiveness of angel activity to the private individuals as the opportunity cost of capital reduces.

The NESTA (2009) study of 158 business angels highlighted the “high risk-high reward” nature of the activity:

- There is a high probability of failure on any single investment, but those that are successful result in returns greater than alternative uses of capital. In this survey, 56% of exits failed to return capital, while 9% generated more than ten times the capital invested.

- The average investment size is £42,000 per investor, and an average of six investors co- invested into each venture (although 17% of the venture investments were made by solo investors).

- 9% of investments yielded almost 80% of positive cash flows.

- The overall return to a business angel investing in the UK is 2.2 times the invested capital.

- A holding period of just less than four years, resulting in a gross Internal Rate of Return (IRR) of 22%.

In addition, Angels with experience of entrepreneurship themselves and/or who had industry expertise are more likely to succeed in this type of investment activity. Key strategic choices are significantly related to better investment outcomes. There was also evidence that a seat on the Board increased returns:

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Figure 6 - Exit Outcomes by Board Involvement (Nesta, 2009)

The report also noted, “some involvement with the venture was related to improved investment outcomes… however, failure was greater where investors were perhaps too involved, specifically when they held management roles” (p.14). From a practical perspective most angel investing is made within 250km of the investors’ home, but it’s clear there is a fine balance between the role of Non-Executive/Advisor and a more operational day-to-day involvement.

A combination of lower than average rate of returns elsewhere, tightening of other credit markets and possibly the recognition on behalf of some SMEs that they need professional advice in order to grow, means business angel activity is an increasingly buoyant area of the funding market. More recently, the British Business Bank has established an Angel Co Investment Fund with the aim of encouraging syndication investment.

2.2.5 Increase in Other Forms of Finance

As demand for traditionally 'core' financial products has reduced since 2008, there is a change in the proportion of non-core products which are used by the SME. Whilst not innovative in the sense that these have always been available to the small firm, these 'non-core' products are beginning to account for a greater proportion of demand:

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Table 1 - Percentage of entrepreneurs seeking/renewing finance that would consider forms of funding, over time (SME Finance Monitor, Q4 2014)

Table 1 summarises those firms indicating their intention to seek or renew existing finance, when asked which forms of finance they would consider in the future. Grant funding has grown steadily and includes proposals for unsecured funding where no repayment is required. These include grant awarding bodies, like for example, Innovate UK (formerly the Technology Strategy Board) or initiatives through the new Local Enterprise Partnerships (LEP's).

The use of asset-based finance has also increased, including invoice finance and leasing or hire purchase products. Factoring and invoice discounting can improve business cash flow by providing finance secured against unpaid invoices. This can be useful to a growing firm, not capable of funding future growth from today's cash flow. Invoice discounting was used by 8% of firms in 2014 (SME Finance Monitor, Q2 2014); the Asset Based Finance Association (ABFA 2014) indicated the use of invoice financing was up 16% year on year at £62.5 billion during the final quarter of 2012, which compared with a £2.4 billion contraction in net lending recorded by the Bank of England during the same period. This type of funding tends not to be suited to every small firm – it is more focused on shorter term cash flow requirements and lenders require a higher standard in business systems to ensure invoice claims are correct.

Asset-based lending has also increased, in part due to finance providers viewing prices on capital equipment, for example, as a more stable security than property prices during the recession. Loans and internal equity funding from directors is also a growing trend and also reflects the tightening of credit markets and increases in asset-based lending as directors often re-mortgage their residential property or make contributions through pension schemes.

GEM (2013`) also confirms this growth in other forms of finance:

Type of funding expected	Date						
	2007	2008	2009	2010	2011	2012	2013
No funding needed	5%	5%	5%	10%	6%	4%	600%
All funded by entrepreneur	55%	51%	51%	44%	47%	39%	41%
None funded by entrepreneur	3%	2%	4%	9%	5%	7%	1%
Close family member (spouse/parent/sibling)	9%	12%	10%	9%	4%	9%	3%
Other relatives, kin or blood relation	4%	8%	6%	2%	2%	8%	2%
Work colleagues	6%	10%	7%	5%	10%	8%	6%
A stranger	2%	4%	4%	1%	1%	5%	3%
Friends or neighbours	3%	6%	5%	7%	3%	6%	7%
Banks or other financial institutions	19%	19%	20%	18%	19%	22%	11%
Government programmes	12%	17%	15%	18%	11%	16%	10%
Any other source	6%	6%	9%	5%	7%	13%	9%

Table 2 - Percentage of nascent entrepreneurs expecting funding from different sources 2007 to 2013 (GEM 2013)

2.2.6 New Innovations in Small Firm Funding

In addition to the growth in asset-based lending and business angels, the changes in the funding market have also resulted in newer forms of debt finance emerging. Social lending, by which people side-step banks to lend and borrow from each other, via the internet, is also taking off around the world. Zopa was created in the UK in 2005 and other countries have now followed suit: Prosper (USA), Boober (The Netherlands), Smava (Germany) and Maneo (Japan).

There are now a number of Peer-to-Peer funding models actively operating in the UK where the size of this alternative finance market has increased from £492 million in 2012 to £939 million in 2013 (NESTA 2013).

Funding Circle, for example, was launched in August 2010 and has lent £200 million to 3,200 companies, including for example, London Party Boats, which secured £70,000 from a pool of 566 lenders (Company data January 2014). Through the site, lenders bid directly to lend to small firms. The service gives lenders an average yield of 8.4% on their investment. More than 10,000 people, who can lend between £5,000 and £250,000 over one, three or five years, have signed up to the site. Between May 2012 and May 2014, the value of funds lent through Funding Circle increased to £275 million – an eight-fold increase (Company Data, August 2014). Thincats.com offers a similar service. Research from (NESTA, 2013) “Banking on each other” indicates Funding Circle borrowers have an average age of business of eleven years and a median of eight. Average turnover is £906,000 with a median of £400,000. Average size of loan is £35,000 from companies who have raised an average of £222,235 in their lifetime.

Market Invoice (see www.marketinvoice.com) was established in 2010 and uses a similar peer-to-peer auction platform for factoring. In the auction, buyers compete to determine how much of an invoice’s value they will advance, usually between 85% and 90%. Market Invoice takes a 0.5% margin of invoice face value as a processing fee and aims to drive the cost down of this growing form of finance.

Peer-to-peer lending has grown exponentially over the last few years with 2013 loans expected to exceed £1.6 billion globally, facilitated by new technologies and also the growth of online communities. Using a similar platform in equity markets, Crowdfunding – the system whereby a large number of people seek to raise substantial sums by each making a small investment – is increasing in popularity. In the US, Kick Starter has raised more than $523 million for more than 37,000 firms since its launch in 2009 (ft.com 23rd march 2013).

Crowdcube (www.crowdcube.com) raised £12.2 million for 54 businesses in 2013; a five-fold increase on 2012 (Crowdcube company data 2014).

Collectively, the UK alternative finance market provided £463 million worth of early-stage, growth and working capital to over 5,000 start-ups and SMEs in the UK during the period 2011 to 2013, of which £332 million was accumulated in 2013 alone (SME Finance Monitor, Q2 2014). Based on the average growth rates of between 2011 and 2013, it is estimated that the UK alternative finance market will grow to £1.74 billion in 2014 and provide £840 million worth of business finance for start–ups and SMEs (NESTA 2014). The market appears not to be price driven, but instead offers flexibility, transparency and speed of transaction.

In the March 2012 Budget, £100 million funds were allocated to this sector in an attempt to boost the flow of credit to small and medium-sized enterprises (Budget 2012 Statement). A key element of this form of lending is that it allows the Government to assist the market, without the need for active lending decisions and can to some degree overcome asymmetric information that exists in small business lending (Binks and Ennew 1997; Deakins 1993). The Chancellor of the Exchequer at the time commented “these proposals are the next part of our credit-easing programme, passing on the benefits of Britain’s credit-worthiness to businesses and opening up new options of finance for them” (FT.com 2012).

Small firms, however, still lack awareness of these new funding initiatives. The SME Finance Monitor (Q2, 2014) study reported that 79% of firms with less than ten employees were unaware of crowdfunding, for example.

2.2.7 Market Failure and Government Policy Initiatives

In addition to recent trends in small firm funding, it is also recognised that there is a structural market failure (BIS 2011) in the supply of debt finance, contributed in part by the problems of asymmetric information discussed earlier. It is difficult for lenders to determine the future viability of a business and therefore rely on collateral and track record as the only criteria on which to base an investment decision. This results in potentially viable, young businesses being denied access to growth capital. The 2004 Graham Review (Baldock et al. 2011) concluded that even with new credit scoring techniques, the problems associated with these systems remain.

It is also understood that an ‘equity gap’ exists in the provision of equity finance to SMEs and that asymmetric information hinders the communication between potential investors and finance seeking entrepreneurs. Transaction costs tend not to vary with deal size and therefore smaller investments become disproportionally more expensive. This lack of growth capital was also recognised in the Rowlands Review (Brown et al. 2014).

In October 2010, the Business Finance Task Force set out a number of initiatives aimed at making more finance available for small firms. Since then, these have been developed with various degrees of success:

- **Funding for Lending Scheme (FLS**): Thirteen banks have taken advantage of a lower capital cost from the Bank of England, with the goal of passing these reductions onto small firms through lower interest rates. Up to March 2013, £13.8 billion of funding had been drawn down by banks, using this cheaper credit scheme, but simultaneously, the stock of lending reduced by £2 billion. This negative net reduction in lending, using this scheme, has continued until August 2014.

- **Enterprise Finance Guarantee Scheme (EFG)**: This is a loan guarantee scheme providing additional security to the lender. In the event of a loan default, the Government guarantees 75% of the outstanding loan. EFG are offered through banks and in practice form approximately 2% of lending. There is evidence that its use has declined since the scheme was introduced, partly as a general reduction in the use of loan finance (BOE 2014).

- **Enterprise Capital Fund (ECF):** This is commercially managed VC funds aimed at bridging the equity gap to high growth firms seeking finance up to £2 million. The Government provides approximately 70% of the funding; the remainder from private sector sources. There is a lag effect in terms of the effectiveness of these schemes, however, ; demonstrated in BIS figures stating that up to September 2014 “over £200 million had been invested in 169 fast growing businesses”, a relatively small proportion of the SME population overall.

- **The Business Growth Fund (BGF)**: BGF was established in 2011 and is backed by five of the UK’s main banking groups – Barclays, HSBC, Lloyds, RBS and Standard Chartered. BGF is an independent company with up to £2.5 billion with which to make long-term equity investments. Since its launch in May 2011, it has made nearly sixty investments, providing more than £300 million of new capital to UK enterprises (BGF 2014).

- **Regional Growth Fund (RGF):** The Regional Growth Fund (RGF) is a £3.2 billion fund, helping companies throughout England to create jobs between now and the mid-2020's. The payment of Regional Growth Fund money is spread between 2011 and 2017. By December 2013, the initial £1.4 billion had been committed (National Audit Office, 2013) which could potentially result in the equivalent of 41,000 more full-time-equivalent private sector jobs. By March 2014 £1.15 billion had been allocated, with an estimated creation or safeguarding of 65,000 jobs (RGF 2014).

The development of these schemes, to a degree, recognises the Government's inability to intervene directly in allocating funding, and prefers to support measures in association with the banks and other private sector organisations (BIS 2012). Yet still, awareness of these schemes amongst firms looking for finance is low:

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Table 3 – Awareness of all Taskforce Initiatives Small Firm Finance Monitor, Q2 2014

In July 2012, the Government also introduced a process for small firms to appeal against loan application rejections (Bank Appeals Process) and despite 39.5% of 2,177 appeals against banks being successful (The Times, 2012) in the first year of the scheme, less than 20% of firms with fewer than ten employees were aware of this initiative.

One example of the provision of mentor activity is through Accelerator Schemes where a growing SME can easily tap into additional advice and resources aimed at facilitating faster growth. These are often combined with actual relocation to a business incubator. London based, TechCube, is one example. Between 2006 and 2013, one hundred and forty three accelerator programmes have been created (Seed-DB, 2014), backing 2,113 companies, which have together raised £1.5 billion in funding and created more than five thousand jobs. Again, there appears to be very little awareness of these programmes, and in 46% of SMEs had no awareness of any Government support initiatives. However, the issue of external finance raises questions about the preparedness of some SMEs, the quality of their business planning as well as financial management and governance systems (NESTA 2013; Rigby and Ramlogan 2013). The implication is that measures to promote SME finance from the supply side cannot be considered in isolation and that firms "fail to present themselves an investable business opportunity due to poor plans and inadequate business skills, thereby constraining their ability to invest" (Rigby and Ramlogan 2013: p.11). Indeed, a 2004 study by Han et al. (2012) of 250 UK SMEs, indicated that those entrepreneurs who recognised the importance of advice from banks to small firms improved relationships, and with it, the flow of information quality, thereby reducing information asymmetry and increasing the prospects of loan requests being granted. In short, 40% of SMEs with one to nine employees had no awareness of the Government schemes listed in 2013 and this proportion had increased further to 43% by Q2, 2014 (SME Finance Monitor, 2014).

Moreover, 42% were categorised as 'Permanent Non-Borrowers', are not currently using external finance, have not used external finance in the past five years, have had no borrowing events in the past twelve months, have not applied for any other forms of finance in the last twelve months, had no desire to borrow in the past twelve months nor in the next three months. This has been termed as the "arc of discouragement" by Fraser (2014).

Further categories of SME identified in the SME Finance Monitor Survey are:

- **'Would-Be Seeker of Finance':** An SME that wanted to borrow but something had prevented them. This is further divided into those with an identifiable need and those without.

- **'Happy Non-Seeker':** Those SMEs that had not had any form of additional external funding (in the quarter), and nothing had stopped them from applying.

The increasing trend in this latter group is growing in significance as indicated in Table 4, when asked what their future plans were with regard to sourcing additional funds (‘permanent non-borrowers’ excluded):

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Table 4 - Future Finance Plans - permanent non seekers excluded (SME Finance Monitor, Q2, 2014)

For ‘would be seekers’ of external finance, the main barriers to an application were the process of borrowing (the hassle, expense, security etc.) and discouragement (expectation of an unsuccessful outcome). The net effect of this growing ‘rise of the non-seeker of finance’ is that in the SME Finance Monitor (Q2, 2014) only 1% described themselves as ‘would be seekers of finance’ (down from 5% in Q2, 2012) and 48% described themselves as ‘happy non-seekers’ (up from 45% in Q2, 2012).

There appears, therefore, to be a growing reluctance on the part of small firms to seek external finance. These findings are consistent with a study by Freel et al. (2012), based on responses to a large-scale postal survey (sample size 10,942) of UK SMEs, indicating twice as many businesses were discouraged from applying for a bank loan than had their loan request denied.

Clearly not all of this is due to supply side issues. There is also evidence that small firms may not fully appreciate the positive effect that finance can have on the pace and magnitude of growth (SME Finance Monitor, 2013). This therefore prevents them from applying and could subsequently restrict growth.

There is also evidence that there is a general lack of investment readiness amongst small firms which result in difficulties when presenting a case as an investable opportunity to an external third-party. For example, (SME Finance Monitor 2013) only 25% of SMEs have a formally qualified financial manager, 41% of SME employers do not understand the way banks assess business credit risk. A greater number of SME employers perceive they are poor (38%) at accessing finance compared to those reporting they are strong (25%). These difficulties are also potentially made worst because of their general reluctance to seek advice; only 9% of SMEs seek advice when applying an overdraft and 20% of SMEs seek advice when applying for a loan. These demand side failures are most acute when considering equity finance; SMEs lack knowledge of how equity works and where to obtain it. In the Finance Monitor survey (2013) for example, only 20% of SME Companies are aware of a local venture capital provider.

Given the 'rise of the non-seeker of finance' there are both supply and demand side factors which interact and lead to so called 'thin markets' (NESTA 2009) where a limited number of investors and high growth firms fail to meet each other and agree to investable propositions.

2.3 The Creative Industries Sector

In order to focus on the individual entrepreneur the creative industries sector has been selected as the focus of this study.

Government statistics estimate the size of this sector at £59.1 billion or 5.6% of gross value added (GVA) in 2008, more than double the European average size of the sector (Creative Industries Council, 2012). The sector employs 2.3 million jobs, and in 2010 there were an estimated 182,100 businesses making up 8.7% of all UK enterprises. Creative Industries have been growing at twice the rate of the rest of the UK economy, even in a challenging trading period for the economy as a whole.

The UK Government's definition of the creative industries sector is derived from the mapping document for the creative industries published by the Department for Culture, Media and Sport (DCMS) in 1998 and updated in 2001 (Creative Industries Council, 2012). It defined creative industries as those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property. The mix of firms is detailed as follows:

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Figure 7 - Companies in the Creative Industries Sector (Creative Industries Council, 2012)

The sector is dominated by micro companies (with fewer than ten employees). Using ONS data and industry classification codes, analysing the period 2003 to 2008, the survival rate of businesses from first being established in this sector is 49.7%, which is slightly better than businesses in the rest of the economy at 46.9% (Burrows and Ussher 2011).

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Table 5 - Average Survival Rates of UK Businesses - commenced trading 2003 (Demos, 2012)

This survival rate is despite a general perception the sector has of high risk from an investment perspective. Investors appear to believe that the business models for the creative industries sectors are too risky to be worth investing in. The sector therefore presents a particular challenge for the small firm seeking funding for growth (Burrows and Ussher 2011).

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Figure 8 - Financial Demands Creative Industries v All Firms (Creative Industries Council: Access to Finance Working Group Report, 2012)

Creative Industries Businesses (CIB) involves more intellectual assets compared with Non-Creative Industry Businesses (Non-CIB). This results in a lack of security required for term loans (36.5% v 25.1%) and asset finance (44.0% v 38.2%), indicated in Figure 8. Equity investment therefore plays a larger role (9.7% v 5.1%) (DCMS 2011).

Many small firms face difficulties in raising finance, however, there are additional problems in accessing finance that affect SMEs in the creative sector in particular, as set out by the Creative Industries Council (2012):

- The lack of official data and the great variety of different sub-sectors within the sector.

- The lack of a recognised framework to help financiers assess skills and business abilities.

- The difficulty of predicting whether future creative products will be successful.

- The lack of a recognised framework to assess IP and business value, and business models.

- Lack of collateral, making debt finance hard to raise.

- Inadequate information about the sector and the relative cost of doing due diligence on small investments.

- The presence of fear: too many financiers fear that creative entrepreneurs are more risky.

- Concern that CIB owners are pre-occupied with the creative process rather than commercial objectives.

The Creative Industries Council (2012: p.16) concluded:

> *"What is needed is for the sector to more fully explore these questions, so that financiers can develop a framework that identifies and assesses different business models, assets and risk profiles, isolating those where uncertainty is inherent from the rest, and developing finance solutions as appropriate."*

This sector has been selected for the study because it is a dynamic growth industry which is more sensitive to changing environments. Over the course of a research study it therefore provides the opportunity for "critical incidents and social dramas" described by Pettigrew (1990: p.280) as ideal foundations for longitudinal research.

2.4 Summary

Despite numerous Government initiatives, net lending to businesses continued to fall in 2014, and schemes to encourage lending have made little difference (BOE 2013). Indeed, "the funding gap has increased exponentially since onset of the financial crisis" (Jones and Jayawarna 2012). In contrast, gross residential mortgage lending continues to grow; the monthly average in 2013 to November was 19% higher compared to the same period in 2012. The number of approvals for re-mortgaging also increased, on average, by 15% (BOE 2014). Indeed, in the November 2014 Autumn Statement, the Chancellor recognised a failure in the Funding for Lending scheme by insisting support could only be used for SME lending (as opposed to residential mortgages). Supply side problems have been exacerbated by banks rebuilding their capital base, becoming more risk averse and being unable to resume adequate lending to creditworthy businesses.

Venture capital has also declined, as fund managers seek to more carefully manage current investments.

Demand side factors have also had an impact on the flow of funds to small firms. The British Bankers Association (BBA), which represents all the main banks, published a report which is consistent with the “rise of the non-seeker of advice” (SME Finance Monitor, 2013) commenting that, “Every time that people read that banks aren’t lending, they don’t apply." (Management Today, April 2013).

This continuing trend in reduction in funding led the Deputy Bank of England Governor, speaking to MPs on the Treasury Select Committee (April 2013), to comment that the Bank was considering "extraordinary" policies to encourage more business lending, including the idea of charging high street banks a negative rate of interest in order to encourage banks to lend to firms, rather than make deposits to the Bank of England.

At the same time, there has been growth in more asset-based lending, and tax incentive schemes have made investments more efficient. This has resulted in the growth of business angel finance. There is also evidence that Peer-to-Peer funding models, now prevalent throughout the world, are beginning to develop in the UK through both debt and equity models.

For the Creative Industries, this changing funding climate presents particular challenges. This sector is growing at twice the rate of the rest of the economy and there is a greater reliance on equity finance. However, there is a lack of data, a greater perception of risk, a lack of collateral and a concern amongst investors that entrepreneurs in this sector lack the commercial acumen to generate value within the venture (Deakins et al. 2008).

Both demand and supply side factors have therefore resulted in fewer firms chasing diminished funding sources. Despite this environment, 28% of firms in the Small Firm Finance Monitor (2013) expected to try and raise finance and a further 17% were “would be”, and therefore wanted to raise finance if barriers could be removed. There is also evidence that SMEs are increasingly prepared to consider alternative funding sources to the traditional types of equity and loans.

Given this radically different environment, and the particular demands of the growing Creative Industries sector, this study therefore seeks to identify entrepreneurial behaviour and the behavioural characteristics, in a funding context, of those entrepreneurs who are successful, and unsuccessful, in accessing finance.

Chapter 3 - Literature Review

3.1 Introduction

Chapter 2 examined the background to the funding landscape for entrepreneurs and reviewed the Creative Industries sector. The focus of this study is behavioural competences of the individual entrepreneur and how this influences access to finance. The research is seeking to study individual entrepreneurs and how psychometric testing can be used to explain, predict and measure behavioural resource orchestration of the entrepreneur.

In order to address these issues, there are three distinct areas of literature drawn from different academic domains. Firstly, literature covering the way in which small firms are funded is considered, including particular models such as Pecking Order Theory or Funding Escalator, for example. Secondly, the review considers the individual entrepreneur; do specific personality traits identify groups of entrepreneurs who are pre-disposed with similar characteristics? Finally, the literature relating to behaviour is discussed and examines not what the entrepreneur ‘is’ but what they actually ‘do’.

3.2 Entrepreneurs, Small Firms and Access to Finance

This section considers the finance literature reviewing models relevant to the small firm, then goes on to consider other influential factors for the entrepreneur including managerial choice, the importance of relationships in accessing finance and the role of gender and race.

3.2.1 Pecking Order Theory

A seminal paper examining the capital structure decision is by Modigliani and Miller (1958) and assumes that in perfect markets, the value of the firm is independent of capital structure. Further researchers then incorporated imperfect markets (Jarvis and Schizas 2012). Informational asymmetries under conditions of imperfect information suggest that there will be insufficient credit available for all sound or “bankable” propositions (Deakins et al. 2008; Stiglitz and Weiss 1981). In analysing financing patterns in the context of information asymmetry, Pecking Order Theory, developed by Myers (1984), has been used to detect the financing choices of small firms (Ang 1992; Holmes and Kent 1991; Cosh and Hughes 1994; Howarth 2001).

Pecking Order Theory therefore provides an explanation as to how entrepreneurs decide on the capital structure of the firm (Myers 1984). Given the existence of information asymmetries, the Pecking Order Theory suggests a hierarchical order which determines the funding of the firm. This begins with internal financing, followed by debt, then equity. Information asymmetries are less relevant early in the venture when internal funds are used (and are a lower cost). When external funding is required, Pecking Order Theory proposes the entrepreneur will first use debt; using accumulated tangible assets to leverage against, thus avoiding information asymmetries (Berger and Udell 1998). Only in the last resort will firms select equity and therefore minimise the degree of intrusion in the firm.

Frank and Goyal (2003) tested the Pecking Order Theory of corporate leverage on a broad cross-section of publicly traded American firms from 1971 to 1998. From this study, and contrary to the Pecking Order Theory, net equity issues track the financing deficit more closely than do net debt issues. Whilst large firms exhibit some aspects of Pecking Order behaviour, Frank (2003) concluded that the evidence is not robust to the inclusion of conventional leverage factors. Alternatively, Degryse et al. (2012) studied the impact of firm and industry characteristics on small firms' capital structure, employing a proprietary database containing financial statements of Dutch small and medium-sized enterprises (SMEs) from 2003 to 2005. This study suggested that the capital structure decision is consistent with Pecking Order theory; Dutch SMEs use profits to reduce their debt level, and growing firms increase their debt position since they need more funds. Other findings indicated profits reduce short-term debt, whereas growth increases long-term debt.

3.2.2 Financial Growth Cycle Model and the Funding Escalator

In a seminal paper on funding small firms, Berger and Udell (1998) outline how the alternatives and preferences of entrepreneurs change as they become less informationally opaque to potential funding providers. The financial growth cycle model emphasises the suitability of different funding types, which change as the business grows and develops, particularly relevant for high growth businesses which have more volatility in requirements and more risk. Thus, the contracts made with funding providers at an early stage of the firm, are made in anticipation of future funding commitment from alternative sources. Due to information asymmetries in periods of funding shortages therefore, Berger and Udell (1998) argued that small businesses "are likely to bear a disproportionate share of the loss of funding that occurs when there is market failure" (p.651). In addition, higher risk SMEs in new areas of the economy will be more vulnerable to more difficult market conditions because of the greater risk to funding providers of adverse selection and moral hazard problems which increase the marginal cost of finance (Carpenter and Petersen 2002).

Creative Industries could be considered as an example of one such sector, as banks, in particular, consider it to be riskier and are unable to value any creative assets that exist within the venture, particularly given information asymmetries (Hsu 2004). In addition, banks make use of standard credit scoring techniques and these are more suited to firms with a longer trading history and higher levels of assets, as opposed to more intangible assets which are prevalent in the Creative Industries sector (Stiglitz and Weiss 1981; Cressy and Toivanen 2001). This uncertainty and lack of transparency also make the risks of equity investments disproportionally higher for small firms. (Trester 1998; Tyebjee and Bruno 1984; Lockett et al. 2002; Lingelbach et al. 2010).

In order to identify the stages of transition from one sort of finance to another, the concept of the funding escalator has been developed as a more recent variant of the financial growth cycle model (NESTA 2009; Mason and Kwok 2010). Using the Funding Escalator, after the initial investment stage of the firm (from internal resources and family/friends), firms are able to access three main types of external finance - public seed grants; public and private equity; and bank debt finance. Often, grants are used at the proof of concept stage when the venture is considered too risky. In the second stage, the technology is more fully developed and business angels are used to acting, either in syndicates or individually, and later, larger scale private and corporate venture capital will be used once initial commercialisation has been proven. It is only at a later stage, with an established income stream, that bank debt finance or asset finance becomes available.

Even prior to 2008, there was evidence of a funding gap emerging and that the Funding Escalator was not working efficiently. Particularly at the pre-proof of concept stage, firms were unable to access private finance. In addition, as noted in Chapter 2.2, although there is evidence that angel funding has increased over the last ten years; VC funds have become unwilling to make later stage investments. Where these investments have been made, it is in existing businesses, where earlier funds are already in place.

This is echoed by a significant number of studies in other countries (Jenkins 1989; Sahlman 1994; Zider 1998, Cumming 2005). Increasingly, therefore, a smooth transition between different forms of finance, and the development of small firms, does not seem valid.

3.2.3 Managerial Choice

Here we consider factors which appear to be considered by the entrepreneur in terms of the type of funding chosen. There is, for example, some debate in the literature over the extent to which debt levels vary with the size of the firm and the reasons for this (Hamilton and Fox

1998) and it is accepted that small owner-managed companies operate with higher levels of debt than do larger firms (Holmes and Kent 1991) and have a particularly high reliance on short-term debt.

One possible explanation for this resort to debt is that it is externally imposed, reflecting a persistent gap in the capital market, which denies small firms access to other forms of finance (e.g. equity and long-term debt). Such a gap was first identified in 1931 (MacMillan Committee, 1931) and has been rediscovered in many subsequent inquiries (e.g. Bolton Committee Report 1971; Stanworth and Gray 1991; Tamari 1980). An alternative explanation comes from the extension of the work of Myers (1984) in the small firm sector (Holmes and Kent 1991; Scherr et al. 1990) suggesting that small firm owners chose to operate without targeting an optimal debt-equity ratio and reveal a strong preference for those financing options that minimise intrusion into their business.

De Bettignies and Brander (2007) also noted that VC finance, to some degree, depends on the venture capitalist's ability to provide managerial contributions to the venture. This research concluded that the VC cannot survive as a pure financial intermediary and that bank finance would always be preferred by an entrepreneur, as opposed to a VC, who could not provide managerial value-added to the venture. Thus, Brander concluded that venture capital is most useful when the entrepreneurial venture lies within the venture capitalist's area of managerial expertise. Unless the venture capitalist can provide significant managerial input, bank finance is probably preferable for the entrepreneur.

Furthermore, getting the balance of equity stake right for the VC is critical in order to motivate the entrepreneurs, but also ensure the VC has an adequate incentive to contribute to the business. VC funding is also most effective in those investments that allow above average rates of return, and only if it can provide value from its proprietary managerial skill, is it likely to earn above-normal returns. A surprising conclusion of Brander's study was that the VC is likely to do better if it can avoid investments where the entrepreneur's input is highly important.

Myers (1984), in his paper titled 'the Capital Structure Puzzle', asked "how do firms choose their capital structure?" and concluded:

> *"We do not know... our (financial) theories don't seem to explain actual financing behaviour, and it seems presumptuous to advise firms on optimal capital structure when we are so far from explaining actual decisions..." (p. 575).*

The recent changes in financial market conditions means the question of understanding entrepreneurial behaviour, with regard to capital structure, still remains.

Technology entrepreneurs have, in particular, been identified as a group for whom access to finance is a significant constraint (Harrison et al. 2004). In this sector, the role of bootstrapping has been largely overlooked in studies of small firm financing. Bootstrapping has been defined in a number of ways, but there is a consensus that it is a collection of methods used to minimise the amount of outside debt and equity financing needed from banks and investors (Winborg and Landstrom 2000; Harrison et al. 1997). Bootstrapping has long been considered a necessary response to the financial constraints that small firms face (Neeley and Van Auken 2009). This role of bootstrapping is consistent, therefore, with Pecking Order Theory (Myers 1984), that entrepreneurs choose to utilise internal resources at an early stage of a new venture.

Clearly the relative importance of goal orientation also underscores the role of "managerial choice" in predicting capital structure decisions. Research carried out by Chaganti (1987) noted the owner’s ‘goals-satisfaction’ of ‘economic need’ was the most important predictor of equity versus debt financing as well as internal versus external equity financing. While satisfaction with "economic need" drives the entrepreneur toward debt financing, the entrepreneur’s business outlook, i.e. "odds of success of your firm" has the opposite effect. Entrepreneurs who are bullish about their ventures tend to seek equity financing rather than debt financing. This finding is consistent with the signalling theory, which argues that executives, based on their "insider information", prefer retained earnings to debt and equity as their main sources of funds for new investment.

“Sweat equity" (the stock of human capital) and financial capital are substitutes for each other, and entrepreneurs who mobilised large amounts of human capital in the form of hours they or their families work, and the number of partners, all determine the entrepreneur’s financial capital needs in the form of debt and external equity. This is also the case as entrepreneurs engage with other small firms at different stages of the supply chain, and in some cases, enlist their support for equity in return for labour.

In a US-UK study of small firms’ finance, Vos et al. (2007) presented a different picture of funding which is an alternative to the funding gap and information asymmetry model and instead focuses on choice for the entrepreneur, including the idea of financial contentment or “happiness”. This study presented the case that financial indicators were not determinates of small firms activity, and instead emphasised the importance of social networks and the connections-happiness linkage. These authors doubt the theoretical suitability of models more appropriate to large corporate funding. Jensen and Meckling (1976) predicated on the assumption that growth is expected, following a pecking order or escalator model (Berger and Udell 1998; Gregory et al. 2005; Myers 1984). Vos et al (2007) suggest that utility maximisation is observed in the financial behaviour of SMEs, which are non-growth orientated or 'sustainable' forms of business. Connections are both essential, provide competitive advantage through networks (Uzzi and Gillepsie 2002), but also in themselves provide utility (Petersen and Rajan 1994; Cole 1998). The authors also emphasise that "firm financial characteristics are not important considerations… and that… owner's characteristics to be determinants of financing activity" (Vos et al. 2007: p.265). The importance of networks is considered further in Chapter 3.4.5. Entrepreneurial choice is also influenced by discouragement (see Chapter 2.2.7) where the thesis considers behaviour in the context of social networks. Based on a large scale postal survey, Freel et al. (2012) found twice as many businesses were discouraged from applying for a bank loan than had had a request denied. Smaller firms, serial entrepreneurs, knowledge-intensive service firms, non-family firms, firms without an established banking relationship and firms pursuing cost-focussed strategies were all more likely to record discouragement. Vos et al (2007) noted, "these characteristics lend themselves more and less well to policy intervention or entrepreneurial action" (Freel et al. 2012: p.414).

3.2.4 Relationships

A recommendation from prestigious referrers, with whom there is a prior relationship, also endorses the worth of the ventures and thus influences an investor's decision favourably (Stuart et al. 1999). Empirical studies have also shown that venture capitalists tend to invest in new ventures where they know the entrepreneurs directly or indirectly (e.g. Batjargal and Liu 2004; Shane and Cable 2002; Shane and Stuart 2002). There is, therefore, evidence to suggest that the probability of getting funding through network methods (direct or indirect ties) is higher than through market methods. Moreover, most businesses are not set up in a way that can attract the interest of institutional investors from the very beginning (Brush et al. 2001).

The literature has argued that prospective investors, with whom entrepreneurs have direct or indirect ties, may be more likely to make a financial commitment (Aldrich and Zimmer 1986). Based on information collected through personal interactions, these investors are therefore better able to assess the ability and integrity of the entrepreneurs (Venkataraman 1997). This is considered in more detail below (see Chapter 3.4.3).

In analysing the importance of the individual entrepreneur, a number of studies have also considered the importance of the relationship between the supply and demand sides of finance (Riding et al. 1994; Binks and Ennew 1997; Mason and Harrison 1997; Howarth and Moro 2005). Schwienbacher and Larralde (2010) investigate the role of trust in the informal investment process, and their analysis suggests that "the building of a trusting relationship between the entrepreneur and the informal investor (business angel) appears to be essential for successful capital investments on the part of the investor to take place" (p.77). Howorth and Moro (2005) investigate the role of trust in entrepreneur-bank relationships and argue that higher levels of trust are associated with lower interest rates and higher amounts of credits granted. Binks and Ennew (1997) go further to propose a "participative relationship" model which involves the bank and businesses investing time and effort in developing and maintaining close working relationships.

Deakins and Freel (2009), however, considered the antithesis model of relationships, resulting from the advent of computer-based systems of decision-making in the commercial banks, such as credit scoring and financial modelling. Individual relationships, or characteristics of a particular entrepreneur, are not considered, and the result is a "homogenised" approach to funding with very little evidence for investors to differentiate one deal from another.

3.2.5 Gender and Funding the Entrepreneur

The differences in funding between genders have also been researched extensively (Brush et al. 2002; Carter et al. 2003; Carter and Rosa 1998; Marlow and Patton 2005). One view has been that women and men differ when it comes to their strategies and perceptions of business funding (Verheul and Thurik 2001). In particular, there has been some research on the business owners' gender with respect to access to debt capital (Buttner and Gryskiewicz 1993; Carter et al. 2007; Fabowale et al. 1995; Riding and Swift 1990), however, there is little research related to gender with respect to access to external equity funding. Several researchers have pointed to the need for more research on the demand side of business funding (Brush, Carter, Gatewood, Greene and Hart 2002; Harrison and Mason 1999).

Carter and Rosa (1998) addressed the challenge of whether female entrepreneurs are disadvantaged in financing their business in the context of different methodological approaches yielding contradictory results. The study found clear and quantifiable gender differences in some areas of business financing, for example, men use significantly larger amounts of capital than women on starting their business, yet had similar approaches to the use of personal finance.

McKechnie et al. (1998) considered the issue of gender and bank relationships. The results of these findings were ambiguous. Although female business owners place relatively more importance than males on the provision of advice from bank managers, as well as their bank manager's understanding of the market place, banks are not perceived by either gender as having a real understanding of the nature of the marketplace in which small businesses operate and consequently are not used on a frequent basis as a source of advice. There was no evidence in this quantitative study of female business owners having a less appropriate product or poorer banking relationship.

Arenius and Autio (2006) concluded that the only difference in women-owned businesses is that they are more likely to obtain financing from relatives than men-owned businesses. Hill et al. (2006) emphasised that neither women entrepreneurs, nor their businesses, are homogeneous in nature and that greater heterogeneity in the study of female entrepreneurship in general, and access to finance in particular, is required. Carter and Rosa (1998) noted that the means to justify andro-centrism is through gender polarisation, which is the assumption that not only are females and males different, but that this difference pervades all aspects of society. The consequences of this are that women's experiences of starting and growing businesses are either overlooked or compared to those of men in a way that excludes, subordinates or marginalises them, even if unintentionally (Martin and Collinson 2002).

In particular, Carter and Rosa (1998) argued that, although finance constraints for female entrepreneurs has been a recurrent issue in policy debates, no consensus has been reached on the question of whether disadvantages exist for female entrepreneurs accessing finance.

3.2.6 Funding and Ethnic Minorities

Scott and Irwin (2008) compared bank finance from informal sources, such as from own resources or families, in start-ups by British Asians, and found that entrepreneurs used alternative sources to bank funding:

> *"Although bank finance was valuable in preventing undercapitalised ventures, rapidly growing Asian businesses did not rely on bank finance either at start-up or for expansion. This may be attributed to the short-term perspective of banks." (p.4).*

Basu (1998), in addition, notes that fast-growth ethnic minority businesses (EMB) businesses had used personal savings when they started their firm and adds that:

> *"Asian entrepreneurs aspiring to grow need to advance beyond the traditional reliance on informal support networks for finance and labour. The research appears to suggest that personal characteristics do make some difference to the ability of entrepreneurs to raise finance." (p.325).*

The research appears to confirm that ethnic minority businesses, particularly black entrepreneurs, have the greatest problem in raising the finance that they require. Ethnicity also makes a difference to sources of finance, with black people far more likely to re-mortgage their home, use personal bank loans and use personal credit cards, all perhaps suggesting a willingness to accept a high level of personal risk, or else a total frustration with their ability to raise commercial finance, coupled with a determination nevertheless to start up. Asians, on the other hand, are far more likely to use family sources.

Some commentators argue that business bank lending does appear to be increasingly fair in addressing issues of access to finance (Scott and Irwin 2009) and that the problems of access to finance should not be unduly laid at the door of the bank branch. In other words, there are other external factors that lead to financing constraints at start up. More broadly, as Scott and Irwin observed (2006: p.13):

> *"The research just confirms that society is unequal. Many of the demographic and socio-economic variations you note will map back to different risk-reward implications for different types of suppliers of financial services. If the differences do have risk implications, surely the finance providers are acting rationally to deny applications if the reward ratio is too little for them? Even something like SFLGS does not provide an answer as this is only to replace lack of security/track record - we still have to want to lend to them in any circumstance and the 25-30% un-covered by SFLGS still is an obstacle! Also, I do not see it as a job for the private commercial sector to solve inequality (beyond paying its taxes to fund Government and as a good corporate citizen)".*

Thus, similar to gender, the problems of ethnic minorities in sourcing finance is a reflection of society as a whole and therefore represents a different topic for research than that which is undertaken in this study.

3.2.7 Entrepreneurs, Small Firms and Access to Finance - Conclusion

The review has outlined the use of Pecking Order Theory and the Funding Escalator as models for determining the capital structure of firms, although, more recently, the dramatic changes in financial markets has resulted in academics re-examining these tools. It is clear that managerial choice has some influence on the make-up of funding, although Myers (1984) himself noted that theories in this area do not explain how entrepreneurs decide on particular forms of finance. The relationship literature in this domain has also considered the role of trust and recommendations in the methods by which entrepreneurs access finance, although no reviews include the differences between entrepreneurs and how each leverages these relationships. Gender and ethnicity have also been considered in the context of access to finance, although these issues remain a reflection of society at large.

3.3 Personality and the Entrepreneur

This section reviews the traditional personality literature which emerged following Cole (1942) and McClelland (1948) and moves on to examine how this literature has been developed and reconsidered. The psychology literature is also reviewed, in particular, the use of the Five Factor Model in determining characteristics of individual entrepreneurs.

3.3.1 Need for Achievement

Cole (1942) brought into focus the need for definitive research into the personality characteristics of the entrepreneur. In 1948, he established the Centre of Entrepreneurial History at Harvard, at which David C McClelland later conducted a number of studies in the field, resulting in the seminal text ‘The Achieving Society’, published in 1961.

McClelland’s work represented a pioneering attempt to determine whether entrepreneurs hold a certain psychological set. He identified the concept of ‘need for achievement’ (nAch) and characterised those individuals with a high nAch score as those who preferred to personally solve problems, setting and achieving goals through their own efforts. McClelland hypothesised that entrepreneurs should therefore have high nAch scores and carried out a number of empirical studies (McClelland 1961; McClelland and Winter 1969). In the longitudinal study, 83% of entrepreneurs demonstrated a high nAch score, whilst only 21% of those in non-entrepreneurial positions had demonstrated a high score. In another study, McClelland and Winter (1969) reported that 48% of Indian business men who had participated in a program designed to increase the level of nAch had subsequently been unusually active in entrepreneurial efforts.

All of McClelland’s early studies, however, used a rather general definition of entrepreneur; the 1965 study, for example, considered salesmen, management consultants, fundraisers and officers of a large company as well as actual owners of a business. Thus, he did not directly connect nAch with the decision to own and manage a business.

Komives (1972) progressed the study of nAch a stage further in a study of twenty high technology entrepreneurs. Using Gordon's 'Study of Personal Values' (1960), he found that entrepreneurs were high in the achievement and decisiveness category. However, in a study of 307 graduates on a university business school, Hull et al. (1980) found that nAch was in fact a weak predictor of an individual's tendency to start a business. In these early stages, therefore, the causal link between entrepreneurship and high need for achievement was not proven.

3.3.2 Locus of Control

This ambiguity in studies searching for characteristics of the entrepreneur led to other approaches. Rotter's (1966) Locus of Control theory, for example, considered that an individual perceives the outcome of an event as being either within or beyond his personal control. Rotter therefore offered a further definition of these two categories of Locus of Control:

> *"When reinforcement is perceived by the subject as following some action of his own but not being entirely contingent upon his action, then in our culture it is typically perceived as the result of luck, chance, fate, as under the control of others or as unpredictable because of the great complexity of the forces surrounding him. When the event is interpreted in this way by an individual, we have labelled this a belief in external control. If the person perceives that the event is contingent upon his own behaviour or his own relatively permanent characteristics, we have termed this a belief in internal control." (Rotter 1966: p.324)*

Rotter believed that need for achievement is related to the belief in internal locus of control, and therefore studies of people with high nAch (McClelland et al. 1953) tend to believe in their own ability to control the outcome of their efforts. Rotter hypothesised that individuals with internal beliefs would more likely strive for achievement than would individuals with external beliefs. Later studies by Gurin et al. (1969) verified that internal individuals do have a more pronounced need for achievement.

Thus McClelland and Rotter's research appeared consistent with the proposition that entrepreneurs are more internal in their locus of control beliefs than the general population. Shapero and Sokol (1982) found that the mean I-E scores of both thirty four Italian entrepreneurs and a hundred and one Texas entrepreneurs were more internal than mean scores reported by Rotter (1966) for all groups except Peace Corps volunteers. Brockhaus (1980) found that ten graduate business school students who expressed strong intentions to become entrepreneurs were significantly more internal than an equal number of their classmates who did not intend to start business ventures. Again, however, as other studies sought to test the locus of control hypotheses, further ambiguity in results emerged. Hull, Bosley et al. (1980), for example, failed to find a relationship between locus of control and entrepreneurial activity in a group of business school alumni. Brockhaus and Nord (1979) compared locus of control scores between managers and new business owners and reported no significant difference.

3.3.3 Risk Taking Propensity

McClelland (1961) determined that persons with a high nAch score have moderate risk-taking propensities; clearly relevant to a study of entrepreneurship since the activity of running a business involves an element of risk taking. Palmer (1971) argues that the entrepreneurial function primarily involves risk measurement and risk taking. Liles (1974) speculates that in becoming an entrepreneur, an individual risks financial well-being, career opportunities, family relations and psychic well-being. Hull et al. (1980) in a study, reported that a four item risk scale distinguished business alumni with a high probability of starting a business from those with a low probability. Mascuso (1975) states that established entrepreneurs tend to be moderate risk-takers, although no empirical work is presented to support this view.

Brockhaus (1980) defined the propensity for risk-taking as the perceived probability of receiving awards associated with success of a proposed venture, and means the individual will therefore subject himself to the consequences associated with failure. The alternative situation provides fewer rewards and less severe consequences than the proposed venture. However, when Brockhaus administered the Choice Delemmas Questionnaire (CDQ) developed by Kogan and Wallach (1964), he found no significant differences between the responses of entrepreneurs and those of managers.

It is tentatively concluded that risk-taking propensity may not be related either to the entrepreneurial decision or to the success of the enterprise. However, it must be recognised (Brockhaus 1982) that general risk-taking propensity is only one component of risk; the perceived probability of failure and the perceived consequence of failure must also be relevant and were not included in these studies. Webster (1976) states that the savvy entrepreneur does not risk his own financial well-being, but only that of innocent investors. In a later study, Begley and Boyd (1987) emphasised that founders of small firms scored higher than non-founders in terms of their need for achievement, risk-taking propensity and tolerance for ambiguity.

The ability to evaluate risk was also considered in a study by MacMillan, Siegel et al. (1985) which considered characteristics as evidence of staying power with an ability to handle risk. Results indicated this was "important but not essential" (p.122). Again, this study indicated no single factor, although above all it's the quality of the entrepreneur that would ultimately determine any funding decision.

3.3.4 Personal Values

The first major study of personal values of entrepreneurs was done by Hornaday and Aboud (1971). Objectives tests were employed to identify and measure certain personality characteristics of forty individuals who had successfully started new businesses. The results indicated higher scores for entrepreneurs for need for achievement, independence and effectiveness of leadership. The authors concluded that these were objective indicators of successful entrepreneurs. These findings were subsequently supported by DeCarlo and Lyons (1979) and Komives (1972). In their study of business school alumni, Hull et al. (1980), found that entrepreneurs were highly creative and highly interested in recruiting key people and setting organisational goals and objectives. These studies, therefore, indicated values that may be effective in distinguishing successful entrepreneurs from the rest of the population. However, they did not determine the difference between successful and unsuccessful entrepreneurs.

In a related study, Gasse (1982) found that dogmatism and the business ideology of the entrepreneur are related to organisational variables such as innovation and growth rate. Certain types of entrepreneurs may also be related to specific industrial environments. Open minded entrepreneurs should be attracted to and be more effective in dynamic environments, for example. Various types of industries may be more appropriate for different subcultures of a country. In a study of ethnic minority entrepreneurs, Robson et al. (2008) argued that cultural background, technical and management competence and organisational characteristics should also be considered. Basu (1998) and Komives (1972) further suggested that a battery of objectives and projective tests would reduce the margin of error in assessing entrepreneurial potential, however, all recognised that research up to the early 1980's did not allow a causal connection between personality tests and entrepreneurial success.

3.3.5 Personal Characteristics

By using psychological attributes, in one of the few studies into the difference between entrepreneurs, Miner (1997) categorised business owners into four different personality types. The ‘personal achiever’ is similar to the classical entrepreneur proposed by McClelland (1961). A ‘supersales person’ is more orientated towards social processes and the ‘real manager’ possesses many of the characteristics of occupational management, for example, high supervisory ability. The fourth type is an ‘expert idea generator’ characterised by a desire to personally innovate, a belief in new product development, for example. Miner (1996) showed that firms founded by personal achievers had grown more than those founded by other types. However, analyses like this have been criticised as being difficult to replicate and not being tested using cluster analysis, for example.

The ages between twenty five and forty have frequently been mentioned as the age when the entrepreneurial decision is most likely to be made (Shapero 1971; Mayer and Goldstein 1961; Howell 1972). According to Liles (1974), an individual has at this time obtained sufficient experience, competence and self-confidence, but has not yet incurred financial and family obligations or a position of prestige and responsibility in a large company. McClelland et al. (1953) advise against placing too much emphasis on the age interval. They found that the age of high technology entrepreneurs at the time of company formation closely paralleled the distribution of the general population between twenty five and sixty.

In a study of the educational background of entrepreneurs, Brockhaus and Nord (1979) identified that, on average, entrepreneurs worked in slightly more than three organisations; approximately one less than the average manager. One possible explanation is that managers were more employable than entrepreneurs and therefore able to leave one place of employment for another when dissatisfied. This assumption is congruent with the fact that the average entrepreneur had spent almost six years at his previous place of employment, while the average manager had spent slightly more than three years.

The level of education was found to be significantly less for entrepreneurs than managers. The entrepreneurs averaged 13.57 years, while managers averaged 15.74 years. This lower level of education for entrepreneurs may have limited their ability to obtain challenging and interesting jobs. Collins and Moore (1964) reported in a study in Michigan, that the number of college graduates amongst business executives was higher than among manufacturing entrepreneurs. However, the percentage of manufacturing entrepreneurs who had graduated from college was three times that than in the adult Michigan population. Roberts (1969) and Susbauer (1969) reported that the founders of high technology companies had at least one college degree. Thus entrepreneurs appear to be better educated than the general population, but less so than managers. Moreover, there is a wide variation in the educational levels of different types of entrepreneurs.

3.3.6 Conclusion of Early Studies

These early studies into the characteristics of the entrepreneur therefore lacked definitive conclusions. The personality traits most frequently cited as being characteristic of entrepreneurs (Dvir et al. 2010) include the desire for independence (Collins and Moore 1964), locus of control (Brockhaus 1980; Brockhaus and Nord 1979, Brockhaus 1982; Shapero and Sokol 1982), creativity (Wilken 1975), risk-taking propensity (Begley and Boyd 1987), need for achievement (McClelland 1961) and credible role models (Bygrave and Timmons 1992; Shapero 1975).

Many summarised their findings by emphasising the broad nature and mix of characteristics that could define the entrepreneur. Lee and Tsang (2001) pointed to networking activities and number of business partners, as well as internal locus of control and need for achievement, all having a positive impact on venture growth (Poon et al. 2006). Ong Jeen and Hishamuddin Bin (2008) indicated that internal locus of control was positively related to firm performance. Lee and Tsang (2001) indicated that experience, networking activities and number of partners, as well as internal locus of control and need for achievement all have positive impact on venture growth. Two other personality traits, self-reliance and extroversion, have negative impact on number of partners and positive impact on networking activities, respectively.

Internal locus of control of the prospective entrepreneur allows them to believe that they could effectively influence the results of a business if they personally owned it. They are often naive about the low probability of success and about the consequences of failure. Even at these early stages of research into the topic, calls were made for longitudinal studies (Brockhaus, 1982).

By the late 1980's, this variation in results led to narrative reviews of the literature concluding that there was no consistent relationship between personality and entrepreneurship, and that future research using the trait paradigm should therefore be abandoned (Brockhaus and Horwitz 1986; Gartner 1988). Aldrich (1990) argued that research on personality traits seemed to have reached an empirical dead end because the correlations between personality traits and entrepreneurial behaviour were too small to matter. Others concurred with him on this verdict (e.g. Brockhaus and Horwitz 1986). Within the literature, more and more personality characteristics have been discarded, or found to have been measured ineffectively. The result has been a "tendency to concentrate on almost anything, except the individual" (Zhao et al. 2010: p.39).

3.3.7 Personality Reconsidered

The inconclusive results for traits were surprising, because new venture financiers and entrepreneurs themselves, pointed to personal characteristics as dominant reasons for success (Hitt et al. 2001; Smith and Smith 1998; Baum and Locke 2004). More recently, a growing cohort of psychology-based researchers have renewed interest in entrepreneurs' personal characteristics as predictors of success. This has moved the focus of research, from not simply an examination of the differences between entrepreneurs and non-entrepreneurs, but towards personality traits as a potential predictor of entrepreneurial behaviour, thus moving beyond the previous focus on traits to study competencies, motivation, cognition and behaviour (Bird et al. 2012).

Jayawarna and Jones (2014), for example, used longitudinal data from the National Child Development Study (NCDS) to propose a new perspective on human capital predictors of entrepreneurship. These results indicated that start-up firms are more likely to originate from those individuals who demonstrate higher levels of analytical and creative abilities in childhood, have supportive families and invest in their own human capital through work experience and education. More complex models, better research tools, and concepts that are closer to performance, in terms of causality, have also been used (Baron 1998; Baum and Locke 2004; Busenitz and Barney 1997; Mitchell et al. 2000). Another example is Herron and Robinson Jr (1993), who derived a structural causal model of the relationships between entrepreneurial characteristics and performance. The authors emphasised the importance of entrepreneurial behaviour and the context in which it is performed and concluded that behaviours and skills are more central to entrepreneurship than personality traits. Their results highlighted the importance of behaviour to entrepreneurship, thus supporting calls for further investigation of and emphasis on entrepreneurial behaviour and also "the need for longitudinal studies involving entrepreneurial characteristics" (Aldrich and Martinez 2001).

Research into the role of personality in entrepreneurship has therefore seen a re-emergence after almost twenty years (e.g. Baum and Locke 2001; Ciavarella et al. 2004). More recently, therefore, other scholars (e.g. Rauch and Frese 2007; Shane et al. 2003) have suggested that the contradictory findings in the earlier literature on personality and entrepreneurship may be because of the lack of theoretically derived hypotheses and various research artefacts. Use of meta-analysis, for example, is an appropriate technique in this situation, because it can correct for artefacts such as sampling error and poor reliability, which could not be accounted for in earlier narrative reviews (Dalton and Dalton 2005).

