

Making Sense of Entrepreneurial Opportunities

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Abstract

This thesis explores how entrepreneurial actors make sense of the entrepreneurial process as they transition from idea to enterprise. To explore this process, the thesis analyses the sensemaking and sensegiving processes experienced by prospective student entrepreneurs in a university incubator. Through addressing the following research question: "How do early-stage entrepreneurial actors make sense of the entrepreneurial process as they transition from having an idea to deciding to exploit it?", this study explains how entrepreneurial actors transition from idea conceptualization to entrepreneurial opportunity exploitation and delineates their transition paths.

Using an interpretive multiple-case research design (Yin, 2009; Eisenhardt, 1989), the sensemaking and sensegiving processes involved in the transition from idea conceptualization to opportunity exploitation is investigated by following ten early-stage entrepreneurial actors in the process of shaping and developing opportunity ideas into entrepreneurial opportunities. Methods of analysis include case studies of each venture idea, field observations, direct interviews, construction of time-lines and inductive development of theory through a combination of the sensemaking framework and stages of the entrepreneurial process.

In this thesis, two important theoretical contributions are made; first, the sensemaking perspective is established as a theoretical approach for understanding how the entrepreneurial process unfolds over time and second, new insight is offered concerning the 'black box' that exists between idea conceptualization and opportunity exploitation. This is demonstrated through the identification and explanation of the mechanisms that enable entrepreneurial actors to make sense of opportunities as they transition from idea to exploitation. There are also practical contributions for academic managers charged with improving entrepreneurship education and those involved with the commercialization of research generated within a university setting.

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For Mama (Jan 28, 2009)

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Chapter 1 Introduction

This thesis is about the enactment of entrepreneurial opportunities. It is not about the opportunity itself but about the opportunity development processes that lead to opportunity enactment. In this thesis, a process of opportunity enactment is mapped out by exploring the sensemaking and sensegiving processes experienced by a sample of early-stage entrepreneurial actors based in a university incubator. Thus, the work of this thesis is positioned at the nexus of the opportunity and sensemaking constructs that underpin the entrepreneurship and sensemaking literatures. Furthermore, it addresses the phenomenon of university student entrepreneurs, which is a rich setting for advancing research on academic entrepreneurship.

1.1. Background to the Study

There is a rich and burgeoning literature on the opportunity construct and the central place it has come to occupy in the entrepreneurial process literature (Short, Ketchen, Shook & Ireland, 2010). Within the field of entrepreneurship research, opportunity has been recognized as a critical element of the entrepreneurial process, with an initial focus upon the individual enacting the opportunity (Gartner, 1988). This led to a series of research findings on the idiosyncratic attributes of individuals enacting opportunities including, but not limited to, an individual's need for achievement (McClelland, 1961); willingness to bear risk (Brockhaus & Horowitz, 1986); self-efficacy (Chen, Greene & Crick, 1998) internal locus of control and tolerance for ambiguity (Begley & Boyd, 1987).

Chapter 1: Introduction

Within the last decade however, the focus has shifted away from approaches that place emphasis on identifying those people in society who prefer to become entrepreneurs towards understanding “the nexus of enterprising individuals and valuable opportunities” (Eckhardt & Shane, 2003:333). This new focus has required scholars to explain the role of opportunities in the entrepreneurial process and in so doing, advance our understanding of the opportunity identification processes that constitute entrepreneurship (Busenitz, West, Shepherd, Nelson, Chandler, & Zacharakis, 2003).

Opportunity identification involves processes of development, perception, recognition, creation and evaluation that overlap and interact with each other (Fratesi & Senn, 2008). Traditional theories (Kirzner, 1973), see opportunity development and recognition as processes of recognizing and acting upon something already formed (Casson, 1982; Shane & Venkataraman, 2000; Eckhardt & Shane, 2003). Other more recent approaches (Ardichvili, Cardozo & Ray, 2003) consider these concepts to be more complex and dynamic, that become more articulated as the entrepreneur develops them. To date, the literature on opportunity recognition processes is extensive (see Short et al (2010) for a systematic review).

Entrepreneurship scholars have explored a range of factors such as search (Cyert & March, 1963; Kaish & Gilad, 1991; Herron & Sapienza, 1992), information asymmetry (Hayek, 1945), prior knowledge (Shane, 2000; Shepherd & DeTienne, 2005; Haynie, Shepherd & McMullen, 2009), experiential learning (Corbett, 2005; Kolb, 1984) and social networks (Granovetter, 1973; Hills, Lumpkin & Singh, 1997; Singh, 2000) showing their importance in increasing the likelihood that opportunities can be recognized by alert entrepreneurs. Other research employing a cognitive perspective focused mainly on the cognitive processes required for opportunity recognition such as counterfactual thinking (Gaglio, 2004), pattern

recognition (Baron, 2006), self-regulation processes (Bryant, 2007), heuristics and cognitive short-cuts (Mitchell, Busenitz, Lant, McDougall, Morse & Smith, 2004) and expert scripts (Mitchell, Smith, Seawright & Morse, 2000).

Extant research on opportunity recognition however, barely begins to examine the process of opportunity enactment. In fact, focusing solely on opportunity recognition processes only explains the factors that contribute to or deter opportunity recognition, and advances our understanding of why some people and not others come to recognize entrepreneurial opportunities. To fully understand opportunity enactment, research needs to examine those individuals who not only recognize opportunities but also act upon them. Dimov (2007a) acknowledged this, by stating that it is what prospective entrepreneurs do in reaction to opportunity ideas that eventually provides the final contours of the entrepreneurial opportunity.

The argument that ideas are a precursor to entrepreneurial opportunities is consistent with the basic premise of opportunity recognition. That is, alert individuals come upon opportunities by surprise (Kirzner, 1997). These surprises are not inherently opportunities but rather, they become opportunities through evaluative processes such as the assessment of risk and uncertainty (Short et al., 2010). Research streams on opportunity evaluation focused on the judgments associated with opportunity evaluation (Herbert & Link, 1988; Casson, 1982; Wood, Williams & Gregoire, 2012) and the decision-making processes (Hastie, 2001) that contribute to entrepreneurial action under situations of uncertainty and ambiguity (McMullen & Shepherd, 2006).

Conceptual and empirical contributions attempting to explain these opportunity recognition and evaluation processes have been theoretically rich, drawing upon a multitude of theories. These include, but are not limited to, information

processing and agency theory (Gruber, 2007; Jones & Butler, 1992), resource-based theory (Haynie et al., 2009; Foss & Foss, 2008), social cognitive theory (Gaglio, 2004; De Carolis & Saporito, 2006), cognitive psychology (Ucbasaran, Westhead, & Wright, 2009; Mitchell, Mitchell, & Smith, 2008), structuration theory (Chiasson & Saunders, 2005; Sarason, Dean & Dillard, 2006), regulatory focus theory (Hmieleski & Baron, 2008), coherence theory (Shepherd, McMullen, & Jennings, 2007), creation and discovery theory (Alvarez & Barney, 2007), organizational learning (Dutta & Crossan, 2005; Lumpkin & Lichtenstein, 2005), research on affect (Baron, 2008) and research on trust (Zahra, Yavuz, & Ucbasaran, 2006).

The multi-disciplinary approaches applied to the exploration of the opportunity construct demonstrate that both the opportunity recognition and opportunity evaluation processes involve components of cognition and action. In addition, there appear to be elements of organizing and learning that come into play under situations of uncertainty and ambiguity. These opportunity processes can therefore, be described as situations in which entrepreneurial actors think about ideas and make sense of these ideas in the context of uncertainties, which they then enact into opportunities via a process of organizing and learning.

Drawing from the seminal work of Weick (1969; 1995), these opportunity processes reflect a situation in which sensemaking is likely to occur. Sensemaking occurs when individuals turn a flow of experiences into words and salient categories that they can comprehend and then use as a springboard for action (Taylor & Van Every, 2000; Weick, Sutcliffe & Obstfeld, 2005). It lies at the very core of organizing (Maitlis & Christianson, 2014) and is triggered by discrepancy, change or fluctuations in an ongoing flow of events and entails how actors answer two questions: What is the story? And now what? (Weick et al., 2005).

In effect, the sensemaking process encompasses both thinking and action. When people make sense, they act as if something is a fact and then test this supposition to discover whether they are right (Blatt, Christianson, Sutcliffe & Rosenthal, 2006). Sensemaking therefore, "is as much a matter of thinking that is acted out conversationally in the world as it is a matter of knowledge and technique applied to the world" (Weick et al., 2005:412).

Like the opportunity literature, there is extensive research on sensemaking (see Maitlis & Christianson (2014) for a review). Originating within the organizational behaviour literature with a particular focus upon leadership and managerial activities (McAdam & Marlow, 2011), sensemaking has since been utilised as both an object and as a method of inquiry. Sensemaking as an object of inquiry means that a study results in findings about the sensemaking processes that actors undergo (Blatt et al., 2006). Scholars have relied upon case studies of critical events to deepen our understanding of how sensemaking is accomplished in the midst of crises (Weick, 1990, 1993) and how sensemaking is used in the aftermath of crises to explain what happened (Gephart, 1993; Gephart, Steier, & Lawrence, 1990). As a "low-probability, high-impact event characterized by ambiguity of cause, effect, and means of resolution" (Pearson & Clair, 1998:60), a crisis is a powerful trigger for sensemaking (cited in Maitlis & Christianson, 2014:72).