Another role of entrepreneurs is to detect and exploit opportunities and to make rapid decisions under uncertainty, in a resource constraint environment, and therefore, they must possess a wide variety of skills, knowledge and abilities including leadership, management, marketing and innovation, for instance (Sarasvathy 2001; Shane et al. 2003). Examples of traits that are matched to such tasks are need for achievement, innovativeness, proactive personality, generalised self-efficacy, stress tolerance, need for autonomy, internal locus of control and risk taking.

Rauch et al. (2007) in a seminal paper, 'Let's Put the Person Back into Entrepreneurship Research', highlighted the predictive validity of personality traits in entrepreneurial research (Collins et al. 2004; Stewart Jr and Roth 2007; Zhao et al. 2010). Results of this meta-analysis study supported the hypotheses that personality traits would relate to entrepreneurial behaviour, such as business creation and success. These results indicate that a few carefully selected personality traits can predict entrepreneurial behaviour. Traits that matched entrepreneurial tasks, such as generalised self-efficacy, proactive personality, innovativeness and achievement motives, are also factors most strongly related to entrepreneurial behaviour.

Delmar and Wiklund (2008) addressed the role of small business managers' growth motivation and found support for the hypothesis that growth motivation has a strong influence on employment growth, but only partial support when examining sales growth. This suggests that growth motivation only indirectly influences sales growth because relevant strategies have to be implemented to create sales growth. The importance of past growth in the firm is also important as an indicator of growth motivation for the future. Furthermore, Delmar and Wiklund "recognised that it is vital entrepreneurs understand how to manage the firm through the growth process and understand the consequence of expanding the firm" (p.452).

This extends the debate on entrepreneurship from what the entrepreneur is (the trait approach) to what entrepreneurs do (a behavioural approach) and the subsequent use of traits as a predictor for behaviour.

Further evidence of using meta-analysis provides support for the predictive validities of personality traits. Zhao and Seibert (2006) addressed multiple traits in their meta-analysis by coding various personality traits. Results indicated differences between entrepreneurs and managers in conscientiousness, openness to experience, neuroticism and agreeableness. Other meta-analyses studied the two specific personality traits, risk-taking and achievement motive, that are theoretically related to the domain of entrepreneurship.

For example, entrepreneurs risk losing their investments, in contrast to managers, therefore, they should be high in risk taking (Yorke and Knight 2004). Stewart Jr and Roth (2007) found small yet significant differences in risk propensity between entrepreneurs and managers.

In a sense, this resurgence in the consideration of entrepreneurial personality takes the debate full circle to one of the core concepts of Schumpeter's approach to entrepreneurship (e.g. Schumpeter 1935; see also (Drucker 1993), in the context of innovation and its relation to business success (Bausch and Rosenbusch 2005). People high on proactive personality want to influence their environment and proactive personality is a personal disposition for personal initiative behaviour (Frese and Fay 2001). Proactive personality is important for entrepreneurs because, by definition, entrepreneurs have to be self-starting and influence their environment by founding new organisations and by identifying and acting upon opportunities. Generalised self-efficacy (Poon et al. 2006; Utsch and Rauch 2000) is important for entrepreneurs because they must be confident in their capabilities to perform various, often unanticipated tasks in uncertain situations (Baum and Locke 2004).

3.3.8 Five Factor Model (FFM)

The re-emergence of the study of entrepreneurial personality is also due to the development of the Five-Factor Model (FFM) of personality structure, also referred to as the "Big 5", and is one of the most widely researched topics in personality psychology (Paunonen and Jackson 1996). The model maintains that most, if not all, lower-level personality traits can be combined into five, orthogonal, all-inclusive, universal factors labelled as Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness to Experience. A great deal of evidence has been presented to support the presence of those factors in personality measures as diverse as simple adjective scales (Goldberg 1990), California Q-set items (McCrae et al. 1986), the 16PF (Noller et al. 1987), the Comrey scales (Noller et al. 1987), the California Psychological Inventory (McCrae et al. 1993), the E-Scan Test and the Personality Research Form (Costa and McCrae 1992). There is even evidence for the cross-cultural reliability of the Big Five factors, at least as far as the Personality Research Form is concerned (Paunonen et al. 1996; Stumpf 1993).

Using FFM, a number of authors have predicted individual differences in adaptivity and proactivity in the general work settings (Le Pine et al. 2000; Parker and Collins 2010; Parker et al. 2006; Pulakos et al. 2002). For example, openness, agreeableness and extraversion predicted specific types of proficiency or proactivity, but none of these traits predicted adaptivity. Conscientiousness and neuroticism were the only factors that predicted adaptivity, suggesting that the personality predictors of adaptivity are indistinguishable from those of general work performance (Barrick et al. 2001).

More recently, authors have tested the effectiveness of the Big 5; Zhao et al. (2010) for example, examined the relationship of personality to outcomes associated with two different stages of the entrepreneurial process: entrepreneurial intentions and entrepreneurial performance. A broad range of personality scales were categorised into a parsimonious set of constructs using the Five Factor model of personality. The results show that four of the Big Five personality dimensions were associated with both dependent variables, with agreeableness failing to be associated with either. Risk propensity, included as a separate dimension of personality, was positively associated with entrepreneurial intentions, but was not related to entrepreneurial performance. These effects suggest that personality plays a role in the emergence and success of entrepreneurs.

Stewart Jr and Roth (2007) examined conscientiousness, the primary trait-oriented motivation variable (Mount et al. 1994) and most stable Big 5 trait (Judge et al. 1999), and concluded that this warrants more examination in entrepreneurship. Conscientiousness includes characteristics associated with a strong sense of purpose, including ambition, obligation, hard work and persistence in performance (McCrae et al. 1986) and these are traits that have been repeatedly emphasised in the entrepreneurship literature. Stewart and Roth also concluded that other FFM factors, particularly extraversion and openness to experience might also be insightful for explaining entrepreneurial behaviour, and specifically, dispositions towards certain behaviour and their interplay in entrepreneurship.

The use of the FFM may also enhance measurement. For example, the NEO Personality Inventory shows psychometric rigor in that it is consistent between self-reports and peer ratings (McCrae et al. 1986), demonstrates links with other achievement scales, such as the PRF (Borkenau and Ostendorf 1989), and has been validated in several countries (McCrae et al. 1993). Other potentially valuable instruments include the Personal Characteristics Inventory (Mount et al. 1994) and the Global Personality Inventory (Schmit et al. 2000). In addition to a more comprehensive investigation of personality factors, research is needed to clarify situational factors that are important in understanding entrepreneurial behaviour.

Specifically looking at entrepreneurship, Ciavarella (2004) asked “Big Five and Venture Survival; Is There a Linkage” and concluded that an entrepreneur needs to evolve into a manager in order to “shepherd” a new venture to long-term survival. In particular, a conscientious attitude and not being open to various avenues of divergence appear to be important to long-term new venture survival. Interestingly, in the context of this study, the author also concluded, “these personality factors are more predictive of venture survival than industry, start-up experience, or the age and gender of the entrepreneur” (p.466). In the context of this study, these finding also have implications for institutions making funding decisions for entrepreneurs, suggesting that venture capitalists, bankers, employees and other stakeholders of the venture would be wise to have some indication of the entrepreneur’s personality.

Ciavarella concluded that by utilising the most recent personality theory, entrepreneurs who are higher in conscientiousness are significantly more likely to maintain the survivability of the venture beyond the adolescence stage and have ventures with longer overall life spans than those who are lower in conscientiousness. Additionally, those who are more open to new experiences are significantly less likely to have businesses that survive beyond the adolescence stage and also tend to have ventures with shorter life spans than those who are lower in this dimension.

3.3.9 Personality and the Entrepreneur - Conclusion

Many of the early students in entrepreneurship were focused on what makes an entrepreneur, and lacked definitive conclusions (Gartner 1989). However, more recently, the debate has re-emerged in using personality traits as a means of predicting activity. The Five Factor Model, in particular, has been used to predict behaviour in the general work setting and Ciavarella (2004) has identified this as a useful tool in the entrepreneurial context.

3.4 Behaviour and the Entrepreneur

This section extends the review of entrepreneurial personality to behaviour, which a number of authors (Bird et al. 2012) have identified as an underdeveloped field in entrepreneurial research. The definition of behaviour is outlined, together with the Great Eight Model (Bartram 2005), which outlines a competency based approach to entrepreneurial research. Relevant theories including the Theory of Planned Behaviour, Social Network Theory and Resource Dependency Theory are also reviewed together with a number of empirical studies.

3.4.1 Introduction

Through the Five Factor Model, researchers began to extend the debate from what the entrepreneur 'is' and a personality based approach, to what the entrepreneur 'does' and a behavioural based approach.

Bird et al. (2012) emphasised a major goal of entrepreneurial research is to explain, predict and control behaviour at the individual and team level. Yet the authors noted (p.334) that there is "a paucity of empirical research and a lack of conceptual clarity on entrepreneurial behaviour". As Gartner et al. (1992) concluded, this is partially due to the complexity and cross-disciplinary nature of organisational behaviour, which borrows from sociology, psychology, economics, political science and anthropology (Pfeffer 1985). Weick (1979: p.31) noted that organisational behaviour is inherently ambiguous:

> *"One is never certain whether it means behaviour that occurs in a specific place, behaviour with reference to some certain place, behaviour controlled by an organizations, behaviour that creates an organisation, or just what".*

There is therefore no dominant paradigm in organisational behaviour (Gartner et al. 1992), only a multitude of various perspectives and ideologies. Added to this complexity, therefore, is the consideration that organisations are simultaneous individual and social phenomena (Katz and Kahn 1966; Weick 1979) that require a multitude of different disciplinary perspectives in order to see their natural complexities.

This complexity in the study of entrepreneurial behaviour is also a result of the nature of the individual entrepreneur themselves. Mitton (1989: p.12) commented that:

> *"Entrepreneurs see ways to put resources and information together in new combinations. They do not see the system as it is, but as it might be. They have the knack for looking at the usual and seeing the unusual, looking at the ordinary and seeing the extraordinary. Consequently they can spot opportunities that turn the common place into the unique and unexpected."*

Gartner et al. (1992) described entrepreneurship as a process of "emergence" in order to explore how the organisational behaviour area might be connected to entrepreneurship. Thus entrepreneurship can be viewed as a type of organising (Weick 1979), an ongoing process of interactions among individuals incorporating patterns of interlocked behaviours. The formation and development of organisations is fundamentally an enacted phenomenon (Weick 1979), a particular form of a socially constructed reality (Berger and Luckman 1967). Seeing entrepreneurship in this way, as a type of psycho-social phenomenon that is focussed on emergence (Katz and Gartner 1988), offers a way of connecting various entrepreneurship topics together (Gartner et al. 1992), like entrepreneurship, personality and behaviour.

This review of the behavioural literature begins with the problems of definition and what exactly is meant by ‘behaviour’. It then considers some empirical studies and finally looks at some relevant theory to this aspect of entrepreneurship.

3.4.2 What is meant by Behaviour?

In reviewing the literature, Bird et al. (2012) noted that behaviours are poorly defined and the cumulative research is fragmented with often ad-hoc measures, lacking important validation in many studies. These authors defined entrepreneurial behaviour as the “concrete enactment by individuals (or teams) of tasks or activities such as those named by Carter et al. (1996) (e.g. prepare a business plan, look for facilities, organise a team, hire employees, form a legal entity, and enter a market), which are required in some combination to start and grow most new organisations” (p.890).

In attempting to define behaviour, earlier researchers (Gartner 1985) have pursued the idea of function and have tried to differentiate the entrepreneurial function from other, more routine functions, such as the managerial (Baumol 1968; Cole 1965; Hartmann 1959; Leibenstein 1968; Schumpeter 1934). This "dynamic" aspect of the entrepreneur has been used by a number of researchers to illustrate entrepreneurial behaviour, for example, the entrepreneur locates a business opportunity (Cole, 1965; Kilby 1971; Maidique 1980; Vesper 1980; the entrepreneur accumulates resources (Cole 1965; Leibenstein 1968; Kilby 1971; Peterson and Berger 1971; Vesper 1980); the entrepreneur markets products and services (Cole 1965; Kilby 1971; Leibenstein 1968; Maidique 1980; Peterson and Berger, Schumpeter, 1934; Vesper, 1980); the entrepreneur produces the product (Kilby 1971); the entrepreneur responds to Government and society (Cole 1965; Kilby 1971).

The dynamic definition of behaviour presented by Schumpeter (1934) has been advanced by a number of authors (Covin and Slevin 1989; Ginsberg 1985; Lumpkin and Dess 1996; Morris and Paul 1987) who define behaviour as the firm’s propensity to engage in new idea generation, experimentation, research and development activities. This includes the development and enhancement of products and services and new administrative techniques and technologies for performing organisational functions.

Behaviours are therefore best understood as discrete units of goal-oriented action that could be observed by others and that are “sized” to be meaningful to both actor and audience (Bird et al. 2012). Behaviour is therefore kinaesthetic, auditory and/or visible, and when others are present, interpersonal. Behaviours include actions, and therefore, also activities of individuals (entrepreneurs) and responses (behaviours that follow from and are presumably caused or evoked by some preceding stimulus).

Behavioural competences (Bird et al. 2012: p.890) can be defined as abilities, knowledge, skills, traits and concepts of self, such as self-efficacy beliefs that are "causally related to criterion-referenced effective and/or superior performance in a job or situation" (Spencer and Spencer 1993). Thus competence goes a stage further and allows the study of different qualities (Bird at el 2012) of behaviour itself. Sadler–Smith et al. (2000: p.48) explored the relationships between managerial competences, styles and firm type (in terms of sales growth performance). This indicated that managing culture and managing vision are related to an entrepreneurial style, while managing performance is related to a non-entrepreneurial style. The authors concluded that:

> *"Management competence provides a potentially useful lens through which to analyse the effectiveness of entrepreneurs, and can be useful in exploring questions, for example, what kinds of activities does an entrepreneur perform; what roles can be inferred from these activities; what are the distinguishing characteristics of entrepreneurial work; what variability exists among entrepreneurial and managerial jobs?".*

Zhang et al. (2008) considered one aspect of competency - social competence - in the venture creation process (Baron and Markman 2000) analysing how entrepreneurs used this in order to access prospective investors; and social competence subsequently assists in gaining the funds. The study suggests that 'social boldness', defined as the ability to interact with strangers, should be one important aspect of social competence, at least for entrepreneurs. The challenge remains, however, to "develop measures, collect longitudinal data and apply state-of-the-art statistical techniques", and as Aldrich and Martinez went on to note (2001: p.53), this was not a small, task but is "surely worth our efforts over the next decade".

3.4.3 Behaviour, Competency and the Great Eight

The development of the Big Five model of personality traits (Goldberg 1990) has provided a commonly accepted taxonomy for classifying personality (Neal et al. 2012). The absence of an equivalent taxonomy for classifying performance constructs has been repeatedly identified as a barrier hindering a better understanding of the relationship between personality and performance (Barrick et al. 2001; Campbell 1990; Guion and Gottier 1965; Hogan and Holland 2003).

Understanding causation, as in how and why things are related, is necessary for effective intervention in organisations and specifying causal pathways and models is a particular strength of psychology. Kurz and Bartram (2002) used the concept of behavioural competency to attempt to integrate diverse theories, concepts and measures into an overall model of individual performance.

Behavioural competency is defined as sets of behaviours that are instrumental in the delivery of desired results or outcomes (Kurz and Bartram 2001). Woodruffe (1992) agrees with the definition that behavioural competency is the set of behaviour patterns that the incumbent needs to bring to a position in order to perform its tasks and functions.

These definitions represent a development from the trait based approach of Boyatzis (1982) in his seminal book ‘The Competent Manager’, where job competency is defined as an underlying characteristic of a person which results in an effective and/or superior performance of a job.

So a competency is not the behaviour or performance itself, but the repertoire of capabilities, activities, processes and responses available that enable a range of work demands to be met more effectively by some people than others. The main factor that distinguishes a competency from other weighted composites of psychological constructs is the fact that a competency is defined in relation to its significance for performance at work (Kurz and Bartram 2002).

There were therefore a number of attempts to define the competency concept further and to provide more ‘finely grained’ constructs of competency. Tett and Burnett (2003), for example, developed a taxonomy of fifty three competencies clustered around nine general areas – task orientation, dependability, open-mindedness, emotional control, communication, developing self and others, occupational acumen and concerns.

Borman and Brush (1993) proposed a structure of 1987 behaviours mapping onto eighteen dimensions, which in turn map onto four very general dimensions – leadership and supervision; interpersonal relations and communication; technical behaviours and the mechanics of management; and useful behaviours and skills.

Bartram (2005) extended this further adopting a three-tiered structure; bottom tier consisted of 110 components, mapped onto a set of twenty competency dimensions (the middle tier) and this is then loaded onto eight broad competency factors.

The top tier is the Big Eight, and importantly, also provides a mechanism for mapping measures of disposition or attainment onto competencies, and a number of studies, including longitudinal studies, have provided further confirmation of the eight factor structure (Kurz and Bartram 2002).

The Great Eight competencies (Bartram 2005) presented in Table 6 represent a set of factors that underpin job performance. These eight competencies include: leading and deciding; supporting and cooperating; interacting and presenting; analysing and interpreting; creating and conceptualising; organising and executing; adapting and coping; as well as enterprising and performing (see Bartram and SHL Group 2005; Kurz and Bartram 2002).

Competency Framework	
Competency Factors	**Competency Dimensions**
Leading and Deciding Need for Power and Control	Deciding and Initiating Action Providing Leadership and Supervision
Supporting and Co-operating Agreeableness	Team Working and Supporting Serving Customers and Clients
Interacting and Presenting **Extraversion**	Relating and Networking Persuading and Influencing Communicating and Presenting
Analysing and Interpreting	Writing and Reporting Applying Expertise and Technology Problem Solving
Creating and Conceptualising **Openness**	Learning and Researching Creating and Innovating Forming Strategies and Concepts
Organising and Executing **Conscientiousness**	Planning and Organising Delivering Quality Complying and Persevering
Adapting and Coping **Emotional Stability**	Adapting and Responding to Change Coping with Pressure and Setbacks
Enterprising and Performing **Need for Achievement**	Achieving Results and Developing Career Enterprising and Commercial Thinking

Table 6 - Relationship between the top and middle tiers of the job competency framework (SHL Group)

No definitive measure of the great eight competencies have been developed, and instead, researchers can apply existing measures of competency, such as SHL tools like the inventory of management competencies, the customer contact competency inventory or the work styles competency inventory (Bartram 2005). All of these measures generate between sixteen and thirty-six competencies, which can then be assigned to one of the eight primary competencies. Trait from Aston Business Assessments (ABA 2011) is also one such test.

The main advantage of the Great Eight model (Bartram 2005) is that it provides a framework for competency measurement and therefore a clear set of a priori hypotheses regarding the expected eight one-to-one predictor–criterion relationships. The contribution of the Great Eight model for understanding of job performance is clear. Each of the eight predictors was shown to predict a different area of job performance consistently across jobs, measurement instruments and cultural contexts.

3.4.4 Theory of Planned Behaviour

Originating from social psychology, the Theory of Planned Behaviour (TPB) posits that intention, a function of behavioural beliefs, is a significant predictor of subsequent behaviour. In the framework, behaviour is presented in three ways, all of which are antecedents of intention for the entrepreneur to act in certain ways. These three antecedents are: a favourable or unfavourable evaluation of the behaviour (Attitude), perceived social pressure to perform or not perform the behaviour (Subjective Norm) and the perceived ease or difficulty of performing the behaviour (Perceived Behavioural Control) (Ajzen 1991).

Where this theory has been applied in the entrepreneurship literature, it suggests that attitude, subjective norms, and perceived behavioural control typically explain 30% to 45% of the variance in intentions (Kolvereid and Isaksen 2006; Krueger 2000; Autio et al. 2001; van Gelderen et al. 2008; Lin and Chen 2009). These studies have often used convenience samples of university students (e.g. Kolvereid 1996; Krueger et al. 2000; Autio et al. 2001; van Gelderen et al. 2008). This body of literature also argues that the theory of planned behaviour provides more predictive power in this context than personality traits or demographic characteristics (Krueger 2000; Autio et al. 2001). As Krueger and his colleagues (2000, p.413) outline, scholars best predict any planned behaviour, such as entrepreneurship, “by observing intentions toward that behaviour - not by attitudes, beliefs, personality, or mere demographics”. The intention construct and its antecedents are “closer to the action” than more distal constructs such as traits and demographics, which may predict broad classes of behaviour well, but not specific actions (Epstein and O’Brien 1985; Rauch and Frese 2007).

In a longitudinal study of working age adults, Kautonen et al. (2013) tested the theory in order to predict business start-up intentions and subsequent behaviour based on two-wave survey data from the working-age population in Finland. The econometric results support the predictions outlined in the theory: attitude, perceived behavioural control and subjective norms are significant predictors of entrepreneurial intention; and intention and perceived behavioural control are significant predictors of subsequent behaviour. This research thus provides support to the application of the TPB and the concept of behavioural intention, to understand the emergence of complex economic behaviour, such as entrepreneurship, prior to the onset of any observable action.

3.4.5 Social Networks and Behaviour

Social network theory is an inherently interdisciplinary field, drawing from a structuralism perspective. It is therefore the study of how actors make connections within networks, leading to different outcomes (Sullivan and Cameron 2013; Borgetti and Foster 2003; Mehra et al. 2006). Network theory is linked to the study of social capital and how the entrepreneur leverages connections in order to benefit the firm. The concept of social capital, defined as the resources embedded in social networks and relationships that enhance the competitiveness of the firm (Burt 1992; Coleman 1988; Nahapiet and Ghoshal 1998), has attracted increasing attention in the entrepreneurship literature (Cope et al. 2007). It facilitates information exchange, collaboration (resource sharing), and knowledge transfer (Florin et al. 2003; Hite 2005), and can lead to reduced transaction costs and improved financial performance. Stam et al. (2014 p.169) in a study of sixty-one entrepreneurs, recognised the importance of social capital and performance and concluded that more attention should be given to, “personality traits as a potential moderator of social capital”.

Within the entrepreneurial domain, the literature emphasises the importance of networks, in particular, to accessing the resources needed to grow and expand the small firm. Greve and Salaff (2003) described three key uses of networks; the first is size. Entrepreneurs can enlarge their networks to get crucial information and other resources from knowledgeable others. The next is positioning. Entrepreneurs position themselves within a social network to shorten the path to knowledgeable others to get what they need (Blau 1977; Burt 1992; Granovetter 1973). The third is relationship structure (Tello et al. 2012; Aldrich et al. 1987; Hoang and Antoncic 2003; Kodithuwakku and Rosa 2002). Network ties enhance the ability of entrepreneurs in key entrepreneurial processes, such as spotting opportunities (Ardichvili et al. 2003), acquiring resources (Batjargal and Liu 2004) and gaining legitimacy (Aldrich and Fiol 1994).

Granovetter (1973) analysed the effectiveness of social networks using “strength of ties” which describes the intensity and diversity of relationships. The basis of Granovetter’s (1973) theory is that entrepreneurial acquaintances (weak ties) are less likely to be socially involved with one another than close friends (strong ties). There is, therefore, a difference in the strength of the ties, but also a difference in network density. A network consisting of a large number of weak ties is described as a low-density network, one in which many of the possible relational lines are absent, whereas the set consisting of the same individual and his or her close friends will be high density.

Although forming fewer “closer relationships”, having weaker ties presents the entrepreneur with opportunities to access information from a broader perspective. Entrepreneurs with fewer weaker ties will not have access to a wider social system and will be limited to their own more localised friendships (or cliques). Networks lacking in weaker ties will therefore be “fragmented and incoherent” (Granovetter 1973: p.202) and therefore diffusion of innovation and new initiatives, for example, will be slower.

In building a useful network of contacts, Coser (1975) argues that the entrepreneur needs to further develop the ability to bridge weak ties, therefore linking different groups, and through this, connect individuals who are different from each other and therefore are able to provide complementary skills and potential resources. Strong ties have value, but weak ties facilitate access to a selection and range of resources beyond an immediate social circle.

How entrepreneurs maintain a balance of weak and strong ties is therefore a key competence for the entrepreneur (Elfring and Hulsink 2007; Uzzi and Gillepsie 2002; Lechner et al. 2006; Jack 2005; Batjargal and Liu 2004). Hite and Hesterley (2001) argued for a development of the weak tie theory, in proposing that an entrepreneur’s personal network evolves from an identity-based network, dominated by strong ties, towards an intentionally managed one, rich in weak ties. In the emerging stage, therefore, start-ups rely on strong ties for resources, and later, in the early growth stage, entrepreneurs expand their network to include weak ties. In this phase, a more diverse network is required. Entrepreneurs rarely possess all the resources they need to seize an opportunity (Garnsey 1998). In the emergence phase, entrepreneurs depend on their strong ties (Bruederl and Preisendorfer 1998), often for a “friend’s favour” (Starr and MacMillan 1990). Later on, in the early growth phase, start-ups increasingly gain access to resources through normal market transactions, and it would follow that there will be a shift towards weak ties.

A further development of the theory, is the ability of entrepreneurs to strategically position themselves to form weak ties (Ebbers 2013) between two disconnected individuals, and subsequently exploit this position, either through the leveraging of complementary knowledge or by providing broker services (Burt 1992). Indeed, there is reciprocity to the weak-strong tie phenomena, as entrepreneurs who identify opportunities that they themselves cannot (easily) exploit, have the option to inform other entrepreneurs in their network whom they perceive to be better positioned or endowed to exploit the opportunity. Although entrepreneurs do not directly benefit from facilitating others to exploit business opportunities, one might expect that those who benefit from another entrepreneur will reciprocate this selfless bridging behaviour (Blau 1977).

How ties evolve also depends on the proactive initiatives of individual entrepreneurs. Larson and Starr (1993) and Hite (2005) indicate that network ties may evolve in their degree of relational embededness due to an entrepreneurial behaviour. Conway and Jones (2012) re-tell the Dyson story from the perspective of social networks, providing support, information and knowledge for the entrepreneur.

Network ties also provide entrepreneurs with the potential to gain legitimacy, although there is also a dark side to the Strong Weak Ties theory, which has received little attention within the literature (Elfring and Hulsink 2007). Entrepreneurs with too many strong ties may result in being “locked-in”, and equally, too many weak ties could increase the costs of having to deal with an overload of weak ties and may have a profound negative impact on performance.

In their seminal work, ‘Entrepreneurship through Social Network’, Aldrich and Zimmer (1986) stressed the importance of linkages in entrepreneurial networks and the ability of the individual to make connections in order to access capital and other resources. Aldrich and Zimmer conclude by emphasising the social roles of entrepreneurship. As a group, they do not operate in isolation and it is through social networks that they facilitate (or inhibit) activities.

Sullivan and Cameron (2013) therefore argue for further research into entrepreneurial behaviour and how entrepreneurs evolve their networks to address changing resource dependencies over different phases of venture development.

Social Network theory underlines the importance of the entrepreneur’s contacts in accessing information and resources in order to assist the successful development of an enterprise. The entrepreneurship literature clearly supports the importance of networks in assisting the entrepreneur to secure the resources needed to promote venture emergence and success (Tello et al. 2012; Aldrich et al. 1987; Hoang and Antoncic 2003; Kodithuwakku and Rosa 2002). However, evaluating the quality of any network presents problems for the academic researcher. Quantitative measurement is not precise (Wright 2007) and it may be difficult to accurately allocate a particular resource to a specific contact. There may also be antecedents to an effective network and it has been suggested that personality traits present an opportunity for future researchers to analyse how entrepreneurs evaluate network resources (De Carolis and Saparito 2006). There therefore is opportunity, through cluster analysis, for example (Wright 2007), to better understand how the various networks are configured and how these influence resources and subsequent outcomes.

Financing is a critical entrepreneurial activity (Shane et al. 2003); and research has increasingly emphasised the relevance of an entrepreneur's social capital in financing, not only in the sourcing and accessing of funding, but also in the acquisition of information that improves access to funding (Shane and Cable 2002; Uzzi and Gillepsie 2002). In addition, calls for more research on the connection between entrepreneurs' social and financial capital have been made (Florin et al. 2003; Gartner 1988; Shane and Venkataraman 2000). In particular, entrepreneurs' network ties are crucial in acquiring funds from initial investors (e.g. Batjargal and Liu 2004; Shane and Cable 2002; Starr and MacMillan 1990). Entrepreneurs often approach prospective investors with whom they have prior relationships (i.e. direct ties) or to whom they are referred (i.e. indirect ties). These ties are particularly useful if the firms operate in high-tech industries and/or at the early stage of venture creation (Venkataraman 1997). However, entrepreneurs often face constraints in relying on pre-existing network ties.

Furthermore, entrepreneurs who manage to develop their bank relationships, improve their access to better loan agreements and individually adapted financial information (Uzzi and Gillepsie 2002). Hence, in both financing strategies (bootstrapping and reliance on external debt and equity financing), entrepreneurs' social capital is essential in creating the opportunity to access resources that are otherwise unattainable. A study by Grichnik et al. (2014) of 298 nascent entrepreneurs concluded that beyond perceived environmental factors, "individual characteristics of… entrepreneurs… determine bootstrapping behaviour" (p.310).

Despite the recognised importance of entrepreneurs' social capital to firm financing, little is known about how entrepreneurs' social capital, with respect to external debt and equity financing, develops over time (Zhang et al. 2008). Such a dynamic perspective is relevant because entrepreneurs face different financing requirements at different stages of organisational development. Because different strategies and external relationships are required, the social capital must be reconfigured (Hite and Hesterley 2001).

3.4.6 Resource Dependency Theory

Central to this concept of Resource Dependency Theory (RDT), is power, which is the control exercised over vital resources (Ulrich and Barney 1984). Organisations therefore attempt to reduce others' power over them, and in some cases, attempt to increase their own power over others. The basic principles of the theory are (Pfeffer and Salancik 1978):

1. Organisations are the unit for understanding inter-corporate relations.
2. Organisations are not autonomous, but are constrained by interdependence with other organisations.
3. Interdependence, coupled with uncertainty, means survival itself is uncertain.
4. Organisations take action to manage external dependency.
5. These patterns of dependence produce inter-organisational power.

Pfeffer and Salancik (1978) presented five actions that a firm can take to minimise environmental dependence:

- **Mergers and Vertical Integration:** RDT is presented as a rationale as to why firms engage in mergers and acquisitions. This can reduce competition and manage interdependence with either sources of supply of input or purchasers of outputs; operations can also be diversified, thereby lessening dependency on existing organisations.

- **Joint Ventures:** Through the formation of a joint venture, organisations are able to reduce uncertainty and interdependence.

- **Boards of Directors:** Although agency theory is predominant in the research on boards of directors (Johnson et al. 1996, Dalton et al. 2003), RDT asserts that boards enable firms to minimise dependence, or gain resources, through the provision of critical resources to the firm.

- **Political Action:** This element of RDT assumes that firms try to shape Government regulations and thereby produce a more favourable environment. Meznar and Nigh (1995) find that firms heavily dependent on the Government are more likely to engage in political activity.

- **Executive Succession:** RDT indicates that a firm's poor performance may be attributed to a misalignment of organisational behaviour with the environment.

In examining RDT, it is apparent that firms enact multiple strategies including merger and acquisitions, joint ventures, boards of directors, political action and executive succession, for example, in order to manage dependence from the external environment. Clear links, therefore, exist between RDT and the later work by Sarasvathy (2009) on the behaviour of successful entrepreneurs who design strategies that enable them to control their own environment.

In resource dependency theory, it is argued that organisations are dependent upon the exchange of resources (Pfeffer and Salancik, 1978), and therefore RDT links with network theory, as different network ties may help manage the uncertainty and varying resource requirements that firms face.

In early venture development, when dependencies are initially being established, entrepreneurs engage with many ties as they seek to determine the best ties with whom to create later dependencies that can enhance chances of long-term survival and performance (Gulati and Sytch 2007). Thus, resource-dependence theory and network theory are helpful for providing many possible and novel resolutions to uncertainties and for gaining access to resource needs that entrepreneurs face early in venture development. In view of this, entrepreneurs understand that relying on a large network is important for managing their access to important resources over the course of early venture development.

The resource-based view of the family firm has been considered more recently by (Alsos et al. 2014) in a comparative study of small firms and the role of ‘kinship’, and the use of ‘bricolage strategies’, in increasing a variety of resources to growing, small firms. Three themes emerged; interwoven connections between the home and the business in resource availability; the use of family in resource utilisation; and the management of risk and uncertainty. All these aspects are of relevance to this funding study of small firms.

3.4.7 Empirical Behavioural Studies

The factors which influence the entrepreneur’s network utilisation decisions (networks versus market methods) in the early venture financing process, have not been extensively researched in the literature (Hoang and Antoncic 2003). Larson and Starr (1993) coined the term “network culling” to describe an iterative process which involves the exploration, screening and selective use of network dyads to match the resource demands of the new business.

In a longitudinal study, van de Ven and Huber (1990) drew on a case study to explore, in a broad way, how venture creation activities are undertaken over the entire venture creation process. This approach explored when start-up activities take place, that is, their temporal dynamics. The authors borrowed from the Panel Study of Entrepreneurial Dynamics'(PSED) list in order to identify nine start-up behaviours pertaining to the 'tactical organising' during the business launch (Reynolds and Curtin 2010). Typical start-up behaviours included investing personal capital, developing a prototype, defining an opportunity, organising a founding team, forming a legal entity, installing a business phone, purchasing major equipment, opening a bank account and asking for funding. They found that later stage entrepreneurs had a significantly higher level of education, were more experienced, worked harder and were more deeply involved in both strategic planning and the operational decision-making process. Later stage entrepreneurs also maintained richer and broader networks of ongoing relationships, both inside and outside the firm.

Although empirical studies vary greatly in the methods used, they have contributed to the identification of important differences in the activities and behavioural patterns characterising the start-up and growth stages (Table 7).

Behaviour and Business Cycles	Start-Up Stage	Growth Stage
Churchill and Lewis (1983)	Entrepreneur as spider in his web	Recruiting professional staff who take on supervisory roles
Van de Ven et al. (1984)	Obtaining customers and delivering the product Entrepreneur works on average 47.7 hours/week Entrepreneur focus on internal activities (e.g. product development)	Marshalling resources to finance rapid growth Entrepreneurs work on average 63 hours/week Entrepreneur focus on external activities (e.g. strategic alliances and relationships with suppliers)
Scott and Brown (1987)	Obtaining customers Economic production	Managing and financing growth Maintaining control
Kazanjian (1988) **Kazanjian and Drazin (1990)**	Technology development Set up task structure, gearing up for first marketing	Produce, sell and distribute in volume Overcoming functional crisis; growth related personal problems
Hanks and Chandler (1994)	Broad overlapping roles Specialisation limited to research and development and sales	Specialisation roles Additional specialisation in manufacturing, marketing and administration roles
McCarthy et al. (1990)	Dealing with customers	Dealing with employees, arranging finance. Planning future activities
Lichenstein et al. (2006) for start-up stage; **Anderson and Teli (2009) for growth stage**	Investing personal capital, developing a prototype, defining an opportunity, organising a founding team, purchasing major equipment, asking for funding	Employee empowerment, strategic management, management of culture and vision, personal networking

Table 7 - Common Management and Behaviour across life cycles (Mueller at al 2012, p.998)

Past studies suggest that as their business ventures move beyond the challenges inherent to the start-up phase and begin expanding, founders tend to replace 'first-hand direct' activities with managerial ones, whereas, the time allocated to other activities (e.g. record keeping, maintenance and dealing with suppliers) does not significantly change (e.g. McCarthy et al. 1990). It further appears that most of the actions performed by start-up entrepreneurs are open-ended (e.g. defining an opportunity, developing a business plan, building a prototype, obtaining the first customers), and this requires significant chunks of time and a capacity to scan the environment for resources. As the venture grows, the pace of work is likely to increase as entrepreneurs have to deal with an increasing number of subordinates and coordinate additional activities to produce and distribute in volume.

Various studies have examined the start-up activities completed by entrepreneurs (Carter et al. 1996). These include writing a business plan, organising a start-up team, hiring the first employee, looking for a location, for example. The Panel Study of Entrepreneurial Dynamics (PSED), which captures more than thirty different activities in which entrepreneurs engage in (Reynolds and Curtin 2010; Reynolds 2011), is virtually alone in having examined entrepreneurs' actions during the organising of their businesses by drawing on large random samples (Mueller, 2012). Among the activities most frequently reported were "serious thought given to the start-up", "actually invested own money" and "began saving money to invest" (Reynolds 2011: p.34; Gartner et al. 2010). Using the PSED data, Delmar and Shane (2004) found that completing a business plan and establishing a legal entity both enhance the legitimacy of new ventures, thereby increasing the likelihood that the venture will initiate marketing and promotion, obtain inputs and talk to customers.

Frese et al. (2000) examined the planning behaviour of entrepreneurs and identified individual level planning and action strategies used by small business owners/managers. Five different approaches were used including complete (top-down) planning, critical point, opportunistic, reactive and routine/habit. Research on eighty owners of small start-up firms in the Netherlands showed that, as hypothesised, a reactive strategy was negatively related to firm success, while a critical point strategy was positively related. The combination of critical point and opportunistic strategies appeared most successful and the combination of opportunistic and reactive was found to be least successful. The authors conclude these results have "practical implications for banks and advisors" (p.14).

Baum and Locke (2004) examined 229 entrepreneurs in a six year longitudinal study, analysing the relationship of entrepreneurial traits, skill and motivation to subsequent venture growth. Results indicated goals, self-efficacy and communicated visions had a direct effect on venture growth; passion and tenacity had no direct effect. The importance of entrepreneurial vision was emphasised by Collins and Porras (1994) indicating that entrepreneurs who are able to communicate a vision have a stronger organisational culture and are more successful than non-visionary companies. Westerberg and Wincent (2008), in a study of 162 entrepreneurs, indicated entrepreneurs' characteristics do influence the performance of the firm, indirectly, by influencing the actions of the entrepreneur. These authors used Black's (1998) work in identifying, honing and enterprising as two entrepreneurial actions that could influence the firms' performance. 'Honing' is defined as improving an activity already performed by the firm; 'enterprising' is related to the entrepreneur's tolerance of ambiguity.

Clearly the role and behaviours of entrepreneurs generally evolve as the firm becomes more and more established. For example, Hambrick and Crozier (1985) remarked that as the venture grows beyond the initial team, and evolves into a differentiated and systematic organisation, founders can expect important shifts in both their responsibilities and in what they expect of others. Along these lines, Hanks and Chandler (1994) suggested that entrepreneurs focus their attention on product development during the start-up stage, with a shift in priority toward sales and accounting during the growth stage.

Van de Ven et al. (1984) examined chief executives' allocation of time, in a pioneering study comparing six companies in their early stages, with six in their later stages of growth. They found that later stage entrepreneurs had a significantly higher level of education, were more experienced, worked harder and were more deeply involved in both strategic planning and the operational decision-making process. Later stage entrepreneurs also maintained richer and broader networks of ongoing relationships, both inside and outside the firm.

During the start-up stage, entrepreneurs focus their attention on the business opportunity they are hoping to capitalise on, as well as on concrete start-up activities, such as developing a prototype, organising a founding team and purchasing major equipment (Lichtenstein et al. 2006). At this stage, acquiring customers and delivering the product contracted to them present the greatest challenges (Churchill and Lewis 1983). Invariably, the initial product or service has some problems that require the entrepreneurs' attention (Kazabjian 1988; Kazabjian and Drazin 1990). Accordingly, entrepreneurs often take the role of technical innovators and/or market controllers. Because the size of their firm remains small, the structure of the organisation is straightforward, with the entrepreneur taking central stage. Communication proceeds on a face-to-face basis, there are few rules and regulations and entrepreneurs make decisions quickly and informally. Since staff is minimal, communication partners are often external and the entrepreneur works closely with suppliers and early adopters to fine-tune their products (Hanks and Chandler 1994). As the business expands, the problems shift to managing and financing growth (Churchill and Lewis 1983; Scott and Bruce 1987). The production, sale and volume distribution processes call for additional specialisation in manufacturing, marketing and administrative roles (Hanks and Chandler 1994). As such, specialisation is a by-product of the entrepreneur's delegation of certain tasks to managers.

The transfer of responsibility and control to others goes hand in hand with the establishment of organisational structure, processes and routines (Churchill and Lewis 1983). Decision-making then becomes more formal, involving a clear process and supervision. The entrepreneur is, therefore, more likely to take on organisational tasks to coordinate activities and to engage in building up an efficient system (Scott and Bruce 1987). Similarly, McCarthy et al. (1990) demonstrated that entrepreneurs re-distribute their efforts as the business becomes established. For example, later stage entrepreneurs spend more time dealing with employees, planning future activities, and arranging financing, and less time with customers.

In a seminal article, Mueller et al. (2012) carry out a study of six entrepreneurs. A taxonomy of behaviour is developed in this study, which includes an in-depth analysis of entrepreneurs' behaviour in the start-up and growth stages. Anomalies between the two groups included a high pace and fragmentation of the work, a focus on exploitative tasks, and the considerable time spent on communication with others. In addition, three functions (human resources and employee relations; marketing, sales, and PR; and administration) and one core activity (exchanges of information and opinions) were also prevalent for the majority of start-up and growth-stage entrepreneurs in our sample. Five key differences emerged when comparing start-up with growth entrepreneurs, and overall these match the characterisations of the life cycle literature (Churchill and Lewis 1983; Kazanjian 1988). At the activity level, start-up entrepreneurs spent significantly more time on analytical and conceptual work. At the functional level, start-up entrepreneurs spent significantly more time on environmental monitoring, while growth entrepreneurs spent significantly more time on business and organisational development. Finally, growth entrepreneurs spent significantly more time communicating with others, and this communication involved, primarily, internal partners. Overall, these patterns clearly confirm a switch from 'doing' to 'managing' (McCarthy et al. 1990).

Scott (2009), for example, considered the use of advisors to the entrepreneur and found an association between the use of external advice and the ability to raise bank finance. Read (1998) reported that 40% of women and 15% of men had sought business advice from their bank, but that for both genders, it was infrequent and there was a perception that banks do not understand small business. Evidence also suggests (NESTA 2014) that because of their position at the head of companies, owner-managers are less able to learn from their colleagues and face heavy time pressure. Significantly, although respondents in this study recognised the potential value of advisors, almost 25% didn't know how to source a suitable individual.

The venture capital literature does indicate a connection between obtaining external advice and accessing equity finance, in particular, Hustedde and Pulver (1992) found a correlation between not seeking advice and failing to obtain equity-based finance. However, there is little else in the literature that ties advice and success in accessing finance.

In Chapter 2.2, the emerging trend of non-seekers of finance was discussed. This is consistent with Kon and Storey's (2003) theory of discouraged borrowers and highlights those potential borrowers from banks, who may have developed perfectly reasonable business proposals, but who do not apply for a bank loan because they feel they will be rejected (Roper and Scott 2008; Brooksbank et al. 2007; Fraser 2008; Wyer et al. 2007; Freel et al. 2012). Bennett and Robson (2003) also extended this to consider situations where there are discouraged advisees, where entrepreneurs do not approach particular sources of external advice because they are not confident they will receive useful information, and do not trust in the advisers to provide them with this.

Blackburn et al. (2013) considered collaborative behaviour of owner-managers' activity and concluded almost six out of ten businesses were involved in some form of external collaboration. These findings are in contrast to some descriptions of small business owners as isolationists who prefer to work on their own rather than seeking to collaborate with others. Lee and Tsang (2001) considered the more practical aspects of working with others and emphasised the importance of the entrepreneur bringing in a variety of skills, connections and other resources, through business partners, that may help generate new ideas, solve problems and develop new business. Dobbs and Hamilton (2007) considered wider contacts with trade bodies and formal joint ventures and concluded that participation in joint ventures, networks and alliances can assist a firm's growth by providing access to a broader base of resources, managerial talent and intellectual capabilities. Trade associations provide quick access to industry-related information, the opportunity to network with industry peers and collective lobbying (Heinonen et al. 2004).

Finally, using brokers and other intermediaries has been highlighted in empirical studies. Not all entrepreneurs have direct linkages with people who may be important for their needs. Indirect links with people in advantageous social locations can be created through the work of brokers. For example, venture capitalists often play broker roles because they bring together technical experts, management consultants and financial planners to supplement an entrepreneur's limited knowledge.

3.4.8 Behaviour and the Entrepreneur - Conclusions

In summary, past studies suggest that as their business ventures move beyond the challenges inherent to the start-up phase and begin expanding, founders tend to replace 'first-hand direct' activities with managerial ones, whereas the time allocated to other activities including record keeping, maintenance and dealing with suppliers, for instance, does not significantly change (e.g., McCarthy et al. 1990). Nevertheless, empirical studies remain difficult to compare. In addition, most of them fail to make use of the potential of inductive analysis to uncover what constitutes entrepreneurs' behaviour in a holistic manner (Bird et al. 2012).

The entrepreneurial behaviour literature therefore calls for more research which is able to both identify behaviour as discrete units and also introduce some element of measurement (Bird et al. 2012). The Great Eight was presented as an attempt to introduce a measurement tool and also identify competency as a lens through which to study behaviour. Theories related to this area have also been reviewed and the development of networks, in particular, appears to be a key component in research acquisition for entrepreneurs. Empirical studies support this view.

3.5 Literature Review Summary and Opportunities for Future Research

The literature review has considered established models of funding of the small firm including Pecking Order Theory and Funding Escalator Models. The effects of the recent financial crisis, reviewed in 3.2, further underlines Myers' (1984) conclusion that a definitive rationale for capital structure in small firms remains elusive.

In the introduction to this study at Chapter 1, the emphasis was placed on the individual entrepreneur and the call from a number of academics, notably, and more recently, by Wright and Stigliani (2013: p.4), for more "fine grained work" on how entrepreneurs influence outcomes. The literature review has considered the early studies into entrepreneurial personality. The emphasis of these studies was on discovering the trait data-set that distinguished the entrepreneur from the rest of the population. This proved inconclusive, but did form the foundation for a resurgence in attempts to predict entrepreneurial behaviour, using, for example, the Five Factor Model. From the perspective of the entrepreneurial domain, this use of psychology-based models built on (Gartner et al. 1992: p.26) call to “borrow boldly” from other social science disciplines.

More recently there has been a call to look in more detail at behaviour and “what do entrepreneurs actually do” (Bird et al. 2012; Mueller 2013). The Great Eight Model (Bartram 2005) is one approach, therefore, to develop taxonomy for classifying performance and thereby analysing not simply what an individual does, but how well they do it. A number of studies have looked at entrepreneurial behaviour and it has been concluded that competences provides a potentially useful lens through which to frame these and other questions (Sadler-Smith et al. 2003; Burgoyne 1993; Burgoyne 1989; Bridge et al. 1998; Gherardi 2003; Gruglis 1997; Holton and Naquin 2000). In reviewing the literature, a number of areas have been identified for further study:

Firstly, research into **clarity of behaviour** is to be addressed, including event analysis and consideration of the “chunks” of activity involved in a specific process. Through better observations of behaviour, small business researchers can therefore make a distinctive contribution to the understanding of how small firms are managed and structured (Bird et al. 2012; O’Gorman 2005; Mueller 2012; Gartner 1992). The study of managerial behaviour has been described as “a missing field of research within the small business literature” (O’Gorman et al. 2005: p.2) and summarised by Bird et al. (2012; p.903) as follows:-

> *“We conclude that very little is known about what entrepreneurs do despite the early call for rich description made by Gartner et al. (1992). Behaviour in entrepreneurship research remains a surprising void - one we hope this issue and future efforts will begin to fill.”*

The study therefore seeks to provide a better understanding as to why:

> *“Some individuals are better than others at identifying and exploiting new opportunities… and why some are able to make previously unconnected linkages between prices of specific knowledge and information that allows them to discover and exploit opportunities” (O’Gorman et al. 2005: p.13).*

Secondly, **the development of measures** with some reliability and validity which provides for the possibility of being used over time, in order to aggregate studies and provide a representation of entrepreneurial behaviour and outcomes:

> *“With greater clarity of behaviours (and sequences of behaviours), research could extend to situational models (what circumstances are best met with which behaviours and sequences of behaviours)” (Bird et al. 2012: p.905).*

In calling for more measures, together with qualitative and longitudinal studies, there is also a need for a more triangulated methodology.

Thirdly, and in the context of finding finance, to examine in more detail **entrepreneurial characteristics,** and given a study of behaviour, how does the individual resource orchestration arrive at the appropriate bundles of resources and capabilities to generate growth (Wright and Stigliani 2013)? A number of authors have therefore called for an alternative paradigm (Bygrave 1989), involving more field studies and longitudinal research, and embracing the use of multi-dimensional approaches linked to the real working situation of the owner-manager (e.g. Caird 1993; Gibb and Davies 1990). McCarthy (2012), for example, called for more qualitative longitudinal studies to answer questions of how entrepreneurs leverage social networks in order to access funding sources (Brockhaus 1980; Moran 1998).

In identifying these opportunities for future research, Bird et al. (2012) noted the shortcomings in research into entrepreneurial behaviour, and called for future researchers to be more precise in their conceptualisation, and particularly, in their operationalisation of behaviour. Mueller (2012) also noted, with the exception of the Panel Study of Entrepreneurial Dynamics (PSED), many studies build on self-reports, rely on vague behavioural constructs or capture only one behaviour at a time.

> *"As a result academic understanding of the nature of entrepreneur's behaviour remains highly fragmented" (Mueller 2012: p.995).*

Tan (2007) emphasised that in order for ventures to grow, entrepreneurs were central to the change process:

> *"Yet from the perspective of researchers seeking to understand which entrepreneurs will make the necessary changes, and there is a gap in the research in this area" (Tan 2007: p.90).*

Fraser (2014) recognised a number of policy initiatives which could potentially allow entrepreneurs, who previously had been discouraged borrowers, to consider bank borrowing. These included more awareness of policy initiatives and better support for SMEs. However, Fraser recognised that:

> "We do not know how (more) suitable any of the businesses examined might be for non-bank finance. This is an area worth investigating in future research with data involving both bank and non-bank finance." (Fraser, 2014 p.6).

This study therefore seeks to identify more precisely entrepreneurial behaviour associated with accessing finance, both debt and equity, and using a psychometric assessment measure, to identify differences between entrepreneurs that provide the foundation for this behaviour.

Chapter 4 - Objectives of the Research

Since 2008, supply side conditions for small firm funding have been severe. Even prior to this, it has been difficult for financial institutions or investors to assess the risk of a small firm, and therefore information asymmetry and gaps in funding have also been a challenge for entrepreneurs.

Arranging access to finance forms a vital part of activity for the entrepreneur. Half of SMEs currently use one form of external finance (Small Firm Finance Monitor, Q2 2014). Although asset-based finance, grant funding, business angels and newer forms of peer-to-peer funding have been increasing, these have not made up for the dramatic falls in bank lending and VC funding. Government has intervened with various initiatives to stimulate the market for small firm finance, yet the awareness and impact of these has been low (see Chapter 2.2.7).

The lack of tangible asset security in small firms often exacerbates the difficulties in funding. The Creative Industries sector has been selected for this study; a sector where intellectual knowledge is more prevalent, and therefore, these problems are likely to be more severe. Despite these challenges, this sector is growing, and therefore presents opportunities for entrepreneurs to convince finance providers of their ability to make above average rates of return.

By focusing on individual entrepreneurs, each in the same sector, with similar growth aspirations, the study seeks to focus on the “jockey” (MacMillan, 1971) and so separates the entrepreneur from the venture.

The literature review highlighted a number of authors calling for further analysis of entrepreneurial behaviour (Bird et al. 2012; Mueller 2012), and specifically, in the finance context of orchestration of resources (Wright and Sigliani 2013). In particular, several scholars have called for in-depth studies including qualitative and longitudinal studies.

In addition, one consequence of the credit crunch and the financial hubris since 2008, has been for academics to question the relevancy of established theory and methodologies in relation to small firm financing, including Pecking Order Theory and Funding Escalator Models (e.g. Collapse of the Funding Escalator, Cambridge Conference, 2010). This study, therefore, seeks to make a contribution to knowledge in the study of access to finance and entrepreneurs through the application of academic models, developed in the psychology domain, into the field of entrepreneurship.

This is a DBA thesis and seeks to meet the following requirements:

> "*The DBA is a Doctoral level, research-based qualification, designed to make a contribution to the enhancement of trans-disciplinary professional practice in management as well as contribution to knowledge via the application and development of theoretical frameworks, methods and techniques. It differs from a PhD, which focuses on the creation of new knowledge and theory within a relatively narrow discipline or field. A DBA therefore places more emphasis on the novel application of theory, rather than the creation and testing of theory." (AMBA).*

This study adopts an interpretist agenda and seeks to provide more fine grained theorising (Wright and Sigliani 2013). Overall, the research seeks to answer the question:

Can psychometric testing be used to explain, predict and measure behavioural competences and the funding resource orchestration of the entrepreneur?

The objectives of the study are as follows:

1. **Present a behavioural competency profile for a sample group of entrepreneurs and identify the differences between individuals.** This follows the resurgence in studies on entrepreneurial personality and behaviour.

2. **Explore the use of psychometric testing in explaining and predicting how individual entrepreneurs seek finance for the firm**. Bird et al. (2012: p.890) emphasises the goal of research into entrepreneurial behaviour to "explain, predict and control (shape and change) behaviour at the individual or team level."

3. **Use 'stories' of how real world entrepreneurs find finance and compare these against a measurable Behavioural Competency Score (BCS).** Several scholars have called for the development of reliable and valid measures of behaviour, and with it, taxonomy of behaviour. (Bird et al. 2012; Gartner 1988, Bird et al. 2009, Starr et al. 1990; Gartner et al. 2010; Sarasvathy, 2001).

4. **Identify behaviour which is used by entrepreneurs to successfully access finance for the firm.** A number of authors highlighted in the literature review have identified a gap in the academic knowledge surrounding what entrepreneurs actually 'do'.(Mueller et al. 2012; Bird et al. 2012).

5. **Develop a methodology for entrepreneurs, policy makers and financial institutions to identify competencies in finding finance, and overcome problems of information asymmetry.** The study should identify entrepreneurs who are both successful and unsuccessful in finance applications and compare behavioural competency profiles, thus overcoming the limitations of many studies (Rauch 2007) that are biased towards successful enterprises.

Objectives 1 to 4 are objectives from an academic perspective and the goal, therefore, is to make a contribution to the literature through examining the behavioural competences of the entrepreneur. Can these be identified and measured? In addition, from a practical perspective, knowledge of behaviour also has value to entrepreneurs as it allows them to shape and change their behaviours for better outcomes. The competency test used in this study takes less than fifteen minutes to complete and is a simple online testing tool, costing less than a credit check. As a practical tool for entrepreneurs, it can highlight the strengths and weaknesses of their behavioural competency profile, and where personal development may be required.

Objective 5 recognises that this study provides knowledge of behaviour and therefore also has value to practitioners and venture stakeholders, including investors, governments and educators. More insight and understanding of behaviour would allow this group to make more efficient investments in new ventures and to better counsel potential and nascent entrepreneurs. In particular it would provide insight into how entrepreneurs 'bundle' funding resources in order to fund the firm. The problem of information asymmetry between lenders, borrowers and investors was highlighted earlier. It is very difficult to distinguish between likely winners and losers, and therefore, the development of a competency based assessment tool could be used by stakeholders to help determine which entrepreneurs are most suited to the receipt of additional support.

Chapter 5 - Methodology and Research Design

5.1 Introduction

This chapter introduces the methodology used in the study, justifies why the selection is appropriate and introduces the tools used for both gathering and analysing the data.

5.2 A Pragmatic Realism Perspective

Research into innovative entrepreneurship, in particular, can be difficult to capture with conventional quantitative techniques (Baumol 1968, Davidsson 2005; Bryman and Burgess 1999) and that “at the extreme of conventionalism, the most spectacular instances of entrepreneurship would invariably end up as disturbing and possibly deleted outliers in regression analyses” (Davidsson 2005: p.56). The character of the entrepreneur may also require a “close-up” approach which may require a qualitative method (Brundin et al. 2008).

The use of mixed methods has been the subject of much debate amongst research academics. Many have viewed quantitative and qualitative research as based on incompatible assumptions, and often referred to as the paradigm wars, or the paradigm debate (Creswell 2007). The basis of this incompatibility is centred on two kinds of argument (Bryman 2008). Firstly, the idea that research carries epistemological commitments, for example, the decision to employ participant observation is not simply about data collection, but involves a commitment to an epistemological position that is inimical to positivism and consistent with interpretivism. Secondly, the idea that quantitative and qualitative researches are separate paradigms, thus the assumptions, values and methods are incompatible (Guba and Lincoln 1994) and any attempt at integration will be superficial and result in a single paradigm being dominant.

However, the growing popularity of mixed methods research would seem to signal the end of the war, having given way to a more pragmatic approach (Watson 2013). This approach gives greater prominence to the strengths of the data collection and data analysis techniques with which qualitative and quantitative research are each associated, and see these as being capable of being fused. Although there remains recognition that quantitative and qualitative research are each connected with distinctive philosophical positions, their connections are not viewed as being fixed and ineluctable (Watson 2013). Thus, a research method from one research strategy is viewed as capable of being pressed into the service of another.

This combination of “a real” and “interpretist” has been termed “pragmatic realism” and is considered a sound approach as a research methodology (Watson 2013). It is grounded in the American Pragmatist philosophy including Peirce (1939–1984) and James (1842–1910). This was generally seen as the main contribution which American thought has made to modern philosophy (Watson 2013). However, positivism, nevertheless, came to dominate management studies in general in the USA in the latter half of the twentieth century as business education institutions sought “academic legitimacy” through the adoption of scientific models based on experimentalism and statistics (Goodrick 2002).

Within the paradigm debate, in relation to entrepreneurship, Watson (2013) argues research has been dominated by a “scientific” and individualistic framework that has been the focus of US-led mainstream research. A better balance is proposed; a pragmatic and realist frame of reference, which recognises both the importance of processes of social construction and the existence of a “real world”. This is achieved through:

- Recognition of the processes of interpretation, social construction and discursive/narrative practice

- Grounding these processes in the objectively existing “real world” which human beings have to “cope with”.

Underpinning this is the pragmatic view that understanding any aspect of the world is impossible; reality is far too complicated. Knowledge about entrepreneurship, or any other aspect of the social world, is therefore to be developed to provide knowledge which is better than rival pieces of knowledge, or is better than what existed previously. Joas (1996: p.21) says that the “guiding principle of pragmatism is that truth is no longer to do with getting a correct “representation of reality in cognition”; rather “it expresses an increase of the power to act in relation to an environment.”

Thus, a rebalancing of entrepreneurship knowledge, would not achieve any fundamental truth about the phenomenon or lead to a complete theory of entrepreneurship. Instead, it would provide knowledge and understanding to the members of society to deal with entrepreneurial phenomena, whoever these members of society might be – entrepreneurial actors, customers, state policy-makers, investors, anti-business activists or ordinary citizens. To have legitimacy in the world of public debate, this knowledge would need to be seen as dealing with the ‘realities’ of the world.

5.2.1 Process, Context and a Longitudinal Study

In examining what the entrepreneur ‘does’, as opposed to what he ‘is’, a more process-orientated approach is argued for. This emphasis on process shifts the debate away from just the entrepreneur and onto entrepreneurial actions (or ‘entrepreneuring’) in which particular people engage in particular circumstances at particular times in their lives.

This parallels Weick’s (1979) exhortation to use more active sounding words like “organising” and “managing” rather than the more static “organisation” and “management”. Steyaert (2007: p.472) calls for the adoption of an “ontology of becoming” as opposed to an “ontology of being” (Chia, 1996).

Watson (2013) emphasised this idea of “becoming” by quoting William James’ statement that “What really exists is not things made but things in the making”. He argues that one of the virtues of a more pragmatic approach to social science research is that it encourages an interpretive and hermeneutic approach without making them the defining features of analysis. The researcher is therefore encouraged to look at processual and practice aspects of social life without treating them as distinctive approaches.

A pragmatic approach also allows the researcher to contextualise or ‘situate’, any kind of entrepreneurial activity, and also set it in its time. The emphasis is on drawing out invaluable insights that come from comparing what is occurring in the present to what occurred in the past. This strengthens the argument also for more longitudinal studies. Lumpkin and Dess (1996) report that around three-quarters of the performance studies and all the intention studies which the authors reviewed were cross-sectional in nature, which raises a question, in their own words, of “the causal direction of our observed effects” (p.398). This research study aims to meet the definition of longitudinal research (Ployhart and Vandenberg 2010) as research which emphasises the study of change and contains, as a minimum, three repeated observations on at least one of the substantive constructs of interest.

Pettigrew (1990) also argues that with very few exceptions, much research into organisational changes is ahistorical, aprocessual and acontextual in character, highlighting the benefits of a longitudinal approach to research design. To this extent, cross-sectional studies reflect the circumstances that exist in that organisation at that point in time. Ployhart and Vandenberg (2010) identified the amount of theory testing in the organisational and applied social sciences which still use cross-sectional research, whereby inferences are made from association between two or more static variables. Mitchell and James’ (2001) review of published research concluded that, “most involve causal hypotheses and is designed to support causal inferences as opposed to a theoretical perspective relating to the time and elements involved in X causing Y”. Dobbs and Hamilton (2007) also noted that cross-sectional research designs may be able to identify some of the concomitants of small business growth in a specific period, but these need not be the causes of growth and concluded, “‘the major recommendation of this paper is that researchers adopt longitudinal research designs that enable them to trace the growth path of small businesses” (p.315).

A process, qualitative based orientation is also recommended as an area for future research by Rauch et al. (2014), highlighting the need to “examine the antecedents and consequences of entrepreneurial behaviour” (p.352).

5.2.2 Informing Practice

Critical to pragmatic realism is the idea that scientific knowledge should be evaluated, not in scientific terms of how accurately it tells us “what is the case” in the world, but instead, in terms of how well it informs human actions in the world. Prioritisation of practice is thus central to pragmatism (Johannisson 2011). A pragmatist type of realism is concerned neither with deep-down generative mechanisms nor with surface level narratives. Its concern is with producing theories of social realities which can inform human social practices.

In effect, pragmatist social science produces accounts of “how things work” in the social world – a notion that fits with the notion of “institutional logics” (Watson 2013). The goal is therefore not to achieve a scientifically proven truth, but to enable people to “learn the ropes” (Watson 2013: p.28) of different social situations or practices so that they can better cope with such eventualities. These “ropes” can therefore be viewed as what needs to be done in the reality of the situation, in pragmatist terms. But to “learn the ropes” of any kind of human activity requires one to get close to the situations in which those ropes exist.

Watson states that pragmatic realism research can be conducted using interviews, documentaries or surveys. Quantitative analysis, as long as it is presented in the context of field investigation, can therefore form a valuable part of a mixed method study.

Pragmatist thinking restores balance by moving the focus away from the rational actor’s goal-based behaviour, to a focus on the ways in which human beings deal with the situations in which they find themselves. It comes to terms with the realities of the world as people confront them in their particular lives and social activities. Watson terms this “getting to grips with reality". Critically, the objective is discovering what some people do in the social and economic world, as opposed to trying to understand what certain "special" people "are like" (Watson 2013: p.26).

5.3 A Single Sector Study of the Entrepreneur

By focusing on a sample, within a specific sector, this research aims to minimise the effect of situational conditions (Magnusson and Endler 1977) and focuses instead on the behavioural characteristics of the entrepreneur, thus controlling for proximal explanations (Delmar and Witte 2012). Baum (2004) commented that "analysis of a single industry provides control of industry effects and may add richness and clarity" (p.596), thus avoiding the differences in the performance of firms which can occur from sector and location (Storey 1994; Blackburn et al. 2013). Environmental constraints (Dess and Beard 1984; Herron and Robinson Jr 1993), economic situation at the time of study, the demands of the specific industry or the stage in the business life cycle (Baron 2007) are as much as possible similar for each of the Creative Industry firms participating in this study.

Chapter 2.3 described how, relative to other sectors, Creative Industries is dynamic and therefore more sensitive to unfavourable environments. This sector has therefore been selected as a dynamic growth industry, which over the course of this three-year longitudinal study, follows Pettigrew's recommendation to "go for extreme situations, critical incidents and social dramas" (Pettigrew 1990 p.275). The rationale is that firms in this sector will have varying degrees of success and failure in applying for funds over time and therefore this also strengthens the case for considering the study longitudinally, as it "provides a transparent look at growth, evolution, transformation, and conceivably decay of an organisation over time" (Pettigrew 1990: p.280).

Size of business is another factor that might also moderate the effects of the individual. Creative Industries, with a larger proportion of smaller, growing firms, also allows for more expression of individual characteristics (Van Gelderen et al. 2000). In larger businesses, the influence of the business owner decreases, and therefore, organisational-level entrepreneurship becomes more important than the individual traits of the business owner.

A single sector in a growth environment has been selected for the study, together with a focus only on entrepreneurs with an expressed desire and track record of growth. It is often argued that owner-managers are the key resource within the small firm, and their commitment to growth is vital in shaping performance (Smallbone et al. 2003; Mazzarol, Reboud et al. 2009; Hansen and Hamilton 2011). Blackburn et al. (2013) note that quantitative studies have struggled to capture adequately the multi-dimensional nature of growth (e.g. Barringer and Jones, 2004) and therefore qualitative studies have begun to emphasise the influence of owner characteristics on business goals, processes and performance.

This study therefore seeks to adopt a focused methodology through which entrepreneurial behaviours can be analysed in detail, exploring the differences between each of them.

5.3.1 Sample Selection

A convenience sample (Bryman 2008) of sixty entrepreneurs was recruited from the Creative Industries sector. Although the sector is broad, in this study most firms are recruited from the technology sector within creative industries. In order to gather the quantitative data, each completed a psychometric test (ABA 2011) giving a rating on a scale of zero to ten against nine behavioural competences.

Gartner (1989) noted that the identification of appropriate samples is particularly important for studies that explore whether certain personality traits and characteristics can predict entrepreneurial behaviour. Within the methodology of this research, care has been taken to identify specific characteristics to be analysed without which “a study becomes entirely tautological” (Gartner 1992: p.33).

The participants were screened in order to ensure each individual was the main financial decision-maker in the company. In almost all cases, this person was also the owner, managing director or senior partner. The panel was selected through trade networking activity, exhibitions and science park events. In order to participate, the entrepreneur had to evidence:

- A desire to grow coupled with an increase in employment by 20% in at least one year in the last five years.
- The raising of funds or the intention to raise funds in the future.
- Active trading (indicated in year of incorporation).
- A minimum of one employee in addition to the entrepreneur.
- Operating in the Creative Industries sector (see Chapter 2.3).

Full detail on the sample is summarised in Appendix 4 - Sample Specification, and is summarised as follows:

Turnover (£000's)				Employees (No.)		Year Incorporated		
<£100	100-500	500-1000	+1000	<10	10+	1995-2000	2000-2005	2005-2011
27	20	6	7	46	14	3	14	43

Table 8 - Panel Profile of Entrepreneurs

Within the definition of Creative Industries, sixteen firms are software developers, twenty are mobile gaming companies, five develop social networking tools, three are commercial designers and five are promotional design agencies. Ten entrepreneurs are females and fifty are male. None of the firms are more than twenty years' old and the maximum level of turnover is £1.8 million.

The sample is therefore made up of actual entrepreneurs operating in an actively trading business and avoids the imperfections of a number of prior studies (Okhomina 2010), drawing samples often from students, managers and non-entrepreneurs (Twomey and Scott 1988; Miner 1997). It is a representative sample (Bryman 2008) of firms which meet the definition of Creative Industries. In selecting a single industry sample, the methodology is also following similar studies using this approach, for example, Boone et al. (1986) and the furniture industry; Roper (1996) and manufacturing companies; Frese and Gelderson (2000) excluded retail services, bars, restaurants; Baum and Locke (2004) and architectural woodworking firms.

5.4 A Mixed Method Study

In this study, a mixed method approach therefore provides the opportunity to measure behavioural competences (quantitatively through a statistical test) for sixty individual entrepreneurs and compare these against their real life stories identified through semi-structured interviews (a qualitative assessment).

In this research study, data was collected as follows:

- **Quantitative** - Each entrepreneur (of sixty) completed an online assessment to measure Behavioural Competences on a 0-10 Scale (Trait Business Assessments, 2011). Cluster analysis is used to group entrepreneurs into competency sets and regression analysis is used to create sets of competences.

- **Qualitative** - Three phases of semi-structured interviews with each entrepreneur over the period 2011 to 2014. This included gathering data on finance application outcomes.

Thus, a longitudinal mixed method approach provides for a robust research methodology, on the basis of which practical conclusions can be derived, based on the novel application of theory, in line with the requirements of a DBA thesis.

5.5 Quantitative Assessment through Psychometric Testing

"Trait" (Aston Business Assessments 2011) is a personality inventory assessment which measures thirteen dimensions of personality and nine behavioural competences. A summary of the report is included in Appendix 1. It is grounded in the Big Five Model of personality (Goldberg 1990) and Bartram's Great Eight Competency Model (Bartram 2005). As a tool, it is aimed at identifying the most important characteristics for work assessment in organisations, and also providing a simple and accessible method of presenting these results, whilst maintaining the psychometric robustness of the instrument. The assessment is efficient and concise to complete. It is made of 127 items, taking around fifteen minutes to complete. It also produces a report for the participant which can be subsequently used as a personal development tool. Although the test is self-completed, the test is well established, has been used extensively in practice and there is clear evidence that analysis supports validity of the scales (Trait 2011).

The potential contribution of personality assessment to the Human Resource Management (HRM) domain is now firmly established in the research literature (Burisch 1984; DeYoung et al. 2007; Goldberg 1990; Grucza 2007; John et al 1990; Sacier 2002; Williams and Anderson 1991). These studies have shown that well-designed personality assessments contribute in important ways to predicting job performance, training performance and organisational citizenship behaviour. Personality trait assessment is one of the most useful and versatile tools in HRM and management, and the Trait inventory allows this to be accessed in a simple, straightforward and effective way.

Trait constructs thirteen sub-dimensions grounded in the Big Five Model of personality summarised in Table 8:

Factor	Description	Sub Dimension
Extraversion	The extent to which a person is outgoing and sociable versus quiet and reserved	Sociability, Leadership Achievement, Optimism
Agreeableness	The extent to which a person is warm and trusting versus cold and unfriendly	Compassion, Co-operation Sensitivity
Conscientiousness	The extent to which a person is organised and dependable versus impulsive and disorganised	Orderliness, Industriousness
Emotional Stability	The extent to which a person is calm and stable versus anxious	Stability, Calmness, Optimism
Openness	The extent to which a person is imaginative and open to new experiences, versus narrow minded and unimaginative.	Intellect, Culture

Table 9 - Personality Traits Profile

Note: Optimism is included across two dimensions – extraversion and emotional stability; it is about both appraising and approaching things positively.

It is a practical data collection device in that each entrepreneur is given a score of one to ten on each of the dimensions of personality and competence. This references their characteristics relative to a norm group of seventy three Chief Officers (UK CEO's, business owners and other CO positions) within a population norm of 1273 UK working population.

A further output from the Trait Test (ABA 2011) is an indication of Behavioural Competences. Nine competency dimensions are identified, based on entrepreneurs achieving high scores on specific combinations on trait scales:

Competency	Relevant Trait Dimension
Communicating, Meeting and Presenting	Sociability, Leadership
Planning and Organising	Orderliness, Industriousness
Problem Solving	Intellect, Orderliness
Working with Others	Compassion, Co-operation, Sensitivity
Leading Others	Leadership, Achievement
Innovating and Creating	Intellect, Culture
Coping with Pressure	Stability, Calmness, Optimism
Driving for Results	Achievement, Industriousness, Optimism

Working with Customers	Sensitivity, Compassion, Calmness, Industriousness

Table 10 - Behavioural Competences Profile

It is this assessment of behavioural competency which is used in this research study in order to address the research question. Within Trait (ABA 2011), competences can be considered as clusters, or sets, of performance-related behaviour. Competence analysis is used extensively in HRM for selection, development and performance management. In this study, we have therefore applied or “borrowed” (Gartner 1992) this tool in the application within the entrepreneurial domain. The conceptual foundations of the Competency Profile within Trait (ABA 2011) are:

a) Personality traits are not equivalent to performance behaviour, but contribute to the direct antecedents of that performance behaviour.

b) In order to capture the competency implications of personality dimensions, two or more facets must be included to ensure a broad competency dimension.

In summary, The Personality Trait Profile determines “what people are” and the Behavioural Competences Profile determines what “people are good at” . In this study, the Competency Profile of each Entrepreneur is used to assess its predictive qualities in identifying particular behaviour associated with funding the firm. Trait (ABA 2011) measures the Behavioural Competences of the Entrepreneur. Qualitative induction methodology is then used to explore the use of psychometric testing in explaining and predicting how individual entrepreneurs finance the firm.

5.6 Qualitative Assessment through Analytical Induction

Analytical induction is a method of analysis developed by Florian Znaniecki (1934) based on “…inducing laws from a deep analysis of experimentally isolated instances” (p.237). On its own, therefore, it is not a predictive tool (Gilmore et al. 2001). In this part of the research, the aim is to provide insight into the issues surrounding the entrepreneur and access to finance (Creswell 2007), illuminating the rich data found in local contexts (Johnson and Onwuegbuzie 2004).

Using this methodology, a broad research question is defined at the outset with a number of propositions that are to be tested. An inductive reasoning process allows for modification of concepts and relationships between concepts throughout the research process, with the goal of most accurately representing the reality of the situation. Causation is a potential goal of such knowledge, although it is causation that can include numerous exceptions (Znaniecki 1934: p.305). Those exceptions, however, add to the base of knowledge, as the generalisability of the construct is determined, and a new, more comprehensive law of behaviour can be generated that accounts for the exception.

As a methodology for qualitative analysis, analytical induction contrasts with Glaser and Strauss' (1967) development of Grounded Theory and the process of constant comparative analysis. Analytic induction involves generating theory, as well as testing theory, in a provisional manner, whereas the Grounded Theory approach emphasises the generating function without testing. The theory produced by analytic induction is universal, precise and limited. In analytic induction, all available data must be used to test hypotheses, in contrast with constant comparison, which requires that data only be used until categories become saturated.

5.6.1 Research Question and Propositions

Using qualitative inductive methodology, the broad research question that the study set out to explore at the outset of the research was:

Can psychometric testing be used to explain, predict and measure behavioural competences and the funding resource orchestration of the entrepreneur?

In order to investigate this question, the study formulates nine research propositions related to the key behavioural competences measured through the Trait test (ABA 2011). Qualitative, semi-structured interviews explore the funding activities of the entrepreneur; what is the process through which they try and raise funds and what evidence is there of using behavioural competences in order to achieve their funding objectives? The propositions developed are also relevant to the literature review and theoretical perspectives discussed in Chapter 3:

Working with Others

Proposition 1	**References**
Being able to Work with Others provides opportunities to access finance	Social Network Theory; Granovetter (1982)

Working co-operatively with others is a behavioural competence which entrepreneurs use in order to deliver on specific collaborative objectives; interacting with others in a warm, congenial and polite way. With these characteristics, entrepreneurs contribute effectively with other individuals and organisations and avoid conflict. Goals are achieved with a preference for collaboration, acknowledging the importance of third-party contributions. Lee and Tsang (2001) analysed personality traits and networking activity conducted by entrepreneurs in a study of 168 firms, and concluded that the more experienced the entrepreneur is in working in a collaborative method, the greater the likelihood of success.

Communicating, Meeting and Presenting

Proposition 2	**References**
Being a good communicator can facilitate access to finance	Baum and Locke (2004); Collins and Porras (1994); Rauch and Frese (2007)

This competence is associated with having social confidence in meeting and speaking whilst also communicating clearly and persuasively. It also means the individual is able to adapt and communicate to suit different people and different situations. This behaviour also manifests itself through actively meeting other groups and keeping a wide network of contacts, and actually enjoying and feeling positive about opportunities to meet others. These individuals are enthusiastic and engaged in ways that other people find meaningful. In their research, Baum and Locke (2004) recognised an ability to communicate a vision as being one characteristic of entrepreneurship; Rauch and Frese (2007) highlighted a “proactive personality” as being a key component of an entrepreneurial orientation.

Innovating and Creating

Proposition 3	**References**
Innovating and creative skills open up more opportunities for access to finance	Rauch et al. (2009); Schumpeter (1934)

This competence relates to generating new ideas and ways of working, valuing creativity, imagination, new experiences and change, over tried-and-tested methods. Entrepreneurs with these characteristics may be more willing to consider alternative funding methods for the firm (Crowdfunding for example). As a group, they think innovatively or creatively in respect of work and problem solving, coming up with ways of working or ideas that are not obvious to others. In a sense, this competency is central to the Schumpeterian (1934) philosophy of the entrepreneur as an innovator introducing new combinations of resources.

Problem Solving

Proposition 4	**References**
An entrepreneur who can problem solve is better able to access finance.	Sarasvathy (2009); Dew et al. (2008); Rauch (2009); Sarasvathy et al. (1994)

In this behavioural competence, the research study is seeking evidence of analysing problems and generating evidence-based solutions to them. Entrepreneurs are able to consider and analyse situations, diagnose problems and identify key issues. The emphasis is on being able to demonstrate a preference for rational thinking, facts and evidence in problem analysis, by pulling together and integrating important facts and aspects of problems to inform solutions. Given this profile, entrepreneurs will arrange the funding of the firm through a very logical and systematic approach with solutions which are practical and well thought through. The self-efficacy literature (Saravathy 1994, 2009) describes this type of approach, with entrepreneurs designing and developing business models that they are able to achieve and that are in line with their capabilities.

Planning and Organising

Proposition 5	**References**
Planning and organising are key to successful access to finance for the firm	(Black (1998); Shapero (1975); Ciavarella (2004); Theory of Planned Behaviour Ajzen (1991)

This competence relates to the management of an individual's own time as well as working in a planned, structured and methodical way. Examples of this type of behaviour would include planning in advance for projects of different scales and prioritising actions required at different times. Entrepreneurs would therefore show a preference for following schedules and clear procedures at work, by preparing in advance for work activities. Clearly this would be a critical activity in the context of funding the firm, ensuring investment requirements are correctly financed, balancing multiple priorities, setting objectives, and planning effectively to meet targets, commitments and deadlines. Ciavarella (2007) described this as "shepherding" the organisation to ensure activity is structured and controlled. Different types of planning behaviour are also developed in the Theory of Planned Behaviour (Ajzen 1991), which identifies different approaches to the planning process.

Driving for Results

Proposition 6	**References**
An entrepreneur who is driven can access more finance opportunities	Delmar and Wiklund (2008); Locke and Latham (1990)

This competence relates to working hard in order to achieve goals and deliver on results. This type of behaviour includes focusing on personal and team objectives, showing commitment to their achievement and setting targets and objectives for self and others. In the context of accessing finance, this includes attending to funding issues that will help meet the goals and objectives of the firm. Entrepreneurs with this capability benchmark work outputs against others to determine performance. They have a positive approach to goal setting and take personal responsibility for results, outcomes and performance. Delmar and Wiklund (2008) in a study of three thousand entrepreneurs in a cross-sectional study, identified entrepreneurs who were highly results orientated and maintained growth as a central objective.

Working with Customers

Proposition 7	**References**
Working with customers increases opportunities to access finance	Social Network Theory, Resource Development Theory Granovetter (1982)

Entrepreneurs who have a behavioural competence in working with customers recognise the importance of good customer relations or client service. They place a priority on providing high standards of service to meet customer or client needs and present a pleasant, warm and calm interpersonal style when interacting with customers. These entrepreneurs go further in achieving high levels of customer service and take responsibility for addressing customer issues. Social Network Theory and Resource Dependency Theory describe this type of networking with customers as a key characteristic of entrepreneurs who build a resource base through external contacts with customers.

Leading Others

Proposition 8	**References**
Competency in leadership increases access to finance	Collins and Porras (1994); Rauch (2009)

Demonstrating an ability to lead management is explored in this behavioural competence. How does the entrepreneur take charge and be influential when working with others, both within the business and externally when involved with projects in other organisations? Also included is the ability to inspire and motivate others with a preference for goal-directed work. Individuals displaying this behaviour, challenge others assertively when appropriate, and persuade and influence others. Findings from Rauch (2009) supported the more classical view of the swashbuckling entrepreneur leading the firm, emphasising innovation, risk and pro-activeness, in equal importance in explaining business performance.

Coping with Pressure

Proposition 9	**References**
Entrepreneurs who are better able to cope with pressure increase access to finance	Sarasvathy (2009); Dew et al. (2008); Rauch (2009)

Entrepreneurs who excel in an ability to remain calm, composed and free from worry or anxiety at times of pressure have this characteristic. Every business has periods when dealing with problems and setbacks in a calm, positive way, will be critical to good decision-making. Funding the firm, in the climate described in Chapter 2, will require the entrepreneur not to dwell on things that have gone wrong and to respond to pressure and irritation in a composed manner. Remaining even-tempered and controlled throughout is key. Often entrepreneurs are managing several activities at the same time, and managing a busy role and competing demands without feeling undue pressure will improve effective decision-making. These qualities were identified by Dew et al. (2008) in a study of sixty four entrepreneurs in a cross-sectional piece of research, and is also consistent with the effectual entrepreneur characterised by Sarasvathy (2009).

5.6.2 Coding and Themes

Interviews were recorded, transcribed and coded directly using NVivo 10 qualitative research software. This has been used in order to provide more detailed understanding of the data and to avoid the weaknesses highlighted by Bazeley (2007: p.132) that "too often qualitative researchers rely simply on the presentation of key themes supported by quotes…" In this study, by incorporating analytical software, the aim is to go beyond describing the data, but also to "compare differences in the characteristics and boundaries for just that category or theme across contrasting groups". Where quotations have been selected in the text, this is considered as representative of the interview data coded to that theme, and also triangulated with quantitative data. These were checked with another researcher and also a member of the Supervisory team.

Using the nine behavioural competences as pre-determined categories, content analysis is used in order to code the data and allow themes to emerge.

In a qualitative analysis, a method of identifying and labelling or coding data as "individual tactics, strategies and routine actions that make up the larger act" (Strauss and Corbin

2000: p.16) needs to be developed and is bespoke for each research project (Saldana 2012).

Using NVivo 10, each code can then be analysed to provide a measure of its “density” (Carter et al. 2007). NVivo measures density by calculating the number and percentage of text characters that respondents spend talking about specific codes. This provides a more detailed analysis of qualitative data and the development of a hierarchy of codes where the density indicates the relative importance of particular codes.

Researcher bias is checked through a coding check with another researcher. On completion of each coding stage, the codes together with the interview data is checked with another researcher and any coding differences are discussed and agreed upon and confirmed with the Supervisory team. This technique is used with some caution, as noted by Brush et al. (2002: p.432):

> *“As with all content analytical procedures, however, code density analysis should be viewed with some caution. While it is tempting to regard numerical measures of density from a positivist perspective as objective indicators of facts about lending criteria and processes, codes are derived from the researchers’ interpretations of the participants’ discussions (Hall and Holt, 2002)”.*

The NVivo code listings are reproduced in Appendix 2.

Thus across a range of codes, the results compare one group with another in relation to the frequency that code appears and can guide the qualitative analysis process. By measuring the number of times a text is coded in one group, and comparing this with another, the data can reveal more about the differences between the respondents (Auerbach and Silverstein 2003). These themes will be identified during the longitudinal analysis and examined further as the research programme develops, in order to confirm, or otherwise, the research propositions.

5.7 Practitioner Insight

Given the requirements of a DBA thesis, the methodology also gives consideration to the the practical implications of the study, and to add to this assessment, short interviews were held with one business banking Relationship Manager, a Chief Executive of a business Angel Network, an Investment Manager at a regional Venture Capital firm and a Growth Accelerator Manager. The results of the study qualitative and quantitative stages are shared with this group and their interpretation of the implications is included in the analysis.

5.8 Methodology - Summary

This study is conducted using a longitudinal, fieldwork process incorporating analytical induction methodology. Within the discipline of SMEs and entrepreneurship, a variety of different approaches are applied from a number of different perspectives and Gregoire et al. (2001) concluded that this area of management research is less categorised by a dominant paradigm as by successive topics of convergence. In assessing paradigms in the area of small business research, however, March (1991) made a distinction between “exploration” and “exploitation” research methodology, where exploration involves search, discovery and experimentation (a realist philosophy) and exploitation involves refinement of existing knowledge (an interpretist philosophy). Landstrom (2005: p.47) concludes a “dynamic and innovative research field is characterised by a balance between exploration and exploitation”. Through a “pragmatic realism” methodology, this study is consistent with Blackburn and Smallbone’s (2008: p.5) view that research in this area is a “reflection of a cornucopia of different ontological and epistemological assumptions and methodological and analytical approaches”.

In adopting this pragmatic realist approach, the study is therefore adopting a classic rationale for using the qualitative and quantitative mixed methods (Bryman 2008):

- Triangulation to corroborate findings using two methods.
- Completeness by bringing together a more comprehensive account.
- Explanation, as one of the two methods, is used to explain findings generated by the other.
- Unexpected results as each can combine to explain surprising results generated by one of them.
- Credibility as employing both techniques enhances the integrity of the findings.

Importantly, and also consistent with the pragmatic realist position, this mixed methods study includes context, and thus qualitative research provides contextual understanding coupled with findings on variables uncovered through a quantitative test. Combining these two is also more likely to be useful to practitioners (Bryman 2008).

The methodology, therefore, follows a single stage collection of Trait data (ABA 2011) together with a Three Stage Process of qualitative interviews.

- **Quantitative Trait Data collection**: After recruiting each entrepreneur, each individual completed the Trait (ABA 2011) Competency test using an online survey tool. This data is then analysed with mean scores. Given that, even with a single sector sample, entrepreneurs are made of highly heterogeneous groups, it makes sense within this study to identify the difference between entrepreneurs and therefore to attempt to classify them into types and sub-groups (Rausch and Frees 2000). Cluster analysis (using Ward's method) using a dendogram is used to identify a group structure among entrepreneurs who share similar characteristics. Three clear groups are identified shown by differences to the mean and the cluster membership for each entrepreneur is saved to the data set. Factor Analysis is used to identify, groups of Behavioural Competences within the data. The nine Competences can therefore be 'bundled' into groups.

- **Qualitative Interview Stage 1**: 60 semi-structured Interviews were recorded taking between thirty minutes and one hour. The questionnaire was designed in order to evidence entrepreneurial behaviour, defined as "the concrete enactment by individuals (or teams) of tasks or activities" within a funding context (Bird 2012: p.890). The Interview Guide for all the semi-structured interviews is included in Appendix 3. This first stage interview analyses how each entrepreneur has funded the business to date. First semi-structured interviews with entrepreneurs were conducted over a six month period, commencing December 2011.

- **Qualitative Interview Stage 2**: Conducted 12 months later, the second semi-structured interview focused on entrepreneurial behaviour over the previous year. What changes had occurred from a funding perspective and why (Saldana 2012)?

- **Qualitative Interview Stage 3**: Final semi-structured interview after twelve months; again this aimed to look at changes to the funding structure; examining what the entrepreneurs did and why (Saldana 2012).

Qualitative interviews were conducted through a Skype conversation, recorded and transcribed. Evidence of entrepreneurial behaviour related to funding the firm is then analysed using NVivo 10 and cross-cluster comparisons are made, both for coding density and also through content quotations from individual entrepreneurs. Conclusions are then drawn from these, identifying key differences between clusters of entrepreneurs. Data is also gathered on the outcome of finance applications in each year.

Through this approach, the research design seeks to combine both explorative and exploitative research (March 1991; Liao and Welsch 2005) and achieve a better balance between qualitative and quantitative SME research.

Chapter 6 - Results and Analysis

6.1 Chapter Introduction

This chapter presents results and analysis using the Behavioural Competency Scores (BCS) for the sixty entrepreneurs. Factor and cluster analysis is used to identify three distinctive clusters of entrepreneurs and groups of competencies. Quantitative analysis is then used to analyse the three-year funding data. Results are presented by cluster group, by funding type and funding outcome.

After this each phase of interviews is explored using qualitative analysis. Coded themes emerging from these interviews are presented within each of the nine behavioural competences. Comparative analysis is used to explore behaviour between groups of entrepreneurs in order to identify how entrepreneurs source funding and also to identify the predictive qualities of psychometric testing.

6.2 Results of Behavioural Competences Using Psychometric Testing

6.2.1 Mean Scores

For all sixty of the entrepreneurs, the BCS score (0-10) on each of the nine Behavioural Competences are presented in Appendix 5. The analysis of Mean data is presented as follows:

Mean BCS Scores: Sixty Entrepreneurs (Scale 0 to 10)

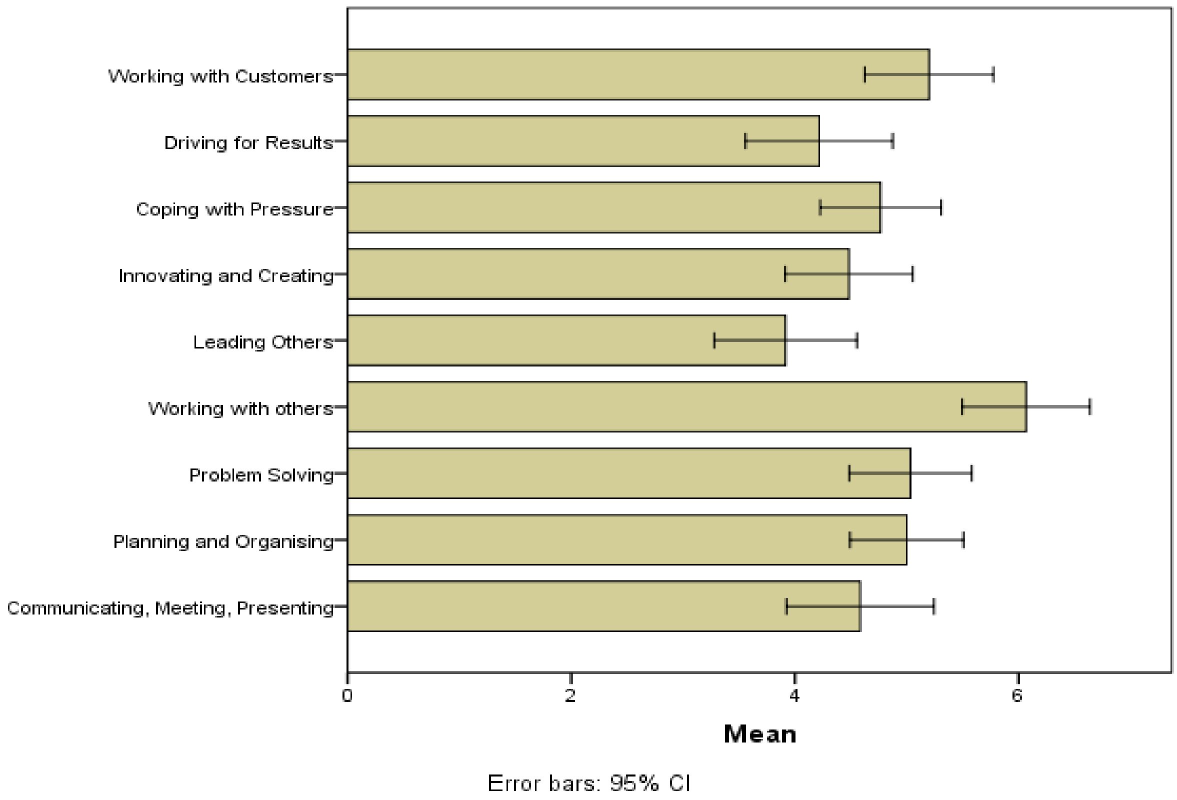

Figure 9 - Mean BCS Scores for Sixty Entrepreneurs

The results from this research indicate a tendency for higher competences in collaborative behaviours, along with business planning and problem solving. Working with Others (6.07) and Working with Customers (5.2) are the highest scores. Leading Others (3.92) and Driving for Results (4.22) have the lowest behavioural competency scores.

These results are in-line with more recent studies (Zhao 2010) that the clichéd view of the swashbuckling entrepreneur emphasising leadership (Brockhaus 1982) and locus of control (Begley and Boyd 1987), for example, are at odds with reality. Zhao et al. (2010: p.397) comments that:

> *"Despite popular beliefs, our results show no effect of risk propensity and only a very small effect of extraversion on entrepreneurial performance. The classic image of the entrepreneur as a 'risk taker' or an 'extrovert' may discourage some individuals from becoming entrepreneurs who would otherwise be successful at this pursuit".*

6.2.2 Cluster Analysis

Cluster analysis, using Ward's method, was then performed to identify groups (clusters) within the sixty cases of entrepreneurs i.e. those entrepreneurs who share similar characteristics across the nine Behavioural Competences. The dendogram identified a reasonable three-structure solution (Everitt 1993) as detailed in Appendix 6. The cluster membership of the three clusters was then saved. For ease of clarity of subsequent analysis, each group is given a name and the mean scores for each group are presented as follows:

Total Group	Capables	Collaborators	Low Competencers	Mean Total
Working with Others	7.1	6.7	3.8	6.1
Working with Customers	6.6	5.4	2.7	5.2
Problem Solving	5.7	5.2	3.8	5.0
Planning and Organising	5.8	4.3	4.3	5.0
Coping with Pressure	5.8	4.4	3.5	4.7
Communicating. Meeting and Presenting	6.7	2.9	2.7	4.6
Innovating and Creating	5.6	5.5	1.8	4.5
Driving for Results	6.1	2.6	2.5	4.2
Leading Others	5.9	1.9	2.5	3.9

Table 11 - BCS Scores across Clusters

Competency Scores for each entrepreneur and spread across each cluster group are summarised in Appendix 5. The diagram below also illustrates the data, and the distinctive differences between the three clusters:

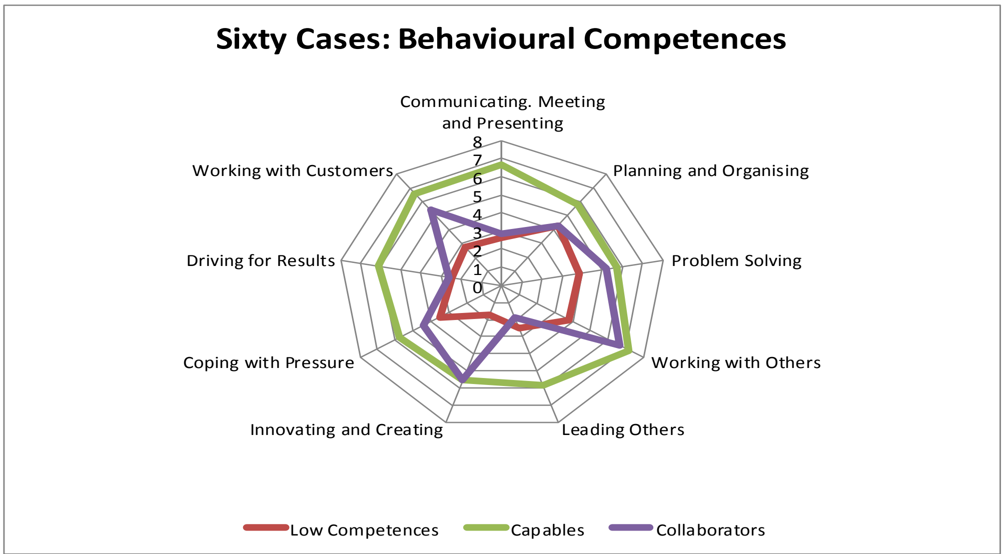

Figure 10 - Competences by Cluster

Capables has the highest competence scores in all groups; again Working with Others is the strongest (7.14), followed by Communicating, Meeting and Presenting (6.68), Working with Customers (6.61) and Driving for Results (6.14). Although the remaining competencies have lower scores, they are still higher than the other two groups. On balance, this group is the closest to the traditional view of entrepreneurs.

Collaborators has a focus on co-operation with high competency in Working with Others (6.67) and Working with Customers (5.4), followed by lower scores for Innovating and Creating (5.53) and Problem Solving (5.2).

The Low **Competences** group above display low scores across all competences; Planning and Organising (4.29) is the strongest competency in this group. The group is the most introverted; less interested in others with few social skills and methodical in approach.

6.3 Funding Outcomes Years 1 to 3 - Quantitative Results

6.3.1 Funding Outcome by Cluster Group

Full detail on funding data is included in Appendix 7. Table 12 summarises the funding application data by cluster over the three-year period:

Year 1 Finance Applications	Capables	%	Collaborators	%	Low Competencers	%
Total	28		15		17	
Applied and Successful	11	39%	4	27%	2	12%
Applied and Unsuccessful	1	4%	1	7%	4	24%
Didn’t Apply	16	57%	10	66%	11	64%
Year 2 Finance Applications	**Capables**	**%**	**Collaborators**	**%**	**Low Competencers**	**%**
Total	26		15		15	
Applied and Successful	13	50%	7	47%	4	27%
Applied and Unsuccessful	1	4%	2	13%	6	40%
Didn’t Apply	12	46%	6	40%	5	33%
Year 3 Finance Applications	**Capables**	**%**	**Collaborators**	**%**	**Low Competencers**	**%**
Total	26		15		15	
Applied and Successful	13	50%	4	27%	3	20%
Applied and Unsuccessful	1	4%	1	7%	3	20%
Didn’t Apply	12	46%	10	66%	9	60%

Table 12 - Applications v Clusters

The table details the number of entrepreneurs in each cluster, and among them, the number of entrepreneurs making successful, unsuccessful and non-applications (Didn't Apply), in each of the three years of data collection.

Interviews were arranged and carried out between September 2011 and August 2014 and as much as possible at twelve month intervals. Four cases dropped out of the programme after Year 1; fifty six cases were analysed in Years 2 and 3.

Twenty eight entrepreneurs in the Capables cluster took part in the study in Year 1. This reduced to twenty-six who agreed to continue their participation in the study in Years 2 and 3. The Capables cluster was consistently more successful in funding applications over the periods; eleven entrepreneurs (39%) in this cluster made successful applications in Year 1, thirteen (50%) in Year 2 and thirteen (50%) in Year 3. This group also had the fewest unsuccessful applications; only three over the three-year period. The number of Capables choosing not to apply for finance was also fairly stable over the period. Fifteen Collaborators participated in the study throughout the three year period. Collaborators had mixed results. The highest proportion of this cluster making successful applications was in Year 2 at seven (47% of Collaborators); this group had four unsuccessful applications over the three-year period and also had the highest proportion of non-applications (67%, 40% and 66% respectively). Seventeen Low Competence entrepreneurs embarked on the study and this reduced to fifteen for Year 2 and 3. The Low Competence group had the lowest level of success; thirteen unsuccessful applications over the period with a success rate below 27%. Non-applications were also high at 64%, 33% and 60% respectively.

Using the BCS scores, the study also analysed Behavioural Competency by funding outcome:

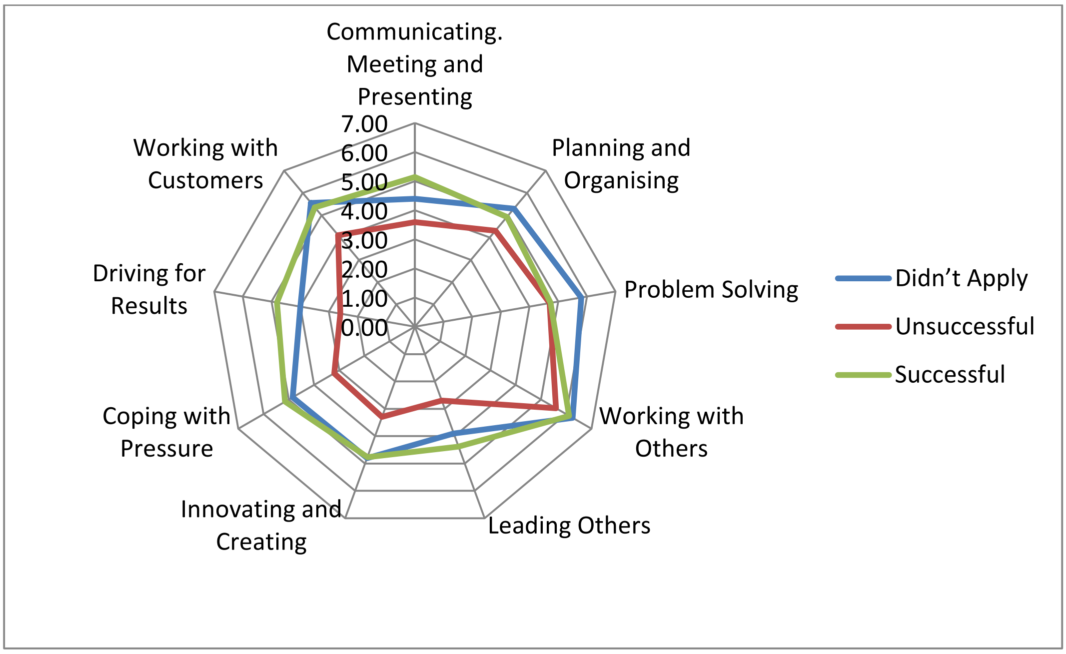

Figure 11 - Successful v Unsuccessful v Didn't Apply

Unsuccessful applications had lower levels of competencies compared with entrepreneurs, who either chose not to apply, or made successful applications. Successful cases were stronger in Communicating, Meeting, Presenting, Leading Others, Coping with Pressure and Driving for Results. Didn't Apply cases were stronger in Planning and Organising, Problem Solving, Working with Others, Innovating and Creating and Working with Customers.

Funding Outcome by Cluster: Significance Test

Collecting three tranches of data produced a sufficient sample to make further statistical analysis appropriate. Analysing all applications over the three-year period, a Chi-Square test was performed and confirmed the significance of the relationship between cluster membership and application outcome $\chi 2$ (1, n=172)=21.488, p<.000). This shows that cluster membership is an indicator of funding outcomes.

6.3.2 Cluster Group v Funding Type

Funding Type by Cluster	Capables	Collaborators	Low Competencers
Self-Funded	31%	49%	34%
Equity Funded	31%	27%	34%
Secured Funding	38%	24%	32%

Table 13 - Funding Type by Cluster

Self-Funded are those entrepreneurs who have used only internal resources to fund the firm, either through working capital, director's loans or qualifying for grants. Equity-funded is those who have shared equity with third-party investors. Secured Funding is loan finance, where entrepreneurs have arranged borrowing using secured forms of finance.

Capables had the same proportion (31%) of self-funded entrepreneurs and equity-funded, and overall, had a greater proportion of secured funding. Collaborators had a greater proportion of Self Funders (49%). Low Competences were equally spread across all funding types.

Funding type by cluster remained very stable for each entrepreneur. Only two entrepreneurs changed funding type over the period of the study, with T18 securing a bank overdraft having been self-funded for expansion and T32 securing a commercial mortgage for a property having been self-funded.

By examining the BCS scores across these different groups, the analysis can now be developed to further explore the differences in competencies across funding types:

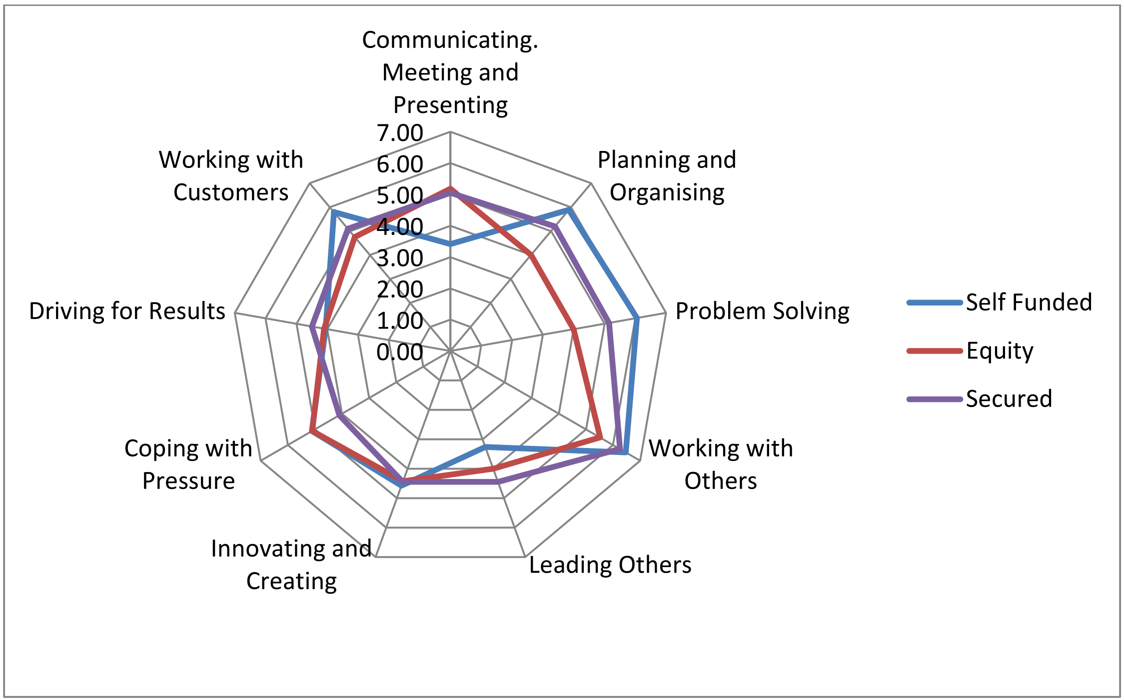

Figure 12 - Competences v Funding Type

Equity-funded entrepreneurs have higher BCS scores in Coping with Pressure and Communicating Meeting and Presenting, possible indicators of the process of both presenting and subsequently working with third-party investors. Entrepreneurs who are self-funded or use secured finance have higher BCS scores in Planning and Organising and Problem Solving, possibly due to competences required to both satisfy secured lenders or for problem solving in a totally self-funded business. These issues are explored further during the course of the study.

Funding Type by Cluster: Significance Test

Analysing applications over the three-year period, a chi square test was performed and confirmed that the relationship between cluster membership and funding type was not significant ($\chi 2$ (1, n=172)=4.495, p<.343).

Entrepreneurs were also asked if, in principle, if they would be willing to share equity in the company i.e. was equity sharing simply not an option in principle. A chi square test was performed and confirmed that there was no significance between cluster membership and willingness to share equity.

6.3.3 *Funding Outcome by Funding Type*

Funding Outcome by Funding Type	Self-Funded	Equity-Funded	Secured Funding
Applied and Successful	10%	72%	30%
Applied and Unsuccessful	13%	9%	13%
Didn't Apply	78%	19%	57%

Table 14 - Funding Outcomes by Funding Type

Of particular note in Table 14 is the success of equity-funded entrepreneurs to make further successful funding applications, either for new investors or existing investors 'following-on'. Not surprisingly, self-funded entrepreneurs were the largest group of 'Didn't Apply', although a number of them secured grants during the study. Secured funders had mixed results with 30% having applied with successful applications and 57% choosing not to apply over the three-year period.

Funding Outcome by Funding Type: Significance Test

Analysing applications over the three-year period, a chi square test was performed and confirmed the significance of the relationship between funding type and funding outcome ($\chi 2$ (1, n=172)=51.466, p<.000).

6.3.4 *Using Advisors*

To provide increased insight into the degree to which entrepreneurs Work with Others, each was asked in every phase of the study to confirm if advisors had been used to assist decision-making, in relation to funding. The Table below analyses this by cluster:

Clusters v Use of Advsiors	Capables	Collaborators	Low Competencers
Use Advisors Yes	77%	60%	25%
Use Advisors No	23%	40%	75%

Table 15 - Advisors v Clusters

In the study, 77% of Capables reported using advisors in each year of the study. Collaborators also made use of advisors at 60%. Conversely, only 25% of the Low Competency cluster had appointed advisors during the period.

The Table below indicates relationship between the use of advisors and applications outcomes:

Use of Advisors	Yes	No
Applied and Successful	47%	19%
Applied and Unsuccessful	2%	24%
Didn't Apply	52%	57%

Table 16 - Applications v Advisors

In the study, 47% of cases with advisors reported successful applications, in contrast with 19% non-advised entrepreneurs.