Extant studies of individuals experiencing a life-threatening illness or the loss of a child (Sears, Stanton, & Danoff-Burg, 2003; Keesee, Currier, & Neimeyer, 2008) reveal how crises disrupt fundamental assumptions (Janoff-Bulman, 1992) and trigger sensemaking about the event, the self, and by extension, the world at large (Park, 2010). At the organizational and societal levels, scholars have examined the aftershocks of crises that occurred in the public domain. These analyses include examinations of crises stemming from negligent behaviour in

medical, governmental, and private sector organizations (Brown, 2000, 2005; Brown & Jones, 2000), a deadly heat wave (Boudes & Laroche, 2009), and environmental disasters (Weick, 1993; Gephart, 1984, 1993, 2007), showing how crises disintegrate sensemaking (as in the Mann Gulch fire disaster) or evoke acts of sensemaking about responsibility and blame (Maitlis & Christianson, 2014).

There is also a growing body of research that directly examines how sense is made in different organizational contexts (Monin, Noorderhaven, Vaara, & Kroon, 2013; Cornelissen, 2012; Clark & Geppert, 2011; Navis & Glynn, 2011; Rudolph, Morrison, & Carroll, 2009; Sonenshein, 2007). New research has even begun to tackle the reverse: the influence of individual actor's context on sensemaking (Lockett, Currie, Finn, Martin & Waring, 2014). Other key areas of research involve understanding the impact of sensemaking on a myriad of key organizational processes, such as, innovation and creativity (Drazin, Glynn, & Kazanjian, 1999; Hill & Levenhagen, 1995), and organizational learning (Christianson, Farkas, Sutcliffe, & Weick, 2009; Catino & Patriotta, 2013; Gephart, 1993). Research on sensemaking has also been linked to important organizational outcomes, including culture (Drazin et al., 1999), social influence (Ibarra & Andrews, 1993) and strategic change (Barr, 1998; Gioia & Chittipeddi, 1991; Gioia & Thomas, 1996; Thomas, Clark & Gioia, 1993).

As a method of inquiry, sensemaking acts as a lens that focuses on human agency, equivocality and relationships (Blatt et al., 2006). One of the most important advances in sensemaking as a method of inquiry is Weick's (1995) theoretical framework for understanding the core aspects of sensemaking. According to Weick (1995), issues of identity are central to sensemaking. People use their identity and personal experiences to make sense of uncertainty or ambiguous stimuli that violate their normal level of expectations. They then compose a plausible story of what they think is happening so that they and others

can take action (Brown, 2000). Sensemaking is therefore, also a social process involving language and communication as it is through interactions with others that actors interpret cues in their environment and construct accounts that allow them to comprehend the world (Maitlis, 2005). This suggests that it is also a process of power, influence and persuasion (Weick et al., 2005).

The persuasive aspect of sensemaking aimed at influencing the sensemaking and meaning construction of others was coined by Gioia & Chittipeddi (1991) as a process of sensegiving. Notions of sensegiving paved the way for an increased research focus on the social processes through which sensemaking is accomplished (Maitlis, 2005) as well as opened up new research avenues on the relationship between sensemaking and language (Cornelissen, 2012; O'Leary & Chia, 2007). This incited discussions about the nuances of language and research streams on the relationship between sensemaking and narrative (Brown & Humphreys, 2003; Dunford & Jones, 2000; Patriotta, 2003; Sonenshein, 2010), gestures (Cornelissen, Clarke & Cienki, 2012) and discursive practices (Balogun, 2003; Balogun & Johnson, 2004, 2005; Rouleau, 2005; Rouleau & Balogun, 2011) continue to populate the research conversation.

Despite the fact that there is a critical mass of literature centred on these theoretical concepts, that is, opportunity, sensemaking and sensegiving, they have rarely been combined to advance our understanding of opportunity enactment. It is argued in this thesis, that like crises, opportunity enactment is a low-probability, high-impact event characterized by ambiguity of cause, effect, and means of resolution thereby, providing powerful sensemaking triggers. The sensemaking (Weick, 1995) and sensegiving (Gioia & Chittipeddi, 1991) processes that then emerge should enable entrepreneurial actors to make sense of environmental cues and formulate ideas into entrepreneurial opportunities in the context of their identity and personal experiences. They could then give sense

to others linguistically through the construction of plausible accounts as they transition from idea conceptualization to full-scale entrepreneurial opportunity exploitation.

Analytically amalgamating the opportunity and sensemaking constructs to deepen our understanding of opportunity enactment requires the use of sensemaking as both a method and as an object of inquiry. As a method of inquiry, the focus is on agency/action because people make sense as a means of enacting some future outcome (in this case, a new product or venture); on uncertainty because sensemaking is triggered by people's need to understand ambiguous stimuli that disrupt their normal expectations; and on relationships because sensemaking is a social, linguistic process. As an object of inquiry, the focus is on empirically validating the sensemaking properties espoused by Weick (1995), who contends that there is a need for more empirical studies that make explicit use of his theoretical framework of sensemaking (Weick et al., 2005). Thus, there is a potential research opportunity in synthesising the opportunity and sensemaking constructs to empirically explore the process of opportunity enactment.

In order to address the research opportunity highlighted, a case study methodology is appropriate given that this study attempts to map out a process and is focused on "how" questions about a contemporary set of events (Yin, 2009; Eisenhardt, 1989). This process has been conceptualized in different ways but it is generally assumed that it begins with an idea (Dimov, 2007a) and results in the creation of a new product and/or a new organizational form (Shane, 2003). A university incubator is selected as an appropriate field study site because it comprises university students and graduates who already have an idea and are working through the entrepreneurial process to new product and/or new venture creation, as early-stage entrepreneurial actors.

Generally, university students and graduates are ignored as a relevant conduit for entrepreneurial economic development. This is because students and graduates do not normally create intellectual property owned by the university and are thus, usually excluded from statistics on university spin-offs (Astebro, Bazzazian & Braguinsky, 2012). Additionally, entrepreneurship education is perceived as affecting intentions to start businesses after graduation (Oosterbeek, van Praag & Ijsselstein, 2008) or as doing little or nothing to enhance entrepreneurship skill and motivation (Oosterbeek et al., 2010).

Neck & Greene (2011) contend that entrepreneurship education fosters “learning about entrepreneurship and emulating role models, learning for entrepreneurship by replicating entrepreneurial processes and deciding whether to be an entrepreneur, or learning through entrepreneurship and adopting entrepreneurial behaviours” (cited in O’Connor, 2013:549). However, the diversity and quality of the start-ups documented in this thesis makes a compelling case against researchers and policy makers downplaying the commitment and economic benefit of student-run/owned enterprises.

Typically, earlier research on student and graduate incubator businesses focused on science and engineering students (Astebro et al., 2012; Ensley & Hmieleski, 2005; McAdam & McAdam, 2008), mostly male, with previous exposure to entrepreneurship through family background or parental role models (Hisrich & Peters, 1996). The sample of university students used in this thesis comprises both male and female, from the social sciences, humanities and arts, and science and engineering fields at undergraduate and postgraduate level with and without prior entrepreneurship exposure. Some of these student-run/owned enterprises have established partnerships with local councils and charities and are trading, expanding and diversifying into markets beyond the scope of their initial

ventures. In effect, they provide a much richer research setting in which to explore the processes of opportunity enactment.

In the following chapters of this thesis, I review the extant literature on opportunity as a construct and explore the processes of opportunity enactment beginning with the opportunity idea, followed by opportunity recognition and finally, opportunity evaluation. I map out the entrepreneurial experience of prospective student entrepreneurs in a university incubator, describe how this sample of early-stage entrepreneurial actors make sense of opportunities as they transition from having an idea to deciding to exploit it and advance our understanding of the sensemaking processes involved in opportunity enactment. I draw upon Weick's (1995) sensemaking approach, together with sensegiving (Gioia & Chittipeddi, 1991), and in so doing, extend extant literature on opportunity recognition, evaluation and entrepreneurial cognition.

1.2. Thesis Structure

This thesis is comprised of seven remaining chapters, described as follows:

Chapter 2 is divided into two parts. Part one reviews the literature on the entrepreneurial process, providing clear, working definitions for key concepts, and identifying research gaps. Part two reviews the literature on sensemaking highlighting the seven properties by which sensemaking can be accomplished.

Chapter 3 presents a case for using the properties of sensemaking as a theoretical framework for unpacking the entrepreneurial process. This involves the development of a conceptual model.

Chapter 1: Introduction

Chapter 4 introduces and describes the Interpretive approach, the ontological and epistemological stance, the case study methodology as well as the individual research methods (interviews, observations, imagery and archival documentation) chosen to address the research gaps and research question manifested in the conceptual model.

Chapter 5 discusses the findings from the preliminary data analysis. Within-case analyses, graphical depictions and timelines of case events are presented.

Chapter 6 comprises cross-case analyses for the cases presented in Chapter 5 and highlights the theoretical constructs that emerged from the in-depth thematic analysis.

Chapter 7 consolidates the findings from Chapter 5 and Chapter 6. It represents the core discussion chapter, highlighting the significance and implications of the research findings in comparison with entrepreneurship, sensemaking and other relevant literatures.

Chapter 8 concludes the research study and highlights the theoretical and empirical contributions. Some of the limitations of the study are discussed and potential future research avenues stemming from this research are suggested.