When analysed with the Behavioural Competency scores, this group also outperforms non-advisors across all competences:

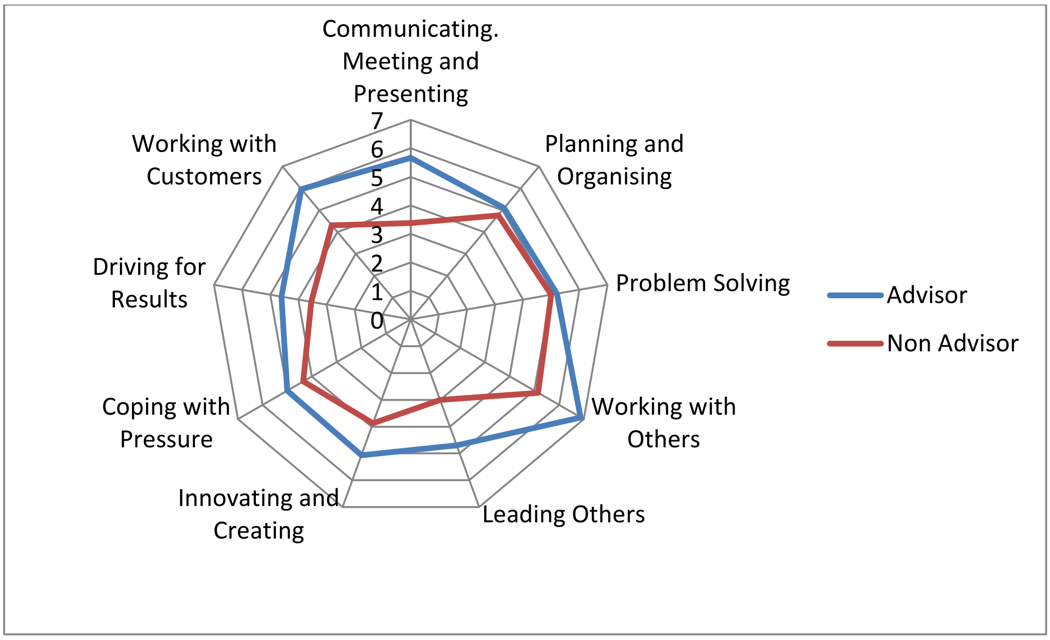

Figure 13 - Advisors v Non-Advisors

There is question of 'cause and effect' in this analysis; does having advisors increase competences or do more competent entrepreneurs seek out advisors? The Planning and Organising and Problem Solving scores are similar for both groups and it may be non-advised entrepreneurs believe that competency in these areas negates the requirement for advisors. This will be explored further in the qualitative analysis.

Advisors by Cluster: Significance Test

Analysing the use of advisors over the three-year period, a chi square test was performed and confirmed the relationship between cluster membership and use of advisors was significant ($\chi2$ (1, n=172)=32.974, p<.000).

A chi square test was performed and confirmed the relationship between using advisors and application outcome was significant ($\chi2$ (1, n=172)=27.462, p<.000). This would indicate the use of advisors results in more successful funding applications

6.3.5 Extended Analysis of the Relationship Between Competences and Funding

6.3.5.1 Factor Analysis

As the nine competencies are highly correlated, Factor Analysis using Varimax rotation was performed, in order to identify some of the underlying dimensions behind the competences. Each dimension, composed of a group of correlating Behavioural Competences, would therefore be independent from each other. Results show that the value of the Kasier-Meyer-Olkin measure of sampling adequacy was 0.809, a value higher than the 0.5 suitability boundary, indicating that the data is suitable for performing such factor analysis. In addition to this test, the Bartlett test of sphericity indicated significant relationships among the Competences, and thus factor analysis is suitable.

Table 17 shows the factor loadings of each competence on the three dimensions as well as the eigenvalue of each dimension:

Rotated Component Matrix[a]			
	Component		
	1	2	3
Leading Others	**0.886**	0.022	0.281
Driving for Results	**0.855**	0.111	0.41
Communicating, Meeting, Presenting	**0.753**	0.374	-0.107
Coping with Pressure	**0.661**	0.352	-0.131
Working with Others	0.151	**0.890**	0.146
Working with Customers	0.350	**0.850**	0.224
Innovating and Creating	0.148	**0.817**	0.184
Planning and Organising	0.228	0.092	**0.912**
Problem Solving	-0.039	0.404	**0.838**
% Variance Explained	48.74	17.36	14.78

Table 17 - Factor Analysis

The rotated solution reveals a simple structure with the presence of three underlying components, with each component showing a number of strong loadings and all variables loading substantially onto one variable only.

The total variance explained by the three factors is 80.95%.

To assist in our understanding we have given these three Competence Factors labels as follows:

- **Component 1: Driving** - Consists of entrepreneurs who score high on Leading Others (0.886), Driving for Results (0.855), Communicating, Meeting and Presenting (0.753) and Coping with Pressure (0.661).

- **Component 2: Social** - Entrepreneurs who score high in Working with Others (0.89), Working with Customers (0.85) and Innovating and Creating (0.817).

- **Component 3: Planning** - Entrepreneurs who score high on Planning and Organising (0.912) and Problem Solving (0.838).

These groups are used to analyse the data in relation to funding outcomes and funding types.

6.3.5.2 Logit Regression Analysis - Funding Outcomes

To go further into the understanding of the relationship between entrepreneur's competences and the funding outcome, a multiple logistic regression analysis was performed.

The three dimensions identified with the Factor Analysis - Driving, Social and Planning - were used as independent variables, and the funding outcome, whose modalities are "Did not Apply", "Tried and Successful" and "Tried and Unsuccessful", were used as the dependent variable.

The Chi-Square and the Nagelkerke R^2 are significant ($\chi 2$ (1, n=172)=28.695, p<.000; R^2 = .180, p<.000). This shows that the model is overall significant. To be more specific, the individual Chi-Square coefficients of each independent variable show that the overall significance of the model is due to the significant impact of Driving and Social on the funding outcome. The impact of Planning is, however, not significant.

	Outcome			
	General impact *(Chi-Square)*	Did not apply / Tried and Succesful *(Odd-ratio)*	Unsuccesful / Tried and Succesful *(Odd-Ratio)*	Unsuccesful / Didn't Apply *(Odd-Ratio)*
Driving	14.642***	.613**	.370***	.604***
Social	12.907**	.670**	.380***	0.567**
Planning	2.477	1.305	1.264	0.969
R^2 (Nagelkerke)	.180***			
*Significance : ***0.1% - **1% - *10%*				

Table 18 - Funding Outcome Regression Tried and Successful as Reference

To better interpret the impact of the independent variables, Table 18 displays the odd-ratios of their impact on the dependent variable. An odd-ratio greater than 1, indicates that as the predictor increases, the likelihood of the occurrence of the focal modality, compared to the referent modality increases. Conversely, if the value is below 1, it indicates that as the predictor increases, the likelihood of the occurrence of the focal modality decreases.

The modality "Tried and Successful" was used as a reference, to which the focal modalities "Did Not Apply" and "Unsuccessful" were compared. In addition, the modality 'Didn't Apply' was used as a reference to which the focal modality 'Tried and Unsuccessful' was compared. The conclusion of this analysis is as follows:

6.3.5.3 Didn't Apply versus Tried and Successful

- **Driving Competency Group**: If an entrepreneur was to increase the **Driving** score by one unit, the likelihood of Not Applying, as opposed to Trying and Being Successful, would decrease (by a factor of 0.613).

- **Social Competency Group**: If an entrepreneur was to increase the **Social** score by one unit, the likelihood of Not Applying, as opposed to Trying and Being Successful, would decrease (by a factor of 0.670).

6.3.5.4 Trying and Being Unsuccessful versus Tried and Successful

- **Driving Competency Group**: If an entrepreneur was to increase the **Driving** score by one unit, the likelihood of Trying and Being Unsuccessful, as opposed to Trying and Being Successful, would decrease (by a factor of 0.370).

- **Social Competency Group**: If an entrepreneur was to increase the **Social** score by one unit, the likelihood of Trying and Being Unsuccessful, as opposed to Trying and Being Successful, would decrease (by a factor of 0.380).

6.3.5.5 Trying and Being Unsuccessful versus Didn't Apply

- **Driving Competency Group**: If an entrepreneur was to increase the **Driving** score by one unit, the likelihood of Trying and Being Unsuccessful, as opposed to Not Applying, would decrease by a factor of 0.604.

- **Social Competency Group**: If an entrepreneur was to increase the **Social** score by one unit, the likelihood of Trying and Being Unsuccessful, as opposed to Not Applying, would decrease by a factor of 0.567.

In summary, therefore, an increase in competency scores in Driving (Leading Others, Driving for Results, Communicating Meeting and Presenting and Coping with Pressure) reduces the likelihood of not applying for finance compared to trying and being successful. Increases in these competencies also reduces the likelihood of trying and being unsuccessful compared with trying and being successful. Higher Driving scores are also more likely to result in non-applications, as opposed to Trying and Being Unsuccessful.

Higher competency scores in Social (Working with Others, Working with Customers and Innovating and Creating) reduces the likelihood of not applying compared to trying and being successful. Increases in these competencies are also less likely to result in Trying and Being Unsuccessful, compared with Trying and Being Successful. Higher Social scores are also more likely to result in non-applications, as opposed to Trying and Being Unsuccessful.

Based on three years' of data analysis on funding outcomes, there is statistical significance in application outcome and cluster for Driving and Social Competences. These results also indicate entrepreneurs with Driving and Social competencies appear more likely to try and make successful applications.

6.3.5.6 Logit Regression Analysis and Funding Type

The three Competences developed through Factor Analysis - Driving, Social and Planning - were also used as independent variables, and funding type - whose modalities are "Self-Funded", "Equity-Funded" and "Secured Funding" - were used as the dependent variables The results are presented in Table 19:

	Outcome			
	General impact *(Chi-Square)*	Self-Finance / Secured Finance *(Odd-ratio)*	Equity / Secured Finance *(Odd-Ratio)*	Equity / Self-Funded *(Odd-Ratio)*
Driving	14.642***	.639**	1.481**	2.320***
Social	12.907**	1.595***	1.023	0.641**
Planning	2.477	1.398	0.311***	0.222***
R^2 (Nagelkerke)	.316***			
Significance : ***0.1% - **1% - *10%				

Table 19 - Funding Type Regression Analysis Secured Finance as Reference

Once again, Table 19 displays the odd-ratios and their impact on the dependent variable.

The chi-square and the Nagelkerke R^2 are significant variables ($\chi 2$ (1, n=172)=56.76, p<.000) ; R^2 = .316. This shows that the model is overall significant. To be more specific, the individual chi-square coefficients of each independent variable show that the overall significance of the model is due to the significant impact of Driving and Social on the funding outcome. The impact of Planning is, however, not significant.

The modality “Secured Finance” was used as a reference, to which the focal modalities “Self Finance” and “Equity Finance” were compared. In addition, the modality ‘Self-Funded’ was used as a reference to which the focal modality ‘Equity Finance’ was compared.

6.3.5.7 Self-Funded Relative to Secured Finance

- **Driving Competency Group**: If an entrepreneur was to increase the **Driving** score by one unit, the likelihood of being self-funded, as opposed to using secured finance, would decrease (by a factor of 0.639).

- **Social Competency Group**: If an entrepreneur was to increase his **Social** score by one unit, the likelihood of being self-funded, as opposed to using secured finance, would increase (by a factor of 1.595).

6.3.5.8 Equity-Funded Relative to Secured Finance

- **Driving Competency Group**: If an entrepreneur was to increase the **Driving** score by one unit, the likelihood of being equity-funded, as opposed to using secured finance, would increase (by a factor of 1.481).

- **Planning Competency Group**: If an entrepreneur was to increase the **Planning** score by one unit, the likelihood being equity-funded, as opposed to using secured finance, would decrease (by a factor of 0.311).

- **Social Competency Group:** Not significant.

6.3.5.9 Equity-Funded Relative to Self-Finance

- **Driving Competency Group**: If an entrepreneur was to increase the **Driving** score by one unit, the likelihood of being equity-funded, as opposed to using self-finance, would increase by a factor of 2.320.

- **Social Competency Group**: If an entrepreneur was to increase the **Social** score by one unit, the likelihood of being equity-funded, as opposed to using self-finance, would decrease by a factor of 0.641.

- **Planning Competency Group**: If an entrepreneur was to increase the **Planning** score by one unit, the likelihood of being equity-funded, as opposed to using self-finance, would decrease by a factor of 0.222.

In summary, based on the competency data, if entrepreneurs increase their competency score in Driving (Leading Others, Driving for Results, Communicating Meeting and Presenting and Coping with Pressure) there is a greater likelihood of using secured finance as opposed to being self-funded. The likelihood of using equity finance as opposed to secured finance or self-finance also increases.

Those with a higher competency score in Social (Working with Others, Working with Customers and Innovating and Creating) are more likely to use self-funding compared to secured finance or equity finance.

Higher competency scores in Planning (Planning and Organising and Problem Solving) are also more likely to result in reduced use of equity finance relative to secured finance or self-finance.

Although there is no significance in funding type by cluster, these results suggest an entrepreneur with Driving competencies is able to successfully present a case to third-parties and therefore is likely to secure more equity funding. Social entrepreneurs appear more able to leverage relationships in a different way and chose self-funding as an option. Entrepreneurs with competencies in Planning are also able to access secured finance as opposed to equity finance. These indications will be explored further in the qualitative stage of the research.

6.3.6 Quantitative Analysis - Summary

Capables were the most successful cluster in raising finance over the three-year period, and the Low Competency cluster had the lowest level of success. This data is matched by the BCS scores, although the Didn't Apply group had a higher level of competence in Planning and Organising and Problem Solving. Regression analysis was also applied and indicated that entrepreneurs with higher levels of Driving and Social competencies appear more likely to try and make successful applications.

Equity-funded entrepreneurs have higher communication skills and self-funded and secured-funded entrepreneurs have higher competencies in Planning and Organising and Problem Solving. Regression analysis indicates that higher Driving competencies increase the probability of third-party investment – either equity or debt. Planning competencies increase the likelihood of self-finance.

Equity-funded entrepreneurs made more successful applications. Those who use formal advisors also had more successful applications and higher competence scores.

The next phase of the study provides the opportunity to explore this quantitative analysis in more depth using explorative interviews over the three-year period of study.

6.4 Year 1 Semi-Structured Interviews, Data Collection and Analysis

The brief for Phase 1 semi-structured interviews is included in Appendix 3. In line with the inductive methodology, the style of the interview in this first phase of the research was explorative in order to determine how the entrepreneur has raised finance in the past and intended to raise finance in the future. The behavioural competences were used as a guide to frame the questionnaire and explore what the entrepreneur actually 'did' in order to fund the firm.

In total, thirteen iterations of coding were carried out based on the nine Behavioural Competences. In addition, a tenth code was developed - Behavioural Difficulties – in order to explore how each cluster reacted to problems in the funding process. In order to guide the qualitative research process, NVivo 10 software was used to analyse the number of words attributed to each of the nine behavioural competence codes, in order to compare each cluster. This provides a more detailed understanding of the data (Bazeley 2007).

Making up each of the nine Behavioural Competence Codes are a number of coded themes which emerged during the course of the interviews; descriptions for Phase 1 Codes are in Appendix 2a.

This Chapter is structured as follows:

- A summary of the nine behavioural competency codes analysed by Cluster, outcome and funding type.

- An analysis of each competency code and individual theme, by cluster, with examples of behaviour from the cases.

- An analysis of behavioural difficulties by cluster.

- A summary after the first phase of the research.

Phase 1 interviews were carried out between May and October 2012.

6.4.1 Year 1 Coding Density Summary by Cluster

	Capables	Collaborators	Low Competencers	All Cases
Working with Others	23%	31%	12%	23%
Planning and Organising	24%	13%	10%	19%
Communicating, Meeting, Presenting	12%	11%	6%	11%
Innovating and Creating	11%	13%	8%	11%
Driving for Results	6%	9%	4%	7%
Working with Customers	5%	4%	5%	5%
Problem Solving	2%	2%	0%	2%
Coping with Pressure	3%	0%	0%	2%
Leading Others	2%	1%	0%	1%
Behavioural Difficulty	11%	15%	55%	19%
Total Code	**100%**	**100%**	**100%**	**100%**

Table 20 - Summary Coded Themes v Clusters: Year 1 Longitudinal Study

Table 20 presents a summary of coding by each competency. Working with Others accounts for the largest number of words coded in the interviews (All Cases - 23%) and is the strongest code for Collaborators (31%).

Of the nine competency codes, Working with Others, Planning and Organising, Communicating and Presenting and Innovating and Creating have the largest number of coded references attributed to them during the course of the interviews. For Capables, Working with Others and Planning and Organising were notably significant, whereas for Collaborators, it was Working with Others.

Low Competency entrepreneurs had a significantly higher density (55%) of codes indicating difficulties associated with sourcing finance.

6.4.2 *Year 1 Coding Density Summary by Outcome*

	Applied and Successful	Applied and Unsuccessful	Didnt Apply	Total Nodes
Working with Others	24%	19%	21%	23%
Planning and Organising	18%	4%	22%	19%
Innovating and Creating	12%	18%	10%	11%
Communicating, Meeting, Presenting	14%	3%	9%	11%
Driving for Results	6%	3%	8%	7%
Working with Customers	6%	0%	4%	5%
Problem Solving	2%	0%	2%	2%
Coping with Pressure	2%	0%	2%	2%
Leading Others	2%	0%	1%	1%
Behavioural Difficulty	14%	54%	20%	19%
Total Code	**100%**	**100%**	**100%**	**100%**

Table 21 - Summary Coded Themes v Funding Outcome: Year 1 Longitudinal Study

Analysing themes by funding outcome again indicates Working with Others as a strong theme for all outcomes, although Planning and Organising was more prevalent for those entrepreneurs either not applying, or making successful applications. Although behavioural difficulties were reported highest for the unsuccessful group, these entrepreneurs appear to place a greater weight on innovation and creating as part of their funding applications.

6.4.3 *Year 1 Coding Density Summary by Funding Type*

	Self-Funded	Equity-Funded	Secured No Equity	Total Nodes
Working with Others	20%	23%	25%	23%
Planning and Organising	23%	16%	20%	19%
Innovating and Creating	9%	13%	10%	11%
Communicating, Meeting, Presenting	9%	14%	6%	11%
Driving for Results	8%	7%	5%	7%
Working with Customers	7%	1%	10%	5%
Problem Solving	2%	2%	1%	2%
Coping with Pressure	2%	2%	1%	2%
Leading Others	2%	1%	2%	1%
Behavioural Difficulty	16%	22%	20%	19%
Total Code	**100%**	**100%**	**100%**	**100%**

Table 22 - Summary Coded Themes v Funding Type: Year 1 Longitudinal Study

Working with Others was strong across all three funding types. Planning and Organising was a stronger theme for the self-funded and secured group. Innovating and Creating and Communicating, Meeting and Presenting were stronger for equity-funded entrepreneurs. Working with Customers was a strong theme for Secured entrepreneurs.

6.4.4 Behavioural Competencies Cases and Themes

Making up each of the nine Behavioural Competence Codes are a number of coded themes which emerged during the course of the interviews. These themes are illustrative of funding-related behaviour. In this section, each behavioural competency is considered separately, and the emerging themes within each are identified. Examples from the interviews are used as illustrations and the actual coded theme is noted in bold and in brackets:

6.4.4.1 Working with Others

This competency includes networking activity, either within personnel networks or industry groups. It is a strong theme for both Capables and Collaborators:

Working with Others	Capables	Collaborators	Low Competencers	Total Nodes
Serial Networking	8%	9%	2%	7%
Advisors, Mentors, Non-Executives	6%	5%	2%	5%
Socialising	4%	4%	5%	4%
Joint Ventures	2%	5%	1%	3%
Professinal Advisor	2%	2%	1%	2%
Co-operative Approach	0%	4%	1%	1%
Friends and Family	1%	2%	0%	1%
With Suppliers	0%	0%	0%	0%
Total Code	**23%**	**31%**	**12%**	**23%**

Table 23 - Clusters v Working with Others Themes: Year 1 Longitudinal Study

For Capables and Collaborators, networking, in order to open up potential sources of finance, is important. T29 (a Collaborator), for example, develops digital games for use in the music industry. The business was established in 2010 and T29 has used private equity and angel finance to fund the business. He talks about how he used his network **(Serial Networking)** to source funding:

> *"I am an LBS alumni… one of my ex-classmates runs an offshore angel group... cooperating with her on the Isle of Man to pitch in front of high net worth individuals... also have a number of contacts which haven't come up with any investment yet but may do in the future..."*

T46 (another Collaborator) is a software game developer who uses industry contacts to develop funding sources:

> *"We would go out to people who we know... we are fairly well connected in the industry sector; TIGER which is the independent trade body... well connected... also people who work with us on a consultancy basis means they also bring connections".*

T45 (a Capable) is a game developer, established the business in 2007 and she has used business angels as a source of finance:

> *"I enjoy networking **(Serial Networking**) ... enjoy going out there speaking to people... I know lots of people who don't... looking for money it's about people you meet... maybe not directly at an event. But they may know people who can introduce you to other people".*

T45 describes building on contacts made at University where she studied a software related course. She describes industry contacts as important and "*lots of my investors came from my existing contacts"...* and making sure she is active at lots of funding events, "*going to angel events. Pitching... making sure we are in the middle of whatever is going on".*

T49 is part of T45's network and is also a game developer (also a Capable). This business was established in 2009, and again, is financed through grants, but primarily business angels:

> *"Look I am a master networker (**Serial Networking**)... I ask people... what can I do for you... can you help me... if I see something that I think one of my shareholders might like I am happy to introduce them... that generosity.. has been really good so they introduce their friends... so I have raised everything through high net worths.. rather than funds.. in that community it works well because they like bringing their friends along. It's not something I have strategized, it's just happened through the nature of the relationships".*

This behavioural competency also includes entrepreneurs meeting mentors, non-executive directors or evidence of seeking advice. Collaborators and Capables were again strong advocates of using these sources for funding advice.

Again, T45 (a Capable), demonstrates how talking and taking advice from advisors **(Advisors, Mentors and Non-Executives)** can assist the funding process:

> *"We now have investors... have to do a board meeting every two months... good to track how well the business is doing. In a board meeting I will plan the next couple of months and then work with a team to achieve it".*

T22 (Capable), established since 2007 and currently makes use of an overdraft facility to finance the business which has development project management software. T22 uses software programmes in a project management business. She is currently preparing a business growth plan and is considering the use of business angels and grants to facilitate this. She has already appointed advisors to the business and sees them as an important source of guidance when it comes to raising finance.

> "They're not proper non-execs... actually paid freelances who are paid to operate in that capacity".

T23 (a Capable) is a software games developer since 2008, has used factoring and overdraft facilities to finance growth and sees angel finance and crowdfunding as potential sources of finance in the future. He has been very proactive in the use of advisors **(Advisors, Mentors and Non-Executives)**:

> *"We use various sources for advice... some entrepreneurs networking organisations... try and identify areas we are not strong and that's where I get advice so in the past it has been around the financial side of the business… use Market Invoice to realise cash prior to payment... there are agreed milestones and once they have been achieved and they are approved we can draw down.. work with Intel for example... cut and dry... mostly we have bootstrapped and loans from freinds, family and small investors or business acqaintances.... and we give good interest rates on loans..."*

T8 (a Capable) runs a software development company since 2002, and to date, the business has been completely self-financed. T8 sees potential growth in the business and also sees the use of Non-Executive Directors **(Advisors, Mentors and Non-Executives)** as a potential direct source of finance, combining this with the provision of advice:

> *"We would also like to look at the appointment of non-executive directors who would invest their own cash in return, I would prefer to look at that route. If some non-exec says I can work with you a couple of days per week and they know if they invest some cash in the business they can make it grow because obviously it's in their interest to get a return on their money…. and their effort."*

T26 (a Capable), runs a software development company:

> *"Marketing is the thing that we feel most at sea with... had met an advisor* ***(Advisors, Mentors and Non-Executives)*** *when looking at funding a few years ago... we are ... quite an open company if there's something we don't understand we ask... have now a non-exec... .met when doing MBA of which Mr X was the best."*

In addition to general advice, there is evidence of each cluster seeking counsel from accountants, brokers and solicitors. T09 runs an architectural practice for example (a Capable) :

> *"…have learnt as I have gone on... been nervous enough about my future to ask the right questions at the right time... always thought... nervous about that so will ask my accountant (**Professional Advisors)** or do some research myself… have had good advice from our accountants to manage tax scenarios".*

And T8 (a Capable):

> *"Our accountant does all our compliance stuff annually, and probably about a day every other month does a full day with us, not just looking at the past but trying to learn for the future, budgeting and cash flow and things, so that's from a finance perspective; solicitors we use for legal advice".*

T33 is a Collaborator and runs a gaming company:

> *"Go to accountant for advice... important to have those people around you that's the way I want strategic partnerships to work."*

Socialising, so not simply networking, but consciously being aware of being able and easy to work with others, was also a behavioural characteristic for Capables and Collaborators. T19 runs a business simulation gaming company (a Capable) and demonstrates this behaviour:

> *"…very important social skills..* ***(Socialising)*** *emotional intelligence is important in most things in business... depends where you are... confidence is everything...way you relate to you is very important also".*

And T22 (a Capable):

> *"Social skills... very important...* ***(Socialising)****... buying into you primarily.. so you have to rub shoulders and you have to come across as a charismatic leader because they are investing in you at the end of the day... they have to believe you have the skills to take the business where it needs to go so they can get their return".*

And T29 again:

> *"Social skills...* ***(Socialising)****… extremely... my ex-business partner feels foul of that... 'we have their money so we will just stuff them', you have to show you can empathise and listen to what they are saying... don't have to agree with them... one of my key skills... hold a different perspective, he couldn't do and he fell foul of it."*

And finally T41, a software technology company (a Collaborator):

> *"More and more about trust and relationships... investors invest in people... see potential in people... maybe not right product... so social skills are critical.. .I can work with this guy."*

Collaborators, in particular, also recognised the benefits of more formal relationships with others in the context of potential joint ventures with a third-party. T29 (a Collaborator) is involved in developing video games in collaboration **(Joint Ventures)** with music publishers:

> *"We're innovating. Trying to get music industry partners... take a stake... so managers of bands promote our game in return for equity...if we didn't do that would have to advertise which is expensive".*

And some entrepreneurs see joint ventures as a means of introducing new partners into the business with view to a possible exit. T54 (a Collaborator) has innovated in the cinema industry with a video game:

> *"Total cost of £250K to establish proof of concept... 60% grant and 40% matched... ours is £140K... match is coming from a cinema group partner who is attaching a nominal value to cinema seats so we have unlocked Government cash... bring a physical resource and market knowledge."*

T18 is a gaming company that has been established since 2004, and although self-funded to date, is seeking external finance in order to grow. The business designs characters for digital games:

> *"Joint ventures means I can use a character designer to get a product to market without the need for expensive costs… so looked for JV's".*

And also, **Friends and Family** are also a means through which some entrepreneurs seek funding sources. T54 (a Capable):

> *"…met at a conference six years ago... x was a lecturer... created a course at X university... I was still working in studio development... I had moved up to derby... so we lived in the same place then I worked with John before we quit after four years to do this."*

For Low Competences, Working with Others has much less evidence than other clusters; Serial Networking, Using Advisors and Being Sociable are the strongest themes.

Overall, Working with Others has the highest number of coded references for all clusters and the key themes are Serial Networking, Use of Advisors, Mentors, Non-Execs and Being Sociable.

6.4.4.2 Planning and Organising (PAO)

This competency includes cash management, mapping scenarios and producing business plans:

Plannning and Organising	Capables	Collaborators	Low Competencers	Total Nodes
Cash Management	7%	2%	6%	6%
Mapping Scenarios	5%	4%	0%	4%
Business Planning	5%	2%	2%	4%
Flexible Staff	4%	2%	0%	3%
Capacity Planning	2%	2%	0%	1%
Systems Approach	1%	1%	2%	1%
Total Code	**24%**	**13%**	**10%**	**19%**

Table 24 - Clusters versus Planning and Organising Themes: Year 1 Longitudinal Study

Capables, in particular, recognised the importance of Planning and Organising. T9 – a Capable – is a good example. T9 runs a professional architecture practice in the West Midlands. The business has been established ten years and has now grown to three branches – Midlands, North East, South West - with plans to open more. T9 has used a Government-backed bank loan to start and develop the business and plans to use private equity to expand in the future. He describes how he has developed a method of managing cash flow in order to estimate the investment required for the business:

> *"Each year I develop an excel spreadsheet that runs over three pages* ***(Cash Management)****…. the spreadsheet captures on a month-by-month basis what the business needs… you can manage uncertainty because you deal with it on a micro scale... if necessary. I can change my focus... I micro-manage."*

T7 is another Capable. T7 runs a construction design business in the West Midlands employing 15 people. The company specialises in spiral staircase design. This is a family business and T7 recently took over the role of managing director from his father, who retired. The business is primarily funded through an invoice finance facility managed through the bank. Despite difficult trading conditions in the building sector, the business has continued to grow. Again, T7 demonstrates strong competences in this behaviour:

> *"We produce regular cash flow forecasts* ***(Cash Management)*** *with our accountant I do the cash book here, do the purchase ledger… all the customer receipts… everything is presented to our accounts in the right format. We look at accounts every single day… we know what we have in the bank every day..."*

T25 (a Capable) runs an IT consultancy providing specialised skills to the Gaming Industry; he demonstrates planning skills **(Business Planning)**:

> *"… planning… I have…* ***(Business Planning)****. clear rules... how quickly can we get value before we need investment... need to be able to go with something that has a market position.... by far the better route into investors.... get your first client first then go... big difference between warming them up.... may be back to you….. removing reasons not to invest..."*

Looking at alternative scenarios was also an emerging theme, particularly strong for Capables. T26 for example:

> *"We play scenarios* ***(Mapping Scenarios)*** *in terms of uncertainty. If we had to close the business... if we paid everyone... what would be left…. has to be quite a shrink back... it did during recession... we didn't take money out of the business... still made profit."*

T45 (a Classic):

> *"…work out our additional funding if we scale big... a possibility... have big campaigns running in December... we have current investors who will follow on... if we close a round it will have to be March or April next year".*

These planning skills are also used to manage capacity within the business. T9 again:

> *"I have detailed capacity planning (****Capacity Planning)*** *translated into a spreadsheet which gives us a dynamic target to hit each month... then just make sure I have enough cash to support the business... so I have enough detail to manage the project on a month to month basis - so if we are half way through the project I can ask, are we halfway through the time allocated? If there is a problem we can jump on it".*

By planning activity this way, T9 is not only in control, but can demonstrate he is in control.

A systematic approach to raising finance describes how an entrepreneur uses a logical and systematic approach to raising finance. T22 (a Capable), for example, described this behavioural characteristic:

*"Experience does help... means I can run the business in a system way... **(Systems Approach)**. Definitely helps from a funding perspective…"*

Capables also demonstrated an ability to make use of employee flexibility in a way which would have a positive impact on raising finance. T26 (a Capable) noted:

*"The business we have is a people and margin business in the main... pay our staff one month in arrears and normally we are paid on 30 days... so cash flow benefit **(Staff Flexibility)** … plus also use... contract staff and cash flow is even better… just renting out people in effect."*

Planning and Organising is a particularly strong competency code for Capables, with themes of cash management, mapping scenarios and an emphasis on business planning. Not as strong a code for Collaborators, who evidence a spread of themes, and Low Competences, who primarily evidence cash management.

6.4.4.3 Communicating, Meeting, Presenting (CMP)

This competency relates to entrepreneurs approaching and presenting to investors and lenders.

Communicating, Meeting, Presenting	Capables	Collaborators	Low Competencers	Total Nodes
Approaching Investors	7%	3%	0%	4%
Presenting the Proposition	3%	3%	6%	4%
Communicating the Vision	1%	5%	0%	2%
Meeting Bankers, Brokers and Other Lenders	1%	0%	0%	1%
Total Code	12%	11%	6%	11%

Table 25 - Clusters v Communicating, Meeting and Presenting: Year 1 Longitudinal Study

In the context of funding, all three Clusters discussed the importance of presenting their business in a number of different ways. T11 (a Capable), for example:

*"We get involved with building a community of gamers... bring in money... also use publicity stunts. **(Presenting the Proposition)**... widen exposure... let the money find us out awareness ceremonies get your name out... or pitch events….. it's out there... they don't know we exist... go to award ceremonies... recognition at pitch events... idea to mingle..."*

T20 (a Capable) targets specific pitching events:

> *"…combination of proactive and reactive... went to a pitching event.* ***(Presenting the Proposition)****... pitched at angel network... made connections... events... mainly pitching then some reactive stuff... then some investors actually approached us".*

Similarly T28 (a Capable):

> *"…do a pitch... meet people face to face... quite high level... more of a selling exercise... if that excites them then will go into more detailed financials…* ***(Presenting the Proposition)****... wouldn't get involved with anyone we didn't get on with... business is all about relationships... don't do business with people you don't like... more affluent they are they can pick and choose... need a relationship...it's the foundation…"*

T8 (another Capable):

> *"Never done it before, done a couple of pitches I want someone who would bring not only their expertise, but they will invest if they believe in your business and can see an opportunity, they will happily stump some of their own money and help us almost like a dragon and then they take their share, 5 year later, they sell their share and go and do something else. For the right business they can help me grow the business more than I can by..."*

T09 (a Capable) illustrated the importance of taking time to ensure the bank understands the underlying strategy of the business coded as **Meeting Bankers, Brokers and Other Lenders:**

> *"Produce a Business plan and actually talk it through with bank and carefully make sure she is aware of what we are doing and where we are going... too busy to flick to the back pages too soon... became apparent my manager didn't understand how the model worked... only when I explained the model to her did she realise how it worked then the funding was a lot easier to get."*

Capables, in particular, were also willing to consider new investors who could also contribute management expertise. T10 (a Capable), for example, runs a software conference communication company and demonstrates a recognition **that particular investors** are able bring in specific expertise:

> *"You can buy parts of the company... but you have to bring something... maybe a division... otherwise why would I... wouldn't think twice about bringing a partner so long as they bring something other than just their money"* ***(Approaching Investors****).*

T28 (a Capable) runs a measuring instrumentation business and also illustrates this characteristic:

> *"Co-operation - yes would consider this...* ***(Approaching Investors)*** *if someone has cash and is earning 0 % in the bank... would be of interest they may bring expertise into the business. I am sixty-two and I can't go on forever... back of mind is exit".*

T19 (a Capable) stressed the importance of how you communicated the longer term aspirations of the business:

> *"****(Communicating the Vision)****… financial data and soft skills that become apparent being consistent doing what you said you were going to do... and ensuring you communicate and let them know what is happening. So nervous these days... any sign people are not communicating things can go pear-shaped very quickly…"*

6.4.4.4 Innovating and Creating (IAC)

Key themes emerging in this behavioural competency were different examples of Innovation in Funding Sources, Variation in Payment Terms, Grant Applications and joining SME Educational Themes, for example, Growth Accelerator or Goldman Sachs 10K Small Businesses.

Innovating and Creating	Capables	Collaborators	Low Competencers	Total Nodes
Innovating in Funding Sources	6%	7%	4%	7%
Grant Applications	3%	3%	2%	2%
Using Internal Funding	1%	1%	0%	1%
SME Educational Programmes	1%	2%	2%	1%
Total Code	11%	13%	8%	11%

Table 26 - Clusters v Innovating and Creating Themes: Year 1 Longitudinal Study

A number of examples in this theme illustrated how these entrepreneurs utilised new methods to raise finance. T10 (a Capable), for example:

> *"I am now considering crowdfunding... get to minimal viable product get to market quicker get revenues then use this for development* ***(Innovation in Funding Sources****)… uses smaller amounts of cash..."*

T45 (a Capable) runs a software company aimed at the charity fundraising sector and describes her perception of how the UK market for funding is less effective than the US:

> *"The UK is very risk averse... when it comes to valuations... in the US... would have raised more, quicker... better valuation... next round might come from the **(Innovation in Funding Sources**) US... been through it twice before want a much better valuation."*

T6 (a Collaborator) used a Peer-to-Peer lender to find an alternative to bank funding:

> *"We have used Funding Circle... used them because the bank weren't helpful… found through mailer… provided annual P&L plan, predictions, forecasts, unsecured, over three years… when the banks rained stuff in got a positive response. Didn't meet anyone - all over the phone".*

Grants were also considered by entrepreneurs to support funding applications based on new product development. T7 (a Capable):

> *"…it is frustrating – we have some exciting ideas to develop the business further, including the established of an academy where there is a major skills shortage in this industry – there is no support from the banks to start something like this although we are utilising grants **(Grant Applications)** and some Government training initiatives to try and get the things off the ground. How long they will be around for I do not know."*

Clearly, T7 is considered by the banks to be in a high risk sector, however, it isn't preventing him planning to raise new sources of finance from different routes. The establishment of the academy he talks about would be in conjunction with a local college and is aimed at attracting relevant grant funding. He sums his funding strategy up;

> *"Looking for Government schemes – we need to be innovative and look for something different."*

T46 (a Collaborator):

> "We get some funding from UKTI for development works... also work from regional grants **(Grant Applications)** where we are working with other organisations."

SME Educations Programmes are also used by entrepreneurs to find finance T5 (a Collaborator):

> *"…recommend anyone examine accelerators… **(Joining SME Educations Programmes)**…. recommend science park called XX… take a stake... 10 to 15%*

provide £20K start-up funds… find a dozen hot companies…. look for prototype… good team… long selection process... 20 teams… pitch over and over… evolves over time… short list of 10.. invited in… often with accommodation… kicking their but into shape."

Using **Internal Funding Sources** including bootstrapping, and using cash surplus in the business as a means of generating further growth. T12 (a Capable):

"At the moment we are bootstrapping and I do lots of work for a private consultancy to help the process – and programmers working for free."

Within this behavioural competency code, Innovation in Funding Sources is the strongest theme for all three clusters, followed by grant applications. However, overall, although Innovating and Creating has a high number of coded references for Capables (11%) and Collaborators (13%), it is lower for Low Competency cluster (8%).

6.4.4.5 Driving for Results (DFR)

Here there was evidence of entrepreneurs using results-orientated behaviour in a funding context.

Driving for Results	Capables	Collaborators	Low Competencers	Total Nodes
Persistence and Challenging	3%	3%	3%	3%
Growth and Opportunity	2%	3%	0%	2%
Involving the Management Team	1%	2%	1%	2%
Controlling	0%	1%	0%	0%
Total Code	6%	9%	4%	7%

Table 27 - Clusters v Driving for Results Themes: Year 1 Longitudinal Study

T21 (a Capable):

*"Raising finance... try it once you might get lucky. **(Persistence and Challenging)**… there are usually a lot of 'no's before the yes'. .. .it's about sticking with it... persistent. Constantly trying to evolve what you are doing... a lot of people... start with one idea and end up with another."*

Similarly T7 a Capable:

*"Keep turning the stones, (**Persistence and Challenging)** keep hammering out then you'll find something".*

T19 (a Capable):

> "*Driving for results is important... if it's the bank or externals they will make decisions based on that… because if they see you are making a loss they hold so much stock by that now doesn't matter who you are... its important confidence is everything".*

This competency also indicates how entrepreneurs link growth and opportunity with funding requirements.T9 (a Capable):

> *"We started with the* ***(Growth and Opportunity)*** *Government backed loan... had opportunity in Bristol... went forward with plan showed bank how we would do it with £25K..."*

(Involving the Management Team) is a code which recognises when entrepreneurs involve their management team in the funding process. T22 (a Capable):

> *"Involving others in funding process... now... involve one of the senior people….. it's a good thing more stress being on your own."*

Overall Driving for Results has 7% of attributed coding and includes entrepreneurs who evidence persistence and challenging behaviour, identifying growth and opportunity and also involving the management team in a funding context. The latter characteristic makes this a strong competency amongst Capables.

6.4.4.6 Working with Customers (WWC)

There are a smaller number of coded references in the competency code:

Working with Customers	Capables	Collaborators	Low Competencers	Total Nodes
Flexible Payment Terms	4%	2%	5%	4%
Creating Relationships	1%	2%	0%	1%
Total Code	5%	4%	5%	5%

Table 28 - Clusters v Working with Customers: Year 1 Longitudinal Study

T9 (a Capable) described how he used changes in his customers' payment terms to move key customers onto a system of a guaranteed monthly retainer, as opposed to invoicing for work done, as a method of giving surety of investment funds in the business.

"…started with the Government backed loan... had opportunity in Bristol... went forward with plan showed bank how we would do it with £25K... then liaised with key customers... so talked to one of our key customers... listening to the market struggling to get good response times... in the current market when people want to move on land need to move quickly. ***(Flexible Payment Terms)****… care sector going through massive change they wanted surety that we could respond quickly if there was an issue - planning for example… took opportunity but to facilitate need money up front... a retainer... so we are now in the second year ... good lump of money services the firm… sits in the firm… helps me deal with the scheme, I can throw resource at it knowing there is enough cash to pay the wages... still charge on top of the retainer... about one month turnover equivalent... I can tell them how much of the retainer I have used... to get to that point had to prove it to them... had to do the groundwork… this is our fee... there is a bonus amount involved based on saving money on the project or could be quicker planning; always try and put myself in the position of the client... wants some comfort in order to minimise risk to practice."*

T7 (a Capable) uses invoice finance to facilitate a similar programme:

"We are winning more business (Flexible Payment Terms) and through invoice finance it is generating more cash which we are re-investing in the business."

And T47 (a Collaborator):

"We get 50% paid up-front by the commissioning body... but may need to go to bank or investor for 25% to make sure we can finance it… bit more cautious but I am like that.".

Other entrepreneurs highlighted **Creating Relationships**.T41 (a Collaborator):

"The other thing is we have tried to establish good relationships with vendors and partner companies also... so we can get 60/90 day credit terms which has been helpful".

And T29 (a Collaborator):

"Relationships with customers... we advertise... spend £1 million in ads will get one million customers... what we are going to do is share revenue with bands and they are going to promote us... have on-line systems community pages... measures on-line satisfaction."

Working with Customers has a lower number of coded references than other themes, yet all three clusters evidence this behaviour using flexible payment terms in particular to leverage customer payment terms as means of injecting finance into the business.

6.4.4.7 Problem Solving, (PS)

This includes entrepreneurs using their experience or changing the business model, in order to solve funding problems:

Problem Solving	Capables	Collaborators	Low Competencers	Total Nodes
Leverage Experience	1%	0%	0%	1%
Developing a Business Model to attract funding	1%	2%	0%	1%
Total Code	2%	2%	0%	2%

Table 29 - Clusters v Problem Solving Themes: Year 1 Longitudinal Study

In this competency, some entrepreneurs demonstrated how they **Leveraged Experience** in order to Problem Solve. T45 for example:

> *"Started a training agency and merged that with another business I had in order to fund the business".*

T53 (scored 8 on Problem Solving). Talked about drawing on the skills of previous experiences:

> *"More confident now I have done it before... you have to meet the right people. Need to complement skills... if you haven't got a skill you can find someone who has it..."*

Capables also talked about changing the business model, ensuring this maximised the opportunity to raise finance in the future, T49 (a Capable):

> *"We want to build functionality* ***(Developing the Business Model)*** *which builds a financial model...what are the big value uplifts in this business… what are the milestones... so we can get another valuation improvement... so what can I get to move this company from x valuation to y valuation; then I go back and forth between financial model and next big proof model that gets us another valuation… it's an iterative process".*

In this first stage of the research, this competency is only evidenced to a limited extent by Capables and Collaborators.

6.4.4.8 Coping with Pressure (CWP)

The code evidences entrepreneurs dealing with the pressure involved in funding applications:

Coping with Pressure	Capables	Collaborators	Low Competencers	Total Nodes
Managing Investors	1%	0%	0%	1%
Personal Reflections	2%	0%	0%	1%
Total Code	**3%**	**0%**	**0%**	**2%**

Table 30 - Clusters v Coping with Pressure Themes: Year 1 Longitudinal Study

Only Capables reported methods of Coping with Pressure. Coded as **Managing Investors,** this code described how entrepreneurs manage their investors to ensure they are able to continue to manage the business, whilst still maintaining a working with relationship with key investor:

> *"Have to manage investors... I am buoyant… maybe six/seven months into this environment... may change my mind... if you have a good business idea you will raise the money... in everything I do... solid reasons why I think it will work..."*

T10 (a Capable) describes his approach to dealing with a Board Member representing the interests on an investor VC Fund:

> *"Also not a very pleasant person so I am diplomatic... but it is good to have a foot to the throat from time to time… so we have monthly meetings… he is a director of the company... I follow it through... just not very meaningful..."*

Only Capables evidenced this competency, in the context of managing investors and personally reflecting on funding applications.

6.4.4.9 Leading Others (LO)

The remaining competency codes had the lowest level of references and in each code:

Leading Others	Capables	Collaborators	Low Competencers	Total Nodes
Leading the Funding Process	2%	1%	0%	1%

Table 31 - Clusters v Leading Others Themes: Year 1 Longitudinal Study

Capables show an orientation towards **Leading the Funding Process**. T49 (a Capable):

> *"I know how to raise capital and I know how to run a business... but coming from outside the business helps because I use a business model that comes from outside of the industry."*

And T60 (a Capable):

> *"Put together a budget with targets and KPI's so can drive and look at on a group and individual basis so we can take action... my fault haven't done that... because I lead from the front Goldman Sachs has been really good for that."*

In Chapter 6.2.2 leadership was noted as the lowest mean BCS score across all competences and this is also reflected in coded references.

Evidence of Behavioural Difficulties

This code was developed to include themes which described the difficulties entrepreneurs had in the funding application process:

Behavioural Difficulties	Capables	Collaborators	Low Competencers	Total Nodes
Problems with VC process	4%	1%	9%	4%
Bad planning	0%	5%	10%	3%
Keeping control	2%	1%	6%	3%
Difficulty with new funding sources	1%	1%	10%	2%
Signs of frustration	0%	4%	6%	2%
Difficulty with advsiors and mentors	3%	1%	2%	2%
Doubts over personal skills	0%	2%	3%	1%
Business partner problems	0%	0%	6%	1%
Uncetainty	1%	0%	2%	1%
Struggling with the bank	0%	0%	0%	0%
Problems with security	0%	0%	0%	0%
Decision to consolidate	0%	0%	1%	0%
Bad hiring decisions	0%	0%	0%	0%
Problems with factoring	0%	0%	0%	0%
Given up	0%	0%	0%	0%
Just focus on the family	0%	0%	0%	0%
Difficulty with SME educational schemes	0%	0%	0%	0%
Total Code	**11%**	**15%**	**55%**	**19%**

Table 32 - Clusters v Behavioural Difficulties: Year 1 Longitudinal Study

In each of the competency codes, all entrepreneurs evidence some behavioural difficulties when asked how they funded the firm. The Low Competence Group accounted for a greater proportion than any other group. Some examples are as follows:

T13 describes how he struggles to plan:

> *“Your (plan) P&L to a degree goes **(Bad Planning)** out the window... all very unpredictable. So it’s guesswork...”*

T16:

> *“We have staff chicken and egg… can’t get staff until we have deals and can’t get deals until we get staff... planning... we don’t plan. **(Bad Planning)**… exploring all options... bootstrapping... develop first games... want to have staff...isn’t a business plan so many options... speed is key”.*

T13 also had difficulties with the overall funding plan:

> *“No one is going to invest 100K unless you have customers… bit of chicken and egg. **(Bad Planning)**... you can’t raise until you have customers and you can’t get customers until you raise... now get letters of intent from customers and am showing this to investors... need to raise in next couple of months... develop relationships with customers... but it’s a bit of waste of time because we just need investment”.*

T13 also had a very low Driving for Results score (DFR – 1) and described his approach to hitting targets in the plan:

> *“No pressure... very fortunate nothing to lose… no money… no job… no family... very unstressful.”*

T5:

> *“Attempting to do back of a fag packet cash flow forecast I suppose (for presentation purposes)… ‘to be honest it’s not been as planned as I would hope and there has been a fair amount of ‘oh god how am I going to get out of this one… biting finger nails… **(Bad Planning)** always get out of it… I am a survivor… think on my feet… can lead to complacency I’ll always get out… maybe one day I won’t... it’s a dangerous trait I have.”*

Keeping control of the equity was also a priority for a number of Cases. T44 is concerned about bringing in external equity and **losing control:**

> *"One thing I would be worried about is giving up control* ***(Keeping Control)*** *of the business... at the moment I am the MD and when the time comes to relinquish control I will decide nobody else".*

Similarly T16 was cautious of potential partner problems, doubted the firm could find anyone to collaborate with:

> *"….with people we used to work with… but there are none we could collaborate with anyway we would only* ***(Business Partner Problems)*** *collaborate with people we know..."*

A number of cases also were unwilling to consider new funding sources. T16 is doubtful about the potential for Crowdfunding:

> *"Kick Starter... doubtful... passing phase… I'm a bit cynical… legal issues in UK... not really appropriate.* ***(Difficulties with new funding sources)****... need an audien1ce."*

T50 also has doubts on Crowdfunding:

> *"But it does look like the ones who have been successful are the ones asking for a small amount… or are people who have a significant reach... otherwise you are at the whim…* ***(difficulties with new funding sources)****… you might get the money you might not... I was at an event where Indigogo were presenting and they wouldn't be drawn on percentage success on funding projects."*

And T57:

> *"Some of our competitors used crowdfunding we looked at it and I shot it down... we call it dumb… but have to commit time and help to grow the crowd... plus it's basically a marketing tool... way of prostituting your own brand..."*

T17 is similarly doubtful regarding grant funding:

> *"Keep trying for grants... but are a waste of time... can't do grants anymore - chances not good; negative about co-op bids."*

T17 had doubts over their personal skills and described the difficulties in putting in joint bids with other organisations:

> *"May re-form and try for a direct fund… I just can't cope with stress of competition."*

Also T2:

> "*It's hard (to continually fund the firm). A lot of people don't realise how hard it is* ***(doubts over personal skills)*** *when people rely on you to pay their mortgages and feed their kids. I always try to stay positive and look beyond next week/month."*

T43 describes how he doubted his leadership ability in certain key aspects; he has recruited another Director based two hundred miles away from his HQ, and this new Director is now taking a leading funding role:

> *"Business plan... new employee (based in Glasgow) he has experience of raising venture finance…* ***(doubts over personal skills).*** *being led by him"* and goes onto say *"Need a CEO/Chairman bit more gregarious than me... bring a cache and maybe do the social bits I can't… I am a background person but I know what the business should be doing."*

A number also expressed a more cautious view and a tendency to consolidate, T2 took a very pessimistic view to developing the business:

> *"I'd planned an expansion to the business, but in the current climate, I've put these plans on ice****… (consolidation behaviour).*** *From what I have read and talked to other business people I have not even bothered (to approach funders). Because what I do not want to do is get knocked back... put everything on hold."*

T54 observed a dilemma in growing a business and really driving it:

> *"We explicably said we were not going to grow a big business because it will turn it into something we didn't want... running a big company... staff... we had been in companies like that…* ***(consolidation behaviour)****... in studios that had grown from a couple of guys to 250... saw a lot of downsides of that not just for the owners but also for the staff."*

All clusters met some problems in the funding application process; Capables had most concern with the process of applications, for example. Difficulties associated with planning were also prevalent for all clusters. Low Competences, however, had the largest number of difficulties and also the largest spread of themes.

6.4.5 Year 1 Summary

In Year 1 the research study identified a behavioural competency profile for sixty entrepreneurs in the creative industries sector. Working with Others and Planning and Organising were the strongest themes emerging in the interviews, particularly with Capables and Collaborators. Low Competence entrepreneurs reported the largest number of behavioural difficulties. Planning and Organising was a strong theme for Non-Applying entrepreneurs, and also for those using self-funded or secured-funded finance.

Within the behavioural codes, serial networking and using advisors was the strongest theme in Working with Others, with entrepreneurs reporting how they meet potential funders and use them subsequently to assist in guiding their decision-making. Cash management was a strong theme within Planning and Organising. Within the Communicating, Meeting and Presenting code there was evidence of entrepreneurs pitching and presenting to entrepreneurs and producing business plans. Innovating and Creating was the last of the most significant themes emerging from the data with examples of entrepreneurs developing innovative products suitable for grant funding and also beginning to use innovative funding sources through peer-to-peer funding for example.

6.5 Year 2 Semi-Structured Interviews: Data Collection and Analysis

The same methodology was used as Phase 1, although within a longitudinal study in Phase 2, the focus was on activities only in the twelve-month period since the last interview. The brief for Phase 2 semi-structured interviews is included in Appendix 3.

In total, five iterations of coding were carried out based on the nine Behavioural Competences. Coding from Phase 1 was used as the first iteration and then the coding structure was refined and developed throughout the interview process. Descriptions for Phase 2 Codes are in Appendix 2b.

This section is structured as follows:

- A summary of the nine behavioural competency codes analysed by cluster, outcome and funding type.

- An analysis of each competency code and individual theme, by cluster, with examples of behaviour from the cases.

- An analysis of behavioural difficulties by cluster.

- A summary after the second phase of the research.

Phase 2 interviews were carried out between May and October 2013.

6.5.1 Year 2 Coding Density Summary by Cluster

	Capables	Collaborators	Low Competencers	Total Nodes
Working with Others	24%	13%	3%	17%
Communicating, Meeting, Presenting	12%	20%	8%	14%
Innovating and Creating	11%	18%	4%	12%
Problem Solving	13%	10%	6%	11%
Driving for Results	8%	5%	0%	6%
Planning and Organising	5%	5%	1%	4%
Working with Customers	4%	6%	2%	4%
Coping with Pressure	1%	0%	0%	0%
Leading Others	0%	1%	0%	0%
Behavioural Difficulty	23%	22%	75%	31%
Total Code	**100%**	**100%**	**100%**	**100%**

Table 33 - Phase 2 Summary Coded Themes v Clusters: Year 2 Longitudinal Study

In Table 33 the ranking order of competences has changed (Total Nodes) in line with the different results in Year 2. Working with Others, Communicating Meeting and Presenting, Innovating and Creating and Problem Solving continued to be strong themes in the interviews and together make up, 54% of coded themes. Planning and Organising was not as strong in these interviews, as entrepreneurs focused on what activities they had actually carried out over the previous twelve-month period.