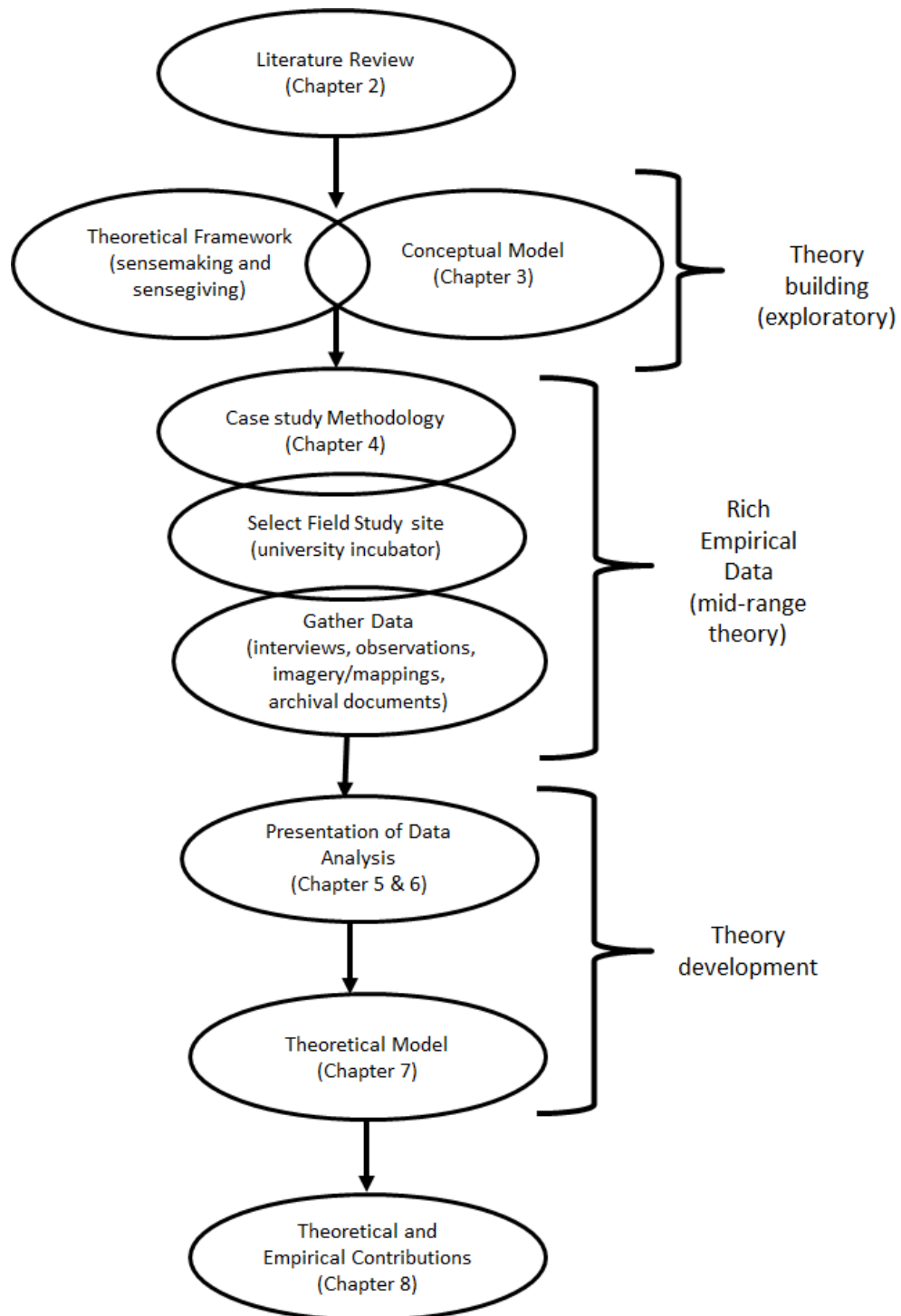


Figure 1-1 Outline of Research Process

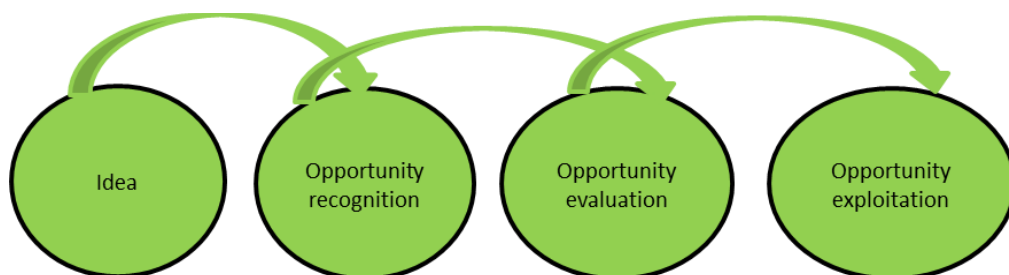
Figure 1-1 above summarizes the research process followed in this thesis. The appendices to the research study can be found at the end, after the references, and provides supplementary data and information gathered throughout the course of this research. It includes interview transcripts, drawings and imagery by case participants as well as data analysis tables.

Chapter 2 Literature Review

In this chapter, the body of literature relating to the entrepreneurial process as well as sensemaking and sensegiving theories is reviewed. Part I of the review covers the central arguments in the literature that relate to the unfolding of the entrepreneurial process beginning with the birth of opportunity ideas. Literature on the opportunity construct and the implications of extant empirical and theoretical contributions to the sub-domain of opportunity entrepreneurship is then reviewed and the gap in the literature is highlighted. Part II of the review presents a review of Weick's (1995) concept of sensemaking and explores this approach, together with the concept of sensegiving as a novel theoretical framework for unpacking the entrepreneurial process.

2.1. Part I: The Entrepreneurial Process

Few studies have followed the entrepreneurial process from the idea stage to the ultimate decision to initiate the venture (Wood et al. 2012; Dimov, 2010; Choi & Shepherd, 2004; Krueger, 1993; Long & McMullan, 1984). Extant research has focused on understanding the mechanisms of each individual phase of the entrepreneurial process such as idea, opportunity recognition and opportunity evaluation (Figure 2-1) rather than how entrepreneurs transition through the different phases of the entrepreneurial process.



Adapted from Dimov (2007a) and Shane & Venkataraman (2000)

Figure 2-1 The Entrepreneurial Process

2.2. Ideas Defined

There is now a well-accepted view that entrepreneurial opportunities do not simply “jump out” in a final, ready-made form but emerge from an iterative process of shaping and development, which begins with the birth of opportunity ideas (Lumpkin, Hills & Shrader, 2003, cited in Dimov, 2007a). The notion of ideas fits within the individual–opportunity nexus postulated by Shane & Venkataraman (2000) in terms of conceptualizing the opportunity in the realm of the individual entrepreneur and is an important initial phase of the entrepreneurial process.

Unlike the myriad of defining terms associated with an opportunity however, there are no such terms for an idea, an opportunity idea, a venture idea or an entrepreneurial idea. Bird (1988) contends that entrepreneurial ideas and intentions form the initial strategic template of new organizations. However, she does not define what she means by entrepreneurial ideas but rather writes that “entrepreneurial ideas – for new products, new services and new social movements begin with inspiration” (p.442). Timmons (1999) reiterating that ventures originate in ideas argued that “ideas interact with real-world conditions and entrepreneurial creativity at a point in time to produce an opportunity around which a new venture can be created” (p. 81). He focused on teaching techniques for the creativity necessary to “build” ideas into opportunities (Sandberg & Hench, 2004).

Similarly, Ward’s (2004) paper on cognition, creativity and entrepreneurship examined the nature and origins of novel ideas but focused on how existing knowledge and cognitive processes shape those ideas rather than seeking to offer a conceptual definition. The lack of an agreed upon definition for what an idea is makes it difficult to differentiate it from an opportunity. Previous definitions of

opportunity in the literature are tantamount to an idea. For example, Dimov (2007b) previously argued that an opportunity “unfolds as a stream of continuously developed and modified ideas as entrepreneurs act.”

Klein (2008) later contended that opportunities exist only in the entrepreneur’s imagination which is a view shared by Shackle (1979) who first proposed that entrepreneurship is action in pursuit of imagination. Furthermore, Wood & McKinley (2010) subsequently showed that opportunity ideas are objectified in the mind of the entrepreneur through a process of sensemaking. Recent research by Dimov (2011) however, described the genesis of ideas as solutions to age-old problems and an opportunity as “a perpetuation of a cycle of venture ideas and actions oriented towards the formation and sustenance of market relationships” (p. 64). His current definition acknowledges the overlap between an idea and an opportunity but more importantly it emphasizes that although opportunities begin as ideas it is action that is needed to transform them into something substantive.

Kirzner (1997) argued that in its most elemental form, what may later be called an opportunity may appear as an imprecisely-defined market need, or un-or under-employed resources or capabilities (Ardichvili et al., 2003, p.108) and it is up to the entrepreneur to evaluate the merits of these numerous sources of ideas thereby, differentiating an idea from an opportunity (Hills & Shrader, 1998). This process of deciding whether an idea is an opportunity involves judgments made under conditions of uncertainty and complexity (Keh, Foo & Lim, 2002).

According to McMullen & Shepherd (2006), entrepreneurship is about action in the face of uncertainty. Therefore, while ideas, once expressed, are ends in themselves – an abstract representation of an imagined future reality, opportunities exemplify the tension to make that reality come true (Dimov, 2007a, p. 718). In other words, ideas are a necessary but not sufficient condition

for opportunities to emerge because they merely represent opportunity beliefs – beliefs about the amount of uncertainty the entrepreneurial actor perceives and his/her willingness to bear this uncertainty (McMullen & Shepherd, 2006).

2.3. Opportunity Defined

If three people were asked to describe what an opportunity is, there would undoubtedly be three different responses. An opportunity is an appropriate or favourable time or occasion (e.g. their meeting afforded an opportunity to exchange views). An opportunity can also be described as a situation or condition favourable for the attainment of a goal (e.g. starting a business). Yet again, an opportunity can be a good position, chance or prospect, as for advancement or success (e.g. going to Harvard). Using these three examples, an opportunity may mean different things to different people and secondly an opportunity may always exist for some people and never exist for others.

Academic dialogue on opportunities originates with Joseph Schumpeter (1934) and Kirzner (1979) and the debate on whether equilibrium is the initial or ending conditions for economic opportunities. Schumpeter (1934) argued that opportunities were created through the introduction of innovations that destroy the existing 'circular flow' and lead to pure profit. He argued that markets were in a state of equilibrium and that opportunities were a creative-destructive mechanism that caused disequilibrium.

For example, the internet can be viewed as the introduction of an innovation that led to many entrepreneurial 'click-and-mortar' businesses such as Groupon and Living Socials or Facebook and MySpace. Kirzner (1979) on the other hand, building on the work of von Mises (1949) and Hayek (1945), claimed that opportunities represented discoveries and corrections of prior errors as the

economic system moved towards equilibrium. He therefore, challenged the view that markets were always in equilibrium, suggesting instead that opportunities were discovered as a means to obtaining the end goal of equilibrium (Shane, 2000). A progeny of Kirzner might therefore argue that the introduction of the internet was an entrepreneurial discovery in itself which led to multiple entrepreneurial corrections.

In order to fully understand the difference between Schumpeterian opportunities and Kirznerian opportunities, a closer look is needed at the basic assumptions of economic theory. Under the neoclassical economic framework, three core assumptions are given: (1) perfect knowledge or information, (2) profit maximisation and (3) market system. The first assumption is the most important in economic theories of opportunities and is the differentiating factor between the two theorists. While both Schumpeterian and Kirznerian opportunities are thought to be derived from exogenous shocks like changes in technology, political forces, regulatory changes, macro-economic forces and social trends; Schumpeter argued that these shocks generated new knowledge (e.g. science and technological inventions) that allowed individuals to create new entrepreneurial opportunities that did not previously exist within the market. On the other hand, Kirzner stated that these shocks created knowledge and information asymmetries asserting that opportunities could only be recognized by some and not others based on alertness to information, which allowed individuals to discover previously unnoticed entrepreneurial opportunities.

According to Hayek's (1945) seminal work, when new knowledge is created it is not widely dispersed but concentrated in a group or with one individual and as such, can be considered asymmetrical. In effect, the generation of new information for a few is analogous to knowledge asymmetries for some but not for others. Both economists are arguing that knowledge is important and

asymmetrical whether it is created or discovered. Shane & Venkataraman (2000) contend that both perspectives were equally valid and represented different types of opportunities that could both be present in the economy at the same time. McMullen, Plummer & Acs (2007) later distinguished an entrepreneurial opportunity as a sub-class of the broader category of opportunity in general. However, definitions of entrepreneurial opportunities emerged prior to this.

Casson (1982) first defined entrepreneurial opportunities as "those situations in which new goods, services, raw materials and organizing methods can be introduced and sold at greater than their cost of production." His definition combined the different types of opportunities entrepreneurs could pursue (e.g. product, raw material or way of organizing), proffered by Schumpeter (1934), as well as grounded opportunities in a profit-making context by relating it to costs of production (Singh, 2000). Contemporary work on entrepreneurial opportunities by seminal authors Shane & Venkataraman (Shane, 2000; Shane & Venkataraman, 2000; Venkataraman, 1997; Shane, 2003) reinforced that entrepreneurial opportunities were recognized under situations given by Casson (1982) and that while recognition of entrepreneurial opportunities was a subjective process, entrepreneurial opportunities themselves were objective phenomena not known to all parties at all times. Eckhardt & Shane (2003, p. 336) later expanded on this by including markets as another type of entrepreneurial opportunity and by re-introducing Kirzner's notion of means-ends frameworks, stating that entrepreneurial opportunities were "situations in which new goods, services, raw materials, markets and organizing methods can be introduced from the formation of new means, ends or means-ends relationships."

These definitions however, are representative of positivist thinking where entrepreneurial opportunities exist as objective artifacts waiting to be discovered by alert entrepreneurs (Wood et al. 2012; Kirzner, 1979; Shane, 2003). More

importantly, by assuming that all opportunities are pre-existing, fully formed and awaiting discovery, it neglects the temporal orientation of opportunities. Contributions from a social constructivist view convey a different picture of entrepreneurial opportunities – one where the entrepreneur's thoughts and actions drive the opportunity enactment process and make it difficult to separate the subjective and socially constructed nature of opportunity from the individual (McMullen et al., 2007).

As a result, definitions of entrepreneurial opportunities under this school of thought have been varied and include Sarasvathy (2001) means-ends framework driven by effectuation, Alvarez & Barney (2007) endogenous creation from the actions, reaction and enactments of entrepreneurs exploring ways to produce new goods and services and more recently as subjectively driven "realities" that gradually emerge via the imagination and creative actions of entrepreneurs (Wood et al., 2012; Wood & McKinley, 2010; Klein, 2008). This view is more wide ranging and includes opportunities which do not yet exist to be discovered and the entrepreneur must imagine or speculate about future prices of goods and resources (Sandberg & Hensch, 2004) and through this vision or foresight create the opportunity.

According to Dimov (2011) these definitions should not be taken as ontological claims about the nature of opportunities. He argued that by treating opportunities as a latent construct that is manifested in entrepreneurial action the problem of defining opportunities as objective or subjective (discovered vs. created) is sidestepped. Seen from a process perspective centred on entrepreneurial action, it becomes more important to understand the unfolding experience of the entrepreneur's thoughts and actions vis-a-vis emergent opportunities (Wood et al., 2012) rather than continue engaging in an ontological debate.

2.4. Opportunity Recognition

Interest in opportunity recognition has strengthened since Timmons, Muzyka, Stevenson & Bygrave (1987) brought the subject to the entrepreneurship literature. In fact, few scholars today would dispute the fact that “the creation and/or recognition of opportunities is at the heart of the entrepreneurial process” (Timmons, 1999, cited in Sandberg & Hench, 2004). Literature on opportunity recognition has explored a range of factors such as information asymmetry (Hayek, 1945), prior knowledge (Shane, 2000; Haynie et al., 2009), experiential learning (Corbett, 2005), personality traits (McClelland, 1961) and social networks (Granovetter, 1973; Hills et al., 1997; Singh, 2000) showing their importance in increasing the likelihood that opportunities can be recognized by alert entrepreneurs. This is because the opportunity has, at this stage, already been isolated and defined as entrepreneurial and the focus is on identifying and explaining why some people and not others come to recognize these opportunities. This assumption that opportunities are “discoverable” by some and not others forms part of the discovery school perspective that has governed the entrepreneurship field for the last 20 years.

Entrepreneurial opportunities that are discovered come into existence when there are competitive imperfections in a market or industry (Alvarez & Barney, 2007). The source of these imperfections and by extension, the source of opportunities is assumed to arise exogenously from changes in technology, consumer preferences or other contextual factors within an industry or market (Kirzner, 1973). Proponents of the discovery school assume that (1) the role of the entrepreneur is to “search and scan the environment” (Alvarez & Barney, 2007, p.128) to discover the opportunity and then bring “agency to opportunity” by exploiting it (Shane, 2003, p.7), (2) that entrepreneurs and non-entrepreneurs differ in their ability or awareness of opportunities in a given industry or market referred to as

“entrepreneurial alertness” (Kirzner, 1973) and (3) that the reason opportunities are discovered by alert entrepreneurs is because they have differential access to information.

2.4.1. Search

The study of how prospective entrepreneurs search and scan the environment for opportunities was developed from the contributions of Cyert & March (1963) on problemistic search i.e. “search driven by the perception that particular expectations have not been met” (Dimov, 2004, p. 139). Later, Herron & Sapienza (1992) applied problemistic search to the context of entrepreneurship to identify and explain the conditions under which individuals are motivated to search for business opportunities. They suggested that individuals are driven to engage in problemistic search when their aspirations exceed their current performance. On a macro-level however, Sine & David (2003) showed that environmental jolts disrupted the institutional logic of incumbent organizations and induced search for a new logic, which represented an environment of increased opportunity.

Motivated search however, is only one of several possible ways for opportunity recognition to occur. According to Bhawe (1994), the process of venture creation, which begins with opportunity recognition, can either be a result of internal or external stimulation. An externally stimulated opportunity is one in which the entrepreneur first decides to start a business and then systematically searches for and recognizes a given opportunity (a woman who decides to start an architectural business then looks for clients). An internally stimulated opportunity on the other hand, occurs when the entrepreneur discovers that there is an unfulfilled market need and launches a venture to satisfy that need (Nandos capitalizing on the niche market for healthy grilled chicken). Another dichotomy presented in the literature by Long & McMullan (1984) and Koller (1988) made

the distinction between deliberate search and chance occurrences also referred to as serendipity. Peterson (1988) later surveyed 483 small businesses and found that spontaneous thought had the highest frequency among founders. The story of how Alberto Perez founded the Latin-dance inspired fitness program Zumba by improvising after accidentally forgetting the aerobic music can be viewed as serendipity.