Working with Others is particularly strong for Capables, and Communicating, Meeting and Presenting and Innovating and Creating were strong for Collaborators. Again Low Competences accounted for the largest number of behavioural difficulties, accounting for 75% of themes coded.

Compared with Year 1 interviews, Collaborators, in particular, were keener to give examples of problem solving competences

6.5.2 Year 2 Coding Density Summary by Outcome

	Applied and Successful	Applied and Unsuccessful	Didnt Apply	All Nodes
Working with Others	18%	5%	22%	17%
Communicating, Meeting, Presenting	24%	1%	6%	14%
Innovating and Creating	17%	0%	11%	12%
Problem Solving	11%	0%	14%	11%
Driving for Results	9%	0%	4%	6%
Planning and Organising	2%	1%	9%	4%
Working with Customers	6%	0%	4%	4%
Coping with Pressure	0%	0%	1%	0%
Leading Others	1%	0%	0%	0%
Behavioural Difficulty	12%	92%	28%	31%
Total Code	**100%**	**100%**	**100%**	**100%**

Table 34 - Year 2 Summary Coded Themes v Funding Outcome: Year 2 Longitudinal Study

Similar to Year 1, Working with Others was a strong theme for Successful and Non-Applying entrepreneurs. Communicating, Meeting and Presenting was also again discussed in successful cases. Increasing themes over Year 1, however, was Planning and Organising and Problem Solving, particularly amongst Non-Applying entrepreneurs. Overall, entrepreneurs were also more forthcoming on difficulties experienced in the funding applications process, although again much more prevalent in the unsuccessful cases.

6.5.3 Year 2 Coding Density Summary by Funding Type

	Self Funded	Equity Funded	Secured No Equity	All Nodes
Working with Others	25%	17%	12%	17%
Communicating, Meeting, Presenting	6%	27%	7%	14%
Innovating and Creating	12%	14%	11%	12%
Problem Solving	12%	13%	5%	11%
Driving for Results	4%	7%	5%	6%
Planning and Organising	10%	2%	3%	4%
Working with Customers	5%	4%	5%	4%
Coping with Pressure	2%	0%	0%	0%
Leading Others	0%	0%	0%	0%
Behavioural Difficulty	24%	16%	52%	31%
Total Code	**100%**	**100%**	**100%**	**100%**

Table 35 - Year Summary Coded Themes v Funding Type: Year 2 Longitudinal Study

Communicating, Meeting and Presenting were an even stronger theme for Equity-Funded entrepreneurs than in Year 1. Problem Solving was also increasingly important for Self-

Funded and Equity-Funded entrepreneurs. Planning and Organising remained a significant theme for Self-Funded entrepreneurs.

6.5.4 Behavioural Competences Cases and Themes

Working with Others

Codes	Themes	Capables	Collaborators	Low Competencers	Total Nodes
Working with Others	Advisors, Mentors, Non-Execs	15%	11%	1%	11%
	JV's	5%	1%	0%	3%
	Suppliers	3%	0%	2%	2%
	Friends and family	1%	1%	0%	1%
	Total Code	**24%**	**13%**	**3%**	**17%**

Table 36 - Theme Working with Others v Clusters: Year 2 Longitudinal Study

This competency has the highest density of coded responses, particularly for Capables and Collaborators, and is also high in successful cases and those that Didn't Apply.

T21 (a Capable) leveraged existing contacts in order to successfully raise funds **(Advisors, Mentors and Non-Executives)** through their own network to meet new investors:

> *"Through existing contacts... through existing shareholders and through the network."*

T45 (a Capable) expanded into the US and talks enthusiastically about the use of advisors:

> *"This year we brought in advisors from the West Coast... Head of Mobile at Winga... she is heavily involved in the games industry and has very good connections with Google and Apple... she is a new investor one we have brought in (this year)…"*

T29 (a Collaborator) talked of a team of industry-specific advisors working together to support the entrepreneurs:

> *"One 'non official' non-exec reports back to a group of investors **(Advisors, Mentors, Non-Executives)** he knows... he's a music industry advisor".*

T33 (a Capable) obtained **Family and Friends** funding:

> *"We have raised £25K through family... and also £25K through Coventry and Warwick Trust; looked at other routes and will apply for Goldman Sachs."*

This was a stronger competency for Capables. Also including in Working with Others is **Suppliers,** when funding has been sought from other supply chain partners. T10 (a Capable) for example reported:

> *"...had conversations with IBM because they want to come in and also may provide selling expertise for us..."*

T51 also obtained funds from a software supplier:

> *"We have funding from Microsoft 20-70 why... the guys at Microsoft have been great and encouraging this is non-repayable... when the game goes out it is exclusive to Microsoft for three months... apart from that we don't have to pay the funding back... which is a great help."*

T04 (a Capable) didn't raise funds in the year, but considered changing bank. Part of the decision-making progress for T04 was seeking advice from family:

> *"Just my sister who (works for) HSBC in Shrewsbury and also X (life partner) knows them (the bank) and has clients that use them… he had a client whose experience* ***(Friends and Family)*** *was a similar thing to Lloyds... maybe all the same".*

T46 (a Collaborator) talked about getting the right combination of advice prior to making a funding application:

> *"…have 2 people via an intermediary. One is accountant... is our non-exec...* ***(Advisors, Mentors and Non-Executives****)… Solid pair of hands with a good understanding of the investment market... and then very recently (this year) we were approached by the euro strategy director of Intel... is prepared to offer his services FOC... so between those two understands the tech market and financial market, wasn't planned but still working very well for us at the moment."*

T14 (a Capable) is also open to advisors:

> *"Yes, in Goldman Sachs (joined this year) there is a mentor... If I scale up I would be open to advice on funding"* ***(Advisors, Mentors, Non-Execs)****.*

T26 (a Capable) also uses different **Advisors** for different reasons and is still considering funding options:

> *"Yes Advisors… was one guy this year appointed another potential to help on sales and marketing but have another one to help on growth but would want him to put his money where his mouth is - maybe I take both or neither..."*

T28 sees the increasing value in **Advisors**:

> *"...business is still growing (organically)... have a mentor... Mr X plus one more... don't sit on board... still want to grow… are advisors not non-execs..."*

T55 (a Capable) won a competition run by Deuche Bank and part of this involved free mentoring; although the programme is now complete, the entrepreneur plans to continue with the mentoring and although he didn't raise funds in the year, is considering the next step:

> *"Still have advisor even though now have technically finished it... also an aunt, she has worked in lots of businesses... definitely hang on to guy from Deuche Bank... **(Advisors, Mentors, Non-Executives)**... he came and said he would like to stay with us… not only is his advice incredibly useful… But I found meeting someone and chat to someone externally about what we were doing and how we can go about things really useful... Been useful... Like to keep it going as long as possible".*

T55 talks about changing vision for the company in order to grow:

> *"Our vision for the company has changed... vision has grown we could expand it into a couple of more people... takes longer to get a stable environment... not quite there yet… Investing in our production facilities... and up-grading… (Identifying growth and opportunity)… you have to move to top end... moved into recording studio funded so far from our own resources... will need to fund-raise to expand."*

Communicating, Meeting and Presenting

Codes	Themes	Capables	Collaborators	Low Competencers	Total Nodes
Communicating, Meeting, Presenting	Approaching Investors	9%	13%	6%	10%
	Approaching International Investors	0%	5%	2%	2%
	Bankers, Brokers, Other Lenders	3%	2%	0%	2%
	Total Code	**12%**	**20%**	**8%**	**14%**

Table 37 - Theme Communicating, Meeting and Presenting v Clusters: Year 2 Longitudinal Study

This competency has the highest density of coded responses, particularly for Collaborators, and is also the highest in successful cases.

T05 (a Collaborator) raised £150,000 through new and existing angels:

> *"Just come back from Arizona... **(Approaching International Investors)**…. met some interested angels… May raise the next round in the US…. done a whole number of different pitch sessions… In Vienna in October... took prize at Pioneers festival EU23K... won fifteen different prizes... about fifteen pitch sessions... also... IBM smart camp... ended up pitching in global finals... At Waldorf in New York… Finished second."*

T05 also used **approached new lenders**:

> *"Approached Aston Reinvestment Society, growth accelerator and incubator. **(Meeting Bankers, Brokers and Other Lenders)**… Yes... Raised £150K through new investors... needed cash ongoing... too early for VC's, don't want to get into... different goals."*

T29 *(*a Collaborator) raised £280K using a combination of existing and new investors:

> *"New angels... all through contacts of existing angels... through our network… **(Approaching Investors)**… pitching also… Around the patch... VC are local in Birmingham acts as a VC… so a mix of new angels, existing angels putting in loans and converting. Plus loans from private individuals… real mix of things. Even more complicated financial structure!"*

T45 (a Capable) approached a number of new private investors:-

> *"Did pitches… clearly... looked at... angels who want to invest and make a social impact… **(Approaching Investors)**... we did a pitch there and ended up getting £90K from that group... got introduced to them in order to give a reference for someone else and they ended up being interested in the business... and everyone else either through networking... just telling people we are funding/people I know and referrals... first tranche was quick... did it in six weeks... because investors following their money... next tranche took three months. I spent 50% of my time was on that activity."*

T45 also used a proactive strategy to meet new investors:

> *"…also capital for enterprise aspire fund for female-led business got involved... and we have people who had exited tech funds... and from the media side… we also had… Natalia Bodianova the Russian supermodel also have midven... nesta..."*

T45 was focused on UK investors, but also widened the scope in the year to include international VC (US) investors:

> *"We have an (investment) round open at £750K* ***(Approaching International Investors)*** *so there is another £150K still left... if we are going to do a series A, will do in in Q1 or Q2 of next year... just opened an office in San Francisco… That's really good so if we are going to raise VC will do it on the West Coast."*

In the year, T09 (a Capable) also secured funding through providing the bank with a professional presentation and highlighted the close relationship that existed between the firm and the bank:

> *"Just arranged another £20K loan EFG loan... did all the documentation* ***(Meeting Bankers, Brokers and Other Lenders)*** *about nine months ago and bank was very happy to say yes..."*

T22 (a Capable) raised investment through a mix of new and existing investors:

> *"About half and half almost all investors follow on we brought in new investors... angels were new… we raised another round in December - another £341K - additional £20K grant so £360K."*

Communicating, Meeting and Presenting also had the highest density of themes coded to Low Competence entrepreneurs. T50 (a Low Competence)**,** for example, **approached investors** known to the entrepreneur:

> *"Hi... sure... yes... yes... managed it... we are running two projects so we had to finance ourselves... so needed a round of finance... through an angel investor... someone I knew already… expressed an interest and time seemed right."*

T14 chose not to make any applications in the year, and had expressed concerns in Year 1 over sharing equity; however in the twelve months since the first interviews T14 is now beginning to see the benefits of **approaching investors:**

> *"Originally I said no to exchanging equity... although part of GS (SME Educational Programme) programme I am now more open to it than I was this time last year. My mind set has slightly changed because I can see nothing but opportunities to grow... I realise if I wanted to really go for it would have to sacrifice equity. Just couldn't do that organically."*

6.5.4.1 Innovating and Creating

Codes	Themes	Capables	Collaborators	Low Competencers	Total Nodes
Innovating and Creating	Peer-to-Peer Lenders	4%	7%	2%	5%
	Grant Applications	3%	5%	0%	3%
	SME Educational Programme	1%	5%	2%	2%
	Internal Funding	3%	1%	0%	2%
	Total Code	**11%**	**18%**	**4%**	**12%**

Table 38 - Theme Innovating and Creating v Clusters: Year 2 Longitudinal Study

Again, this was a strong theme for Collaborators and Capables and was also a strong theme for successful applications.

T05 (a Collaborator), for example, also took full advantage of accelerator scheme **(SME Educational Programme)**:

> *"…went to Amsterdam for start-up bootcamp accelerator... six months based in Amsterdam… still spend a great deal of time in Amsterdam at bootcamp accelerator… fantastic opportunity for us... moved to Amsterdam... still have a base in Birmingham… many of the people, mentors and advisor on that programme thought we were really cool... and became angel investors... European angels... heard about accelerator... felt the road ahead would require a lot of ongoing support, guidance and commercial connections... otherwise would find difficult on my own… so wanted to get onto a good accelerator… had choice of half a dozen different ones… most in UK… but none around West Midlands... there is oxygen at science park... but was going to take too long to apply for... wanted to be dropped in at the deep end with new culture and language… simply for challenge."*

T05 also demonstrated a proactive approach:

> *"Very strong belief in shooting to the (persistent and challenging approach) moon… More conservative in Europe... that's my prime reason, interested in raising the next round in the US."*

T06 (a Capable) considered innovative forms of Share Ownership **(Internal Funding)** in order to raise funds in the business. This was also considered by T09:

> *"… gave me the idea for creating a new class of shares which means I could issue them to staff and also new investors."*

T11 (a Collaborator) raised equity-funding following membership of an Accelerator Scheme **(SME Educational Programme)**.

T20 (a Capable) also joined an accelerator scheme **(SME Educational Programme)** and was successful in raising finance:

> *"Two of the grants were recommended through this (accelerator) scheme. We joined towards the end of 2012."*

T21 (a Capable) also raised equity finance and researched new lending platforms:

> *"… looked at kick starter.* ***(Peer to Peer lenders)****… possible way to fund a new project... lot of work to get it right… PR has to be right, it's about exposure... we also now have an office in Tech City."*

As part of an investment in new activity, T32 (a Collaborator) was also successful in a number of **(Grants Applications)** grants:

> *"… but yes have applied for three grants; one to help with property which is £25K match funded****;*** *the other is to help with the move, fixture and fittings etc.; £15K if we spend £45K; then additional grant of £10K to help with training (also matched funded)… free money... right thing at right time."*

T32 was also successful in arranging a commercial mortgage on the property:

> *"Again much of the momentum from this was through Goldman Sachs* ***(SME Educational Programme)*** *we knew there was a potential for funding and it helped me keep the momentum going from the Goldman Sachs programme; my major goal is merger and acquisitions…in particular, acquisition, which is the next step... want to start exploring this in the future."*

T32 talks about joining an accelerator programme in order to access funding opportunities; he has already completed the Goldman Sachs programme, but he joined another **(SME Educational Programme)** in order to keep the momentum:

> *"I knew there was a potential for funding and it helped me keep the momentum going from the GS programme."*

T29 (a Collaborator) also used Grants:

> *"… appears to be... LEPs... feels... lots of money floating around.* ***(Grant Applications)****. we are fairly well plugged in and still these things crop up and a grant (Birmingham Post)... real mix of things."*

T29 also tried new funding models:

> *"Tried crowdfunding through (Peer-to-Peer lenders) Indigogo."*

T08 (a Capable) chose not to raise funds in the period, but considered grant applications:

> *"Looking at TSB **(Grant Applications)** so we can invest properly in our cloud based software... we could do it and would be a step change and quicken up growth."*

T14 (a Capable) also considered grant funding:

> *"Two things I had my eye on are LEP money… Business Growth Fund... is a possibility and what I am looking into… only other thing is lots of Government tenders... through TSB small business **(Grant)** ... a general target area that Government is worried about then they fund you for a project."*

Similarly T22 (a Capable):

> *"Not applied yet… yes we are now planning. Looking at grants... very much on the agenda... free money is an attraction of **(Grant)** money - haven't got the profits to repay loan... capital funding will not work with a loan. Needs to be grant."*

In the year, T41 (a Collaborator) joined an **SME Educational programme** in order to plan funding applications:

> *"We are also using growth accelerator... since... early 2013; we have a reasonable amount of work to do in terms of structure of the business getting our house in order getting to that investable stage before we start seriously entertaining it… we understand their needs, why we can and can't do their things... know more about the range of routes available... lots is peer-led. And lots of advice... our advisor is FD so advised plus the other advisor is from growth accelerator..."*

T53 (a Collaborator) considered the prospect of exchanging equity cautiously but still considered this plan:

> *"Sharing equity would depend on situation but our preference would be not to. But you can give up some equity **(Approaching Investors)** and still maintain control... something we wouldn't discount."*

T53 considered new funding models:

> *"We will consider kick starter **(Peer-to-Peer)** much more strongly... still in infancy when we started... too late to start this year... Because game is getting towards completion; kind of a marketing job."*

T55 uses (internal funding):

> *"We have had to make sacrifices in our own salary... we virtually take no salary... but we do see long goal... but need to provide groundwork".*

6.5.4.2 Problem Solving

Codes	Themes	Capables	Collaborators	Low Competencers	Total Nodes
Problem Solving	Developing a new business model	8%	7%	6%	7%
	Using match funding	5%	3%	0%	4%
	Total Code	**3%**	**10%**	**6%**	**11%**

Table 39 - Problem Solving v Clusters: Year 2 Longitudinal Study

Two themes emerged in this competency code and were prevalent for Capables and Collaborators in both successful and non-applying cases.

T07 (a Capable) successfully arranged new asset finance to fund an IT purchase and also made changes to the type of business undertaken which has resulted in new sources of potential funding:

> *"Now have a training academy…. some of this has been self-funded, **(Developing a New Business Model)**… And also some has included **(Grants)**… T10 also used internal funds to raise finance approached Wolverhampton council... there is lots of funding out there… told them what we were trying to achieve... they couldn't give me the money but if they purchased a contract… (**Match Funding**), which we could then claim that as match funding… so I can now go to Birmingham Mail or Creative England… Opens all doors... then it is an issue of confidence... if you are investing £66K of your own money... then others will feel comfortable once you get initial funding."*

T10 (a Capable) for example had reconsidered developing his business format in the year:

> *"…but have now changed the business model **(Developing a New Business Model)** and are seeking significant funding from a sovereign wealth fund... which is a VC... haven't taken it yet... will eclipse the original platform."*

T23 (a Capable) raised funds through the existing network of investors and developed a new business model in order to attract investors:

> *"alternative business model, no retail titles... focus on mobile and tablet space.* ***(Developing a New Business Model)****...*". Existing investors were approached, *"went to people we did business in the past."*

T21 (a Capable) describes how he raised funds through existing investors and further developed his Model:

> *"Yes evolved the model* ***(Developing a New Business Model)*** *- now more on licensing and other IP opportunities and client work has also helped... can't move as quickly as we could just felt it made more sense... getting more out of focus on business."*

T29 made changes through a new model which included a revenue share with a partner:

> *"Now more focus on smaller amounts... so bands that want local promotion... get teamed up with global marketing partner... revenue share with them.* ***(Developing a New Business Model)****… when we are bigger will go back to Broono Mars... once we have bigger player base… we will go back to bigger players. Sales now ramping up."*

T29 is also planning the next stage of Match funding:

> *"Always know we need some more... Another round this year or early next year... question always is from where? Always want to get the best rate... grants are the nicest way… Effectively free money except for the time you have to put into the application process... matched****. (Match Funded)****. But you can do in time... so you can book time against it."*

T08 didn't raise any funding in the year, but accepted that **match funding** is a method of unlocking business finance:

> *"If we could match the £50K would be fantastic... get a person and a half or buy in expertise... another step change..."*

T14 talked about **developing a new business model** in the context of attracting funding:

> *"…business model... this year also gone into learning management systems... effectively exclusivity... other (competitor) one is useless…"*

T46 saw the attraction of a new **(Developing a New Business Model)** through the development of their own IP:

> *"We have had more serious look at enterprise investment scheme so we are gearing up. Developing our own IP... Allow us the headroom to develop our own IP... also interest free with Bristol. Targeted at entrepreneurship and technology... we were recommended if we went for one would get the other. Trying to raise £250K... and we will scale accordingly… our preference would be to put together a portfolio of games and put together a licenced property and good chance of traction... we are thinking of four/five games and create an SPV so we invest with angel... Obviously more attractive to us... they may say they want the management team 100% focused... so what's the best way to do it?"*

T46 are using **match funding** in grant applications:

> *"… applying for competitive grants. Couple we are applying for... BT Support Fund for £25K prototype. For game developers with £5 million budget for game development and alongside that is an interest free loan application... grants are great because you don't have to repay... you are risking your **(match funding)** but that's okay... of a scale we can accommodate... through connections... limited competition... good chance of getting it… lots of effort and concepts and videos... tend to draw on stuff we can get it with contacts etc…"*

T22 talks about radically restructuring the business in order to create a more investable model:

> *"...turned core business into an LLP… Already got two partners put in place.. . and I have got two days/week free to launch the start-up team which is the stuff Goldman Sachs helped me to think about... they take 50% of their divisions so I don't run a division I just manage over the whole to help expand through business development… I am sort of selling (existing company) to the LLP so I will get some cash out of the sale and this will pay me out to fund team Newco... a revolutionary recruitment platform. **(Developing a New business model)**... so get whole teams rather than individuals..."*

T22 planned to use **(Match funding)**:

> *"We have got this far for free then going to put £30K to get to next stage… Then need £200K to get to the next stage… This will be match-funded... going to be part self-fund and part grant-funding... counting on LLP generating cash for me."*

T26 also considered the opportunity for **(Match Funding)**:

> *"Grant funding is 40% up to £125K; would give us £250K would be the thing... but this is just the product so we will have to make the investment in sales and marketing so don't really know yet... we are early days."*

T55 had identified a new business venture with a new model that makes the business more attractive as an investable proposition:

> *"We are just starting work on a new project* ***(Developing a New Business Model)*** *which will be completely funded... Innovative idea as a game... just audio working with deaf... well received by euro gamer... magazine double-page spread... press getting behind. Need to externally fund build of game... so building awareness for visually impaired community so it's a different genre... will need finance..."*

6.5.4.3 Driving for Results

Codes	Themes	Capables	Collaborators	Low Competencers	Total Nodes
Driving for Results	Identifying growth and opportunity	5%	1%	0%	4%
	Persistence and challenging	1%	3%	0%	1%
	Consider acquisitions and mergers	2%	1%	0%	1%
	Total Code	**8%**	**5%**	**0%**	**6%**

Table 40 - Theme Driving for Results v Clusters: Year 2 Longitudinal Study

Driving for Results was not a strong theme in the interviews and only in Capables did it emerge to any degree.

T10 is one example (a Capable) who raised finance during the year:

> *"So I had to think on my feet as to how do we get ahead of the game… and so we realised if we create a framework* ***(Identifying Growth and Opportunity)*** *we can gear and be more bespoke… so we now have first mover advantage"*

T07 (a Capable) was also successful in arranging asset finance, but also looked ahead to potential develop the business further through potential mergers with other companies:

> *"My goal is to do right by the company... that's why* ***acquisitions and mergers*** *route… not any man… Has got to add value to the business. Similarly for non-execs... someone… whatever the deal is… has to benefit the business. Desire to grow the largest independent structured steel designer in the UK - how long is the only issue... have to do it collectively and organically."*

T33 (a Collaborator) also raised finance in the period and talked about:

> *"Ploughing ahead lots of challenges..."*

T26 (a Capable) chose not to apply but gives examples of **Identifying Growth and Opportunity** in the context of getting the timing right for the next stage of investment:

> *"…both exit and skill set in mind… in order to maximise value in business then business needs to grow and grow in profitable areas... that's what's driving my view… Also a longer term view… Invested time and effort internally... in what do we need to get to a position where we have had that growth... would spark that investment round."*

6.5.4.4 Planning and Organising

Codes	Themes	Capables	Collaborators	Low Competencers	Total Nodes
Planning and organising	Cash Management	5%	2%	0%	3%
	Using Flexible Staff Management	0%	3%	1%	1%
	Total Code	**5%**	**5%**	**1%**	**4%**

Table 41 - Theme Planning and Organising v Clusters: Year 2 Longitudinal Study

Planning and Organising also accounted for less than 10% for any cluster, but was more prevalent across entrepreneurs who chose not to apply for finance.

T20 and T35 are cases who demonstrated this behaviour and successfully accessed finance in the year. T20 (a Classic), for example, coded as **Cash Management**, anticipated investment requirements in advance:

> *"In six to twelve months will need another round. We do have a business plan to see positive cash flow but to grow as quickly as we want to will need another round. About March next year… may come before…"*

T35 (a Collaborator) talks about using long-range financial planning:

> *"We are sticking closely with our five year plan... now in fourth year so it's now when we try and triple our customer base... got here largely ourselves reducing the liabilities in the business hopefully adding revenue with new contracts so we will be self-financed. **(Cash Management)**… so line between costs and revenue will be bigger".*

T08, T15 and T26 are example of entrepreneurs who chose not to apply for finance in the year. T08 (a Capable), for example, discussed managing the financial aspects of the business and had considered the use of R&D tax credits as a method of reducing research expenditure:

*"Also have had Sage upgraded... can now produce a detailed P&L per project, **(cash management)** so we know what profits are per project… all costs and time managed through Sage… really good visibility... also introduced a profit scheme for staff and successfully applied for R&D tax credits… which we didn't do before so we spend £20K get £3K back".*

T15 outlined a focus on planning the next stage of investment for the firm:

*"Yes will apply for ERDF grant then angels now getting to point where I need to get some finance because I need to go to the next stage… So updating technology and business plan so we can go back to the guys and say this is the business plan. **(Cash Management)**… this is the technology. Are you interested? Then if I don't get anyone in Birmingham I will look further afield... In LA next week at conference."*

T26 develops detailed internal working capital management:

*"Funding never been an issue in fourteen years... we have experienced 30% growth in a year… get paid quickly because of our payment cycle. Cash neutral… **(Cash Management)**. Permanent staff… have an impact on cash flow… in effect there is an internal formula..."*

6.5.4.5 Working with Customers

Codes	Themes	Capables	Collaborators	Low Competencers	Total Nodes
Working with customers	Flexible payment terms	4%	6%	2%	4%
	Total Code	**4%**	**6%**	**2%**	**4%**

Table 42 - Theme Working with Customers v Clusters: Year 2 Longitudinal Study

This Behavioural Competence accounted for less than 6% of clusters or funding outcomes. T37 (a Collaborator) is an example of an entrepreneur who successfully raised finance using more flexible payment terms **(Flexible Payment Terms)**:

"...we have found that going into a quoting scenario... we offer nothing to pay, but if we perform you are signed up... in a way is funding through taking some risk... signed up for three years... we are trying to leverage future payments if we do our job properly, and they are happy then difficult for them to get out... takes pressure off... it's like invoice finance... rules out third-parties... and allows steady growth... allows you to have a long term view..."

T33 (a Collaborator) also utilises Payment Terms:

> *“Getting pre-payment from clients… **(Flexible Payment Terms)**... that’s our model... take 25% with order then thirty days to choose days... then another 25% then take 50% ten days’ before... now modified the model...”*

T26 didn’t apply for funding in the year, but described how he intended to develop a similar programme based on payment cycles **(Flexible Payment Terms):**

> *“So we have used product development... It’s a managed service... servitisation and there are some grants available in this area also... effectively taking a capital expenditure for our customer and taking it as an operational expenditure for us… but big investment for us on our part, essentially talking about automatic testing... so we would take our clients tests and automate them and execute them in our clients premises… could even arrange finance for our customers...part of which is to pay off capital expenditure... innovative for us. Offering lease finance in effect (in return for regular payments)... lease finance on cars but applying it to our service.”*

6.5.4.6 Coping with Pressure

Codes	Themes	Capables	Collaborators	Low Competencers	Total Nodes
Coping with pressure	Personal Reflections	1%	0%	0%	0%
	Total Code	**1%**	**0%**	**0%**	**0%**

Table 43 - Theme Coping with Pressure v Clusters: Year 2 Longitudinal Study

There is very little evidence of coping with pressure in the interviews and in this example T14, who chose not to raise finance in the year, reflects on his personal circumstances:

> *“…different to most people… my wife has a stable job… I did it at a point in life… paid off my mortgage… flip side is more to lose... we look at my wife a doctor... her colleagues...only one wage earner... stage of my lifestyle where I don’t need to earn a penny… or is it a risk when you have more to lose…?”*

6.5.4.7 Leading Others

Codes	Themes	Capables	Collaborators	Low Competencers	Total Nodes
Leading Others	Leading Others	0%	1%	0%	0%
	Total Code	0%	1%	0%	0%

Table 44 - Theme Leading Others v Clusters: Year 2 Longitudinal Study

There are limited reflections on leadership in the interview data. T05 (a Capable) talked about restructuring the leadership team in order to bring more expertise into the business:

> *"…now have a partner… a right man…. experienced gentlemen… worked in music industry on mergers and acquisitions he is now our FD..."*

T33 (a Collaborator) also described how restructuring the business allowed her more time for business and financial planning:

> *"Team building grown significantly so I am doing less consultancy... impact on turnover, increased core business."*

6.5.4.8 Behavioural Difficulties

	Capables	Collaborators	Low Competencers	Total Nodes
Business partner problems	0%	8%	23%	6%
Signs of Frustration	6%	3%	12%	6%
Problems with VC process	7%	1%	9%	5%
Struggling with the bank	3%	2%	1%	2%
Give up	1%	0%	6%	2%
Difficulty with SME educational schemes	1%	2%	4%	2%
Keeping control	2%	1%	0%	1%
Difficulty with advisors and mentors	0%	0%	6%	1%
Bad planning	0%	0%	7%	1%
Decision to consolidate	0%	0%	6%	1%
Uncertainty	1%	2%	0%	1%
Problems with security	1%	1%	0%	1%
Difficulty with new funding sources	1%	1%	0%	1%
Problems with factoring	1%	0%	0%	0%
Bad hiring decisions	0%	0%	1%	0%
Just focus on the family	0%	0%	1%	0%
Doubts over personal skills	0%	0%	0%	0%
Total code	**23%**	**22%**	**75%**	**31%**

Table 45 - Theme Behavioural Difficulties v Clusters: Year 2 Longitudinal Study

It is clear that Low Competences reported most Behavioural difficulties, and from Chapter 6.3, it is this cluster that are most likely to have more unsuccessful cases. Examples are as follows:

T52 (a Low Competence):

> *"Had had* ***business partner problems*** *in the past and as a result took the view that firm needed to 'hang onto equity'."*

T17 (a Low Competence) reported ***Getting Frustrated****:*

> *"I applied to the xxx Prototype Fund (a grant), which was for a £25K grant and for the third time with that particular funding pool, I was put through to the final and then not successful. Obviously I have no plans to apply again as it's clear I am not what they are looking for, despite the positive feedback on the two previous attempts. This is the only funding application I have made in the last twelve months."*

T27 (a Low Competence), found dealing with the requirements of external investors too difficult. **(Problems with VC Process):**

> *"Saw lots of VC firms in the US… easy to get through the door because of our disruptive technology... but we found no appetite to fund a UK company. If we were prepared to move to the states, then chats to be had... but not open to funding a UK firm… pitched to every VC in the UK... progressing down a path that looks closed… hard slog… Overriding view… talk the talk but don't walk the walk… UK scene very risk-averse… in US see firms getting £25 million rounds… doesn't happen in the UK… People wary of building those kinds of business...heaven forbid something goes wrong here... have to do something different… move to US... that's the reality of a UK venture..."*

T40 (a Low Competence) closed his business down and illustrated **Bad Planning** in the funding application process:

> *"I have closed that company... haven't really thought about funding... no loans… or grants available... or angel investors... xx ltd became a jack of all trades and master of none... some would say apps... some would say distribution… never found our feet... (****Gave Up****)."*

T13 (a Low Competence) also folded and ***Gave Up*** *the venture:*

> *"It's folded... Still trading a little but largely the team has split and I have moved on… couldn't raise enough quickly enough... just ran out of steam… think I was just concentrating on too many things and in the end it just didn't work… Think I just lacked focus."*

T16 (a Low Competence) commented on **Difficulties with SME Educational Programmes**:

> *"Peer to peer, crowdfunding… accelerators... all I have seen about accelerators are targeting younger people… sounds like a lot of inconvenience... (pessimistic) about crowdfunding... feels like exploiting peoples ignorance. Will be a backlash when they don't produce the results... making games is a risky business and these investors don't appreciate how often these games don't get finished on time and require more money..."*

T16 also evidenced **poor planning:**

> ***"****It's an unclear plan... considering our options… want to work on own IP… raising finance not an issue right now... hard to come up for a case… then we have to pay a debt… would make it hard to make a case". "No formal advisors…* ***(Difficulties with Advisors)*** *or mentors... not aware of anyone that would provide that function".*

T2, for example, was declined on an asset finance application and has now chosen not to seek further funding:

> *"…now decided to* ***consolidate,*** *we have no need to raise external funds to do anything; buy new kit out of the business, reducing the overdraft is now the priority… yes still want to grow; but at the moment still in a consolidation type phase".*

T58 also took the decision to **(Consolidate)**:

> *"Financially we are struggling…. transition from games plus other changes... plus game took ages. Drained finances... so now just in the stage we are trying to recover... hopefully to get growth in next twelve months."*

6.5.5 Year 2 Summary

Year 2 focused much more on the events in the preceding twelve months following the first interview – on what entrepreneurs had actually 'done' in a funding context. Working with Others remained the strongest theme, particularly amongst Capables. Communicating, Meeting and Presenting and Innovating and Creating remained strong themes, particularly amongst Collaborators. There was more evidence of Problem Solving behaviour amongst Capables and also in non-applying entrepreneurs where Planning and Organising competences was also evident. Communicating, Meeting and Presenting was even stronger amongst equity-funded entrepreneurs than in Year 1.

Use of Advisors was again a recurring theme with entrepreneurs giving examples of how they had used this resource to inform funding decision in the year. Within the Innovating and Creating competency code, there was also more evidence of the use of peer-to-peer funding models, and also the use of joining SME Educational Programmes. Match-funding and actively developing new business models were also growing themes.

Again the Low Competence group had the highest density of behavioural difficulties.

6.6 Year 3 Semi-Structured Interviews - Data Collection and Analysis

Again for Phase 3, the focus was on activities only in the twelve-month period since the last interview. The brief for the Phase 2 semi-structured interviews is included in Appendix 3.

In total, only two iterations of coding were carried out, as no new themes emerged in this final stage of interviews. Descriptions for Phase 3 codes is in Appendix 2c.

This section is structured as follows:

- A summary of the nine behavioural competency codes analysed by cluster, outcome and funding type.

- An analysis of each competency code and individual theme, by cluster, with examples of behaviour from the cases.

- An analysis of behavioural difficulties by cluster.

- A summary after the third and final phase of the research.

Phase 3 interviews were carried out between May and August 2014.

6.6.1 *Year 3 Coding Density Summary by Cluster*

	Capables	Collaborators	Low Comp	All Nodes
Working with others	21%	24%	12%	21%
Innovating and creating	15%	23%	12%	17%
Driving for results	12%	15%	6%	13%
Communicating, meeting, presenting	9%	14%	7%	10%
Planning and organising	11%	0%	0%	8%
Problem solving	4%	8%	2%	5%
Working with customers	1%	3%	0%	1%
Coping with pressure	2%	0%	0%	1%
Leading others	0%	0%	0%	0%
Behavioural difficulty	25%	13%	61%	25%
Total Code	**100%**	**100%**	**100%**	**100%**

Table 46 - Summary Coded Themes v Clusters: Year 3 Longitudinal Study

Again, Working with Others was the strongest theme, with Capables and Collaborators, and Innovating and Creating increasingly important, particularly for Collaborators. There was also more evidence of Driving for Results. Communicating, Meeting and Presenting remained a recurring theme across all three clusters.

6.6.2 *Year 3 Coding Density Summary by Funding Outcome*

	Applied and Successful	Applied and Unsuccessful	Didn't Apply	All Nodes
Working with others	22%	20%	19%	21%
Innovating and creating	20%	8%	14%	17%
Driving for results	18%	0%	8%	13%
Communicating, meeting, presenting	11%	4%	10%	10%
Planning and organising	11%	0%	5%	8%
Problem solving	6%	0%	4%	5%
Working with customers	1%	0%	3%	1%
Coping with pressure	0%	0%	3%	1%
Leading others	0%	0%	0%	0%
Behavioural difficulty	11%	68%	35%	25%
Total Code	**100%**	**100%**	**100%**	**100%**

Table 47 - Summary Coded Themes v Funding Outcome: Year 3 Longitudinal Study

In Year 3, Working with Others was a strong theme across all three clusters; a stronger theme, however, compared with Year 2, was Innovating and Creating, particularly amongst those that were successful in funding applications and also the Didn't Apply group. Driving for Results, along with Communicating, Meeting and Presenting and Planning and Organising were also strong themes amongst successful entrepreneurs.

6.6.3 Year 3 Coding Density Summary by Funding Type

	Self-Funded	Equity Funded	Secured no Equity	All Nodes
Working with others	24%	15%	22%	21%
Innovating and creating	24%	10%	17%	17%
Driving for results	6%	17%	15%	13%
Communicating, meeting, presenting	6%	20%	6%	10%
Planning and organising	10%	7%	6%	8%
Problem solving	3%	5%	5%	5%
Working with customers	1%	3%	1%	1%
Coping with pressure	0%	0%	3%	1%
Leading others	0%	0%	0%	0%
Behavioural difficulty	26%	22%	26%	25%
Total Code	**100%**	**100%**	**100%**	**100%**

Table 48 - Summary Coded Themes v Funding Type: Year 3 Longitudinal Study

Innovating and Creating was a strong theme amongst self-funded entrepreneurs with equity-funded describing competences in Driving for Results, and consistently, in Communicating, Meeting and Presenting. Planning and Organising was again a strong theme amongst the self-funded group. All three groups also reported a similar number of difficulties.

6.6.4 Year 3 Behavioural Competences Cases and Themes

6.6.4.1 Working with Others

Codes	Themes	Capables	Collaborators	Low Comp	All Nodes
Working with Others	Advisors, mentors, non-execs	11%	14%	2%	10%
	JV's	10%	6%	4%	9%
	Suppliers	0%	4%	6%	2%
	Friends and family	0%	0%	0%	0%
	Changing bank	0%	0%	0%	0%
	Total Code	**21%**	**24%**	**12%**	**21%**

Table 49 - Theme Working with Others v Clusters: Year 3 Longitudinal Study

T07 (a Capable) was able to source grant and additional asset finance in the year **(Advisors, Mentors, Non-Execs):**

> *"Via the Manufacturing Advisory Service, they helped us with a grant… to implement ISO9000 and to do a bit of R&D… mentioned about this other programme that he was aware of that he thought might be of interest to us. And it went from there really. It was perfect timing because we were due to make the investment anyway and as it transpired this whole Business Innovation programme is set up for exactly what we're trying to do."*

T08 (a Capable) successfully sourced a grant in the year **(Advisors, Mentors, Non-Execs)** and described how he uses advisors:

> *"Trying to learn some of these things along the way has been pretty helpful actually. So no and if we've got weak areas, like finance, as in bookkeeping/ accounts, just say look, I don't really want to learn about all this stuff, we'll just get a decent accountancy company to look after us and tell us if things are good or bad or what do we need to do, you know".*

T22 (a Capable) successfully sourced funding via a grant application for the first time and in the research programme stressed the importance of finding the right **(Advisors, Mentors, Non-Execs)** advisor:

> *"We used somebody else the first time (of application) and it was a disaster. I think really you just need someone who's really experienced at it and can get to the meat of what you're trying to say quickly. And that's what makes them good I think, it's that they can distil what you're trying to say basically."*

T32 (a Collaborator) similarly used a specialist firm:

> *"So it's basically a finance company that will do a number of different things but they manage grant applications for you. So they managed all my grant applications last year, so she came through with this one and said was I interested and I am because I've got a new business that I'm started to develop, a new business proposition, so it works perfectly for that".*

This is just one example of how T32 utilises **(Advisors, Mentors, Non-Execs)**:

> *"Well I've kind of been talking to all my advisors if you like you know, formal and informal advisors and looking at all the sort of, you know, potential ways to access finance. In essence, the business model that I have for this new business is… in a sense, once it's up and running the sort of money if you like, the finance side of it is really good. It's just getting me up to the point of launching it which means cash flow in a sense."*

T10 (a Capable) sourced finance through a joint venture **(JV)** with a third-party*:*

> *"So we've been awarded £114,000 which is part of a £1.1 million bid in partnership with XCo and YCo… we formed a partnership agreement with the various parties, of which there were four. The bid was successful, headed by YCo".*

And T14 (a Capable) who didn't apply for funding in the period, but described how he is developing potential **JV** activities:

> ***"****I mean I've got a couple of kind of joint venture irons in the fire at the moment, slow-burners."*

T59 (a Collaborator) didn't raise finance in the year, but describes how working with another company will provide opportunities to raise finance collaboratively through a JV in the future*:*

> *"Yeah, that's it, it was private investors and we were trying to find a specific project, it was a sort of… it's a side project, it's a collaboration* ***(JV)*** *between my company and a different one. And we were trying to raise funds for that but we haven't had any luck with it yet."*

T29 (a Collaborator) again raised angle finance in the year, but also is using opportunities in his supply chain **(Suppliers)** in order to raise finance:

> *"I mean the other place where it may come from, again this is okay to tell you but it's not public, is we're in conversations with XYZ Music… about investing not £150K… so that they've got some buy-in into the business to get projects moving faster internally... It's very complicated the structure… the music industry and they are just one player but they're obviously a big player and you know everyone kind of knows XYZ Music… and to say you've got them is quite a big thing for potential investors."*

T41 again didn't raise finance for the third year, but plan to use either angels or more likely:

> "*Probably* ***friends and family****".*

6.6.4.2 Innovating and Creating

Codes	Themes	Capables	Collaborators	Low Comp	All Nodes
Innovating and Creating	SME Educational Programme	5%	7%	2%	5%
	Grant Applications	3%	7%	5%	4%
	Peer-to-Peer Lenders	3%	7%	2%	4%
	Internal Funding	4%	2%	3%	4%
	Total Code	**15%**	**23%**	**12%**	**17%**

Table 50 - Theme Innovating and Creating v Clusters: Year 3 Longitudinal Study

T08 (a Capable) successfully applied for a grant in the year and described the support he received from the **SME Educational Programme**:

> *"Yeah, it was unbelievable, the training, the coaching, the people that came to the presentation, the follow-up stuff… I can just pick up the phone and speak to people, they're there to basically find someone or find a way, I say, 'It's fantastic'… I think it's worth thousands. I mean the confidence it's given me… because I'm not a business person you know, I'm a technical kind of software electronics person and I find myself running this business and it's a bit of a crazy adventure, you know."*

T19 (a Capable) raised grant and loan finance in the year and recognised the importance of being part of the **SME Educational Programme:**

> *"So we signed and really it was because we know we're growing but in order to grow we've got to invest a lot in the new products".*

Similarly, T38 is planning to raise money in the immediate future, for the first time, as a result of being part of the **SME Educational Programme:**

> *"Since being a part of this I've had two opportunities, one which is kind of coming to an actual contract hopefully in the next kind of week or so."*

T18 (a Collaborator) also joined an **SME Educational Programme:**

> *"We've used funding in the past to do business coaching and they told us about funds available at Growth Accelerator… So we've applied for £1,300 of which we only paid £600 and we got the £700 back."*

In addition to raising funding through business angels, T29 (a Collaborator) also raised a loan through a **SME Educational Programme**:

> *"…and then we also took in about £100,000 of sort of interest-free low repayment terms through a **(SME Educational Programme)**."*

A number of entrepreneurs also developed a number of innovative initiatives which qualified for **grants**. Collaborators were particularly strong in grant applications, T29 explains, for example:

> *"We did a grant from Birmingham Post that was about £60K I thin*k".

T32 made a successful grant application in the period and plans more:

> *"Well the next stage is we are just about to make another **grant** application for submission and it's an innovation grant… I think it's £30,000 on a 50/50 maximum."*

*T36 made two **grant** applications:*

> *"...we did the Creative England Games Lab one, which is a European-funded **grant** and there's been two, there's been one for the South-West region and one for the Midlands region. Obviously we went with the one for the Midlands region which was a match-funding programme to get a game released basically and we went for that one….getting started with a grant rather than a loan kind of will hopefully push us up a little bit easier and be able to use more of that revenue on funnelling more products out afterwards rather than having to repay".*

In Year 3 of the study there is evidence that entrepreneurs were becoming more aware **of Peer-to-Peer** lending appears to be increasing in its exposure to small firms. T29 (a Collaborator) added new angels to his investor portfolio in the year:

> *"…but also (had) a foray into a crowd sourcing… we ended up going at the end of last year/early this year, we sort of closed around with XYZ…"*

T37 (a Collaborator):

> *"There's a lot more funding around. You know, there's been two or three interesting crowdfunding **(Peer-to-Peer)** opportunities but I think you know, maybe with this project there's a little more scope because we've invested a lot of our own money…"*

T41 (a Collaborator) has so far not raised any finance during the study, but is now researching **peer-to-peer** platforms, and also recognised the growing potential of this new form of finance:

> *"I think we'd consider crowd sourcing probably a lot more than we would before… I think it's becoming a more sort of proven method, whereas before it was maybe a bit of a kind of you know, early-adopt kind of approach".*

Similarly T53 (a Collaborator) is self-financed, yet:

> *"I think our first option would probably be to try using the crowd funding, like Kick Starter **(Peer-to-Peer)** or… yeah, Kick Starter's the main one, and then see how that goes."*

T19 (a Capable) had significant successful with crowdfunding:

> *"…looked into a couple of crowdfunding sites and really liked Funding Circle **(Peer-to-Peer)**. Within three days we had a live funding application on their site. Within three hours after it went live the money was raised. They then said 'Do you want that to go to auction?'… No, no, it goes to auction automatically, so it went to auction and came back with a 7.9% rate offer. And then you're asked do you want to accept it, in which case if you accept it you get the money within forty-eight hours. We accepted and forty-eight hours later £60,000 was given to us, less an £1,800 fee to Funding Circle. Speed, ease, no requests for a second charge on any house… Because as far as I can see crowdfunding for that typical amount of money between £0 and £100,000 you know, was enjoyable."*

A number of entrepreneurs used different forms of **Internal Funding** in order to raise finance in the firm. T08, for example (a Capable), are now considering a SIP in order to fund a commercial property purchase:

> "*What we've done is we've actually set up a SIP, the two shareholders in the business, we've set up a SIP and we've started transferring money each year into that to save up to basically then probably borrow to basically build or buy our own commercial premises."*

Although T14 (a Capable) considered a number of funding alternatives in the year, he remains self-funded and continues to use his residential flexible mortgage **(Internal Funding)** in order to inject funds into the company:

> *"November/December this year, so I lent myself £50,000 if that makes sense… using the mortgage account… had no problems because I had… my invoices more than covered."*

T22 (a Capable) is encouraging a new management team to purchase equity in the business **(Internal Funding)**:

> *"The new management team that I've got in, I am now going completely down the route of carving up and selling them equity. So the new CQO that I've got on board is actually having a conversation right now with my non-exec as it happens. So I'm likely to give him about 30% of the business but then each of us will be diluted through the next round. So I think that probably the other senior management team will probably go on an EMI scheme and then if we do end up with VC funding, I've put aside an amount that I'm willing to go up to on that side of things."*

T16 (a Low Competence) raised no external funding in the year but is also considering similar **Internal Funding**:

> *"We do make use of the R&D tax credit, that's useful and we'll be obviously looking at the new tax relief thing that's being introduced."*

6.6.4.3 Driving for Results

Codes	Themes	Capables	Collaborators	Low Comp	All Nodes
Driving for results	Identifying growth and opportunity	8%	13%	6%	10%
	Persistence and challenging	4%	2%	0%	3%
	Consider acquisitions and mergers	0%	0%	0%	0%
	Total Code	**12%**	**15%**	**6%**	**13%**

Table 51 - Theme Driving for Results v Clusters: Year 3 Longitudinal Study

Identifying growth and opportunity was a growing theme amongst entrepreneurs in a funding context. T07 (a Capable) is one example of a firm recognising how funding requirements are emerging:

> "*I think certainly the grant that we've won via the Business Innovation programme has been a massive help you know, there's a lot of things going on particularly in our industry, the construction industry at the moment. The Government are looking for companies to implement BIN processes and that's something that there is a massive financial bearing on businesses like ours, on SMEs, to actually not only up-skill their staff but also invest in the hardware and the software to be able to do that."*

T08 (a Capable) also recognised the need for finance to run in parallel with growth:

> *"I think last year we grew about 18 to 20%* ***(Identifying Growth and Opportunity)*** *and this year will be similar you know, we will probably need working capital to support that".*

T19 (a Capable) summarised his approach to funding in the future:

> *"I don't think that I can see myself ever going to my bank or a bank again for finance to support our growth* ***(Identifying Growth and Opportunity)*** *unless they drastically change the way they're behaving because it's archaic. Why would you spend weeks and weeks and weeks being treated like a supplier and then being told give us some cash? They're just… they are just in the ark… I wouldn't encourage anybody to go and work in a bank because they make you wear a suit you don't want to wear, they make you sell things you don't want to sell, they make you do things that other people are doing far better. Someone who's running banks has got to say 'Look guys, we've got to change the face of retail banking and we've got to change it fast'."*

T22 (a Capable) won a grant which was the springboard for a much more significant period of growth**:**

> *"Actually won a Home Office tender that was quite a large contract and that's going to double our turnover at least this year. So the fact that we won that bit of work* ***(Identifying Growth and Opportunity)*** *gave me the confidence to be able to… and the fact we've got the grant, it's a bit of a… you know, it's a little bit of a snowball effect I think. Getting the grant just gave us the window we needed to kick off the growth project which is highly strategic for us. And then getting the Home Office contract meant that I could do the HR restructuring that I needed to do."*

T23 (a Capable) has consistently raised angel finance each year:

> *"We've quite a proven revenue model* ***(Identifying Growth and Opportunity)*** *and we're not asking for a huge amount at the moment… Yeah, I think there is a secret to… I think with any project or funding of companies, if you can get one person in there it will give you the confidence, so in a group you just have to… you know, it's a case of just convincing one person to stump up the money first. And as long as the others have given their agreement that you know, once this person's in then we're in, then it's often a domino effect."*

T29 (a Collaborator) has raised finance each year and has a clear recognition of the opportunities that exist in his industry and the affect this will have on the potential for funding:

> *"For us as an individual business it's all about you know, taking advantage of the huge seismic shift* ***(Identifying Growth and Opportunity)*** *in the music industry and they're having a lot of trouble working out how to make money out of it*

digitally. And we're helping them do that through games. So what they see as exciting is there's… you know, obviously the UK and the US, the UK in particular you know, is a sort of a seedbed I suppose of global music. And the fact that we're here and we're helping them you know, create new revenue streams for gaming, they see as a really interesting thing… You know, a lot of angel funding, a lot of angel groups and people just looking to invest in businesses. And I think things like the EIS and SEIS schemes have helped enormously with that. But yeah you know, I think that kind of… for an idea and passion there's money out there to be had."

T37 (a Collaborator) has also raised angel finance each year and expressed a confident outlook:

"So you know, I feel as a developer or a coder that I have more opportunities now to get funding. Maybe not from the institutional investors but just from the network you know. If I can prove that something works and show the numbers and the figures or the users or whatever, then I should be able to get the money I need."

Capables, in particular, also expressed **persistence and challenging** behaviour in a funding context. T20, for example:

"I'd also say actually I've learnt a huge amount of how to (raise money) in a technology start-up… think you learn a lot once you've done it once or twice and then you can apply it to the next one… I think I'm much better at it now, so I think I would apply the same learning."

Also T23 (a Capable)*:*

"You can also see it's going in the right direction and you know, this is our pitch to the investors to be honest is we've got all of this data, we've had all this experience, we know what is wrong with the current product and this investment is to address these issues and this is how we're going to address them, and it's a list of things. For a new product basically but it addresses all of the issue."

And also a Collaborator, T29 for example:

"I mean there seems to be (investment) for passionate people ***(persistence and challenging)*** *who are willing to travel the country and you know, in some cases beyond and speak passionately about their ideas at investor events and meet up with angels and network, there seems to be an awful lot of money out there at the moment."*

6.6.4.4 Communicating, Meeting and Presenting

Codes	Themes	Capables	Collaborators	Low Comp	All Nodes
Communicating, Presenting, Meeting	Approaching investors	5%	14%	5%	7%
	Meeting bankers, brokers and other lenders	4%	0%	2%	3%
	Approaching international investors	0%	0%	0%	0%
	Total Code	**9%**	**14%**	**7%**	**10%**

Table 52 - Theme Communicating, Meeting and presenting v Clusters: Year 3 Longitudinal Study

A strong theme for Collaborators was **Approaching Investors.** T29 (a Collaborator) raised further funding in the year from a variety of investors:

> *"So I'm just trying to think of the last twelve months… yeah, so once again we've had a mix, there's been some private VC kind of funding, private angels both existing and new… Yeah, that's through… it's actually through XYZ who are the local kind of venture capitalists… it's an arrangement they've got with a group called Harwell Capital who are… there's a sort of front organisation based out of Jersey and they represent about three thousand high net-worth individuals across Asia."*

T32 (a Collaborator) only used grants or secured forms of funding in the past, but is now considering equity funding:

> *"… that's definitely on the cards for the future, as well as potentially either other **(Approaching Investors)** shareholders or acquisitions. And that would require another funding model, I accept that, but I'm not at that point yet."*

T36 (a Collaborator) also only used grant funding, and is now looking at equity*:*

> *"Been in conversation with a private funder **(Approaching Investors)** as well, someone that I know through the music work that we've done, who's said that he's interested in putting some money in towards it".*

T37 (a Collaborator) didn't raise money in Year 3, but plans to in the future through existing investors:

> *"We'll probably go back to the investors that we had from day one, so we had some investors interested from the beginning."*

T20 (a Capable) is approaching a mix of new and existing **(Approaching Investors)** investors:

> *"We will be closing in the next month or so for £440,000… A mixture, primarily new… one of them's a very large client of ours who's putting in a strategic investment, the other is an angel investor, who was a previous angel investor."*

Capables in particular also made presentations to banks **(Meeting Bankers, Brokers and other Lenders)** and other asset-based lenders. T07, for example, has only used secured funding:

> *"We've got a very small overdraft, £15,000 and obviously we use invoice finance as our main way of cash flow in the company. And then we've got probably about £30,000 worth of finance out with the bank (this year)."*

T09 (a Capable) has also used secured finance and is dissatisfied with his current bank **(Meeting Bankers, Brokers and other Lenders)** and has therefore made representations to a new lender:

> *"I've been talking with NatWest and NatWest seem to be keen to take on our business, so I'm tempted now to jump to them. We're going through the final throes now of them checking us out and I'm happy to sort of jump over. But it gives us an initial ten grand on our overdraft facility but other than that I'm saying we don't really need anymore, I just want a bit of proactivity out of the bank that we deal with to be honest."*

6.6.4.5 Planning and Organising

Codes	Themes	Capables	Collaborators	Low Comp	All Nodes
Planning and organising	Using flexible staff management	5%	0%	0%	4%
	Cash management	6%	0%	0%	4%
	Total code	**11%**	**0%**	**0%**	**8%**

Table 53 - Theme Planning and Organising v Clusters: Year 3 Longitudinal Study

Two themes in Planning and Organising were only relevant for Capables. T08 (a Capable), for example, recognised the time consuming nature of grant applications and in effect trained the office secretary to do this work:

"Vicky's now kind of got her responsibility of watching all these grants and just keeping an eye on them. ***(Using Flexible Staff Management).*** *And if any new ones come out and we qualify for it and we happen to be either training somebody or recruiting somebody or buying some equipment, then if it happens to match the timing then obviously we'd go for it."*

T10 (a Capable) has utilised a low-cost resource in order to maximise the return on investment:

"I brought in a staff team of eight who were all graduates from Aston predominantly. And they have been, I can only best-describe it, at least two or three of them, geniuses." ***(Using Flexible Staff Management****).*

T22 (a Capable) has in effect exchanged equity in part for salary through restructure of the management team:

"So what's happened is I've actually completely restructured the entire business now HR- just locking them in and getting their expertise (in exchange for equity) because I think now that I've finally found the team that's going to get us where we need to go, it's just about making sure… because they're very highly expensive people" ***(Using Flexible Staff Management)****.*

Arranging pre-payments through better **Cash Management** has also been a theme through all three years of the research: T04, for example:

"Yeah, we started doing that in the last twelve months. So you know, that's like been a thing that we've implemented here, like you say just to increase cash flow and people are more than willing to say 'Oh yeah, put it on the card' or pay upfront and stuff, which has been good."