Contemporary scholars (Chandler, Dahlgvist & Davidsson, 2002) subsequently developed a taxonomy of opportunity recognition from research conducted on 136 Swedish ventures. They identified three distinct search processes: proactive search, reactive search and fortuitous discovery. Proactive search was linked to an individual's unique knowledge capital; reactive search was triggered by poor performance and was therefore, consistent with earlier work by Herron & Sapienza (1992) while fortuitous discovery pertained to unexpected events involving no search much like the serendipitous nature of opportunities suggested by Long & McMullan (1984).

Ardichvili et al (2003) attempted to simplify this taxonomy and distinguished between discovery and purposive search. In addition to the type of search, scholars have also examined the intensity of search. Cooper, Folta & Woo (1995) found that the intensity of search was negatively related to prior entrepreneurial experience, domain differences and confidence (Dimov, 2004, p.139). This led scholars to believe that not all entrepreneurs need to search for opportunities. Kaish & Gilad (1991) challenged the assumption that entrepreneurs search at all arguing that opportunities are unknown until they have been discovered and it is therefore impossible to search for something that one does not know exists.

2.4.2. Alertness

If all entrepreneurs do not need to search for opportunities or “search” is unrealistic given the unknown nature of opportunities, one alternative means by which entrepreneurs recognize opportunities that is prevalent in the literature and which is derived from Kirzner’s earliest works, is the concept of alertness. According to the Austrian economist, entrepreneurial alertness is the “motivated propensity of man to formulate an image of the future” (Kirzner, 1985, p.56). It is not simply the possession of knowledge but rather is a fundamental quality or a state of mind necessary for the discovery of opportunities, which have been overlooked. In his view, opportunity recognition is experienced as an ‘aha’ moment that cannot arise from deliberate search because they are an unknowable a priori.

Due to the ‘primordial role’ given to ‘alertness’ by Kirzner (1979) many scholars considered it to be a personality trait (Ardichvili et al., 2003). However, extant research (Hills & Shrader, 1998; Busenitz, 1996) aimed at identifying protruding, stable differences in alertness between entrepreneurs and non-entrepreneurs have reported that there are no individual differences in self-perceived alertness. Whether these findings are due to the obstacles to measuring alertness or to how alertness has been operationalized in past research remains unknown (Sandberg & Hench, 2004). However, what is known is that none of the cited studies attempted to measure the time horizon of fruition across which entrepreneurs sought opportunities.

Yet, Kirznerian alertness is sufficiently elastic to cover not only the perception of existing (arbitrage) opportunities, but also the perception of intertemporal, speculative opportunities that can only be definitely realized after the lapse of time, and even also the perception of intertemporal opportunities that call for creative and imaginative innovation (Sandberg & Hench, 2004, p. 275). Kaish &

Gilad (1991, p. 59) recommended that future research on entrepreneurial alertness examine “the mental processes that convert data into opportunities” and how this may differ between entrepreneurs and other groups because the temporal orientation and scope of one’s thinking about opportunities appeared to have a potent difference in entrepreneurial alertness (Sandberg & Hench, 2004).

Palich & Bagby (1995) compared the ability of entrepreneurs to non-entrepreneurs within the same business association to identify scenarios as opportunities or threats. Given equivocal scenarios, entrepreneurs identified more opportunities and fewer threats than other businesspeople and also saw more strengths and greater potential for improved performance than did the non-entrepreneurs. The authors concluded that through “frame of reference” training, would-be entrepreneurs might learn cognitive processes that improve one’s ability to identify opportunities. To the extent that entrepreneurs can learn creative, imaginative and speculative thinking they can become more proficient finders and creators of opportunities (Sandberg & Hench, 2004).

Gaglio (1997) subsequently focused on opportunity recognition as an innate skill or cognitive process and provided a framework where the entrepreneur has a moment of insight that his idea has commercial potential and is both alert and has the ability and potential for gain. She proposed that if these conditions are met then the entrepreneur can break the existing means-ends framework and an opportunity can be recognized. In Gaglio’s work, alertness is therefore represented as a cognitive schema where the entrepreneur’s knowledge about the market process is a mental model that guides information processing. This naturally led to the employment of cognitive psychology as a theoretical lens to the study of opportunity recognition resulting in the creation of a new rubric “entrepreneurial cognition” (Mitchell, Busenitz, Lant, McDougall, Morse & Smith, 2002; Ucbasaran, Wright & Busenitz, 2002).

A working definition of entrepreneurial cognition provided by Ucbasaran and colleagues (2002) included the use of "heuristics, higher-level learning and off-line evaluation" to spot opportunities (Dimov, 2004, p. 141). Scholars interested in how specific cognitive approaches advantage entrepreneurs over non-entrepreneurs in recognizing opportunities used this conceptualization of entrepreneurial cognition to understand how entrepreneurs create mental models that allow them to piece together previously unconnected information that lead to the identification and invention of new products or services. Empirical work on the usage of heuristics has compared entrepreneurs and managers (Busenitz & Barney, 1997) and showed that entrepreneurs use more heuristics than managers (Simon, Houghton & Acquino, 2000). Scholars later argued that it is this distinct capability that allows entrepreneurs to discover entrepreneurial opportunities (Alvarez & Busenitz, 2001). Higher-level learning pertains to "the achievement of new understanding and interpretations" (Ucbasaran et al., 2002, cited in Dimov, 2004, p. 141) and is consistent with Gaglio's notion of mental schemas.

In this context, entrepreneurial alertness is viewed as a particular schema that is of "a higher complexity, flexibility and heightened sensitivity to market disequilibrium signals" (Gaglio & Katz, 2001, cited in Dimov, 2004, p. 141). Finally, off-line evaluation is related to counterfactual thinking and mental simulations of past and future events (Gaglio, 2004). Baron (2006) saw these mental simulations of past and future events as inputs in a pattern recognition process that allowed entrepreneurs to connect seemingly unrelated and diverse events and subsequently derive specific entrepreneurial opportunities. He believed that this occurred in two ways. The first, referred to as prototype models are "idealized representations of typical everyday events" (p. 109). New events or trends are compared with existing prototypes and when there is a lack of

coherence, an emergent pattern is formed to link the diverse, independent events resulting in an opportunity to create an entrepreneurial opportunity.

Buenstorf (2007) refers to this as a "higher-order opportunity" (i.e. the opportunity to create the conditions by which an entrepreneurial act can emerge), and distinguishes it from the entrepreneurial opportunity itself. The second type of cognitive framework is known as exemplar models and emphasizes the importance of specific knowledge rather than idealized prototypes. Such exemplar models suggest that as individuals encounter new events, they compare them with specific examples already stored in memory. This idea of exemplar models is not new and mirrors the assimilation and accommodation principles of adaptation postulated by developmental psychologist, Jean Piaget, several decades earlier. Research suggests that both prototypes and exemplar models are important for opportunity recognition and this may explain why habitual entrepreneurs generally search for opportunities in industries where they are already knowledgeable.

Most of the work on cognition and the application of cognitive approaches to the domain of opportunity recognition however, have been largely theoretical. Dimov (2004) argued that while these studies provided an invaluable, detailed account of the nature of information processing and decision-making involved in the recognition of opportunities, they are less equipped for understanding why some people and not others recognize opportunities. He based some of the reasons for this on the methodological deficiencies of research designs (Busenitz, 1996) stating that too many studies seek to compare entrepreneurs with managers ignoring the fact that some entrepreneurs were managers previously and that characteristics seemingly unique to entrepreneurs could merely be a response to the situation at hand.

For example, contemporary research that links entrepreneurship and the public sector (Currie, Humphreys, Ucbasaran & McManus, 2008) effectively assumes that managers can also act entrepreneurially. Additionally, he contends that data collection post-hoc of the entrepreneurial opportunity cannot adequately capture the process of exploitation because of recollection biases and the temporal orientation of the very opportunities that trigger entrepreneurial action.

More importantly, a cognitive lens places alertness as an outcome of the entrepreneur's unique knowledge or higher-level learning. Research conducted by Ardichvili et al (2003) showed that prior knowledge gained from social networks, among other sources, were antecedents of entrepreneurial alertness. Furthermore, Tang, Kacmar & Busenitz (2012) developed and validated a 13-item alertness scale that captures three dimensions of alertness that is predicated on the degree of information the entrepreneur possesses and their ability to connect previously disparate information to evaluate existing business opportunities. As a result, we now shift the focus to the factor(s) that contribute to alertness.

2.4.3. Knowledge Asymmetry

Whether alertness is a cognitive schema or the result of a collection of mental models, the above arguments suggest that prospective entrepreneurs are alert to entrepreneurial opportunities because of knowledge or information asymmetries. Venkataraman (1997) argued that because information is generated through an individual's idiosyncratic life experiences, people will inherently possess different stocks of information. On the other hand, because knowledge is often distributed through a stochastic process (Shane, 2000) some people possess information that others do not through blind luck (Nelson & Winter, 1982).

Nevertheless, as a result of each person's idiosyncratic prior knowledge, "knowledge corridors" are created that allow individuals to recognize certain

opportunities and not others at any given time and place (Venkataraman, 1997). Prior knowledge that leads to the development of these “knowledge corridors” can arise from several sources: work experience (Aldrich, 1999), education (Shane, 2003; Shane & Venkataraman, 2000), role models and mentors as well as from networks or other social sources (Ardichvili et al., 2003; Singh, 2000; Ozgen & Baron, 2007).

Regardless of whether prior information is gained from work experience, education, or vicariously, it influences the entrepreneur’s ability to “comprehend, extrapolate and interpret new information in ways that those lacking that prior knowledge cannot replicate” (Roberts, 1991, cited in Shane, 2000, p.452). With specific reference to the discovery and exploitation of entrepreneurial opportunities, Shane (2000) proposed three dimensions of prior knowledge that are important: prior knowledge of markets, prior knowledge of how to serve markets and prior knowledge of customer problems. In his detailed field study of eight different business opportunities that were exploited from a single MIT invention, he showed that the eight new ventures were inspired by the founders’ prior work experience in the chosen market, where either their education, work experience or research gave them background information on how to formulate solutions to serve a market need. However, Shane’s work though fundamental was purely from an economic perspective that looked solely at market processes.

Shepherd & DeTienne (2005) replicated Shane’s work on a group of MBA students by manipulating the amount of prior knowledge participants possessed. Their results showed that prior knowledge had a positive effect on both the number of opportunities identified and the innovativeness of those opportunities. Their work is supported by a subsequent experiment conducted by Ucbasaran, Wright & Westhead (2003) on actual entrepreneurs that showed the positive effects of

human capital, measured in terms of prior business ownership experience, on the number of opportunities identified.

Several studies however, have established that the relationship between prior knowledge and opportunity recognition is not a direct one. Ko & Butler (2003) found that the effect of prior knowledge on opportunity recognition was mediated by individuals' bisociative thinking ability. Other scholars (Cohen & Levinthal, 1990; Shane, 2003) claimed that prior experience was not only a source of an individual's idiosyncratic knowledge but also of different absorptive capacity. Corbett (2005) later argued that the importance of learning in the process of entrepreneurship had been largely ignored and drawing on Kolb's (1984) Learning Style Inventory he proposed that the effect of prior knowledge on opportunity recognition was moderated by experiential learning. Muñoz, Mosey & Binks (2011) recently empirically demonstrated that opportunity identification (recognition) capabilities could, in fact, be learnt. These findings suggest that whether entrepreneurs search or are alert to entrepreneurial opportunities, prior knowledge and learning are important facets of opportunity recognition.

2.5. Opportunity Evaluation

Even though the entrepreneurship literature has placed much emphasis on opportunity recognition, little is known about how entrepreneurs actually evaluate opportunities (Keh et al., 2002). A small body of literature on opportunity evaluation emerged with the works of Krueger (1993; 2000) bringing an intentionality-based perspective to opportunity emergence. Under this perspective, opportunity evaluation was seen as resulting from entrepreneurial intentions derived from feasibility and desirability perceptions plus a propensity to act on opportunities (Shapero & Sokol, 1982). The entrepreneurial intentions perspective offered a means of better explaining and predicting entrepreneurship

(Krueger, Reilly & Carsrud, 2000). However, as researchers became more interested in investigating how entrepreneurs' evaluation of recognized opportunities impacts entrepreneurial action and the judgments associated with those evaluations (Wood et al., 2012), contributions followed a more cognitive approach and included work on self-regulation processes (Bryant, 2007), on heuristics and cognitive short-cuts (Mitchell et al., 2004), on expert scripts (Mitchell et al., 2000), and on the problematic features of heuristics such as overconfidence, belief in the law of small numbers, planning fallacy and illusion of control (Keh et al., 2002).

These however, were not the first set of studies to focus on the cognitive infrastructure of opportunity enactment. In fact, some of the variables included in Keh et al (2002) study were similar to Simon, Houghton & Aquino (2000) field study with MBA students. Furthermore, Baron (1998, 2000) had earlier established the role of cognitive biases or errors on entrepreneurs' decisions noting several cognitive mechanisms such as counterfactual thinking, affect infusion, attributional style, planning fallacy and self-justification that may impact entrepreneurs' thinking. More recently, Haynie et al (2009) arguing from a resource-based perspective (RBV) showed that existing knowledge resources are fundamental to entrepreneurs' judgment of recognized opportunities. Moreover, Dimov's (2010) study of venture emergence by nascent entrepreneurs revealed that entrepreneurs' evolving judgment may be described as opportunity confidence and linked to early planning while Barreto (2011) subsequently claimed that individuals form and decide to exploit opportunities based on opportunity interpretations.

While these contributions focused more on the individual entrepreneur's judgment in terms of beliefs, skills and/or traits, work by McMullen & Shepherd (2006) shed light on entrepreneurs' ability to evaluate different types of opportunities. In

distinguishing third person entrepreneurial opportunities i.e. “an opportunity for someone” from first person entrepreneurial opportunities i.e. “an opportunity for me”, McMullen & Shepherd (2006) suggest that entrepreneurs’ judgment extends beyond beliefs to actions specific to evaluating the feasibility and desirability of entrepreneurial opportunities. In fact, they draw on Hastie (2001) who suggested that the field of judgment and decision-making is about “how people...combine desires and beliefs (and this includes personal values, goals, knowledge and means) to choose a course of action” (cited in McMullen & Shepherd, p. 141).

Similarly, Buenstorf’s work on higher-order opportunities i.e. “an opportunity to create the conditions for an entrepreneurial act by means of some targeted activity” (2007, p.328) highlights the importance of the intended and also unintended acts of human agents in the entrepreneurial process. Dimov (2007a) also emphasized the importance of “doing” or “acting” when he stated that though creativity and insight play an essential role in the birth of opportunity ideas; “it is what prospective entrepreneurs do in reaction to these ideas that provide the final contours of the opportunity” (p. 561). These contributions have reinforced the notion that the transition from ideas to opportunities is dependent both on cognitive and action processes. However, extant literature has yet to produce a theoretical framework that captures both the cognitive and action processes of individuals exploring ways to produce new goods and/or services.

2.6. From Ideas to Opportunity Exploitation

Although the existing body of literature on ideas, opportunity recognition and evaluation has made a major contribution to the field of entrepreneurship and to understanding the concept of opportunity, more is required to understand the entrepreneurial experience or journey. This is where the link between idea conceptualization and opportunity exploitation is a ‘black box’. This ‘black box’

exists because the focus has been on expounding the mechanisms behind opportunity recognition and opportunity evaluation discretely rather than exploring the mechanisms required to transition through these phases of the entrepreneurial process. Extant research has focused mainly on cognitive processes required for opportunity recognition such as counterfactual thinking (Gaglio, 2004) and pattern recognition (Baron, 2006) mentioned above or on investigating the judgments associated with opportunity evaluation.

Little research has focused directly on the processes by which entrepreneurs' transition from "having an idea to deciding to exploit it" (Choi & Shepherd, 2004; Dimov, 2010) and what this might imply for research on the decisions and actions that lead to entrepreneurial action. Research by Wood et al (2012) on the cognitive processes that foster entrepreneurial action represents recent attempts to understand how entrepreneurs transition from having an idea to deciding to exploit it. Wood et al defines entrepreneurial action as "efforts by individuals to identify, develop and/or pursue ideas for introducing new products, services and/or business models in particular markets" (p. 208) and highlight that for entrepreneurial action to ensue, entrepreneurs must shift from one type of cognitive processing to another as they move through the phases of opportunity recognition and evaluation.

Drawing on research on human action and cognition, they offer an integrative model of the cognitive processes that foster entrepreneurial action. Their work shed light on how an entrepreneur's thinking evolves from the emergence of an opportunity idea to the initiation of concrete entrepreneurial acts by drawing attention to several cognitive inflection points that indicate changes in mental processing as entrepreneurs move through the process of entrepreneurial action. The proposed model comprises four classes of cognitive processing required at different stages of the entrepreneurial action process. Specifically, attention

cognitive processes prior to the identification of entrepreneurial opportunities, association cognitive processes at the stage of opportunity recognition, rule-based cognitive processes for opportunity evaluations and cognitive processes of intentions to transition from opportunity evaluation to entrepreneurial action. See Figure 2-2 below for a depiction of Wood's model.

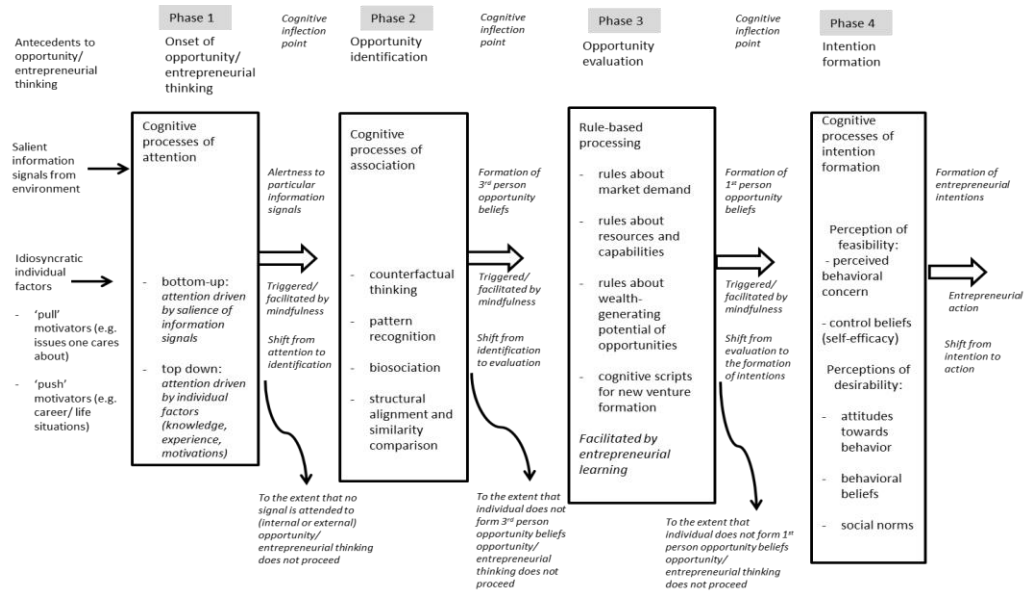


Figure 2-2 Phases of the Entrepreneurial Process (Wood et al., 2012)