6.6.4.6 Problem Solving

Codes	Themes	Capables	Collaborators	Low Comp	All Nodes
Problem Solving	Business model	1%	6%	2%	3%
	Using match-funding	3%	2%	0%	2%
	Total Code	**4%**	**8%**	**2%**	**5%**

Table 54 - Theme Problem Solving v Clusters: Year 3 Longitudinal Study

This theme fell in the final year of data collection; Collaborators were the highest entrepreneurs considering alternatives to the business model, T18 for example, secured a grant in the year to develop a different direction for the business:

> *“We no longer do games development as we’ve done for a number of years, we’re focusing on yes, online marketing,* ***(Business Model)*** *specifically explainer videos and explainer presentations. And also through the use of characters because that’s our unique selling point is the fact that we design these characters and we sell them as licensed characters.”*

T32 secured a grant and changed the name of the company and positioned the business at a higher level:

> *“So it was really kind of like a re-launch in a sense just to sort of say we’re bigger and better and we’re exciting and so on and so forth it’s been really useful… sort of developing a new offer,* ***(Business Model)*** *expanding the service, so you know we moved and so on, so I wanted to sort of drive a few new things… useful from that perspective.”*

T37 chose not to raise finance in Year 3, but is clearly now gearing up through development of the business proposition:

> *“Yeah, it has actually you know, it just… I think for a long time we were trying to sharpen the product… well not sharpen the product but sharpen the proposition,* ***(Business Model)*** *I mean clearly we’ve been doing this for what, a year and a half or two and I think sometimes with technology you get caught up with the over-developing. So I think because of that we haven’t gone out to look for big money because we weren’t sure what our proposition was in this clarity. So yeah, we’re going to have to narrow that down to go for investment… we know we can scale… if that makes sense.”*

Capables, once again, made use of match-funding. T07 explains:

> *“We’ve taken a £60,000 loan from the bank to purchase all of the equipment and then we get a £30,000* ***matched*** *funding grant from Birmingham City Council, which will basically pay off that £60,000 loan to leave us with a £30,000 loan, which we’ll pay back over three years.”*

T08 also secured a grant:

> *‘”These are all* ***matched*** *or you had to spend a certain amount and you know but of course we’re quite a reasonable sized business now, so spending the sort of money is quite easy to do, isn’t it?”*

T14 contemplates grant funding:

> *“Having looked at it… but the loan’s actually pretty reasonable terms, it can only be 50% of the project and that’s not a problem for me.”*

6.6.4.6 Working with Customers

Codes	Themes	Capables	Collaborators	Low Comp	All Nodes
Working with customers	Flexible payment terms	1%	3%	0%	1%
	Creating relationships	0%	0%	0%	0%
	Total Code	**1%**	**3%**	**0%**	**1%**

Table 55 - Theme Working with Customers v Clusters: Year 3 Longitudinal Study

Again, a low competency in terms of references in the interviews. T35 (a Collaborator) used cash upfront from a customer for their funding requirements:

> *"When we took a contract last year with Jersey for forty-odd schools, which isn't huge but they paid upfront **(Flexible Payment Terms)** for three years."*

T09 also continued to utilise monthly payments of contracts **(Flexible Payment Terms)**, negotiated monthly, to even out trading variations:

> *"…and so the thing is even if we did get into trouble, we've always got in the order of £70,000 to £100,000 worth of income ahead of us coming into the practice" **(Cash Management)**.*

6.6.4.7 Coping with Pressure

Codes	Themes	Capables	Collaborators	Low Comp	All Nodes
Coping with Pressure	Personal reflections	2%	0%	0%	1%
	Total code	**2%**	**0%**	**0%**	**1%**

Table 56 - Theme Coping with Pressure v Clusters: Year 3 Longitudinal Study

Only T04 (a Capable) reflected on the dangers of potential overtrading, from a funding perspective, and the personal impact this could have:

> *"But yeah, it's kind of from a personal point of view you sort of have to fluctuate it (business finance) yourself really. It's quite risky our business as well because if I did like you know, 10,000 lanyards with your company on and then you turned round and said 'Actually there's this tiny little thing wrong with them' or 'I don't like them' or 'the event didn't go ahead' or 'We've gone bust' or something like that, I'm stuck with them".*

6.6.4.8 Leading Others

Codes	Themes	Capables	Collaborators	Low Comp	All Nodes
Leading Others	Leading others	0%	0%	0%	0%
	Total code	**0%**	**0%**	**0%**	**0%**

Table 57 - Theme Leading Others v Clusters: Year 3 Longitudinal Study

No content was coded to this theme.

6.6.4.9 Behavioural Difficulties

Theme	Capables	Collaborators	Low Comp	All Nodes
Signs of frustration	8%	0%	16%	7%
Problems with security	7%	0%	0%	4%
Difficulty with new funding sources	2%	6%	5%	3%
Keeping control	1%	4%	2%	2%
Struggling with the bank	2%	3%	3%	2%
Decision to consolidate	1%	0%	11%	2%
Bad planning	1%	0%	10%	2%
Problems with VC process	0%	0%	9%	1%
Uncertainty	1%	0%	3%	1%
Business partner problems	1%	0%	2%	1%
Doubts over personal skills	1%	0%	0%	0%
Total code	**25%**	**13%**	**61%**	**25%**

Table 58 - Theme Behavioural Difficulties v Clusters: Year 3 Longitudinal Study

Again, the Low Competency cluster accounts for the largest proportion of content coded to behavioural difficulties. The principal causes of problems are frustration with the process of funding, deciding to consolidate and withdraw, poor planning and specific problems with the VC process of raising finance. Some examples of these from low competences are as follows.

T02:

> *"…saying you know, Government-backed and borrow **(frustration)** money but I don't know, I just think it will be a lot of hassle and time taking my eye off the ball of you know, running the business day-to-day really."*

T39:

“You know, with hindsight now, angel investment from a regional group of angel investors is a terrible thing for a tech business you know, based in the Midlands. You know, as much as I’m always grateful for investment and people that believe in our business, we have been I think very stifled ***(frustration)*** *by our angel investors.”*

T17:

“To be honest we haven’t had any funding whatsoever over the last year and have just been concentrating on developing new products on a completely unfunded basis… ***consolidating****… Not sure I’m currently in a position to make the most from your (funding) workshop but thanks for the offer.”*

T13:

“I’m not convinced how effective that strategy is of just handing out these loans to people because… I mean I think it’s changed now, I think you need more of a plan now but when I first started I don’t think really had credible business plans….. ***(poor planning)*** *me included.”*

T13:

*“Well yeah, I think… I mean it’s frustrating with a legitimate gambling company, the… well in terms of trying to raise money through conventional venture capitalists is almost impossible (****Problems with VC Process****).”*

T16:

“I guess we did dip our toe in the water with VC at the end of last year, seemed to like what we were talking about doing but they just think ***(Problems with VC Process)*** *that the industry is far too risky.”*

6.6.5 Year 3 Summary

Consistent with the previous two years, Working with Others remained a dominant theme in these interviews. There was also more evidence of Innovating and Creating and Driving for Results; these two competences were particularly relevant in successful applications. There was less evidence of Communicating, Meeting and Presenting and Problem Solving in Year 3. SME Educational Programmes appear to be growing in importance and also the identification of growth and opportunity in the context of funding the firm. The pursuit of Joint

Venture activity was also more prevalent within the Working with Others code. Peer-to-peer lenders, again, was a recurring theme, particularly amongst Collaborators.

Again the Low Competence Group reported the largest proportion of behavioural difficulties.

6.7 Practitioner Interviews

In order to assess the practical implications of the research, on completion of the research, the conclusions were discussed with the following practitioners relevant to the field of small firm finance:

- Chief Executive: Business Angel Network
- Manager: Venture Capital Investment Fund
- Growth Manager: Growth Accelerator Programme
- Relationship Manager: High Street Commercial Bank

In the interviews, a semi-structured questionnaire was used (see Appendix 10) which described the groups as Gold (Capables) Silver (Collaborators) and Bronze (Low Competence). The Chief Executive of the Business Angel Group emphasised the need to take advice:

> *"Anything that they could use to look at their own behaviour and the way they come across to investors would be useful, because I think a lot of them are focused on exit multiples and this stuff and they forget the investor is looking at them as an individual, with a schizophrenic balance between a drive to succeed and a willingness to listen... we come across that all the time… need an ability to take advice".*

The Growth Accelerator Manager also emphasised the importance of Working with Others:

> *"It's all about collaboration… it's key... some can do it themselves… but then others find organisations like us to help… some have that connectivity... you just want to engage with them and some haven't... some people are naturals and can do it on their own... definitely."*

The Venture Capitalist also recognised how behavioural testing could gain more of an insight into individuals:

"Also from an entrepreneurs point of view... if he knows he can't get on with investors… then what's the point... in him pursuing that… the good entrepreneurs… the successful ones… will always take a step back and listen… not necessarily do as you are told… but at least take it on board… and can then rationalise decisions based on that rather than 'gut feeling'."

The Chief Executive of the Business Angel Group commented on the importance of communication:

"No doubt that the guys that are best at fundraising use us for our contacts but do the deals themselves (laughs)... they know how to talk to people, they know what to say... how to come across… how to sell themselves… .and if they are any good they will know how to talk differently to a bank, a VC and an angel investor."

The Growth Accelerator recognised the benefit of a tool which can distinguish between different types of entrepreneurs:

"Very interested in gold and bronze...and the fact that they secured more funding… and those that… didn't collaborate or partner were not as successful… all about collaboration… finding who can help them and help them grow…"

The Chief Executive of the Business Angel Group emphasised the importance of planning and control:

"Yes... there is more than one personality type that can succeed… but there is no doubt someone who can listen and take the advice and keep going... stands the best chance of success… actually too many deals are done... we should be doing less deals with more money and more maturity about expectations. In this environment… growing very quickly, very profitably is unrealistic... more about cash flow management and giving regularly returns... on the way..."

The Growth Accelerator Manager also recognised the benefit of the tool:

"Would be really useful to use this kind of tool... also for banks and financial institutions... any (entrepreneur) can go in and talk-the-talk... but using this tools make it possible to understand how the person is wired and see if they can put a funding package together."

All the practitioners could see the relevance of a tool which gave greater insight into the behavioural characteristics of the entrepreneur. The results were most positively received by a Commercial Relationship Manager in a High Street Bank:

"Your research is very opportune… at a meeting with Bank Customers next week we are talking about how important it is to 'work with others' and ''collaborate (these terms specifically as agenda items)."

“The main thing that stood out for me was the Gold Group was much more successful compared to the Bronze Group. I was thinking I can see exactly how that would happen…being a bank manager completely relies on communication now if you are dealing with someone in the Gold Group .. and saying what I want to see is xyz… they’ve got it… that’s what being in the Gold Group is about… I quickly understand why you would be asking for this information... in the bronze group - and I see quite a lot of those(!) they have come to us with the single argument that their own bank won’t lend.”

“Part of the learning process is to understand the people… what they are trying to do… the Gold Group would give you all of that... with the Bronze Group you would find it very difficult to extract that information. One of the key things that have changed over the last eight years over where we were before if you had a business and had been doing so, so for the last ten years then there was very little else you did need to know. So perhaps you didn’t need as much of a collaborative approach… now… that much uncertainty. The person at the heart of the business is the key thing for us… they are the ones that will drive the change… these things come down to personality and how they run the business... yes I can see someone in the Gold Group would give you more comfort because just by talking to them... they will have something in place… those in the Bronze Group may be more headstrong… and not looking outside of the day to day.”

“For the bronze group they see information as a tick box... but what we do is look at them and what we could do is add advice if they were willing to listen...Bronze people will get frustrated with the process… finance brings out a different trait in them. Industry has changed... used to be made a profit here are my accounts to prove it... now there are more elements to think about…. think previously it was transactional... when someone gets knocked back from a bank they think that’s it, whereas another key bit of information could make the difference… it really is about communication… you can’t just send a business plan and a set of accounts anymore... doesn’t really give a feel for anything… more of a human element trying to get finance…”

“Needs a skill of talking to different people… you may have made losses… so let’s get an accountant on board or an advisor… we would take comfort in that… getting the right people on board… Gold Group would clearly be on board with that.”

“It’s hard for the Bronze Group... it would be useful… if they understood what type of business owner are you… make them aware... put something tangible on the facts that they get frustrated…with having to supply this… would help to justify why we need the information and the whole process… would be a bit more aware… isn’t necessarily a bank problem… and perhaps its them also ok understand you are that type of person… that’s why you feel the way you do… yes… it’s a very useful thing to understand… the value is the more information we have… the more value we could add to someone…”

The Relationship Manager could recognise that different clients would fit the categories identified in the research, and that their behavioural characteristics were different and that this affected their effectiveness in presenting a funding proposition. The real value from the bank’s perspective would be entrepreneurs’ understanding their own behavioural characteristics at the outset of a funding round, and appreciating how these could impact the outcomes.

6.8 Longitudinal Three-Year Study - Summary

In order to focus on the entrepreneur the study considers entrepreneurs in the Creative Industries sector, which has the dynamism and growth potential to meet Pettigrew's "social drama" requirements over the duration of this research. The results are analysed using a mixed method approach, combing psychometric testing and qualitative interviews, with analytic induction setting propositions with which to examine the data.

In the first instance, this Chapter presented the results using a psychometric tool based on the Great Eight Model, measuring the Behavioural Competency of sixty entrepreneurs in the Creative Industries sector. Trait (ABA 2011) was used to complete this, and cluster and factor analysis was used to analyse the results. Semi-structured interviews with each entrepreneur, over a three-year period between 2011 and 2014, then identified what each does in order to successfully fund the firm. Using NVivo 10, the data was coded and analysed for each year of the study. Entrepreneurs who were both successful and unsuccessful in finance applications, or chose not to apply, were compared in relation to behavioural competency profiles.

Through the identification of three distinctive clusters, the results examine the BCS data and the competency scores from both clusters and individual entrepreneurs and compare these with the granularity of events (Bird et al. 2012) during the three-year period of this study. A key issue recognised in the Bird study, was "inadequate(ly)... measurement validity (p.902)… and a lack of triangulation" and that "behaviour in entrepreneurship research remains a surprising void (p.903)." The work of Bird has been previously cited in this thesis and is central to the requirement for academic research on entrepreneurship to focus on behaviour and measurement.

Capables were the most successful cluster in raising finance over the three-year period. . The Low Competence cluster was the least successful and reported more difficulties in funding applications. In Year 1, Working with Others and Planning and Organising were the strongest themes. Behavioural codes included Serial Networking and Using Advisors, with entrepreneurs reporting how they meet potential funders. In Year 2, Working with Others remained the strong theme, particularly amongst Capables, although Communicating and Presenting and Innovating and Creating had greater emphasis than in Year 1. Uses of Advisors was consistently strong and within the Innovating and Creating competency code, there was growing evidence of peer-to-peer funding models and also engagement in SME Educational Schemes. Evidence of Problem Solving including match-funding, for example, was also more prevalent. Year 3 was consistent with these results, although there was less evidence of Communicating, Meeting and Presenting and Problem Solving.

The following Chapter begins with a review of the these propositions set out in Chapter 5, and by interpreting the findings from the research, seeks to identify the contribution made to both academic knowledge and practice.

Interviews were also held with key practitioners involved with entrepreneurs and funding applications. These emphasised the importance of collaboration, communication and planning as key behavioural competences for entrepreneurs.

Chapter 7 - Interpretation of Findings and Contribution

7.1 Introduction

In order to interpret the findings, this Chapter first reconsiders the propositions presented in Chapter 5.6.1, and assesses if each is confirmed, partially confirmed or if confirmation is not possible, based on the research evidence. Following this analysis, an assessment is undertaken on the contribution made to both academic knowledge and practice. Given the requirements of a DBA thesis, the chapter considers the practical implications of the study, and to add to this assessment, short interviews have been held with one business banking Relationship Manager, a Chief Executive of a business Angel Network, an Investment Manager at a regional Venture Capital firm and a Growth Accelerator Manager. The results of the study have been shared with this group and their interpretation of the implications is presented.

7.2 Review of Research Propositions

In reviewing the propositions derived through the analytical induction methodology, the study is using all the data that has been generated, in order to test the propositions that were set and reproduced here, for ease of reference:

- **Proposition 1 - Working with Others:** Being able to Work with Others provides opportunities to access finance.

- **Proposition 2 - Communicating, Meeting and Presenting:** Being a good communicator can facilitate access to finance.

- **Proposition 3 - Innovating and Creating:** Innovating and creative skills open up more opportunities for access to finance.

- **Proposition 4 - Problem Solving:** An entrepreneur who can problem solve is better able to access finance.

- **Proposition 5 - Planning and Organising:** Planning and organising are key to successful access to finance for the firm.

- **Proposition 6 - Driving for Results:** An entrepreneur who is driven can access more finance opportunities.

- **Proposition 7 - Working with Customers:** Working with customers increases opportunities to access finance.

- **Proposition 8 - Leading Others:** Competency in leadership increases access to finance.

- **Proposition 9 - Coping with Pressure:** Entrepreneurs who are better able to cope with pressure increase access to finance.

Each of the propositions is discussed in turn, in relation to the context of the study, the academic literature and the data collected.

7.2.1 Proposition 1 - Working with Others: Being able to Work with Others Provides Opportunities to Access Finance

The literature has argued that prospective investors with whom entrepreneurs have direct or indirect ties may be more likely to make a financial commitment (Aldrich and Zimmer 1987). Empirical studies have also shown that venture capitalists tend to invest in new ventures where they know the entrepreneurs directly or indirectly (e.g. Batjargal and Liu 2004; Shane and Cable 2002; Shane and Stuart 2002). Evidence has also been reviewed which suggests that the probability of getting funding through network methods (direct or indirect ties) is higher than through market methods. Personal interactions appear to provide investors with the opportunity to assess the ability and integrity of the entrepreneur (Venkataraman 1997).

In a funding context, social network diversity is advantageous to entrepreneurs in obtaining external finance (Manolova et al. 2006). In reviewing Network Theory, academics have noted the importance of how entrepreneurs leverage connections in order to benefit the firm, using both weak and strong ties. Zhang et at (2008) considered social competence and emphasised its importance in achieving access to prospective investors. Baron and Markman (2000) summarised this as “social boldness” - an ability to interact with strangers, but emphasised the challenge to “develop measures, collect longitudinal data, and apply state-of-the-art statistical techniques”. Sullivan (2013) made a similar call for further research on how entrepreneurs evolve networks to address resource acquisition. Financing is recognised as a critical entrepreneurial activity (Shane and Locke, 2003; Johnson, 1996) and calls for more research on the connection between how entrepreneurs' social and financial capital have been made (Florin, Lubatkin and Schulze 2003; Gartner 1988; Shane and Venkataraman 2000).

To facilitate more resource acquisition, some entrepreneurs also engage in merger activity or pursue vertical integration strategies (Pfeffer and Salancik 1978). Blackburn and Hart (2013) considered collaborative behaviour of owner-managers' activity and concluded almost six out of ten businesses were involved in some form of external collaboration. These findings contrast with other studies, describing some small business owners as isolationists who prefer to work on their own rather than seeking to collaborate with others. This suggests that an entrepreneur does not just work on his or her own, but tries to bring in a variety of skills, connections and other resources through business partners that may help generate new ideas, solve problems and develop new business (Pfeffer and Salancik 1978). The existence of partners therefore provides the firm with a larger pool of resources to tap, and facilitates its development and growth.

Lee and Tsang (2001) analysed personality traits and networking activity and concluded that the more experienced the entrepreneur is in working in a collaborative method, the greater the likelihood of success.

The importance of using advisors was also emphasised extensively in the literature. Scott and Irwin (2009), for example, considered the use of advisors to the entrepreneur and found an association between the use of external advisors and the ability to raise bank finance. Hustedde and Pulver (1992) found a correlation between not seeking advice and failing to obtain equity-based finance. Significantly, although the Nesta study (2014) indicated that entrepreneurs recognised the potential value of advisors and mentors, almost 25% didn't know how to source an advisor.

From the supply side, business angels has grown over the past ten years, and in particular, those investors with experience of entrepreneurship themselves, and/or had industry expertise, are more likely to succeed in this type of investment activity. Accelerator Schemes, where a growing SME can easily tap into additional advice and resources, have had active involvement by a number of entrepreneurs in this study. Again, the literature has argued that prospective investors with whom entrepreneurs have direct or indirect ties may be more likely to make a financial commitment (Light 1984; Aldrich and Zimmer 1987). Venture capital activity has not grown to the same extent, with a reduction in exits and the need for VC managerial experience to closely match that of the entrepreneurial firm.

From the literature, therefore, it is apparent that using Advisors and Working with Others assist entrepreneurs in resource acquisition, including access to finance. However, in reviewing the recent trends in SME funding (Chapter 2.2) there is a general reluctance for small business owners to seek advice. Only 9% of SMEs seek advice when applying for an overdraft and 20% of SMEs seek advice when applying for a loan. In the Finance Monitor survey (2013) only 20% of SME Companies are aware of a local venture capital provider. Working with Others, therefore, appears a sound strategy for entrepreneurs seeking advice in funding decisions.

Working with Others has been a strong theme through all three phases of the interviews, particularly with Capables and Collaborators. Interviews with practitioners confirmed this. Key themes emerging from the three year study included networking, using advisors and investigating joint ventures. It is also the strongest competence in this group of entrepreneurs. It is the strongest competence amongst successfully applying entrepreneurs, and when applying regression analysis, Working with Others is one of the competencies making up the ‘social’ group. Higher BCS scores in this group is more likely to result in successful applications. However, higher scores also indicates an increased use of self-finance as opposed to equity or secured-funding, indicating collaborative skills may be used, in some cases, to resource the firm, without the need for external finance. The use of Advisors was also researched specifically in the study and those entrepreneurs using Advisors were more likely to have successful funding outcomes.

Chapters 6.4 to 6.6 described a number of entrepreneurs who illustrated this behavioural competence in the three years of the study. T45, for example, is a Capable, uses equity finance and raised finance in each year of the study (a BCS score of 9 for Working with Others and Working with Customers):

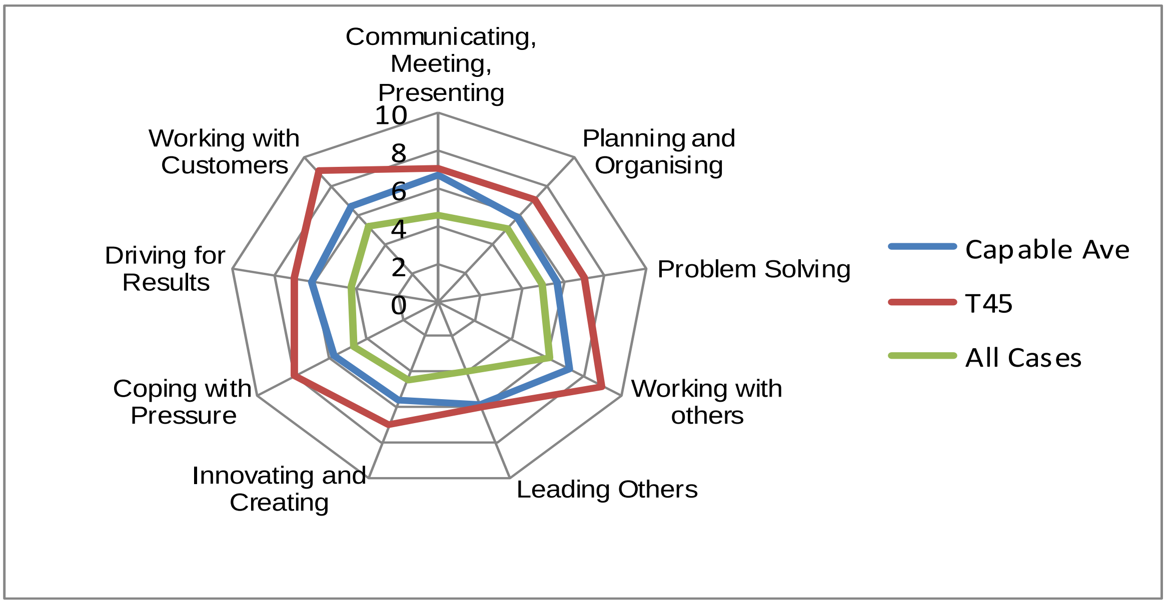

Figure 14 - T45 BCS Scores

T45 used advisors extensively and in Year 2 of the study raised £600,000 of new equity finance and commented:

> *"We are now bringing an advisor from the West Coast... Head of Mobile at Winga... she is heavily involved in the games industry and has very good connections with Google and Apple... she is a new one we have brought in…"*

Contrast this with T27, a Low Competence (scored 2 on Working with Others):

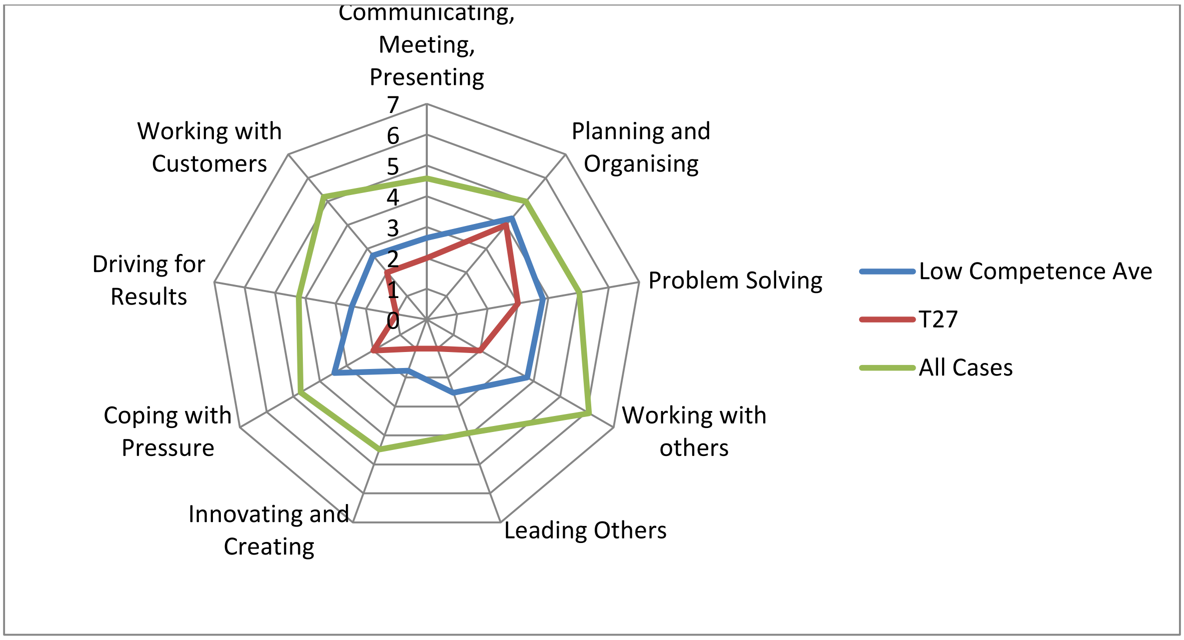

Figure 15 - T27 BCS Scores

T27 was increasingly frustrated with the UK climate for commercial finance, “No advisors… rejected crowdfunding…” and failed to bring new equity funding into the business during the course of the study.

There is, therefore, evidence in the study that successfully-funded entrepreneurs have not just sought advice, but carefully selected the best advice for them, thus avoiding ‘discouraged advisees’, where individuals do not approach particular sources of external advice because they are not confident (and do not trust) the information they will receive .

The results are also consistent with the US-UK study of small firm’s finance. Vos et al. (2007) noted in the literature review at Chapter 3, that to a degree, some entrepreneurs pursue funding strategies which produce contentment or ‘happiness’, again stressing the importance of social networks and the connections-happiness linkage.

Although previous research has identified the importance of collaborative activity in resource acquisition, where this study seeks to add to knowledge, through the recognition that individual entrepreneurs are different in their level of competency, this can be measured and will impact on their ability to raise finance.

The methodology of analytic induction allows for modification of propositions as the themes emerge from the data. Working with Others is the highest competency level across all clusters. Capables score highest across this competency, making most use of Advisors, and are able to give examples of how this can be achieved. It is also in the ‘social’ group of competences which indicates increased use of self-finance as opposed to equity or secured funding. This leads to a revised Proposition 1:

Revised Proposition 1: Working with Others: Being able to Work with Others Provides Opportunities to Access Finance and also Self-Finance. Confirmed.

7.2.2 Proposition 2 - Communicating, Meeting and Presenting: Being a Good Communicator Can Facilitate More Access to Finance

Business angels have become an important source of equity finance to SMEs and business angel activity has grown over the last decade with a threefold increase in the number of investments between 2001 and 2007 (BIS 2012). Furthermore, entrepreneurs who manage to develop their bank relationships improve their access to better loan agreements and individually adapted financial information (Uzzi and Gillespie 1999, 2002). In raising both debt and equity finance, it is important for entrepreneurs to be able to communicate clearly the nature of their business, the opportunity identified and how much funding is required. A number of observable firm characteristics (historical earnings, size, market share, total assets etc.) are used by investors and lenders to evaluate the offering firm. However, it is also recognised that there is a structural market failure (BIS 2011) in the supply of debt finance due to asymmetric information. Entrepreneurs must therefore use communication skills to attempt to signal to potential investors their belief in the value of the firm (Spence 1973).

The Baum and Locke (2004) study reviewed in Chapter 3.3 emphasised the importance of how entrepreneurs were able to use a communicated vision for the firm and the direct impact this had on venture growth.

This competence is also associated with having social confidence in meeting and speaking, whilst also communicating clearly and persuasively. It also means the individual is able to adapt and communicate to suit different people and different situations; Rauch and Frese (2007) highlighted a "proactive personality" as being a key component of an entrepreneurial orientation. Collins and Porras (1994) indicated that entrepreneurs who are able to communicate a vision have a stronger organisational culture and are more successful than non-visionary companies. Time spent on communication was also noted in the Mueller, Volery et al. (2012) study, particularly important in the growth stage of a venture. Communication involved "primarily internal partners" and that overall this was as a result of moving from "doing" to "managing" (McCarthy et al. 1990).

Themes emerging in the study included presenting to potential international investors and there was evidence of social boldness, the confidence to interact with strangers (Zhang and Souitaris et al. 2008) and entrepreneurs attempting to send signals to prospective investors (Spence, 1973). This included attending "pitching" events and in some cases approaching international investors in order to send "signals" to potential investors (Spence 1973). The literature also emphasises the importance for entrepreneurs to create a vision of the firm and to articulate the opportunity for the investors (Collins and Porras 1994). There was also evidence that entrepreneurs who could evidence growth spent more time communicating with stakeholders (McCarthy et al. 1990).

In this study, Communicating, Meeting and Presenting was a strong competency amongst Capables and amongst successful applications. Practitioner interviews also confirmed this theme. It was part of the 'Driving' group of competences, and regression analysis indicated that the higher these competences, the greater the likelihood of applying for finance and being successful. There was also a greater propensity to use secured or equity funding than being self-funded.

Communicating, Meeting and Presenting was also a strong competency evidenced in each phase of the interviews, particularly amongst Capables and Collaborators. Equity-funded entrepreneurs, in particular, were able to give examples. T20 (a Capable) is an equity-funded entrepreneur who raised funding in each year of the study:

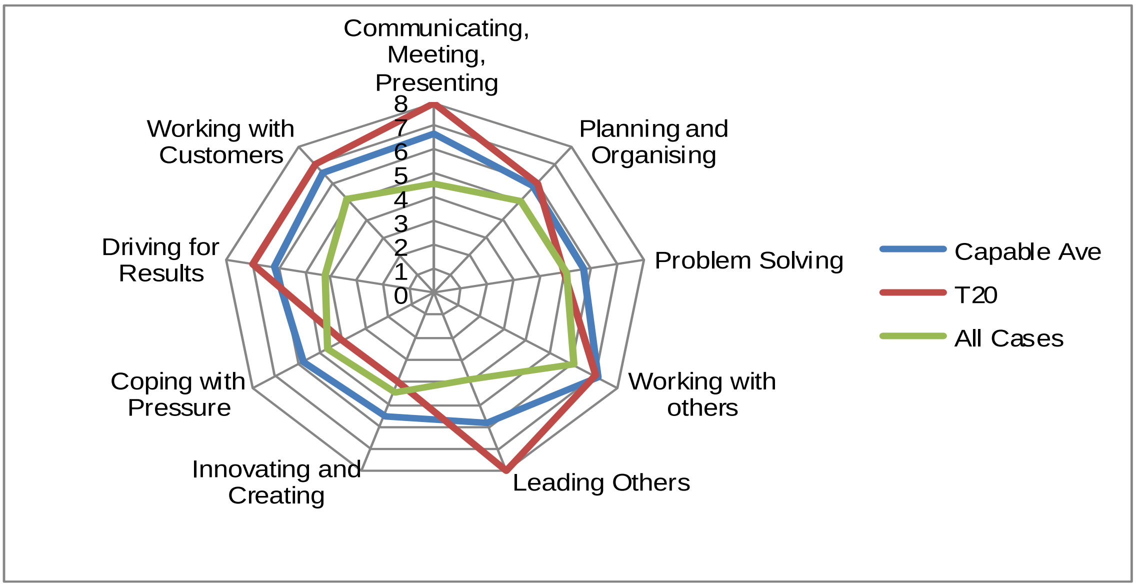

Figure 16 - T20 BCS Scores

T20 described the behaviour associated with raising finance:

> *"…combination of proactive and reactive… went to a pitching event… networking at certain events… pitched at angel network… made connections… events… mainly pitching then some reactive stuff… some investors actually approached us..."*

Contrast this with T02:

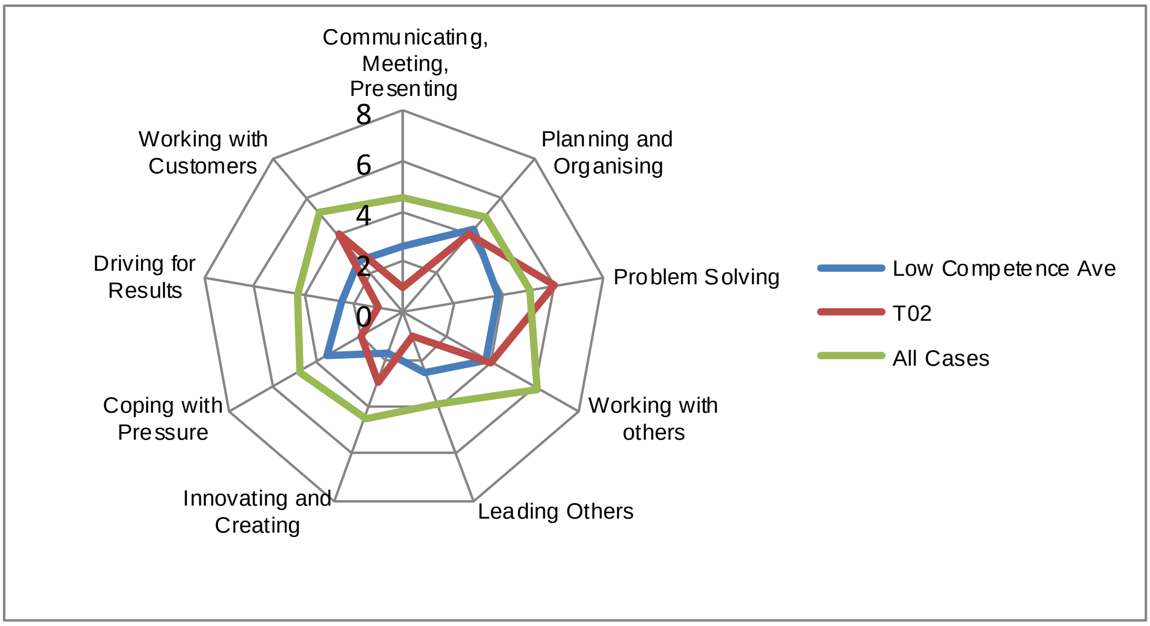

Figure 17 - T02 BCS Scores

Although T02 has high Problem Solving competences, he has a low level of Communication skills (BCS score 1). He has a very reactive relationship with his bank:

> *"I mean as far as our dealings with the bank go I mean they've pretty much a hands-off policy, I haven't seen anybody from the bank or heard from anybody from the bank in years."*

And commented:

> *"I just think it will be a lot of hassle and time taking my eye off the ball of you know, running the business day-to-day really."*

T02 had one unsuccessful application for bank funding in the study and for the two other years chose to remain self-funded.

Communicating, Meeting and Presenting was a strong theme overall and it was also noted that successful Low Competence entrepreneurs also had high capability in this area. In the literature, authors have noted the importance of a proactive personality, signalling behaviour and providing a 'vision' for any potential investors in the firm. In order to add to knowledge, this study seeks to consider these competences in a new context. This combines Communicating, Meeting and Presenting in a psychometric test which incorporates measurement and recognises that some entrepreneurs have higher level of competency than others.

In this study, having good communication competency, being comfortable meeting and presenting therefore appears to facilitate more opportunities to access finance.

Proposition 2: Communicating, Meeting and Presenting: Being a good communicator can facilitate more access to finance. Confirmed.

7.2.3 Proposition 3 - Innovating and Creating: Innovating and Creative Skills Opens Up More Opportunities for Access to Finance

Rauch et al. (2007) in a seminal paper 'Let's Put the Person Back into Entrepreneurship Research….' highlighted the predictive validity of personality traits in entrepreneurial research (Collins et al. 2004; Stewart and Roth 2001; Zhao and Seibert 2006). These results indicated innovativeness as one factor most strongly related to entrepreneurial behaviour. This view was emphasised by Covin and Slevin (1989); Ginsberg (1985); Lumpkin and Dess (1996); Morris and Paul (1987) as reinforcing Schumpeter's (1934) definition of entrepreneurship in the propensity of the firm to engage in new idea generation and experimentation as well as research and development activities. Competence in these areas, therefore, allows the individual entrepreneur to generate new ideas and ways of working, valuing creativity over tried and tested methods. Entrepreneurs with these characteristics may be more willing to consider alternative funding methods for the firm (Crowdfunding ,for example).

One of the few studies on the differences in entrepreneurs, Miner (1997) recognised the "expert idea generator" characterised by a desire to personally innovate. The literature notes the complexity in the study, of entrepreneurial behaviour, and that in part this is the result of the nature of the individual entrepreneur themselves (Mitton 1989 p.12).

> *"Entrepreneurs see ways to put resources and information together in new combinations. They do not see the system as it is, but as it might be. They have the knack for looking at the usual and seeing the unusual, at the ordinary and seeing the extraordinary. Consequently they can spot opportunities that turn the common place into the unique and unexpected."*

It is clear from the review of business finance in Chapter 2.2 that SMEs are beginning to think more laterally of other potential methods of financing growth. In the SME Finance Monitor (Q2, 2014), 62% of those planning to apply in the future would consider something other than the 'core' products of loan, overdraft or credit card. Growth areas, in particular, include grant funding, where firms are presenting proposals for, in effect, unsecured, 'free money'. These include grant awarding bodies, like for example Technology Strategy Board

(TSB Grants) or initiatives through the new Local Enterprise Partnerships (LEP's). The aim of these grants is to support innovative projects capable of adding growth to the economy. Asset-based lending has also increased and Social Lending, Crowdfunding and Peer-to-Peer lending have also increased in relevance through the course of this study. However, the reality is that most small firms lack awareness of these new funding initiatives. In the SME Finance Monitor (Q2, 2014), 79% of firms were unaware of crowdfunding.

From the literature, therefore, innovative behaviour appears an important competence for an entrepreneur. Examples from the study include grant applications, joining growth accelerator programmes and using new forms of funding. Innovativeness is a strong competency for both Capables and Collaborators. It is also one of the social groups of competences, with higher scores meaning more likelihood of successful funding applications. Regression analysis also indicated that higher scores in 'social' competences increase the likelihood of self-funding over equity or secured finance.

This study connects with these new, emerging, innovative trends in small firm funding and there is evidence of innovation in the semi-structured interviews, increasingly including the self-funded group. T53 (a Capable, scored 8 on Innovating and Creating):

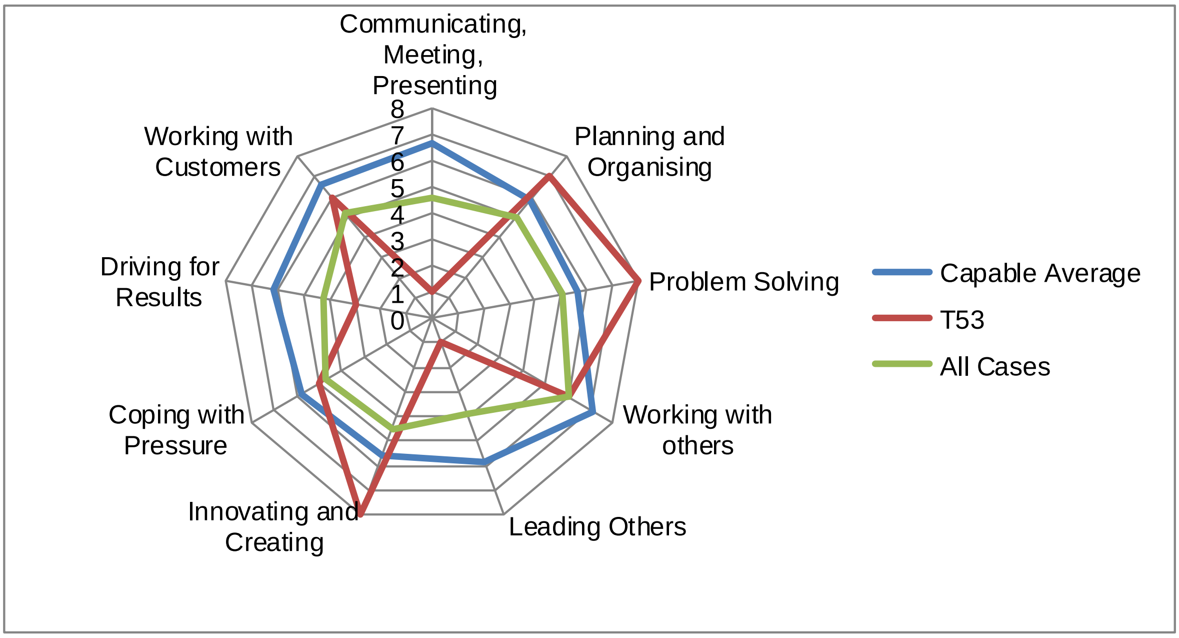

Figure 18 - T53 BCS Scores

T53 remained self-funded throughout the study, but is planning to raise funds for the next phase of growth:

> *"I think our first option would probably be to try using crowdfunding, like Kick Starter or… yeah, Kick Starter's the main one, and then see how that goes. But I think it depends on the project really because some things tend to do better with crowdfunding than others… it's done really, really well, like it's probably in like the top few percent of IOS games which typically you know they might only sell… you know, 90% of them don't even sell a thousand copies. We've sold 130,000 already, so you know we're really happy with how it's done…"*

Contrast this with T16 who made one successful application in the study and remains self-funded (scored 1 on Innovating and Creating):

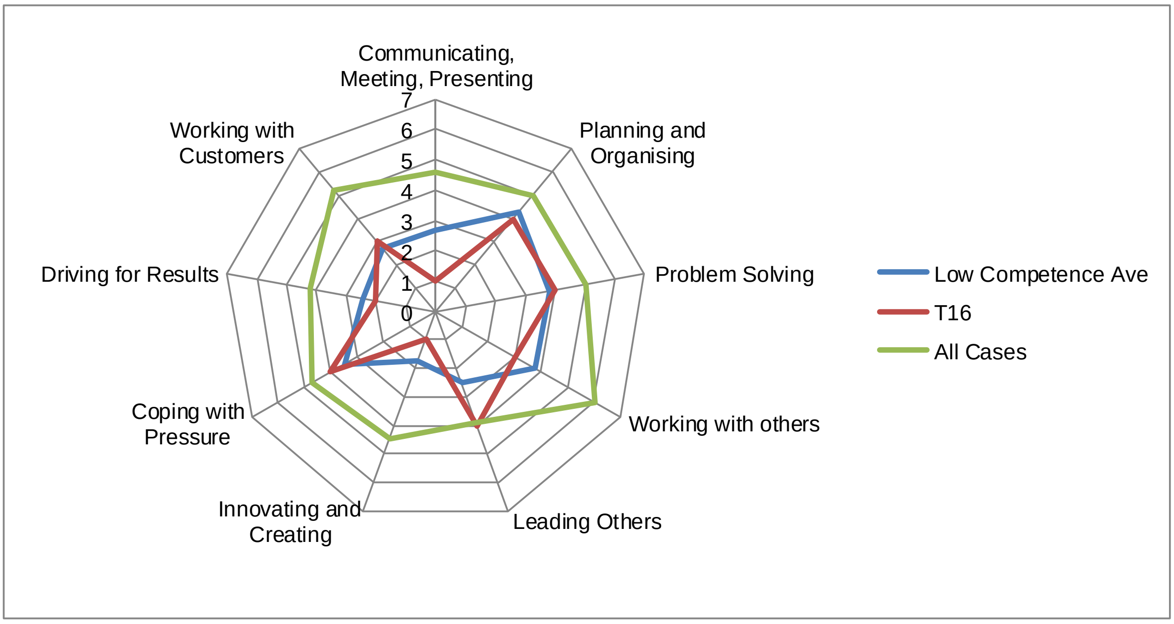

Figure 19 - T16 BCS Scores

T16 (a Low Competence) was much more cautious about an innovative approach:

> *"Yes we have (looked at Peer-to-Peer funding)… I mean we haven't looked into things like Kick Starter just because I think we have some moral issues with those things. But yeah, we have put in a couple of applications to the Technology Strategy Board, which has been very disappointing, just in that the response that you get… it seems like a lottery you know, whether you happen to get assessors who actually understand the industry that you're working in."*

Again, the methodology of analytic induction allows for modification of propositions as the themes emerge from the data. Again, the study adds to knowledge by recognising some entrepreneurs have higher levels of competencies in Innovation and Creativity. It is clear that competences in these behaviours allow some entrepreneurs to be more innovative in their consideration of funding, both in terms of the nature of funding and finding the best funding option for the firm, whether they used these options or not. Proposition 3 is therefore modified and confirmed as follows:

Revised Proposition 3: Innovating and Creating: Innovating and creative competences gives entrepreneurs the opportunity to consider and access new forms of finance. Proposition Confirmed.

7.2.4 Proposition 4 - Problem Solving: An Entrepreneur Who Can Problem Solve is Better Able to Access Finance.

In Chapter 3.2 a number of established theories were reviewed regarding how entrepreneurs solve the problem of how to finance the small firm. Myers (1984), in his seminal paper entitled 'The Capital Structure Puzzle' asked "how do firms choose their capital structure?" and concluded:

> *"We do not know... our (financial) theories don't seem to explain actual financing behaviour, and it seems presumptuous to advise firms on optimal capital structure when we are so far from explaining actual decisions ..." (p.575).*

Pecking Order Theory (Berger and Udell 1998) is one example of how academics have tried to provide an explanation of how entrepreneurs solve the problem of funding the firm, yet the new landscape means that this is a more complex question, particularly when information asymmetry remains.

Similar to Pecking Order Theory, the Funding Escalator model of small firm funding has also been examined more critically in the funding climate post Lemans. The idea that after the initial investment stage of the firm (from internal resources and family/friends) firms are able to access three main types of external finance - public seed grants; public and private equity; and bank debt finance is clearly not as simple as in the period prior to the crash. Bank funding, in particular, is more difficult to access, as was illustrated in Chapter 2.

This study also recognised at an early stage the particular difficulties of technology entrepreneurs (Harrison 2004). Given the problems associated with raising funds for the entrepreneur, this has resulted in an increase in discouragement (see Chapter 2.2). Freel et al. (2012) found twice as many businesses were discouraged from applying for a bank loan than had had a request denied. Ciavarella (2004) also pointed to conscientiousness as a competence which results in entrepreneurs being better able to address problems in the firm, and those who are higher in conscientiousness are significantly more likely to maintain the survivability of the venture beyond the adolescence stage and have ventures with longer overall life spans than those who are lower in conscientiousness

One aspect of the self-efficacy literature (Sarasvathy 1994, 2009) also describes the process of analysing problems for the entrepreneur and generating evidence-based solutions to them. Those with greater competencies in these areas will arrange the funding of the firm through a very logical and systematic approach with practical solutions which are well thought through. Entrepreneurs high in self-efficacy, typically design and develop business models and processes that they are able to achieve and are in line with their capabilities.

Finance is considered a disproportionately important problem for high-growth firms, compared to other businesses, as the entrepreneurs seek ways of funding growth. In Chapter 2, the SME Finance Monitor (Q2, 2014) noted that 18% of firms consider funding the most important problem affecting growth, and still, 59% of SMEs were not confident that the bank would agree to a new request. Yet, the difficulties in solving these problems appears to be giving rise to an increase in the non-seeker of finance , as entrepreneurs describe the main barriers to an application (the hassle, expense, security etc.) and discouragement (expectation of an unsuccessful outcome). It is apparent that from some entrepreneurs there is a lack of recognition of the positive affect that finance can have on the pace and magnitude of growth (SME Finance Monitor 2013). The reluctance to address this problem for some entrepreneurs, therefore, prevents them from applying and could subsequently restrict growth.

For some other entrepreneurs, the difficulties facing them, from a funding perspective, has resulted in an honest re-appraisal of their own ‘economic need’ for the enterprise (Chaganti 1987). While satisfaction with ‘economic need’ drives the entrepreneur towards debt financing, the entrepreneur’s business outlook, i.e. "odds of success of your firm" has the opposite effect. Entrepreneurs who are bullish about their ventures tend to seek equity financing rather than debt financing. This finding is consistent with the Signalling Theory, which argues that executives, based on their ‘insider information’, prefer retained earnings to debt and equity as their main sources of funds for new investment. A question for the growing entrepreneur, is that given the difficulties with debt finance, does it meet his personal goals to apply more modest growth targets and self-fund (using retained earnings), or share equity in order to drive growth harder?

The Problem Solving competence itself is not one of the highest BCS scores and both Capables (5.7) and Collaborators (5.2) have similar levels overall. It included developing the business model in order to attract finance and also using match funding Where this competency became more significant was in the 'Didn't Apply' group of entrepreneurs, who had a higher level of competence in this competence (5.8) compared to either Successful (4.92) or Unsuccessful (4.3) entrepreneurs. Self-funded entrepreneurs also had the highest competency in Problem Solving (6.0), and again, regression analysis indicated higher scores in the Planning group are more likely to result in self-finance and less use of equity finance.