The model proposed by Wood et al (2012), depicted in Figure 2-2 above, has certainly laid a foundation for future research on the cognitive processes associated with the transition from idea to opportunity exploitation. Drawing upon extant research on entrepreneurial alertness and intentionality-based models of opportunity emergence, it provides one perspective on the cognitive challenges of switching from one form of thinking to another as entrepreneurs move through the entrepreneurial process. However, though it was the intent of the authors to identify and explain the different cognitive processes at work as entrepreneurs transition through the phases of entrepreneurial process, their integrative model of entrepreneurial action with phases of pre-opportunity identification, identification, evaluation and intention formation only identifies the different cognitive processes at work as one travels the road from idea conceptualization to opportunity exploitation. Accordingly, our understanding of the cognitive bridges

connecting the various segments of this road remains poorly understood (2012: 244). Furthermore, the entrepreneurial process undergone by entrepreneurs is as much an action process as it is a thinking process. Their model only highlights the mental processes or “cognitive inflection points” associated with the process. Scholarly understanding of the thinking and action processes of entrepreneurs during these phases (idea phase through to opportunity recognition and evaluation phases) and in the transition from one phase to the next remains limited because this model (and previous models in the literature, see Bhawe, 1994; Ardichvili et al., 2003) depict the entrepreneur as following a linear path of opportunity development.

Dimov (2011) argued that although the entrepreneur is depicted as a prescient progenitor following a hidden but linear path s/he in fact follows an iterative process filled with a series of actions and events. He contends that what remains to be explained is the relationship between the progenitor (the entrepreneur), the idea and the fleeting circumstances that bring them together. Since Dimov’s claim, there has been a lack of theoretical or empirical contributions that unpack the entrepreneurial process and address the different kinds of cognitive and action processes that underpin entrepreneurial action.

More importantly, there has been a dearth of contributions that map out the iterative nature of the entrepreneurial process and explain the relationship between the entrepreneurial actor, the venture idea and the circumstances that bring them together. As such, the gap in the literature is in exploring the iterative nature of the entrepreneurial process and in explaining how entrepreneurs’ make sense of the entrepreneurial process as they transition from idea conceptualization to opportunity exploitation. The thesis addresses this gap by bridging sensemaking theory and the entrepreneurial process.

2.7. Part II: A Sensemaking Perspective

The vital task of entrepreneurs is to make opportunities happen. Despite the common perspective shared in the academic literature, making opportunities happen is an iterative process of shaping and development rather than a gradual, linear process of exploitation (Dimov, 2011). The Weickian sensemaking perspective is proposed here, as one approach that can be utilised to map out the entrepreneurial process and capture the decisions and actions that occur during opportunity exploitation. In so doing, it can highlight the iterative nature of this process and explain how entrepreneurial actors make sense of opportunities as they transition from having a venture idea to deciding to exploit it.

2.8. The Concept of Sensemaking

Taking a semantic approach, the concept of sensemaking literally means 'the making of sense'. But what is it that we are making sense of? As actors in a social world, we make sense of everything. As scholars seeking to understand human action via sensemaking, because the phenomenon we are studying is everywhere, we are more likely to see sense that has already been made rather than witness the actual making of it. According to Weick (1995), the essence of sensemaking is captured by Huber & Daft (1987) and Waterman (1990) who saw that actors in the social world tried to give structure to that which was unknown by constructing sensible (sensible) events. In fact, he argues that to understand sensemaking is to understand how actors construct what they construct and why, and with what effects.

However, in order to answer these questions it is not enough to say that sensemaking is the making of sense. How do actors make sense? How do they construct sensible (sensible) events? The sensemaking literature suggests that knowledge plays an integral role in how people make sense and what they make

sense of. Weick (1995) describes two kinds of sensemaking that distinguishes between two different types of knowledge individuals are faced with when making sense of their situations. One is intersubjective sensemaking and "it is essential for exploring new depths in an area, for creating new connections among ideas or for imagining new kinds of activities" (Dougherty, Borrelli, Munir & O'Sullivan, 2000:324). It is the process by which people make sense of "new or tacit knowledge (such as emerging technologies or new strategic paths) by interacting face-to-face to communicate interpretations of these, to sort out possible attributes of them and to explore the different takes on them" (Dougherty et al., 2000:324; Weick, 1995).

However, people cannot make sense of new insights without old ones i.e. existing knowledge helps to order and accumulate new knowledge. Thus, the second type of sensemaking – generically subjective sensemaking helps people make sense of articulated or codified knowledge that exists in shared understandings such as roles, norms, routines and habituated action patterns (Dougherty et al., 2000). Weick (1995) postulated that individuals can and do engage in both kinds of sensemaking and conceptualized it according to different levels within which individual sensemaking is transformed starting from the intrasubjective (or individual) level and moving to intersubjective and more generic subjective sensemaking which represents the unfolding of change across intersubjective levels (Drazin, Glynn & Kazanjian, 1999:292).

Dougherty et al (2000) subsequently stated that the degree to which an organization engages in intersubjective and generically subjective sensemaking influences how they link market and technology knowledge into new products. They found that generic ideas were more innovative among those organizations that were able to make both intersubjective and generically subjective sensemaking more fluid such that it weaved new knowledge into existing than

those organizations where intersubjective and generically subjective sensemaking were restricted and new knowledge was limited to improving existing operations or was converted to fit established, existing standards.

While Dougherty focused on organizations, his contribution is relevant here because organizations are made up of individuals and it is essentially individual sensemaking that drives idea generation which subsequently leads to new product development or new technologies. New insights can, therefore, be gained by a focus on the organizational "actors" i.e. on adopting an individual level of analysis rather than an organizational one. Dunbar (1981) and Goleman (1985) adopted this view that sensemaking was some kind of framework or frame of reference which actors used to "comprehend, understand, explain, attribute, extrapolate and predict" (Starbuck & Milliken, 1988:51) stimuli present in their immediate environment.

Louis (1980) writing from a sociological background offered a slightly different view of individual sensemaking as a thinking process that uses retrospective accounts to explain surprises. In this vein, sensemaking is a recurring cycle comprised of a sequence of events (that happen over time) allowing individuals to make conscious and unconscious assumptions or predictions about the future. However, on occasion, individuals encounter events that are discrepant from their predictions and are faced with surprising, unfamiliar events that warrant explanation. Louis (1980) contends that discrepant events or surprises that warrant an explanation or some need of "post-diction" trigger a process through which interpretations of the discrepant experience are developed.

For Louis, these interpretations are an "output of the sensemaking process rather than arising concurrently with the perception or detection of differences" (p.241). Schroeder, Van de Ven, Scudder & Polley (1989) however, disagreed and argued

that sensemaking was as much an immediate, concurrent process as it was retrospective. He claimed that sensemaking is preceded by some kind of shock (could be one of necessity, opportunity or threat) which stimulated people's action threshold to pay attention and initiate novel action therefore, suggesting that sensemaking can be immediate as well as retrospective.

Cornelissen & Clarke (2010), writing from an entrepreneurship perspective, contended that "although sensemaking has often been considered as retrospective it may also be prospective in the context of new ventures" (p. 542) because some entrepreneurs create both the conditions and the market for new ventures and to possess such foresight means they must be able to make sense of potential future opportunities they believe exist or rather will exist. From an objective standpoint, all three scholars have captured sensemaking. In fact, Swann (1984) was the first to describe sensemaking as an "ongoing effort" and Weick (1995) later postulated that to talk about sensemaking is to talk about reality as an ongoing accomplishment that takes form when people make retrospective sense of the situations in which they find themselves and their creations" (p.15). If sensemaking is "ongoing", it never stops perhaps because it never starts and can in fact be prospective, immediate and concurrent as well as retrospective.

Up to this point, it seems as though sensemaking has only been depicted as a thinking process. However, sensemaking as a cognitive mechanism also involves action. In fact, Louis and Schroeder et al both mention "action" in conjunction with sensemaking. Additionally, Sackman (1991) refers to sensemaking mechanisms in relation to organizational members as the standards and procedures for perceiving, interpreting, believing and acting that are typically used in a given cultural setting (cited in Weick, 1995:5). However, Feldman (1989, cited in Weick, 1995:5) insists that sensemaking often does not result in

action but rather merely an understanding that action should not be taken or that more information is required resulting in organizational members having more and different information about a particular issue.

Thomas, Clark & Gioia (1993) sought to resolve these competing views by describing sensemaking as "the reciprocal interaction of information-seeking, meaning ascription and action" (cited in Weick, 1995:5). However, it was Gioia & Chittipeddi (1991) work on strategic change in organizations that cemented the notion of sensemaking as both a thinking process and an action process. Their findings showed that sensemaking was a private, singular activity involving "cycles of cognition and action" (p. 443). Additionally, they suggested that individuals do not only engage in sensemaking but also sensegiving, which is concerned with "attempts to influence the way that another party understands or makes sense" (p.443). This can include the use of gestures (Cornelissen, Clarke & Cienki, 2012), language (Weick, 2005), metaphors (Nicholson & Anderson, 2005; Hill & Levenhagen, 1995), rhetoric (Watson, 1995; Holt & Macpherson, 2010) and narratives (Cunliffe & Coupland, 2012; Abolafia, 2010; Downing, 2005).