It would appear, therefore, that this Problem Solving competence indicates resourcefulness amongst self-funded, non-applying entrepreneurs. Interview data indicated evidence for this. Evidence for this competence increased throughout the three years, and was particularly prevalent in Year 2 of the study amongst non-applying self-funders. T46, for example, is a Collaborator who scored 10 on Problem Solving:

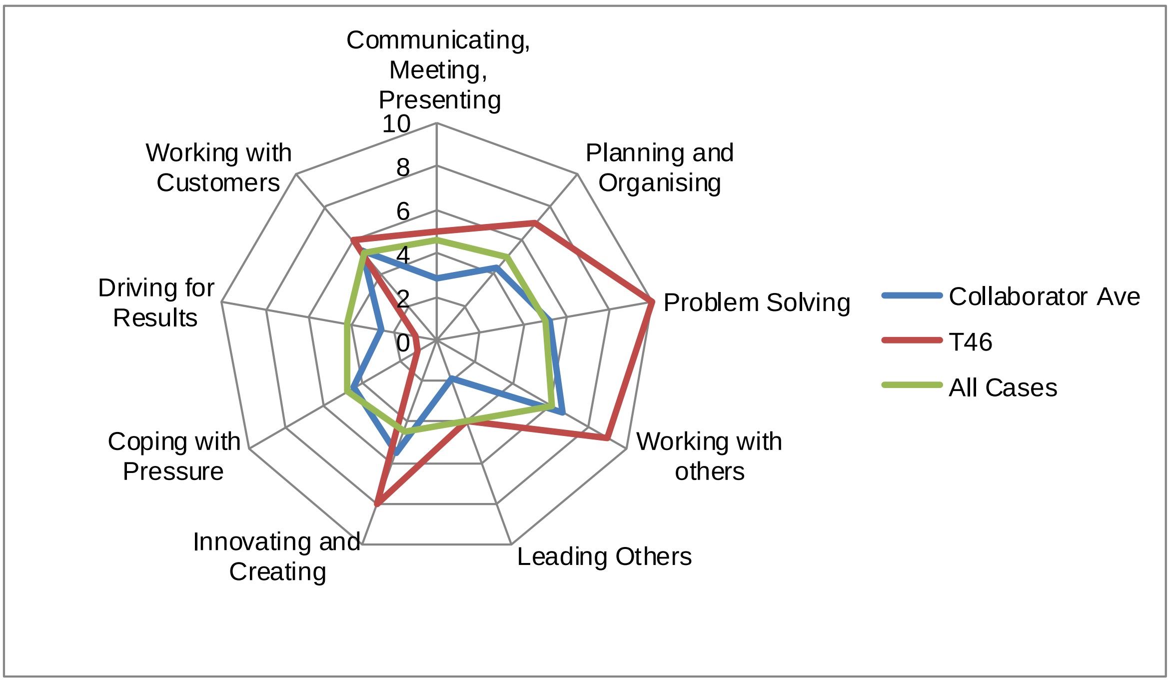

Figure 20 - T46 BCS Scores

T46 is self-funded and made no applications in the course of the study, but demonstrated this methodical approach to problem solving in Year 2 of the study:

> *"We would consider angels… want to invest in core business... our preference would be to put together a portfolio of games and put together a licenced property and good chance of traction... we are thinking of four/five games and create an SPV so*

we invest with angel... obviously more attractive to us... they may say they want the management team 100% focused... so what's the best way to do it... we have had some very early chats with local investment networks... that we know... we are aware of you… so we are putting the package together then we will sit down and talk to them..."

Contrast this with T13 (a Low Competence with Problem Solving score of 1):

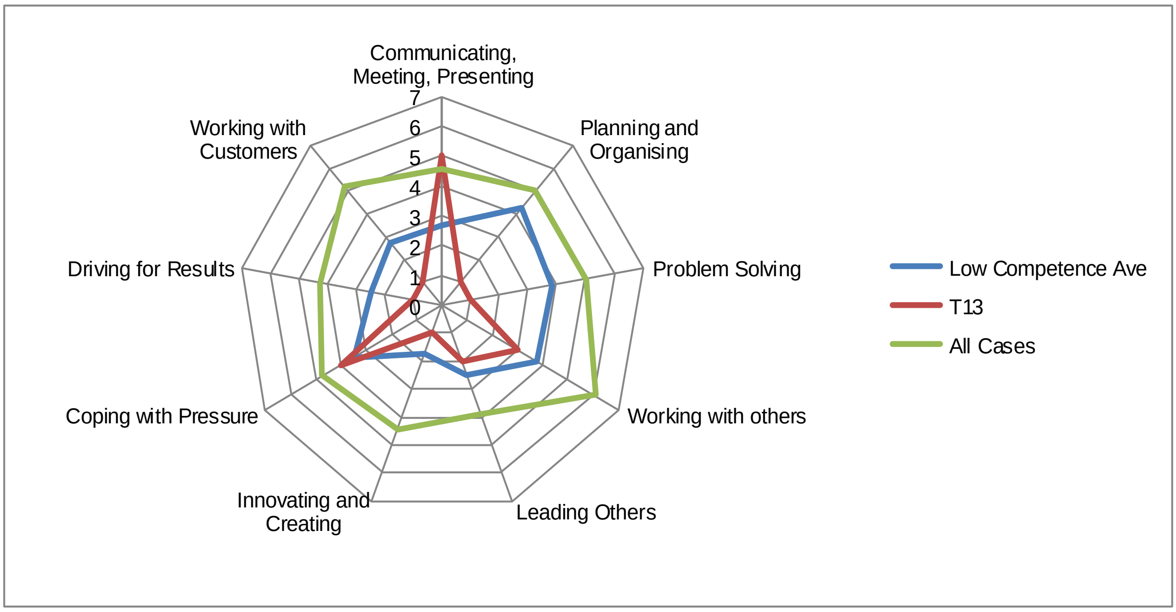

Figure 21 - T13 BCS Scores

T13 closed a venture down during the course of the study:

"It's folded… still trading a little but largely the team has split and I have moved on… now have a small amount of equity in another business where I earn a salary… couldn't raise enough quickly enough… just ran out of steam... think I was just concentrating on too many things and in the end it just didn't work… think I just lacked focus."

There is, therefore, evidence that entrepreneurs with specific competencies in Problem Solving are able to leverage this competency in order to either access finance or successfully find alternative methods of growing the firm without necessarily needing to access funding. This, therefore, leads to a modification of Proposition 4. Higher competencies in Problem Solving demonstrated by non-applying self-funded entrepreneurs during the course of the study leads to the following revised proposition:

Revised Proposition 4: An entrepreneur who can problem solve is better able to select a self-funding strategy for the firm. Proposition Confirmed.

7.2.5 *Proposition 5 - Planning and Organising: Planning and Organising are Key to Successful Access to Finance for the Firm*

Planning is seen by some entrepreneurs as a means of controlling the funding environment (Dew et al. 2008). This competence relates to the management of an individual's own time and working in a structured and methodical way. In Chapter 6, the importance of this competence was emphasised, and examples of this type of behaviour include planning in advance for projects of different scales and prioritising actions required at different times. Increasingly, planning in a funding context is important to ensure investment requirements are correctly financed, balancing multiple priorities, setting objectives and planning effectively to meet targets, commitments and deadlines. Ciavarella (2004) described this organising behaviour as 'shepherding' the organisation to ensure activity is structured and controlled. Specifically looking at entrepreneurship, Ciavarella (2004) asked "Big Five and Venture Survival; is there a linkage?" and concluded that an entrepreneur needs to evolve into a manager in order to 'shepherd' a new venture to long-term survival. In particular, a conscientious attitude and not being open to various avenues of divergence, appear to be key to long-term, new venture survival. Interestingly, in the context of this study, the author also concluded "these personality factors are more predictive of venture survival than industry, start-up experience, or the age and gender of the entrepreneur" (p.466).

Thus entrepreneurship can be viewed as a type of organising (Weick 1979), an ongoing process of interactions among individuals incorporating patterns of interlocked behaviours. Gartner (1992) described this as an emergent phenomena and seeing entrepreneurship this way allows for a connection between personality and behaviour.

Frese et al. (2000) examined planning behaviour and identified five different approaches including complete (top-down) planning, critical point, opportunistic, reactive, and routine/habit. Empirical evidence seems to conclude that firms with growth strategies also had business plans in place, supporting the argument that firms need to balance their resources and deploy them strategically in their activities in order to obtain growth (Mazzarol et al. 2009). This, again, is consistent with Black's (1998) work in identifying honing and enterprising as two entrepreneurial actions that could influence the firms' performance – honing is defined as improving an activity already performed by the firm; enterprise is related to the entrepreneur's tolerance of ambiguity.

In a funding context, planning and organising is related to investment readiness and again much of the evidence suggests many small firms are reluctant to engage in this kind of detailed business planning. This was evident in Chapter 2, examining the context of the study, where it was noted that many SMEs make little use of business advice and don't use qualified financial staff.

In the Capables cluster, Planning and Organising is a mid-level competence in terms of performance (5.82). It is at a lower competence for Collaborators and Low Competence group. Not as strong as Problem Solving, but it is also a stronger competence in the Didn't Apply group of entrepreneurs, again indicating a level of resourcefulness amongst entrepreneurs. Planning and Organising is in the 'Planning' group of competences and therefore regression analysis indicates that increased levels of these competencies are likely to result in more self-finance and secured finance as opposed to equity finance. Themes emerging from the data included producing business plans, cash management and using flexible staff management to increase working capital. Again, this is a stronger competence amongst non-applications and secured funders, where debt providers are more likely to require more formal management controls in place.

Planning and Organising was a strong theme in the first phase of qualitative interviews. However in the following 2 years when the study focused more on what the entrepreneur had actually 'done' in the previous twelve-month period, evidence of planning and organising was less prevalent. It remained a strong theme only in self-funded entrepreneurs.

T09 is an architect (a Capable, scored 10 on Planning and Organising) and used secured funding:

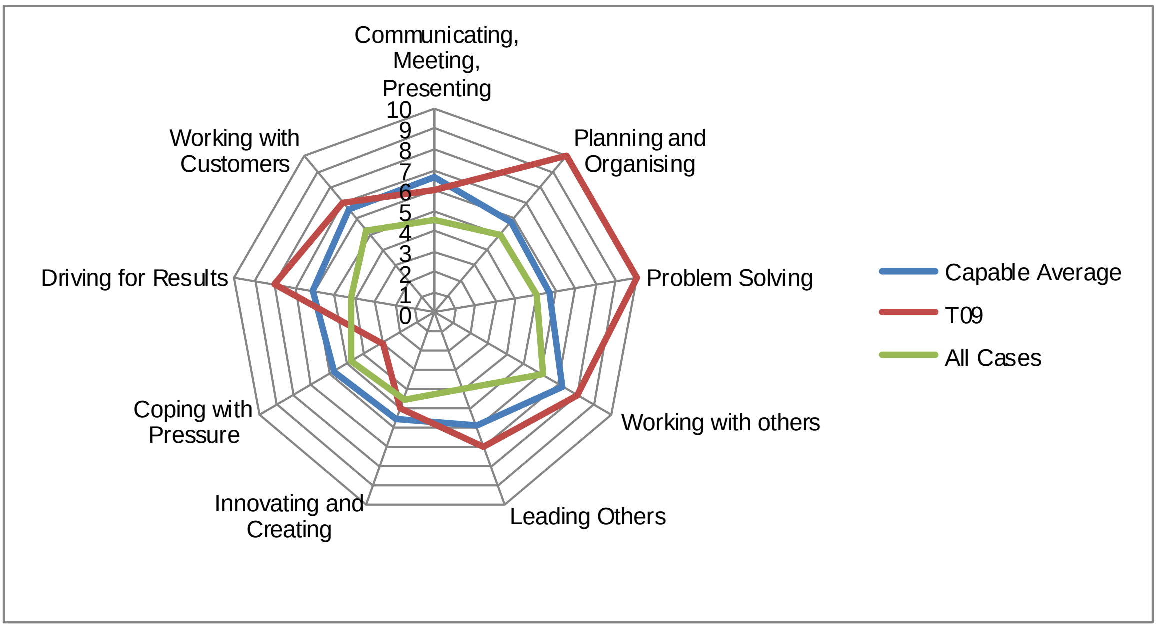

Figure 22 - T09 BCS Scores

T09 chose not to apply for further funding in the last year of the study. In Year 1 of the study, T09 described how he planned to use a pre-payment system to increase working capital into the business:

> *"Started with the Government backed loan... had opportunity in Bristol... went forward with plan showed bank how we would do it with £25K... then liaised with key customers... so talked to one of our key customers... listening to the market struggling to get good response times... in the current market when people want to move on land need to move quickly... care sector going through massive change they wanted surety that we could respond quickly if there was an issue - planning for example.. took opportunity but to facilitate need money up front... a retainer... so we are now in the second year... good lump of money services the firm.. sits in the firm... helps me deal with the scheme, I can throw resource at it knowing there is enough cash to pay the wages... still charge on top of the retainer... about one month turnover equivalent... I can tell them how much of the retainer I have used... to get to that point had to prove it to them... had to do the groundwork."*

Contrast this with T05 (a Collaborator scored 2 on Planning and Organising) who successfully raised equity finance in Year 1, but then failed to raise and was dismissed by investors in Year 3:

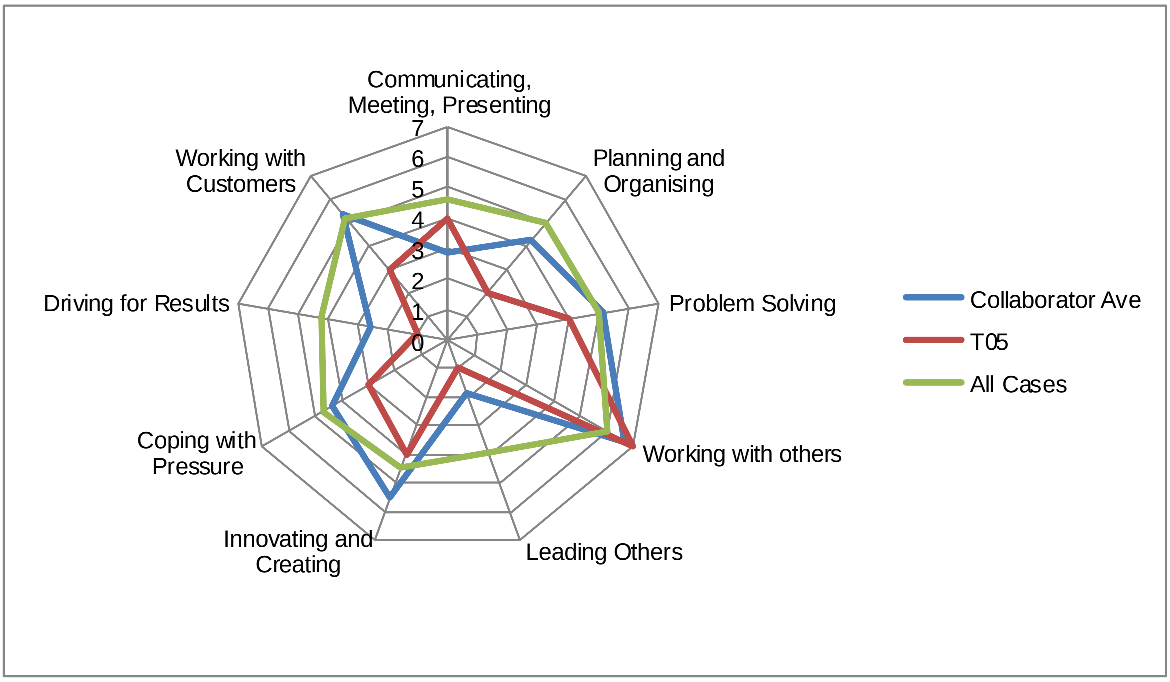

Figure 23 - T05 BCS Scores

This is taken from the Year 1 interview:

> *"Attempting to do back of a fag packet cash flow forecast I suppose… to be honest it's not been as planned as I would hope and there has been a fair amount of 'oh god how am I going to get out of this one'.. biting finger nails… always get out of it… I am a survivor… think on my feet… can lead to complacency I'll always get out… maybe one day I won't… it's a dangerous trait I have."*

Higher competencies in Planning and Organising also seems more relevant to those entrepreneurs choosing not to apply for finance (non-applications), but there is not the same evidence for this behaviour in the qualitative interviews, when this was a strong theme, but only in the first year of study. Therefore:

Revised Proposition 5: Planning and Organising: Entrepreneurs with a higher competence in planning and organising will be better able to self-fund and not require external finance. Proposition: Partially Confirmed.

7.2.6 Proposition 6 - Driving for Results: An Entrepreneur Who is Driven Can Access More Finance Opportunities

This competence relates to working hard in order to achieve goals and deliver on results. The type of behaviour includes a focus on personal and team objectives, showing commitment to their achievement and setting targets and objectives for self and others. In the context of accessing finance, this includes attending to funding issues that will help meet the goals and objectives of the firm. Entrepreneurs with this capability benchmark work outputs against others to determine performance. They have a positive approach to goal setting and take personal responsibility for results, outcomes and performance. In Chapter 3.4, the work of Delmar and Wiklund (2008) was reviewed, covering a study of two thousand entrepreneurs in cross-sectional research, which identified entrepreneurs who were highly results orientated, with growth as a central objective as a key characteristic.

Driving for results can also draw some parallel with Rotter's work on Lotus of Control and the indication that a need for achievement is related to the belief in internal locus of control. Therefore, studies of people with high nAch show that they tend to believe in their own ability to control the outcome of their efforts (McClelland 1971; Atkinson et al. 1953). Rotter (1966) hypothesised that individuals with internal beliefs would more likely strive for achievement than would individuals with external beliefs.

In the Rauch et al. (2007) study, achievement motives were also factors most strongly related to entrepreneurial behaviour. Driving for Results is also indicative of a proactive personality with an entrepreneur focused on influencing their environment, and Proactive Personality is also a personal disposition for personal initiative behaviour (Frese and Fay, 2001). Proactive Personality is important for entrepreneurs because, by definition, entrepreneurs have to be self-starting and influence their environment by founding new organisations and by identifying and acting upon opportunities. This also links to the generalised self-efficacy behaviour (Poon et al. 2006; Utsch and Rauch 2000; Rauch and Frese 2007; Sarasvathy 2001) and this is important for entrepreneurs because they must be confident in their capabilities to perform various, and often unanticipated tasks, in uncertain situations (Baum and Locke 2004).

Stewart and Roth (2007) examined conscientiousness, the primary trait-oriented motivation variable (Mount et al. 1994) and most stable Big 5 trait (Judge et al. 1999) and concluded that this warrants more examination in entrepreneurship. Conscientiousness includes characteristics associated with a strong sense of purpose, ambition, obligation, hard work and persistence in performance (Costa et al. 1986); traits that have been repeatedly emphasised in the entrepreneurship literature.

Past studies suggest that as their business ventures move beyond the challenges inherent to the start-up phase and begin expanding, founders tend to replace ‘first-hand direct’ activities with managerial ones, whereas the time allocated to other activities (e.g. record-keeping, maintenance and dealing with suppliers) does not significantly change (e.g. McCarthy et al. 1990). As the venture grows, the pace of work is likely to increase as entrepreneurs have to deal with an increasing number of subordinates and coordinate additional activities to produce and distribute in volume. A competency associated with driving for results, therefore, becomes increasingly important as responsibilities broaden.

In the context of this study, these finding also have implications for institutions making funding decisions for entrepreneurs, and suggests that venture capitalists, bankers, employees and other stakeholders of the venture would be wise to have some indication of the entrepreneur’s personality.

Driving for Results is a strong trait for Capables, but not for Collaborators or Low Competence clusters. Emerging themes in the qualitative interviews included identifying growth and opportunity and using persistence and challenging behaviour. It is also a strong trait in successful applications. As a competency it in in the ‘Driving’ group from regression analysis, which indicates higher scores are more likely to result in successful applications and also the use of equity finance. This is consistent with the interview data where there was more evidence of this competency in the Year 3 results; particularly amongst successfully applying equity entrepreneurs.

T25 is a Capable who scored 8 on Driving for Results:

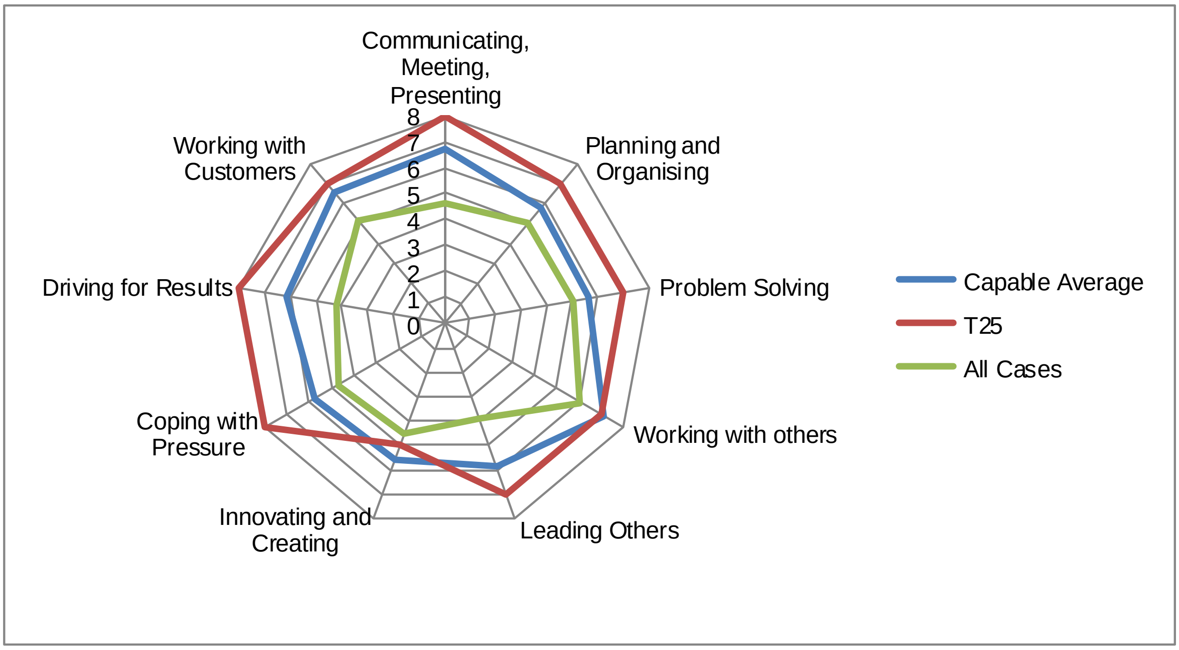

Figure 24 - T25 BCS Scores

T25 raised new equity finance in two of the three years of the study. Here is an example of his approach to raising investment funds:

> *"Equity for small angel investment; we wanted to prove the concept then reduce the risk for equity investors (which means we) will get a better price rather than go to bigger investors who can sometimes get you for a lower valuation… if you are new…"*

Contrast this with T40 (a Low Competence) who liquidated a company in Year 2 of the study:

> *"Not too bad... although the company we spoke about… I have closed that company... yes… as well as I could do in these circumstances… that's the way things go… onto the next really... I haven't really thought about it... not loans… either grants available... or angel investors... that may be of interest..."*

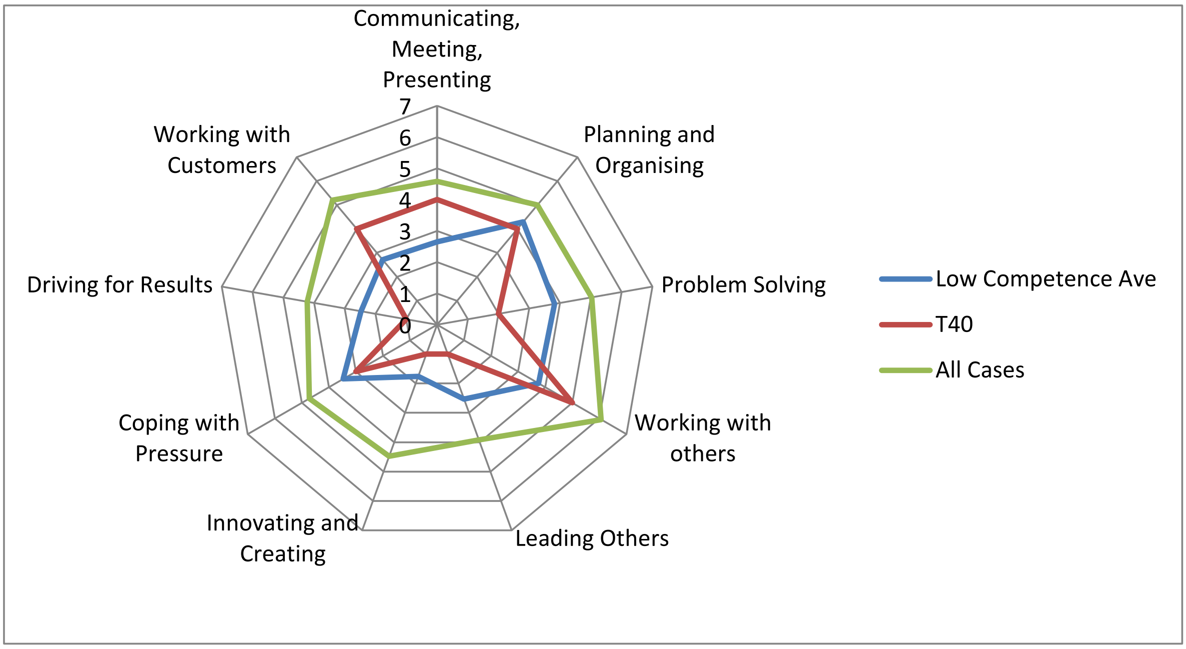

Figure 25 - T40 BCS Scores

A more relaxed approach to driving the funding strategy of the business is evident.

Driving for Results emerged as a stronger theme as the research programme progressed; particularly amongst equity seeking Capables. These entrepreneurs were able to meet challenges in the business and were able to indicate a more proactive approach.

Proposition 6: Driving for Results: An entrepreneur who is driven can access more funding opportunities. Confirmed.

7.2.7 Proposition 7 - Working with Customers Increases Opportunities to Access Finance

Entrepreneurs who have a behavioural competence in working with customers recognise the importance of good customer relations or client service. They place a priority on providing high standards of service to meet customer or client needs and present a pleasant, warm and calm interpersonal style when interacting with customers. These entrepreneurs go further in achieving high levels of customer service and take responsibility for addressing customer issues. Social Network Theory and Resource Dependency Theory describes this type of networking with customers as a key characteristic of entrepreneurs who build resource base through external contacts with customers.

Firms that have a stronger relationship with customers enjoy higher profitability (Bolton 1998; Reinartz et al. 2005; Johnson and Selnes 2004). In the literature, this is seen in the context of identifying valuable customers, ensuring better communications with them and customising products and services to meet their needs. Social Network Theory describes how some entrepreneurs are able to strategically position themselves to form weak ties (Ebbers 2013) between two disconnected individuals, and subsequently exploit this position, either through the leveraging of complementary knowledge, or by providing broker services (Burt 1992). Indeed, there is reciprocity to the weak-strong tie phenomena, as entrepreneurs who identify opportunities that they themselves cannot (easily) exploit have the option to inform other entrepreneurs in their network whom they perceive to be better positioned or endowed to exploit the opportunity. Evidence of this has emerged in this study. Although entrepreneurs may not directly benefit from facilitating others to exploit business opportunities, one might expect that those who benefit from other entrepreneurs will reciprocate this selfless bridging behaviour (Blau 1977).

In a small firm context, this sample of entrepreneurs shows evidence of leveraging their ability to work with customers in order to increase working capital in the firm. In some cases this included converting their customers onto pre-payment terms. This is also linked with new forms of finance as entrepreneurs utilise trade debtor finance, Market Invoice, for example, which uses a similar peer-to-peer auction platform for factoring. In Chapter 2.2, the growth in debtor finance was noted and the use of this form of funding requires a relationship with a customer that provides for better controls.

Within the study, Working with Customers was part of the collaborative competences that score most highly with Capables and Collaborators. In regression analysis, it is one of the 'social' competences where higher competence is associated with more successful funding applications as well as entrepreneurs choosing self-finance.

In particular, some entrepreneurs were able to develop a relationship with customers which enabled more flexibility in payment terms, leveraging relationships with customers which increased working capital inflows into the business. T26, for example, discussed a concept of 'servitisation' in Phase 2 interviews, which allowed for new features to be added to the firm's service proposition, and built this into a more regular payment plan from the customer. T26 is a Capable who scores 8 on Working with Customers:

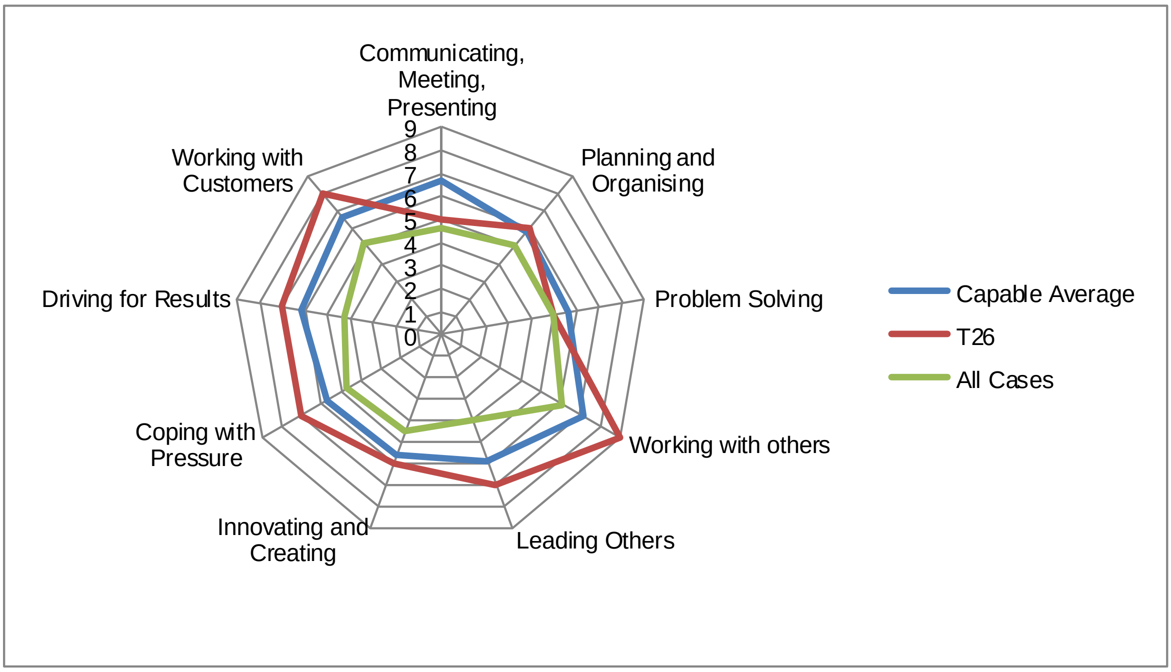

Figure 26 - T26 BCS Scores

T26 describes the new service for customers as follows:

> *"We want to build into our offering some core services which currently our customers have to invest in themselves… we would make this investment for them… kind of lease back… this is what we describe as product development… so it becomes a managed service… the word is servitisation and there are some grants available in this area".*

Contrast this with T52; a Low Competence scored 1 on Working with Customers:

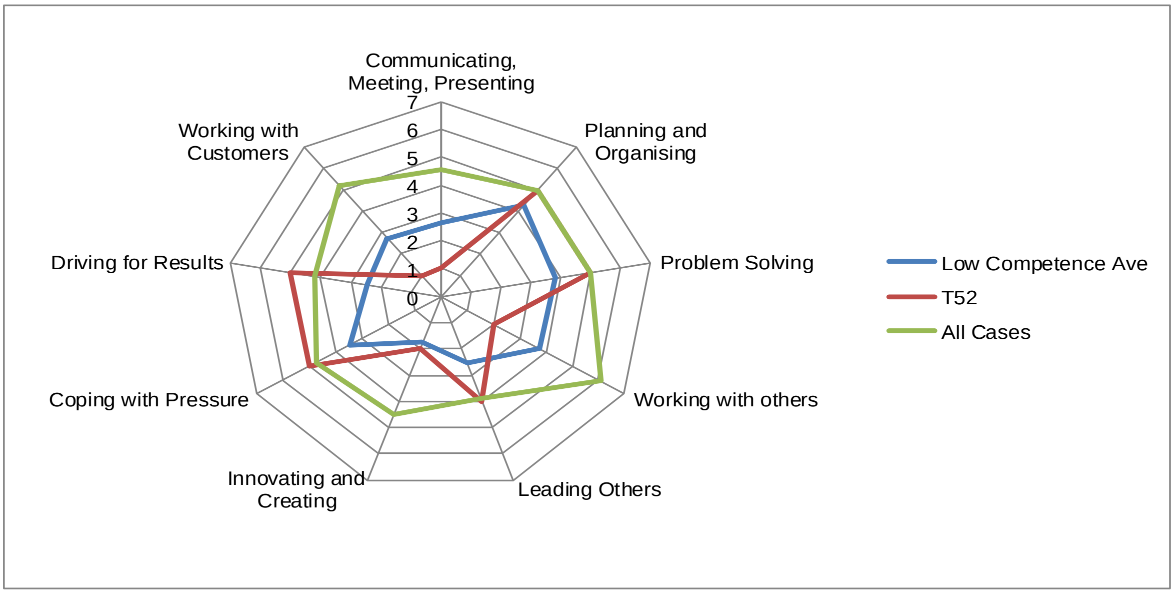

Figure 27 - T52 BCS Scores

T52 remained self-funded over the course of the study, and in Year 2, tried and failed in a funding application.

Working with Customers was one of the strongest competences overall and both Capables and Collaborators were particularly strong in this behaviour. These entrepreneurs were able to utilise this working relationship with customers to leverage working capital, or in some cases, actually provide a service on behalf of the customer, and in doing so, making it easier to plan cash flow.

Proposition 7: Working with Customers increases opportunities to access finance. Confirmed.

7.2.8 Proposition 8 - Leading Others: Competency in Leadership Increases Access to Finance

In Chapter 3.4, the findings from Rauch and Frese (2007) were reviewed, supporting the more classical view of the swashbuckling entrepreneur leading the firm through an emphasis on innovation, risk and pro-activeness. This focus on leadership in the entrepreneurial literature has its origins on the earlier work of Hornaday and Aboud (1971); McClelland (1961) Palmer (1971) Liles (1974). This emphasises that the role of the entrepreneur is to detect and exploit opportunities and to make rapid decisions under uncertainty in a resource-constraint environment. Leadership competences are therefore key in these scenarios.

The Zhao study (2010), however, used a set of meta-analyses to examine the relationship of personality to outcomes using the Five Factor model of personality. These results suggested that conscientiousness, emotional stability and openness were associated with successful entrepreneurship and that:

> *"Despite popular beliefs, our results show no effect of risk propensity and only a very small effect of extraversion on entrepreneurial performance…"*

The classic image of the entrepreneur as a 'risk taker' or an 'extrovert' may discourage some individuals from becoming entrepreneurs who would otherwise be successful at this pursuit.

In this research study, Leadership is not one of the strongest competences amongst the Capable cluster of entrepreneurs, and within the group as a whole, it is the weakest competence. Within the regression analysis, it is included in the 'Driving' group of competences, where increasing levels of competence results are more likely to reduce the likelihood of trying and being unsuccessful, compared with trying and being successful. However, there was very little evidence in the interview data of this behavioural competence. (In year 3 no data was coded to this competence).

Proposition 8: Leading Others: Competency in leadership increases access to finance. Not Confirmed.

7.2.9 Proposition 9 - Coping with Pressure: Entrepreneurs who are Better Able to Cope with Pressure Increase Access to Finance

The competence to cope with pressure was outlined by Dew et al. (2008), identifying entrepreneurs who excel in an ability to remain calm, composed and free from worry or anxiety at times of pressure. Starting and growing a business involves periods of dealing with problems and setbacks in a calm, positive way and higher competences will be critical to good decision making.

Funding the firm, in the climate described in Chapter 2, will require the entrepreneur not to dwell on things that have gone wrong and to respond to pressure and irritation in a composed manner. Remaining even-tempered and controlled throughout is key. Often entrepreneurs are managing several activities at the same time, and managing a busy role with competing demands, without feeling undue pressure, will improve effective decision-making. In a funding context, pressure can come from financial institutions and in Chapter 2.2 it was noted, that 25% of SMEs needed to offer security on overdrafts in 2011 compared to around 21% in 2007 (SME Finance Monitor 2012).

Like Leadership, in the regression analysis, Coping with Pressure is included in the ‘Driving’ group of competences, where increasing level of competence results are less likely to result in unsuccessful applications. Overall, it is not a strong competence either for Capables, or overall in all clusters, and there was very little evidence of this behaviour in the semi-structured interviews.

Proposition 9: Coping with Pressure: Entrepreneurs who are better able to cope with pressure increase access to finance. Not Confirmed.

7.3 Summary

Each of the research propositions are presented in the context of the qualitative and quantitative data and conclude that six of the nine competences can be confirmed as behaviour which influences how entrepreneurs fund the firm. One of the competences has partial confirmation, and two are not confirmed. In summary, increased competency scores in Driving (Leading Others, Driving for Results, Communicating Meeting and Presenting and Coping with Pressure) reduces the likelihood of not applying for finance, compared to trying and being successful. Increases in these competencies also reduce the likelihood of trying and being unsuccessful compared with trying and being successful. Higher Driving scores also increases the likelihood of using equity-funded as opposed to self-funding.

Higher competency scores in Social (Working with Others, Working with Customers and Innovating and Creating) reduces the likelihood of not applying compared to trying and being successful. Increases in these competencies are also less likely to result in trying and being unsuccessful compared with trying and being successful. Those with higher competency score in Social are also more likely to use self-funding compared to secured or equity finance.

Higher competency scores in Planning (Planning and Organising and Problem Solving) are also more likely to result in reduced use of equity finance relative to secured or self-finance.

By both measuring behavioural competence, and identifying the associated behaviour, this research makes a contribution through a tool which is capable of predicting specific actions (appointing advisors, for example) and not just broad types of behaviour.

The three distinctive clusters were proven to have different characteristics in relation to funding outcomes, funding types and use of advisors, for example. It therefore follows that identification of an entrepreneur as belonging to one of the three groups has considerable predictive significance in relation to behavioural competences and how the entrepreneur accesses finance. For the practitioner, it provides a methodology which enables the identification of competences which overcome the difficulties caused by information asymmetry in the process of funding the firm.

Chapter 8 – Conclusions

8.1 Introduction

This chapter concludes the study and presents contribution to academic knowledge, implications for practice, limitations of the study, personal reflections and recommendations for future research.

8.2 Contribution to Academic Knowledge

In examining the literature relevant to this area of study, three key issues emerged. Firstly, the personality of entrepreneurs has been extensively researched in the literature. New venture financiers and entrepreneurs themselves point to entrepreneurs' personal characteristics as dominant reasons for individuals pursuing an entrepreneurial career (Sexton 1997; Smith and Smith 1998). However, increasingly, this school of thought has been viewed by academics as inconclusive (Gartner 1988).

Secondly, a growing cohort of psychology-based researchers has renewed interest in entrepreneurs' personal characteristics as predictors of success. This moved the focus of research from not simply being an examination of the differences between entrepreneurs and non-entrepreneurs, but towards personality traits as a potential predictor of entrepreneurial behaviour, thus moving beyond the past focus on traits to study competencies, motivation, cognition and behaviour (Bird and Schjoedt 2012). Gartner (1988) emphasised the importance of behaviour:

> *"The primary linkage between new venture success and the entrepreneur seems to involve the entrepreneurs' behavioural characteristic… quite fortunate because it means the key determinant of successful entrepreneurs can be learnt" (p.22).*

Thirdly, the recent financial crisis has questioned the relevance of traditional financial models of small firm finance – Pecking Order Theory and Funding Escalator, for example. The argument, that given the new funding landscape a definitive model exists for capital structure in small firms, remains an elusive concept (Myers 1984).

Within the literature, Bird (2102) noted, in particular, the shortcomings of the research into entrepreneurial behaviour, and this, combined with a new context for funding the firm following the credit crunch, is the basis for the contribution of this study. The research question centres on the differences in behavioural competences of individual entrepreneurs and how this impacts applications for finance; what Wright and Stigliani (2013; p.15) described as “resource orchestration” in a funding context.

Chapter 4 presented four areas for academic contribution and these are discussed as follows:

Academic Contribution 1: Presenting a behavioural competency profile for a sample group of entrepreneurs.

Trait (ABA 2011) is a psychology tool grounded in theory (Bartram) and it was used to measure the behavioural competences of sixty entrepreneurs in the Creative Industries sector. The results presented in Chapter 6.2.2 are in line with more recent studies (Zhao 2010), which question the clichéd view of the swashbuckling entrepreneur presented in earlier studies (e.g. Brockhaus 1982; Begley and Boyd 1987; Rauch and Frese 2007). This research, therefore, makes a contribution to the understanding of the behavioural competences of entrepreneurs. The results indicate a tendency for higher competences in collaborative behaviours, along with business planning. Working with Others and Working with Customers are the highest scores. Leading Others (3.92) has the lowest behavioural competency scores.

Academic Contribution 2: Explore the use of psychometric testing in explaining and predicting how individual entrepreneurs seek finance for the firm

The identification of three distinctive groups, through a longitudinal study, is also shown by subsequent analysis to be a contribution to how entrepreneurial behavioural competences can be considered. Bird et al. (2012) emphasised the goal of research into entrepreneurial behaviour to “explain, predict and control (shape and change) behaviour at the individual or team level”. An important result of this research is that belonging to one of these three clusters is a strong predictive indicator of entrepreneurial behaviour, in this context, how entrepreneurs access finance. It follows that entrepreneurs should aim at developing competencies prevalent in the Capable group, for example, and that entrepreneurs will need to continue this development as the business grows (Jones et al. 2014).

Chapter 6.3.1 confirmed the significance of the relationship between cluster membership and funding outcome. Capables were consistently more successful in funding applications over the period with 39% making successful applications in Year 1, 50% in Year 2 and 50% in Year 3.

Using regression analysis, groups of competences were identified, levels of which indicate the likelihood of success in funding outcomes, and type of funding used.

In Chapter 7, six propositions were confirmed, which either increased access to funding for the entrepreneur or enabled self-funding. These represented Behavioural competences as follows:

- Working with Others: Appointing advisors, serial networking and considering Joint Ventures.

- Communicating, Meeting and Presenting: Approaching investors and communicating a vision.

- Innovating and Creating: Pursuing grant applications, joining SME Educational programmes and exploring peer-to-peer funding models.

- Problem Solving: Continually evolving the business model and using match-funding to unlock funding.

- Driving for Results: Identifying growth and opportunity; being persistence and challenging.

- Working with Customers: Using flexible payment terms to increase funding, for example.

Thus, the research has indicated both the likelihood of behaviour and also the type of behaviour undertaken in relation to the competences above.

Academic Contribution 3: Using a convergent mixed method study, outline the 'stories' of how real world entrepreneurs find finance and compare these against a measurable Behavioural Competency Score (BCS), based on the Great Eight Competences (Bartram 2000).

This study makes a contribution, through the confirmation that entrepreneurs with different competences pursue funding routes in different ways, and by using a psychometric tool, these competencies can be measured. Equity-funded entrepreneurs have higher BCS scores in Communicating Meeting and Presenting, for example, and examples of this competency were indicated in the semi-structured interviews across the three years of the study. In addition, Capables have the highest level of competence and use more advisors (see Chapter 6.3.4), and entrepreneurs using advisors have more success in funding applications. The actual type of funding used was also noted although there was no significance with Cluster membership – so competence level does not indicate the selection of a particular funding type. Unsuccessful applications also have the lowest level of competences and analysing the BCS scores with interview data indicates those entrepreneurs choosing not to apply for finance have higher levels of competency in Planning and Organising and Problem Solving. The issues surrounding discouragement were discussed in Chapter 2.2 and Bruton et al. (2014: p.18) commented that one consequence of this is that entrepreneurs may turn to alternative sources:

"it may also be the case that there is considerable variation in the behaviour of entrepreneurs seeking different forms of (alternative) finance, and this warrants further investigation"

Embarking on this longitudinal study in 2011, this research makes a contribution in identifying behavioural differences in entrepreneurs and how these can be measured. Examples of how individual entrepreneurs have raised finance have been presented for the three years of the study in Chapters 6.4 to 6.6. Established knowledge of funding for the entrepreneurial firm are grounded in theories of the firm and have not addressed the differences between individual entrepreneurs and how this influences funding strategies. Several scholars have therefore called for the development of reliable and valid measures of behaviour, and with it, taxonomy of behaviour, and this study has aimed to address these calls (Gartner et al. 1992; Carter et al. 1996; Bird et al. 2012; Sarasvathy 2001).

Academic Contribution 4: Through the identification of behaviour which is used by entrepreneurs to successfully access finance for the firm.

Through three series of qualitative interviews, this research has made a contribution to knowledge through the identification of what entrepreneurs actually 'do' in order to fund the firm. By Year 3 of the study, fifteen iterations of coding were carried out to identify the entrepreneurial behaviour used in order to fund the firm. Working with Others was consistently identified as the behaviour most used by entrepreneurs in order to find finance, and within this code, using Advisors, Mentors and Non-Executives was the most prevalent theme. In total, twenty four themes for finance-finding behaviour have been identified in this study.

A number of authors highlighted in the literature review have identified a gap in the academic knowledge surrounding what entrepreneurs actually 'do' (Mueller et al. 2012; Bird and Schjoedt 2009). Bird et al. (2012) noted that behaviours are best understood as discrete units of goal-oriented action that could be observed by others. Entrepreneurial behaviour is therefore cluttered with an array of concepts and that behaviour is best understood as discrete units of goal-oriented action that could be observed by others and that are ‘sized’ to be meaningful to both actor and audience.

In the light of the data, the study meets one of the key challenges for academic researchers; how to measure behaviour and how to determine critical behaviours and appropriate granularity of events.

8.3 Contribution to Practice

Chapter 4 presented the key contribution to practice and this is discussed as follows:

Contribution to Practice: Develop a methodology for entrepreneurs, policy makers and financial institutions to identify competencies in finding finance, and overcome problems of information asymmetry.

As a DBA study this is a key component of the aims and objectives of the study. As a result of the study the practical contribution can be considered further as follows:

8.3.1 Provide entrepreneurs with a profile of finance finding behaviour.

A greater number of SME employers perceive they are poor (38%) at accessing finance compared to those reporting they are strong (25%) (BIS 2012). Appendix 2 presents the coding summary of entrepreneurial behaviour developed in this study. Chapter 6.3 confirms the funding outcome by cluster, and therefore identifies specific behaviours which are more likely to result in successful funding applications. Behavioural difficulties have also been identified and therefore the study also recognises unsuccessful competency profiles. Competencies can be learnt, and therefore by presenting this profile to entrepreneurs, combined with development programmes, it is feasible to increase finance finding competence.

In recent years, Governments have begun to provide advice programmes to SMEs through grants towards business coaching, delivered through a number of initiatives, including those identified in this study, Growth Accelerator, for example. Other schemes are funded privately, Goldman Sachs Ten Thousand Small Businesses, for example.

The study identifies entrepreneurs who are both successful and unsuccessful in finance applications and compares behavioural competency profiles, thus overcoming the limitations of many studies (Rauch 2007) that are biased towards successful enterprise.

This research has made a contribution to this area of activity by identifying key entrepreneurial competences which most affect funding outcomes. The interview with the Growth Accelerator Practitioner also confirmed this.

8.3.2 Providing entrepreneurs seeking funding with a simple low-cost, accessible tool to measure their own behavioural competency.

Trait (ABA 2011) is a personality inventory assessment which measures thirteen dimensions of personality and nine behavioural competences. It is grounded in the Big Five Model of personality (Goldberg 1990) and Bartram's Great Eight Model (Bartram 2005). It has been used extensively in larger organisations in order to measure characteristics for work assessment of individuals. It's a simple and accessible method and takes fifteen minutes to complete. It also produces a report for the participant which can be subsequently used as a personal development tool.

In the HRM domain, it is firmly established that a well-designed personality assessment tool can contribute to predicting job performance, training performance and organisational citizenship behaviour. This research makes a contribution as a cross-disciplinary study, measuring entrepreneurial competence in the context of access to finance.

One outcome of this research has been an ERDF funded (£450,000) project providing innovation support for small firms, a part of which was a series of two-day Access to Finance Workshops for entrepreneurs. All participants in the workshops completed a Behavioural Competence report on themselves, from which a Diagnostic Tool is now being developed (Appendix 11).

8.3.3 To assist policy makers with a tool to help identify the competency profile of entrepreneurs and thereby improve the allocation of Government support initiatives.

Information asymmetry prevents the efficient targeting of resources by policy makers. There is also very little awareness of support programmes and many entrepreneurs are unsuccessful in applying for support programmes through failure to present a fundable case. In Chapter 2.2.7, it was also noted that 46% of SMEs with one to nine employees had no awareness of the Government schemes designed to assist small firms (SME Finance Monitor, Q2 2014).

Assessments of which entrepreneurs qualify for schemes have led to a variety of approaches. The neoclassical view that considers markets as systems that can be affected by information asymmetries leads to attempts to promote standardised approaches; what Lambrechts and Martens (2008: p.93) term “objective” and are “delivered in an expert and solution oriented way”. By contrast, the neo-Austrian approach focuses on the need to develop help that is specific, and answers the often unique needs of the entrepreneur.

The results of this study therefore find synergy with the conclusions of Arshed et al. (2014), who noted, “entrepreneurship and enterprise policy literature has dominantly focussed on the implementation and evaluation stages. (Mole 2002; Xheneti and Kitching 2011; Storey 2002; Bennett 2008) and that the formulation stage has been largely ignored”. This paper called for more emphasis on institutional perspective and “how the actors within such an institution behave”.

This research makes a contribution, providing policy makers with a device which gives greater insight into the development needs of an individual entrepreneur, and in doing so, allows better targeting of appropriate support. As a longitudinal, panel-based study, the aim has been to meet the requirement for evidenced based entrepreneurship (Frese et al. 2014).

Entrepreneurial ability is widely regarded as a key factor for success in business, and consequently, innovation policy has been placing greater focus upon the entrepreneur, skills and values. Policies have been directed towards encouraging socially and economically productive (NESTA 2013) activities by individuals acting independently in business. Policies are implemented directly to address entrepreneurs e.g. business advice or programmes or through education policy. The issue for policy makers is that any interventions made are “difficult to assess for impact” and that there are no studies that allow for “contrast between specific forms of assistance” (p.5).

The relevance of the findings was also confirmed in the practitioner interviews and during the course of the study also identified by the Business Finance Media, as a consequence of the ERDF Workshops (see Appendix 12, “Time for a Charm Offensive”).

8.3.4 Assist financial institutions with more information on the competency profile of entrepreneurs.

Similar to policy makers, in early stage ventures it is very difficult for venture capitalists, business angels, banks and other financial institutions to differentiate between individual entrepreneurs. Trait (ABA 2011) therefore is a useful tool to assess entrepreneurial competences in a funding context. Increasingly funding small firms involves syndicated investment strategies where a variety of different types of funding are arranged during the course of an early stage venture. Identifying entrepreneurs who have the competences to assemble different financial resources for the firm is therefore useful to financial providers (Okhomina 2010). Also, it may be a useful tool for selecting team members in a high growth venture to ensure the right balance of skills exists in the firm.

It is difficult for financial institutions to determine the future viability of a business based purely on collateral and track record, resulting in potentially viable young businesses being denied access to growth capital. The 2004 Graham Review (HMT, 2004) concluded that even with new credit scoring techniques, the problems associated with asymmetric information remain. In the practitioners interviews in Chapter 6.7 the importance of having a better understanding of entrepreneurial competence was noted.

Throughout the interviews with practitioners noted in Chapter 6.7, there was recognition of the useful insight gained through the use of psychometric testing. The Trait methodology provided a measurable indication of the competency profile of an entrepreneur and thereby adding further information in the assessment of an investment proposition.

8.4 Summary

Since 2008, various Government initiatives have tried to improve the flow of funds to small firms, recognising this sector as key to economic growth. Despite these efforts, total stock of lending still remained lower in 2014 than at any point since 2008. New forms of funding have emerged including a variety of peer-to-peer funding models, business angel and asset finance has increased, but still today the environment for capital-raising remains a challenge for the small firm.

Chapter 2.2 examined the recent trends in the SME funding market and recognised the inability of individual entrepreneurs to influence supply side factors, and therefore, a study of demand side requirements would likely be of more practical use to entrepreneurs; what can the individual entrepreneur ‘do’ in order to successfully fund the firm (Mueller et al. 2012)?

The reality for the entrepreneur running a small firm seeking growth is that they have no control over the supply of funds, and the application process has changed radically in the post credit crunch environment. This study therefore takes an alternative position and looks at the demand side of market failure; so what can the individual entrepreneur ‘do’ in order to successfully fund the firm (Mueller et at 2012)? This field presents a challenge to investors, as information asymmetry prevents the efficient flow of information about the firm. Prospective financiers, therefore, find it difficult to access the potential of new ventures (Baum and Silvermann 2004; Venkatarman 1997).

The focus for this study has therefore been on the individual entrepreneur, described by George Doirot as the “grade A man” or Macmillan et al. (1985) as the “jockey”. The importance of this individual perspective was also emphasised in the seminal work of Sandberg and Hofer (1987) and more recently by Sarasvathy (2004); Bird and Schjoedt (2012); Mueller et al. (2012).

The lens through which this study examines entrepreneurship is behaviour, the “missing field of research” (O’Gorman et al. 2005: p.2), and specifically, behavioural competences. The study also seeks to introduce measurement validity (Bird and Schjoedt 2012) and therefore compare behavioural competence amongst a group of entrepreneurs (Maffei and Meredith 1994; Sarker and Lee 2003; Yin 1984, 2002; Maffei and Meredith 1995). The study uses propositions developed through an analytical methodology in order to find explanation for the existence, or not, of observed phenomenon. For construct validity, sixty cases are used, and all the data has been derived from coded interview data.

For reliability, NVivo 10 was used to create a research database and literature was reviewed to inform the development of the research propositions. External practitioners were also used to validate the results.

As a DBA thesis, this study was required to make a contribution through the enhancement of trans-disciplinary knowledge. It has done this through the domains of entrepreneurship and psychology, contributing to knowledge through the novel application of “Big Five” and “Great Eight” theories of personality and competency. The study concludes that application of these theories can indicate how behaviour impacts outcomes, and through cluster analysis, predict likely behaviour used by entrepreneurs to successfully fund the firm.

Thus, the research makes a contribution through the confirmation that psychometric testing can be used to explain and predict how individuals finance the firm; what Wright and Stigliani (2013) describes as resource orchestration.

The Table below summarises the contribution made:

	Extent of Contribution		
Domain of Contribution	**What has been confirmed**	**What has been developed**	**What has been found that is new**
Academic Knowledge	Behaviour is a relatively under-researched area of entrepreneurship.	The use of psychometrics to analyse behavioural competences of individual entrepreneurs.	Applying Big 5 Theory of Personality and the Great 8 Competences indicates how behaviour impacts outcomes as entrepreneurs seek to access finance.
Empirical Evidence		An approach which recognises different entrepreneurs, distinctive competences and these can be measured.	The identification of three distinct groups in this longitudinal study means belonging to one of these groups predicts likely behaviour when searching for finance. Collaborative competences are the strongest. Non-applying entrepreneurs have strong planning and problem solving skills.
Methodological Approach		A convergent mixed method research provides insight into differences between entrepreneurs and how these actions manifest themselves.	Using Analytical Induction Propositions Confirmed in: • Working with Others to access finance and be able to self-finance • Problem Solving in self-financing • Communicating Meeting and Presenting, Innovating and Creating, Driving for Results, Working with Customers to access finance
Practice Impact		An understanding amongst practitioners that a more detailed understanding of behavioural competences is of value to stakeholders involved in entrepreneurship.	Financial Institutions, Business Angels and Accelerator Programmes can use Competency data to differentiate between entrepreneurs and aid decision making in the allocation of funding and other support.

Table 59 - Summary Contribution

8.5 Limitations

This research study uses a mixed method study and therefore enters the academic debate around quantitative and qualitative methodologies. The argument is that each is based on incompatible assumptions and contradictory epistemological commitments with separate paradigms – thus the assumptions, values and methods are incompatible (Guba and Lincoln 1994; Moran 1998). In this research study, the use of this methodology for practical purposes meant a limited survey sample size of sixty and interviews via Skype. Although three tranches of data was gathered over three years, the statistical results in the study should be viewed in the context of the sample size. A pragmatic realism perspective was therefore taken to try and "fuse" together the data produced (Watson 2013) using a real and interpretist approach.

It is also recognised that style of interaction over the telephone is markedly different to face-to-face conversation, and some researchers have commented that telephone interviews produce inferior results. King and Horrocks (2010: p.82) argue that telephone interviews can produce very valuable data "if you take into account the nature of the interaction and think carefully about the method". In this study, telephone interviews were a practical method of managing a panel of sixty interviewees over three years. Further study, using more in-depth qualitative interviews, possibly using an ethnographic approach could also be advantageous, in order to examine and study behaviour in more detail.

The interview data was coded using NVivo 10 qualitative management software, measuring coding density. Researcher bias was audited through a coding check with another researcher, but it must be noted that codes are derived using an interpretist approach, and therefore the numerical analysis must be considered with caution. It is through a triangulation method and the analysis of BCS data and qualitative interviews that this research has sought to minimise the limitations of this approach to data analysis.

The entrepreneurs themselves have been recruited in a single region (West Midlands) and from a single sector (Creative Industries) and therefore it could be argued they are "of a type" and therefore the generalisability of these results must be questioned. Other sectors were considered, but in a three-year study, the selection was made on the basis of a dynamic growth industry which over the course of the study could follow Pettigrew's recommendation to "go for extreme situations, critical incidents and social dramas", (Pettigrew 1990: p.275). The rationale is that firms in this sector will have varying degrees of success and failure in applying for funds over time.

Finally, this research takes a competency perspective of the entrepreneur and how this affects behaviour. An alternative approach not considered is the use of cognitive models, which are more proximal in nature and examine how the entrepreneur organises and understands information and how this impacts attitude and behaviour (Delmar and Witte 2012). This approach is also criticised however as little is known with respect to how attitude translates into action.

8.6 Personal Reflection

The long journey of a DBA offers ample time for reflection. In this research project it enabled me to consider a number of different components of my life, both as a marketing and finance practitioner and also a research academic. In that sense I have been able to examine academic tools and methodologies from the perspective of a practitioner group, with whom I have a great deal in common. Also I have been able to observe practice in a detached sense and be able to analyse behaviour from the knowledge and perspective of an academic. I consider this experience to be a privilege and one which has been enormously rewarding.

The experience has also allowed me to give meaning to my own predispositions, which previously I couldn't precisely understand or appreciate. In particular the critical realist approach I adopted in the study, with a combination of qualitative and quantitative methods I found to be confirmation of my own approach to problem solving throughout my professional life. Neither rely on numbers, nor observations or conversations, but consider both in context has been a personal mantra of mine, and to discover this in a research methodology gave me a great deal of confidence that I was doing the right thing at the outset of the study.

As part of a DBA programme at Aston, I have also found value and personal fulfilment in being part of a community of professional doctoral students, many of whom are leaders in their profession. This is a very different experience of having work colleagues in practice. As a group involved in taking on an significant personal challenge I have enormous respect for individuals who pursue such an endeavour, and I would hope as part of an alumni this group will form part of my network hereafter. This research group itself has provided many opportunities to engage in stimulating and rewarding discussions both between us and with faculty.

I have been involved in the academic sector for 12 years and my experience of a professional doctorate has also led me to take a more humble attitude to scholarly effort.

As a practitioner, along with colleagues I recall taking a very clichéd view of academic research, that focus on journal publications led to theoretically orientated study of very little relevance to practice. Having been through this process, I have come to understand the power of academic research to aid understanding, inform interventions and result in a better 'world' in whatever particular context is undertaken.

As much as possible I have tried to present my work at academic conferences and a nomination for the Best Paper Award at ISBE 2013 was enormously pleasing. The intellectual challenge of producing a meaningful piece of work within 7000 words makes the production of a full thesis seem like an indulgence.

At the end of the journey, on reflection it's only on the completion of the project that real meaning and understanding of what I have 'discovered' has become clear. I can see now the meaning of Weick (1979: p133) dictum of 'how can I know what I think until I see what I say' and also Bateson's (1978: p22) 'an explorer can never know what he is exploring until after it has been explored'.

As a final thought, it is my hope that my findings from the dissertation will ultimately help practitioners with the challenge of understanding behavioural competences and how they can improve what they do.

8.7 Recommendations and Further Research

Future research could focus on a larger sample size and using a more quantitative approach and this would add more weight to the conclusions reached in this study. This could also include widening the scope to examine other industry sectors, and testing the profile of behavioural competences across other industries which may have different influences from the external environment.

This study has also tried to distinguish between nascent entrepreneurs who have low-growth intentions and those who aim to have a larger impact upon the economy (Cassar, 2007; Gundry and Welsch 2001). The sample for this survey was based on the latter group, although this relied on entrepreneurs indicating their own intention, and in reality this may not be the case. In the future, a closer examination of trading data, for example, would also provide more verification of the growth capability and intention of particular entrepreneurial ventures.

The role of personality in the context of cognition could also yield more understanding of entrepreneurial behaviour and would be worthy of further study.

The research question and methodology was also based on the assumption that competencies would remain stable during the course of the study. Rauch and Frese (2007) noted the possibility of reverse causality; starting a business successfully may therefore lead to the changes in competency levels. This study was carried out over a relatively short period, but future research may benefit from a re-testing of competency levels and assessment of changes over time, thus extending this research programme. Most of the participants in this study would volunteer in this endeavour.

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Appendices

Appendix 1 - Trait Report

Aston Business Assessments

Aston University
An Aston University Spin Out Company

Psychometric Scales

Scale Name	Lower Scores		Higher Scores
Sociability	Private, reserved, does not need social contact, avoids attention.	1 2 3 4 5 6 **7** 8 9 10	Talkative, gregarious, needs social contact, likes attention from others.
Leadership	Takes supporting roles, avoids taking the lead, will not push to influence others.	1 2 3 4 5 **6** 7 8 9 10	Leads others, tends to be in charge, influences the group.
Achievement	Relaxed about ambitions, not motivated by competition, less focused on results.	1 2 3 4 5 6 **7** 8 9 10	Ambitious, focused on goals and getting results, enjoys competition.
Optimism	Feels lack of control, setbacks are threatening, can sees risks and obstacles.	1 2 3 4 5 6 7 8 **9** 10	Feels in control, reacts well to setbacks, sees opportunities.
Compassion	Less interested in others, pays less attention to others feelings.	1 2 3 4 5 6 7 **8** 9 10	Engages with others, makes allowances, provides comfort.
Cooperation	Less trusting, likely to disagree, works independently.	1 2 3 4 5 6 7 8 **9** 10	Trusting of others, cooperates, on good terms with most.
Sensitivity	Less aware of emotions, less able to change own emotions.	1 2 3 4 5 6 7 8 9 **10**	Attuned to others and own feelings, can control emotions.
Orderliness	Flexible, spontaneous, not concerned with detail, disorganised, untidy.	1 2 3 4 5 **6** 7 8 9 10	Methodical, attentive to details, follows rules, generally tidy.
Industriousness	Laid back, leaves things unfinished, procrastinates.	1 2 3 4 5 6 **7** 8 9 10	Reliable, delivers on promises, works hard.
Stability	Experience emotions intensley, tends to worry, sensitive to stress.	1 2 3 4 5 **6** 7 8 9 10	Relaxed, carefree, composed and not easily flustered.
Calmness	Easily annoyed or irritated, affected by events and people.	1 2 3 4 5 6 **7** 8 9 10	Calm, tranquil, unaffected by events.
Intellect	Prefers practical problems, less interested in academic ideas.	1 2 3 4 5 **6** 7 8 9 10	Enjoys working with abstract ideas and intellectual pursuits, curious and seeks out knowledge.
Culture	Likely to be less interested in the new, prefer familiar over change.	1 2 3 4 5 6 7 8 **9** 10	Seeks out new experiences, open to new ideas and cultures, active imagination.

Competencies

Competency Name	Description	
Communicating, Meeting and Presenting	Social confidence in meeting and speaking to others, communicating clearly and freely with others.	1 2 3 4 5 6 7 8 9 10
Planning and Organising	Planning and organising own time effectively in the short, medium and long term, and working in a structured and methodical way.	1 2 3 4 5 6 7 8 9 10
Problem Solving	Analyzing problems, and generating evidence-based solutions to them. Considering and analysing situations, diagnosing problems, and identifying key issues.	1 2 3 4 5 6 7 8 9 10
Working with Others	Working cooperatively with others, and providing support for colleagues in day-to-day activities.	1 2 3 4 5 6 7 8 9 10
Leading Others	Leading teams and groups to deliver objectives, preferring to take charge and be influential when working with others.	1 2 3 4 5 6 7 8 9 10
Innovating and Creating	Generating new ideas and ways of working. Valuing creativity, imagination, new experiences and change, over tried-and-tested methods.	1 2 3 4 5 6 7 8 9 10
Coping with Pressure	Remaining calm, composed and free from worry or anxiety at times of pressure. Dealing with problems and setbacks in a calm, positive way.	1 2 3 4 5 6 7 8 9 10
Driving for Results	Working hard in order to achieve goals, and deliver on results. Focusing on personal and team objectives, and showing commitment to their achievement.	1 2 3 4 5 6 7 8 9 10
Working with Customers	Recognising the importance of good customer or client service. Caring about customers, and being oriented toward providing service to them.	1 2 3 4 5 6 7 8 9 10

Appendix 2a - Phase 1 Coding

NAME	DESCRIPTION	SOURCES	REFS
Behavioural Difficulty		35	84
Bad Hiring Decisions	Funding hindered by poor hiring decision	0	0
Bad Planning	Where poor planning decisions have hindered the funding application process	9	15
Business Partner Problems	Where problems cause problems in the funding process	5	8
Decision to consolidate	Evidence of more cautious behaviour	1	2
Difficulty with Advisors and Mentors	Problems taking advice	6	6
Difficulty with new funding sources	Finding problems with more innovative forms of funding	7	8
Difficulty with SME Educational schemes	Problem with application process'	0	0
doubts over personal skills		5	6
Given up	Throwing in the towel type behaviour	0	0
Just focus on the family	Evidence where a more family orientated focus prevents funding	0	0
Keeping Control	An emphasis on needing to keep control and as a result this closes funding streams	9	11
Problems with factoring	see difficulties with debt factoring	0	0
Problems with Security	Difficulties with arranging security	1	1
Problems with VC Process	Just finding it difficult with VC Due Diligence process	9	11
Signs of Frustration	Just losing ability to rationalise process	9	10
Struggling with the Bank	Difficulties with lenders	2	2
Uncertainty	Not being able to plan effectively due to uncertainty	4	4
Communicating, Meeting, Presenting		28	44
Approaching Investors	Targeted approaches to investors and considering sharing equity in order to add expertise in the business	13	15
Communicating the Vision	The Entrepreneur describes how he communicates the vision for the firm to investors; so it's not just presenting a case, its painting a view of where the firm could go.	5	7
Meeting Bankers, Brokers and Other Lenders	Meetings with Banks, Commercial Finance Brokers or other Debt Providers	4	4
Presenting the Proposition	Presenting the business and what it is about; includes angel dens and awards ceremonies	15	18
Coping with Pressure		5	5
Managing Investors	Ensuring time is spent with investors explaining the business to ensure there is a mutual understanding of where the business is and where it is going	2	2
Personal Reflections	Ensuring the entrepreneurs remains positive and level headed and is able to personally reflect on cooing with challenges presented by the business	3	3
Driving for Results		20	34
Controlling	Motivated by keeping personal control of the business	1	1
Identifying Growth and Opportunity	Recognising how the business can grow and therefore recognising that the identification of opportunity is key at the outset of the funding process	8	9
Involving the Management Team	Involving all the management team in the funding process	6	10
Persistence and Challenging	Evidence of the resilience of the entrepreneurs and an ability to cope with setbacks and adversity.	9	14
Innovating and Creating		37	62
Grant Applications	Taking advantage of grants applications as a potential funding stream.	11	13
Innovating in Funding Sources	Evidence of using or investigating new funding sources	23	30

NAME	DESCRIPTION	SOURCES	REFS
SME Educational Programmes	Joined or interested in joining some form of SME Educational Programme like Goldman Sachs or Growth Accelerator	7	10
Using Internal Funding	Reinvesting profits including bootstrapping and other internally sourced funding	8	9
Leading Others		9	12
Leading the Funding Process	Here the entrepreneur is using the first person to describe how he leads the funding process within the business	9	12
Planning and Organising		36	89
Capacity Planning	Linking capacity planning to funding requirements	4	5
Cash Management	This includes the preparation of Management Accounts and Cash Flow Forecasts. It's when Cases talk about understanding their up-to-date cash position.	23	33
Mapping Scenarios	Relating different scenarios to different funding outcomes	9	15
Producing Business Plans	A formal document recognised as a key outline of where the business is going	13	22
Using a Systems Approach	A logical approach to establishing the funding requirements	3	6
Using Flexible Staff Management	Planning a flexible approach to labour management to help fund the business.	7	8
Problem Solving		8	9
Developing a Business Model to attract funding	Explaining how the business model is developing and therefore makes it possible to raise funds	4	5
Leverage Experience	Evidence of the entrepreneurs leveraging experience to actually help solve funding problems.	4	4
Working with Customers		13	17
Creating Relationships	Creating relationships with third parties to facilitate investment opportunities	5	5
Flexible Payment Terms	Getting flexible payment terms so it eves out cash flow and makes easier planning for investments	8	12
Working with Others		45	123
Advisors, Mentors, Non Executives	Seeking and using third party assistance in the context of finding finance	23	30
Being Sociable	Not just networking but being aware of the need to be sociable to open up potential funding sources	17	18
Cooperative Approach	A more cooperative approach in terms of sharing equity with others in the same enterprise	6	10
Friends and Family	Looking to family or friends as a source of finance	7	8
JV's	Looking for a partner as a potential source of investment	13	15
Professional Advisor	Using a formal accountant, solicitor or financial advisor	10	10
Serial Networking	Actively and deliberately seeking investors through a wider network	22	32
With Suppliers	Working with suppliers to facilitate funding	0	0

Appendix 2b - Phase 2 Coding

NAME	DESCRIPTION	SOURCES	REFS
Behavioural Difficulty		34	90
Bad Hiring Decisions	Funding hindered by poor hiring decision	1	1
Bad Planning	Where poor planning decisions have hindered the funding application process	3	5
Business Partner Problems	Where problems cause problems in the funding process	6	11
Decision to consolidate	Evidence of more cautious behaviour	4	4
Difficulty with Advisors and Mentors	Problems taking advice	5	5
Difficulty with new funding sources	Finding problems with more innovative forms of funding	3	3
Difficulty with SME Educational schemes	Problem with application process'	3	4
Doubts Over personal skills		0	0
Given up	Throwing in the towel type behaviour	4	7
Just focus on the family	Evidence where a more family orientated focus prevents funding	1	1
Keeping Control	An emphasis on needing to keep control and as a result this closes funding streams	4	5
Problems with factoring	see difficulties with debt factoring	1	1
Problems with Security	Difficulties with arranging security	3	3
Problems with VC Process	Just finding it difficult with VC Due Diligence process	10	15
Signs of Frustration	Just losing ability to rationalise process	10	15
Struggling with the Bank	Difficulties with lenders	6	7
Uncertainty	Not being able to plan effectively due to uncertainty	2	3
Communicating, Meeting, Presenting		26	44
Approaching International Investors	Going outside the UK to see equity investors	2	3
Approaching Investors	Evidence of entrepreneurs approaching individuals or organisations to make private equity investments	21	30
Entering Competitions	Entering competitions for awards, recognition or prizes	3	3
Meeting Bankers, Brokers and Other Lenders	Meetings with Banks, Commercial Finance Brokers or other Debt Providers	6	8
Coping with Pressure		1	1
Personal Reflections	Ensuring the entrepreneurs remains positive and level headed and is able to personally reflect on cooing with challenges presented by the business	1	1
Driving for Results		13	15
Consider acquisitions and mergers	Entrepreneur considering mergers and acquisitions as a way of facilitating further funds into the business.	2	3
Identifying Growth and Opportunity	Recognising how the business can grow and therefore recognising that the identification of opportunity is key at the outset of the funding process	7	7
Persistence and Challenging	Evidence of the resilience of the entrepreneurs and an ability to cope with setbacks and adversity.	5	5
Innovating and Creating		25	37
Changing Bank	Looking to switch lender as a way of potentially increasing funding.	1	1
Grant Applications	Taking advantage of grant applications as a potential funding stream	8	11
Internal Funding	Reinvesting profits including bootstrapping and other internally sourced funding	4	5
Peer-to-Peer Lenders	Looking to use new peer-to-peer funding models	12	13

NAME	DESCRIPTION	SOURCES	REFS
SME Educational Programme	Joined a scheme to open funding sources	5	7
Leading Others		2	2
Planning and Organising		14	16
Cash Management	This includes the preparation of Management Accounts and Cash Flow Forecasts. It’s when Cases talk about understanding their up-to-date cash position.	9	9
Using Flexible Staff Management	Planning a flexible approach to labour management to help fund the business.	6	7
Problem Solving		18	33
Developing a business model to attract funding	Explaining how the business model is developing and therefore makes it possible to raise funds	16	26
Using Match Funding	Evidence that the entrepreneur is willing to put match his own funds with external sources to facilitate investment	6	7
Working with Customers		6	10
Creating Relationships	Customers as potential investors	0	0
Flexible Payment Terms	Getting flexible payment terms so it eves out cash flow and makes easier planning for investments	6	10
Working with Others		32	53
Advisors, Mentors, Non Execs	Seeking and using third party assistance in the context of finding finance	26	36
Friends and family	Looking to family or friends as a source of finance	2	4
JV's	Looking for a partner as a potential source of investment	5	9
Suppliers	Seeking funding through arrangements with suppliers	3	4

Appendix 2c - Phase 3 Coding

NAME	DESCRIPTION	SOURCES	REFS
Behavioural Difficulty		26	63
Bad Hiring Decisions	Funding hindered by poor hiring decision	0	0
Bad Planning	Where poor planning decisions have hindered the funding application process	3	3
Business Partner Problems	Where problems cause problems in the funding process	2	2
Decision to consolidate	Evidence of more cautious behaviour	7	7
Difficulty with Advisors and Mentors	Problems taking advice	0	0
Difficulty with new funding sources	Finding problems with more innovative forms of funding	5	7
Difficulty with SME Educational schemes	Problem with application process'	0	0
Doubts Over personal skills		1	2
Given up	Throwing in the towel type behaviour	0	0
Just focus on the family	Evidence where a more family orientated focus prevents funding	0	0
Keeping Control	An emphasis on needing to keep control and as a result this closes funding streams	7	8
Problems with factoring	see difficulties with debt factoring	0	0
Problems with Security	Difficulties with arranging security	8	10
Problems with VC Process	Just finding it difficult with VC Due Diligence process	3	3
Signs of Frustration	Just losing ability to rationalise process	10	13
Struggling with the Bank	Difficulties with lenders	4	6
Uncertainty	Not being able to plan effectively due to uncertainty	2	2
Communicating, Meeting, Presenting		23	36
Approaching International Investors	Going outside the UK to see equity investors	1	1
Approaching Investors	Evidence of entrepreneurs approaching individuals or organisations to make private equity investments	18	27
Entering Competitions	Entering competitions for awards, recognition or prizes	0	0
Meeting Bankers, Brokers and Other Lenders	Meetings with Banks, Commercial Finance Brokers or other Debt Providers	7	8
Coping with Pressure		1	2
Personal Reflections	Ensuring the entrepreneurs remains positive and level headed and is able to personally reflect on cooing with challenges presented by the business	1	2
Driving for Results		18	34
Consider acquisitions and mergers	Entrepreneur considering mergers and acquisitions as a way of facilitating further funds into the business.	0	0
Identifying Growth and Opportunity	Recognising how the business can grow and therefore recognising that the identification of opportunity is key at the outset of the funding process	16	27
Persistence and Challenging	Evidence of the resilience of the entrepreneurs and an ability to cope with setbacks and adversity.	5	7
Innovating and Creating		25	65
Changing Bank	Looking to switch lender as a way of potentially increasing funding.	0	0
Grant Applications	Taking advantage of grant applications as a potential funding stream	13	19
Internal Funding	Reinvesting profits including bootstrapping and other internally sourced funding	8	10
Peer-to-Peer Lenders	Looking to use new peer-to-peer funding models	9	16
SME Educational Programme	Joined a scheme to open funding sources	12	20

Leading Others		0	0
Planning and Organising		6	15
Cash Management	This includes the preparation of Management Accounts and Cash Flow Forecasts. It's when Cases talk about understanding their up-to-date cash position.	5	7
Using Flexible Staff Management	Planning a flexible approach to labour management to help fund the business.	4	8
Problem Solving		12	20
Developing a business model to attract funding	Explaining how the business model is developing and therefore makes it possible to raise funds	6	8
Using Match Funding	Evidence that the entrepreneur is willing to put match his own funds with external sources to facilitate investment	9	12
Working with Customers		5	5
Creating Relationships	Customers as potential investors	1	1
Flexible Payment Terms	Getting flexible payment terms so it eves out cash flow and makes easier planning for investments	4	4
Working with Others		22	60
Advisors, Mentors, Non Execs	Seeking and using third party assistance in the context of finding finance	14	29
Friends and family	Looking to family or friends as a source of finance	1	1
JV's	Looking for a partner as a potential source of investment	12	23
Suppliers	Seeking funding through arrangements with suppliers	5	7

Appendix 3 - Semi-Structured Interview Schedules

Phase 1 Semi-Structured Interview Questionnaires

A. Introduction

1. Do you expect a requirement(s) to raise finance in the next three years?
2. Have you raised any finance in the last 12 months?
3. When was the business established?
4. How many employees?
5. What is the most recent turnover?
6. What is the current funding structure?

Bank loan	Overdraft	Invoice Finance	Asset	External equity
Self-Funded	Directors Loans	Grants	Family	Others

7. How long have you spent in the industry?
8. What is your Functional Expertise?
9. What are your qualifications?

B. Funding

1. What is your experience of running an SME?

2. Have you any experience of family entrepreneurship?

3. How much do you think your knowledge of this industry helps you to solve funding problems?

4. Do your qualifications help you to access finance?

5. How have you planned your funding requirements?

6. How do you expect to plan your funding requirements differently in the future?

7. How have you solved funding problems in the past?

8. In what ways do you think you will solve funding problems in the future?

9. How have you presented and communicated your funding requirements?

10. Do you expect to change the way you communicate and present your funding requirements in the future?

11. Have you examples of how you have cooperated with other individuals or businesses in order to solve funding problems?

12. Do you expect to change how you co-operate with other individuals or businesses to solve funding problems in the future?

13. Do you lead the funding process in your firm or is it the responsibility of others and you take a supporting role?

14. Can you give me any examples of how you could be innovative and creative in the way you fund your business?

15. How do you cope with pressure and managing uncertainty?

16. Do you think Driving for Results will be an important factor when trying to raise finance?

17. How do you develop relationships with customers?

18. Can you think how your own social skills could be important in raising funds for your business?

19. Do you think your own financial skills could help or hinder in funding applications?

Phase 2 Semi-Structured Interview Questionnaires

DBA: Entrepreneurial Behaviour and Finding Growth Finance

1. What new funding have you accessed in the last 12 months?
    a. Why now?
    b. Why did you select this?
    c. How did you do it?
    d. How much in relation to your current equity plus debt?
    e. And how much have your employees grown by... from what to what?
    f. Prompts
        i. How much time did it take (hours of your time)
        ii. What were the stages in the process? (time for each stage)
        iii. Planning – inc cash flow (with who); meetings
        iv. Networking
        v. Exit
        vi. New Business Model

2. Have you been unsuccessful in any funding applications over the last 12 months?
    a. Why did you select this?
    b. On reflection, why was the application unsuccessful?
    c. Prompts
        i. How much time did it take? (hours of your time)
        ii. What were the stages in the process? (time for each stage)
        iii. Planning – inc cash flow (with who); meetings
        iv. Networking
        v. New Business Model

3. Are you trying to access new funds currently?
    a. Why now?
    b. Why did you select this type?
    c. How did you do it?
    d. Prompts
        i. How much time is it taking? (hours of your time)
        ii. What are the stages in the process? (time for each stage)
        iii. Planning – inc cash flow (with who); meetings
        iv. Networking
        v. New Business Model

4. Are you planning any new funds in the next 12 month?
    a. Why
    b. Is it debt?
        i. How will you do this - Prompts
            1. How much time did it take? (hours of your time)
            2. What were the stages in the process? (time for each stage)
            3. Planning inc cash flow (with who); meeting
    c. Or equity?
            1. How much time did it take? (hours of your time)
            2. What were the stages in the process? (time for each stage)
            3. Planning (with who); meeting
            4. Why this type?
            5. New Business Model

5. Would you exchange equity for the opportunity to access growth finance in the future? YES, NO or MAYBE
    a. Prompt - VC/Angel/Director

6. Are you considering any form of funding that you would consider being innovative? Prompts:
    a. Moving Premises (Clustering?)
    b. Through new income streams
    c. Learning about finance
    d. Customers or Suppliers

7. Is there someone you would describe as a formal Advisor (or Mentor) to the business – YES or NO
    a. Who and why did you choose this person(s)?
    b. How often do you discuss issues with them?
    c. What issues; how much time?

8. Have you appointed formal Non-Exec to the Board? YES OR NO
    a. Why?
    b. How often do you discuss issues with them?
    c. What issues; how much time?

9. Is it still your desire to grow? YES/NO/MAYBE

a. Why/Not?
b. If yes, how much over the next five years?

10. My last question relates to your household circumstances; can I ask what the rest of your family think of this venture:
    a. Prompt - Have you given any personal guarantees?

Phase 3 Interview Plan

1. Have you made any new applications for finance in the last 12 months and if so what was the outcome?

2. If you were successful, how did you do it?

3. Did you use advisors?

4. Do you have any plans to raise finance in the next 12 months?

5. How will you do it?

6. Have you taken on any new employees in the last 12 months?

7. Based on how you are currently funded, in your view is this:
    a. What you consider to be the best form of finance for the business?
    b. The best form of finance for you personally?
    c. All that was available?

Appendix 4 - Entrepreneur Firm Profile

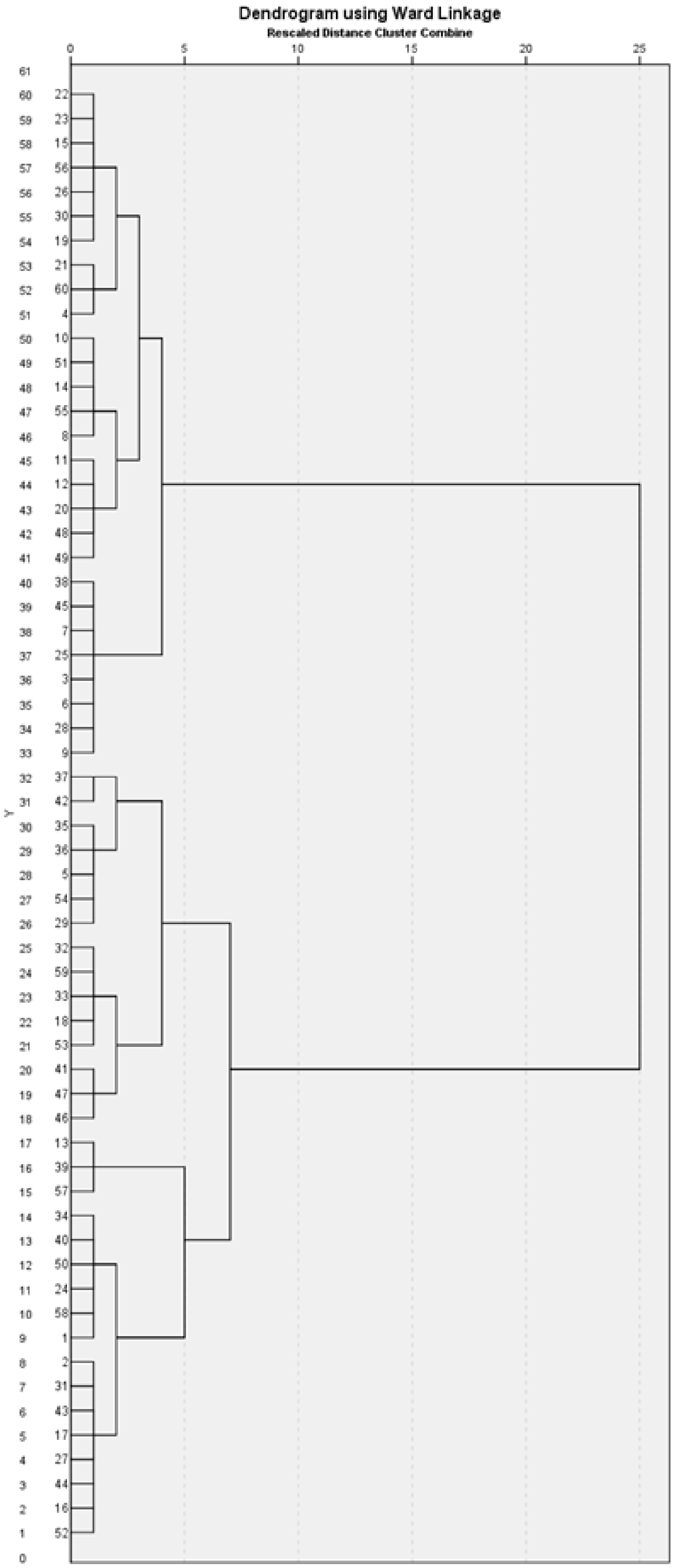
Cases	Entrepreneur Sector	Year Est	EMPLOYEES		TURNOVER			
			0-10	0-30	<£100K	>£100K-£500K	£500k-£1m	£1m+
T01	Software Designer	2005	X		No	Yes	No	No
T02	Web Design	1998	X		No	Yes	No	No
T03	Local Internet Supplier	2003	X		No	Yes	No	No
T04	Promotion Designer	2007	X		No	Yes	No	No
T05	Software Designer	2010	X		Yes	No	No	No
T06	Advertising	2008	X		No	Yes	No	No
T07	Architectural Design	1991		X	No	No	Yes	No
T08	Software Designer	2002		X	No	No	Yes	No
T09	Architect	2003		X	No	No	Yes	No
T10	Social Newtwork Designer	2008	X		No	Yes	No	No
T11	Mobile Gaming Apps	2011	X		Yes	No	No	No
T12	Mobile Gaming Apps	2011	X		Yes	No	No	No
T13	Online Recruitment	2011	X		Yes	No	No	No
T14	Online Training	2009	X		No	Yes	No	No
T15	Mobile Gaming Apps	2011	X		Yes	No	No	No
T16	Software Designer	2011	X		Yes	No	No	No
T17	Mobile Gaming Apps	2009	X		Yes	No	No	No
T18	Mobile Gaming Apps	2004	X		Yes	No	No	No
T19	Online Training	2006		X	No	Yes	No	No
T20	Consumer Internet	2012	X		Yes	No	No	No
T21	Software Designer	2011	X		Yes	No	No	No
T22	Systems Design	2007	X		No	No	Yes	No
T23	Mobile Gaming Apps	2008	X		No	No	No	Yes
T24	Consumer Internet	2012	X		No	No	No	No
T25	Consumer Internet	2011	X	X	Yes	No	No	No
T26	Software Designer	2000		X	No	No	No	Yes
T27	Consumer Internet	2011	X		Yes	No	No	No
T28	Utility Technology	1994	X		No	No	No	Yes
T29	Mobile Gaming Apps	2010	X		No	Yes	No	No
T30	Systems Design	2007	X		No	No	Yes	No
T31	Software Designer	2005	X		Yes	No	No	No
T32	Advertising	2006	X		No	No	No	Yes
T33	Mobile Gaming Apps	2009	X		No	Yes	No	No
T34	Advertising	2002		X	No	Yes	No	No
T35	Online Training	2008	X		No	Yes	No	No
T36	Software Designer	2011	X		Yes	No	No	No
T37	Systems Design	2011	X		No	Yes	No	No
T38	Online Training	2012	X		Yes	No	No	No
T39	Mobile Gaming Apps	2004		X	No	No	No	Yes
T40	Mobile Gaming Apps	2009	X		No	Yes	No	No
T41	Software Designer	2006	X		No	No	No	Yes
T42	Software Designer	2004	X		No	Yes	No	No
T43	Systems Design	2006	X		No	Yes	No	No
T44	Computer Services	2003	X		No	Yes	No	No
T45	Mobile Gaming Apps	2007	X		Yes	No	No	No
T46	Mobile Gaming Apps	1998		X	No	No	No	Yes
T47	Media	2011	X		Yes	No	No	No
T48	Software Designer	2005	X		Yes	No	No	No
T49	Mobile Gaming Apps	2009		X	No	Yes	No	No
T50	Software Designer	2010	X		No	Yes	No	No
T51	Mobile Gaming Apps	2012	X		Yes	No	No	No
T52	Mobile Gaming Apps	2011		X	Yes	No	No	No
T53	Mobile Gaming Apps	2010	X		Yes	No	No	No
T54	Mobile Gaming Apps	2010	X		Yes	No	No	No
T55	Software Designer	2011	X		Yes	No	No	No
T56	Advertising	1999		X	No	No	No	Yes
T57	Consumer Internet	2011	X		Yes	No	No	No
T58	Mobile Gaming Apps	2004	X		Yes	No	No	No
T59	Mobile Gaming Apps	2012	X		Yes	No	No	No
T60	Advertising	2009	X		No	Yes	No	No

Appendix 5 - Sample BCS Scores, Advisor and Equity Exchange Data

Cases			BEHAVIOURAL COMPETENCES (0-10)							CLUSTER	ADV	EQX
	CMP	PAO	PS	WWO	LO	IAC	CWP	DFR	WWC			
T01	1	4	5	5	1	1	6	2	4	1	2	1
T02	1	4	6	4	1	3	2	1	4	1	2	2
T03	6	6	7	7	7	6	5	7	6	2	1	1
T04	6	7	6	4	5	2	2	5	2	2	2	2
T05	4	2	4	7	1	4	3	1	3	3	1	1
T06	6	7	8	6	6	7	5	7	5	2	2	2
T07	9	8	8	9	9	6	6	8	8	2	1	1
T08	9	4	5	9	1	6	8	2	8	2	1	2
T09	6	10	10	8	7	5	3	8	7	2	1	1
T10	6	5	6	8	4	7	5	5	8	2	1	1
T11	7	4	3	6	5	5	4	3	5	2	1	1
T12	7	4	5	6	4	7	5	4	6	2	2	1
T13	5	1	1	3	2	1	4	1	1	1	2	1
T14	7	6	7	8	3	5	6	4	8	2	1	1
T15	5	7	4	6	7	3	6	8	6	2	1	1
T16	1	4	4	3	4	1	4	2	3	1	2	1
T17	1	8	8	5	2	2	2	3	3	1	2	2
T18	1	8	8	5	2	6	7	7	7	3	2	2
T19	6	3	2	9	5	6	6	6	7	2	2	2
T20	8	3	4	6	7	6	6	4	5	2	1	1
T21	5	6	4	5	6	5	4	7	5	2	1	1
T22	8	6	5	7	8	4	4	7	7	2	1	1
T23	8	6	5	6	8	5	5	8	6	2	1	1
T24	3	5	3	5	3	2	5	5	4	1		
T25	8	7	7	7	7	5	8	8	7	2	1	1
T26	5	6	5	9	7	6	7	7	8	2	1	1
T27	2	4	3	2	1	1	2	1	2	1	2	1
T28	4	7	8	7	7	6	7	8	7	2	1	2
T29	3	2	3	9	1	7	4	2	7	3	1	1
T30	8	5	3	9	7	4	8	7	8	2	2	1
T31	1	5	5	3	1	2	1	1	1	1	1	1
T32	4	5	4	6	4	5	5	5	5	3	1	1
T33	1	5	4	8	2	5	7	5	6	3	1	1
T34	3	6	4	5	1	1	2	1	4	1	1	1
T35	1	2	2	5	1	5	2	1	3	3	2	1
T36	1	4	5	5	1	6	2	1	6	3	1	2
T37	4	2	2	5	2	3	7	2	5	3	1	1
T38	6	7	9	9	6	8	6	6	8	2	1	1
T39	6	1	3	1	5	2	5	3	1	1	1	1
T40	4	4	2	5	1	1	3	1	4	1	2	1
T41	5	5	6	9	2	3	5	2	8	3	1	1
T42	2	3	5	3	1	7	7	1	3	3	1	1
T43	1	5	6	4	4	4	1	2	2	1	2	1
T44	2	3	2	3	2	1	1	1	1	1	2	2
T45	7	7	7	9	6	7	8	7	9	2	1	1
T46	5	7	10	9	4	8	1	1	6	3	1	1
T47	4	5	6	8	1	5	4	1	7	3	2	1
T48	6	5	5	5	4	6	9	5	6	2	1	1
T49	6	4	6	7	6	9	7	7	7	2		
T50	4	5	5	6	2	3	4	2	5	1	2	1
T51	7	6	5	9	4	6	7	6	8	2	1	1
T52	1	5	5	2	4	2	5	5	1	1	2	2
T53	1	7	8	6	1	8	5	3	6	3	2	1
T54	4	1	5	9	1	6	1	1	4	3	2	1
T55	9	4	6	9	6	7	4	5	8	2	1	2
T56	7	7	5	6	6	4	6	7	6	2		
T57	8	2	1	2	8	2	7	7	2	1	1	1
T58	1	7	2	6	1	1	5	4	4	1		
T59	3	6	6	6	4	5	6	6	5	3	2	1
T60	5	6	4	4	6	3	4	6	4	2	2	2

Keys	Behavioural Competences	CMP	Communicating, Meeting and Presenting
		PAO	Planning and Organising
		PS	Problem Solving
		WWO	Working with Others
		LO	Leading Others
		IAC	Innovating and Creating
		CWP	Coping with Pressure
		DFR	Driving for Results
		WWC	Working with Customers
	Use of Advisors	ADV	1 = Yes have a formal advisor
			2 = No formal advisor
	Equity Exchange	EQX	1 = Yes I would exchange equity
			2 = No I wouldn't
	Cluster Group	Cluster	1 = Low Competence
			2 = Capable
			3 = Collaborator

Appendix 6 - Dendogram



Appendix 7 - Funding Summary

Cases	Entrepreneur Sector	APP OUTCOME			FUNDING CODE			FUNDING DESCRIPTION
		Y1	Y2	Y3	Y1	Y2	Y3	
T01	Software Designer	1	1	1	1	1	1	No Applications
T02	Web Design	1	2	1	3	3	3	Refused Bank loan for asset finance
T03	Local Internet Supplier	1	1	1	3	3	3	No applications
T04	Promotion Designer	1	1	1	3	3	3	No applications
T05	Software Designer	3	3	2	2	2	2	GA, Angels
T06	Advertising	1	3	1	3	3	3	Bank Factoring and Funding Circle Loan
T07	Architectural Design	3	3	3	3	3	3	Annual Asset Finance Purchase and Grant
T08	Software Designer	1	1	3	1	1	1	Grant
T09	Architect	3	3	1	3	3	3	Overdraft and EFG Loan
T10	Social Newtwork Designer	3	3	3	2	2	2	VC, Grant and GA Fund
T11	Mobile Gaming Apps	3	3	3	2	2	2	GA Fund, Grant, Angel
T12	Mobile Gaming Apps	2	1	1	3	3	3	Failed equity bids
T13	Online Recruitment	3	2	3	2	2	2	GA, Failed equity, Grant
T14	Online Training	1	1	1	1	1	1	No Applications
T15	Mobile Gaming Apps	1	1	2	1	1	1	Failed Angel Bid
T16	Software Designer	1	1	2	1	1	1	Failed Angel Bid
T17	Mobile Gaming Apps	2	2	1	1	1	1	Failed Angel GA
T18	Mobile Gaming Apps	2	3	3	1	1	3	Grant, OD
T19	Online Training	1	3	3	3	3	3	OD Increase, Loan
T20	Consumer Internet	3	3	3	2	2	2	VC, Angel
T21	Software Designer	3	3	1	2	2	2	Angels
T22	Systems Design	1	1	3	3	3	3	Grant
T23	Mobile Gaming Apps	3	3	3	2	2	2	Angels
T24	Consumer Internet	2			2			GA
T25	Consumer Internet	1	3	3	2	2	2	Angels
T26	Software Designer	1	1	1	1	1	1	No Applications
T27	Consumer Internet	1	2	2	2	2	2	Failed US Applications
T28	Utility Technology	1	1	3	1	1	1	Grant
T29	Mobile Gaming Apps	3	3	3	2	2	2	Angels
T30	Systems Design	1	2	1	3	3	3	Failed Angel
T31	Software Designer	1	1	1	1	1	1	No Applications
T32	Advertising	1	3	3	1	3	3	Mortgage, Grant
T33	Mobile Gaming Apps	1	3	1	3	3	3	Loan, Family
T34	Advertising	1	3	3	3	3	3	Bank Loan, Grant
T35	Online Training	1	3	1	2	2	2	OD Extension
T36	Software Designer	1	1	3	1	1	1	Grant
T37	Systems Design	3	3	1	2	2	2	Angels
T38	Online Training	1	1	1	1	1	1	No Applications
T39	Mobile Gaming Apps	1	3	1	2	2	2	Angels
T40	Mobile Gaming Apps	1	2	1	3	3	3	Failed Angel
T41	Software Designer	1	1	1	1	1	1	No Applications
T42	Software Designer	1	1	1	3	3	3	No Applications
T43	Systems Design	2	2	1	3	3	3	Failed Equity
T44	Computer Services	1	1	1	3	3	3	No Applications
T45	Mobile Gaming Apps	3	3	3	2	2	2	Angels
T46	Mobile Gaming Apps	1	1	1	1	1	1	No Applications
T47	Media	3	2	1	1	1	1	Failed Bank and Angels
T48	Software Designer	1	1	1	1	1	1	No Applications
T49	Mobile Gaming Apps	3			2			Angels
T50	Software Designer	3	3	3	2	2	2	Angels
T51	Mobile Gaming Apps	3	3	3	2	2	2	Crowdfunding, GA, Microsoft JV
T52	Mobile Gaming Apps	1	1	2	1	1	1	Failed Angels
T53	Mobile Gaming Apps	1	1	1	1	1	1	No Applications
T54	Mobile Gaming Apps	1	2	1	3	3	1	Failed Equity
T55	Software Designer	1	1	3	1	1	1	Grant
T56	Advertising	3			3			OD
T57	Consumer Internet	1	3	1	2	2	2	Angels
T58	Mobile Gaming Apps	2			1			OD
T59	Mobile Gaming Apps	1	1	1	1	1	1	No Applications
T60	Advertising	1	3	1	3	3	1	Grant
KEYS	APP OUTCOME	1	Didn't Apply					
		2	Tried and Unsuccessful					
		3	Treid and Successful					
	FUNDING CODES	1	Self Fund					
		2	External Equity					
		3	Secured Fund					

Appendix 8 - Regression Analysis Funding Outcome v Driving Social Planning

Model Fitting Information

Model	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	254.511			
Final	225.816	28.695	6	.000

Pseudo R-Square

Cox and Snell	.154
Nagelkerke	.180
McFadden	.087

Likelihood Ratio Tests

Effect	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	282.297	56.481	2	.000
DRIVING	240.458	14.642	2	.001
SOCIAL	238.723	12.907	2	.002
PLANNING	228.293	2.477	2	.290

The chi-square statistic is the difference in -2 log-likelihoods between the final model and a reduced model. The reduced model is formed by omitting an effect from the final model. The null hypothesis is that all parameters of that effect are 0.

Parameter Estimates

OUTCOME1[a]		B	Std. Error	Wald	df	Sig.	Exp(B)	Interval for Exp(B)	
								Bound	Bound
Didn't Apply	Intercept	.510	.179	8.100	1	.004			
	DRIVING	-.490	.178	7.547	1	.006	.613	.432	.869
	SOCIAL	-.400	.182	4.809	1	.028	.670	.469	.958
	PLANNING	.266	.173	2.375	1	.123	1.305	.930	1.830
Tried and Unsuccessful	Intercept	-1.355	.335	16.395	1	.000			
	DRIVING	-.994	.305	10.588	1	.001	.370	.203	.673
	SOCIAL	-.967	.291	11.058	1	.001	.380	.215	.672
	PLANNING	.234	.275	.725	1	.395	1.264	.737	2.169

a. The reference category is: Tried and Successful

Parameter Estimates

OUTCOME1[a]		B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
								Lower Bound	Upper Bound
Tried and Unsuccessful	Intercept	-1.866	0.321	33.85	1	0			
	DRIVING	-0.504	0.284	3.163	1	0.075	0.604	0.346	1.053
	SOCIAL	-0.567	0.263	4.631	1	0.031	0.567	0.338	0.951
	PLANNING	-0.032	0.252	0.016	1	0.9	0.969	0.591	1.588
Tried and Successful	Intercept	-0.51	0.179	8.1	1	0.004			
	DRIVING	0.49	0.178	7.547	1	0.006	1.632	1.151	2.314
	SOCIAL	0.4	0.182	4.809	1	0.028	1.492	1.043	2.134
	PLANNING	-0.266	0.173	2.375	1	0.123	0.766	0.546	1.075

a. The reference category is: Didn't Apply

Appendix 9 - Regression Analysis Funding Type v Driving Social Planning

Case Processing Summary

		N	Percentag
FUND_CODE1	1	63	36.6%
	2	53	30.8%
	3	56	32.6%
Valid		172	100.0%
Missing		8	
Total		180	
Subpopulation		60[a]	

a. The dependent variable has only one value observed in 56 (93.3%) subpopulations.

Model Fitting Information

Model	Model Fitting Criteria -2 Log Likelihood	Likelihood Ratio Tests Chi-Square	df	Sig.
Intercept Only	368.224			
Final	311.456	56.768	6	.000

Pseudo R-Square

Cox and Snell	.281
Nagelkerke	.316
McFadden	.151

Likelihood Ratio Tests

Effect	Model Fitting Criteria -2 Log Likelihood of Reduced Model	Likelihood Ratio Tests Chi-Square	df	Sig.
Intercept	314.640	3.184	2	.203
DRIVING	325.508	14.052	2	.001
SOCIAL	317.860	6.404	2	.041
PLANNING	353.919	42.463	2	.000

The chi-square statistic is the difference in -2 log-likelihoods between the final model and a reduced model. The reduced model is formed by omitting an effect from the final model. The null hypothesis is that all parameters of that effect are 0.

Parameter Estimates

FUND_CODE1[a]		B	Std. Error	Wald	df	Sig.	Exp(B)	Interval for Exp(B) Lower Bound	Upper Bound
Self-Finance	Intercept	-.057	.204	.079	1	.778			
	DRIVING	-.449	.203	4.904	1	.027	.639	.429	.950
	SOCIAL	.467	.204	5.248	1	.022	1.595	1.070	2.379
	PLANNING	.335	.212	2.502	1	.114	1.398	.923	2.117
Equity Funded	Intercept	-.383	.230	2.775	1	.096			
	DRIVING	.393	.227	2.998	1	.083	1.481	.949	2.311
	SOCIAL	.023	.215	.011	1	.915	1.023	.672	1.559
	PLANNING	-1.168	.264	19.596	1	.000	.311	.185	.521

a. The reference category is: Secured Finance

Parameter Estimates

FUND_CODE1[a]		B	Std. Error	Wald	df	Sig.	Exp(B)	Interval for Exp(B) Lower Bound	Upper Bound
Equity Funded	Intercept	-.325	.236	1.908	1	.167			
	DRIVING	.841	.241	12.149	1	.000	2.320	1.445	3.723
	SOCIAL	-.444	.228	3.786	1	.052	.641	.410	1.003
	PLANNING	-1.504	.284	28.049	1	.000	.222	.127	.388
Secured Finai	Intercept	.057	.204	.079	1	.778			
	DRIVING	.449	.203	4.904	1	.027	1.566	1.053	2.329
	SOCIAL	-.467	.204	5.248	1	.022	.627	.420	.935
	PLANNING	-.335	.212	2.502	1	.114	.715	.472	1.083

a. The reference category is: Self Finance

Appendix 10 - Practitioner Semi-Structured Interviews

Practitioner Interview Guide

1. How useful would entrepreneurs find this analysis of finance finding behaviour?

2. It’s low cost – would they use it?

3. Could it be used to direct support initiatives – like GA for accelerator?

4. Could financial institutions use it? Direct it to those entrepreneurs capable of syndicated investment?

Appendix 11 - Diagnostic Tool

Do You Do					Behaviour	Code Description	Will You do?				
5	4	3	2	1			5	4	3	2	1
					Serial Networking	Using networks to meet potential funders					
					Advisors, Mentors, Non-Executives	Talking to third parties and appointing Non-Execs					
					Cash Management	Use tight finacial control to identify accurate funding needs					
					Producing Business Plans	Good forward plannnig					
					Innovating in Funding Sources	Using new forms of funding					
					Actively Socialising	Being sociable and easy to work with					
					Presenting the Proposition	Taking opportunities to present to potential investors					
					Mapping Scenarios	Prepare alternative funding scenarios					
					Approaching Investors	Make specific approaches to investors					
					Being in Charge	Take control of the investment process					
					Utilising Grants	Use grants to support funding					
					Identifying Growth and Opportunity	Identify specific areas of growth for funding					
					Persistence and Challenging	Be resilient and don't give up					
					Using Internal Funding	Use retained profits and bootstrap					
					Variation in Payment Terms	Be creative about structuring payment terms					
					JV's	Consider joint bids with other firms					
					Stay Positive with Investors	Manage existing investors					
					Developing the Management Team	Involve the management team in the funding process					
					Using Flexible Staff Management	Flexible staff management can increase working capital					
					Leverage Experience	Use of prior knowledge of funding process					
					Professional Advisor	Use accounts, solicitors and finacial advisors					
					Communicating the Vision	Crystalise the goals of the business to funders					
					Meeting Bankers and Brokers	Ensure bankers and brokers understand the model					
					Capacity Planning	Ensure funds are allocated efficiently					
					Friends and Family	Use friends and family for support and possible parnerships					
					Using a Systems Approach	Logical systematic approach to fund applications					
					Creating Relationships	With suppliers as potential funding sources					
					SME Educational Programmes	Join progarmmes to get more skills/contacts					
					Creating Value	Maximise value to raise funds					
					Co-operative	Work with others in partnership					
Scale 5 = high; 1 = Low					Name:		Scale 5 = high; 1 = Low				

Appendix 12 - Potential Impact

The Times, 26 August 2014

Aston University

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Appendix 13 - Summary Contribution

	Extent of Contribution		
Domain of Contribution	**What has been confirmed**	**What has been developed**	**What has been found that is new**
Academic Knowledge	Behaviour is a relatively under-researched area of entrepreneurship.	The use of psychometrics to analyse behavioural competences of individual entrepreneurs.	Applying Big 5 Theory of Personality and the Great 8 Competences indicates how behaviour impacts outcomes as entrepreneurs seek to access finance.
Empirical Evidence		An approach which recognises different entrepreneurs have distinctive competences and these can be measured.	> The identification of three distinct groups in this longitudinal study means belonging to one of these groups predicts likely behaviour when searching for finance. > Collaborative competences are the strongest. > Non-applying entrepreneurs have strong planning and problem solving skills.
Methodological Approach		A convergent mixed method research provides insight into differences between entrepreneurs and how these actions manifest themselves.	Using Analytical Induction Propositions Confirmed in: • Working with Others to access finance and be able to self-finance • Problem Solving in self-financing • Communicating Meeting and Presenting, Innovating and Creating, Driving for Results, Working with Customers to access finance
Practice Impact		An understanding amongst practitioners that a more detailed understanding of behavioural competences is of value to stakeholders involved in entrepreneurship.	Financial Institutions, Business Angels and Accelerator Programmes can use Competency data to differentiate between entrepreneurs and aid decision making in the allocation of funding and other support.

Appendix 14 - Published Work from This Study

Conference Proceedings

Parkes, GS, (2012) 'Credit Rationing and Entrepreneurs – Getting to the Head of the Queue' Proceedings of the 35th Annual Conference for the Institute for Small Business and Entrepreneurship, Dublin, Ireland , 7-8 November 2012. Short Listed for the Best Paper Award, Finance Track.

Parkes, GS, Hart, M, Rudd, JR (2013) 'Can Behavioural Competences Predict the Funding Resource Orchestration of the Entrepreneur?' Proceedings of the 36th Annual Conference for the Institute for Small Business and Entrepreneurship, Cardiff, 12-13 November 2013.

Parkes, GS and Griffiths, J (2014) 'Crowdfunding and Marketing for Money:
An Investigation into the Investment Effects of Funding Page Content' Proceedings of the 37th Annual Conference for the Institute for Small Business and Entrepreneurship, Manchester, 5-6 November 2014.