2.9. The Concept of Sensegiving

Sensegiving is an interpretive process (Bartunek, Krim, Necochea & Humphries, 1999; Gioia & Chittipeddi, 1991) in which actors influence each other through persuasive or evocative language (Dunford & Jones, 2000; Snell, 2002). The term 'sensegiving' was coined by Gioia & Chittipeddi (1991) to describe the process by which organizational leaders and stakeholders attempted to influence the sensemaking and meaning construction of others (Maitlis & Lawrence, 2007). Sensegiving however, is not only a prevalent activity in organizations but also a critically important one for leaders effecting major changes or stakeholders

affecting strategic decision-making (Maitlis & Lawrence, 2007). Moreover, sensegiving is very much an individual activity.

Several sensegiving strategies have been identified in the literature from research conducted on the tactics leaders use to effect change in organizations. In Gioia & Chittipeddi's (1991) study the primary sensegiving agent used meetings and scenario presentations as his sensegiving tactics. In another study by Bartunek and colleagues (1999) sensegiving took the form of constructed opportunities that appealed to the values of the receivers. Corley & Gioia (2004) in their study of identity change found that leader sensegiving represented an attempt to provide either new labels to describe the company or new meanings underlying these labels. Others (Dunford & Jones, 2000) have looked at sensegiving as storytelling where narratives played a key role in leader sensegiving.

While all these studies focus on organizational leaders and their sensegiving tactics, sensegiving as a leadership activity is analogous to sensegiving as an entrepreneurial activity. Entrepreneurs are leaders also and often effect major changes when attempting to start their own ventures. They must also use evocative language and the construction of narratives, symbols and other sensegiving devices to gain and sustain support for new ventures. Examples of sensegiving in the entrepreneurship literature have therefore, been similar with entrepreneurs using stories and rhetoric (Holt & Macpherson, 2010) and more recently gestures to gain and sustain legitimacy for new ventures (Cornelissen et al., 2012).

2.10. Sensemaking Properties

From the above literature review, the emerging picture is one of sensemaking as a process of framing an ongoing flow of events into a plausible, retrospective

account that explains action in relation to feedback from the social world. Weick (1995) summed up these features into seven (7) key properties by which sensemaking can occur: identity construction, retrospective, enactment, social order, ongoing events, cues and plausibility over accuracy. He and colleagues (2005) later added that language, talk and communication were central to sensemaking such that an individual's environment and related events were essentially talked into existence. This is analogous to sensegiving as individuals do not only make sense of their situations but they also attempt to influence or shape the interpretations of others through the use of language, metaphors, narratives, gestures and other sensegiving tactics. As such, sensegiving is a fundamental sensemaking device (Holt & Macpherson, 2010). We will now consider each of the seven (7) properties of sensemaking including sensegiving and its application to entrepreneurship.

2.10.1. Identity Construction

The establishment and maintenance of identity is a core preoccupation in sensemaking. Sensemaking processes are derived from the need within individuals to have a sense of identity – that is “the general orientation to situations that maintain esteem and consistency of one's self conceptions” (Weick, 1995:22). It is very much an individual activity. However, “the” individual “is a typified discursive construction” (Knorr-Cetina, 1981, cited in Weick, 1995, p.20) meaning that although sensemaking begins with a sensemaker and seems like a singular activity no individual ever acts like a single sensemaker. This is because individual identities are constituted out of a process of interaction and to shift among interactions is to shift among definitions of self.

In effect, the sensemaker is an ongoing puzzle undergoing continual redefinition, coincident with presenting some self to others and trying to decide which self is appropriate. According to Weick (1995), the processes that determine and sustain

a person's changing sense of self are deemed to operate in the service of three self-derived needs: (1) the need for self-enhancement, as reflected in seeking and maintaining a positive cognitive and affective state about the self; (2) the self-efficacy motive, which is the desire to perceive oneself as competent and efficacious; and (3) the need for self-consistency, which is the desire to sense and experience coherence and continuity (p.22).

In addition to this, individuals also take their cue for their identity from the conduct of others. The discovery of who I am through how and what I think i.e. ("How can I know what I think until I see what I say?") is partly in relation to others. Individuals' self-concept and personal identities are formed and modified in part by how they believe others view the world and the conduct of others based on these beliefs but they make an active effort to influence this conduct to begin with and as such, there is a complex mix of proaction and reaction in sensemaking (Weick, 1995).

2.10.2. Retrospective

The idea of retrospective sensemaking is derived from Schutz' (1967) analysis of "meaningful lived experiences." The key word in the phrase is lived because it captures the reality that people only know what they are doing after they have done it. According to Pirsig (cited in Weick, 1995), "reality is always the moment of vision before intellectualization takes place. There is no other reality" (p, 24). Similarly, Hartshorne (1962, cited in Weick, 1995:24) argued that man has discovered that his perceived world is in reality a past world and that any object outside the body, however close, is at least minutely past, by the time it is perceived. Mead (1956, cited in Weick, 1995) also contends that we are conscious directly only of what we have done, never of doing it. He stated that it is through our sensory processes that we become conscious of our motor processes and as such, we are always a little behind or our actions are always a little ahead of us.

This hindsight bias affects everyone; however, the difference is in the meaning that is ascribed to these lived experiences. Schutz (1967:63) claimed that meaning is not attached to the experience itself but instead the meaning is in the kind of attention that is directed to the experience. The problem is that there are too many meanings (Weick, 1995) and meanings can change as situations and goals change (Gioia & Chittipeddi, 1991). Individual sensemaking is therefore, an activity in which many possible meanings need to be synthesised and as such, the sensemaker is faced not with "uncertainty but equivocality" (Weick, 1995:27). Multiple meanings that can lead to information overload create problems of confusion which can then lead individuals to ignore certain meanings or information.

More importantly, retrospective sensemaking highlights the significance of time in ascribing meaning to experiences. Schutz, Pirsig and Hartshorne highlight the fact that time exists in two distinct forms: as pure duration and as discrete segments, and it is only when we retrospectively make sense of situations does time become discrete and our sensemaking is relegated to our memories of the experience (cited in Weick, 1995:25-26) and according to Hartshorne (1962), if memory is defined as "experiences of the past" then all perception is a form of memory. However, because time is also fluid (pure duration) in so much that we fail to notice in our immediate reactions, the limitations of basing decisions on what may be merely memories is somewhat reduced.

2.10.3. Enactive of sensible environments

Enactment is first and foremost about action in the world not about conceptual pictures of the world (Weick, 1995:36). According to Follett (1924), action is crucial for sensemaking. She contends that people receive stimuli as a result of their own activity. Thomas et al (1993) goes further to state that the concept of sensemaking keeps action and cognition together much like Gioia & Chittipeddi

(1991) concluded in their work on strategic change initiation that sensemaking involves cycles of action and cognition. Individuals are thus, the creators of their own environments; they create the materials that become the constraints and opportunities they face (Weick, 1995:31).

However, creation is not the only thing that can be derived from action. Blumer (1969, cited in Weick, 1995:37) argued that people have the capacity to inhibit, abandon, redirect or postpone, among other things, a given line of action. In this way, it can be said that people can also discover a given line of action. As aforementioned in the previous section, time can be both fluid and discrete, and according to Starbuck & Milliken (1988) individuals cope with the fluidity of time (pure duration) by bracketing, punctuating or basically breaking up time into discrete periods. When people bracket however, "they act as if there is something out there to be discovered and act like realists, forgetting that the nominalist in them uses a priori beliefs and expectations to "find" seams worth punctuating" (cited in Weick, 1995:35).

The enacted world is also subjective because it has its origin in mental models derived from causally connected experiences that were part of the strategizing that carved out the subjective interpretations in the first place. These subjective interpretations of externally situated information become "external and objectified by behaviour in so much as people then discover their own intentions" (Weick, 1995:37). Alternatively, one could argue that people can also discover not only their intentions but also the intentions of others.

2.10.4. Social

While sensemaking is often construed as individualistic, it is never solitary because what a person does internally is contingent on others. According to Resnick et al (1991, cited in Weick, 1995), "human thinking and social functioning

are essential aspects of one another” (p. 3). Decision-making occurs either in the presence of others or with the knowledge that these decisions may be implemented, understood or approved by others (Weick, 1995). Thus, on an individual level, one’s conduct is contingent upon the conduct of others. According to Allport (1985), this contingency holds whether those others are imagined or physically present.

Although it is important to conceptualize sensemaking as a social process, it is also important to go beyond the idea of shared meanings and a shared understanding as the epitome of social activity. In fact, on one hand, Blumer (1969) argues that while common values and shared meanings are viewed as the “glue” that holds human society together, conflicting values are also important. This is because conflict destabilizes existing institutional logics causing actors to question “taken-for-granted” assumptions about their social world. This conflict offers an opportunity to learn and either re-establish or break away from the status quo. As such, the sharing of common values is not necessary but rather workable relations that allow for compromise and co-dependency in order to achieve respective ends. Czarniawska-Joerges (1992) on the other hand, argues that it is the experience of social activity that is shared rather than meanings. In this way, talk, discourse and conversations become very important for sensemakers as it is through language and communication that social contact is mediated.

2.10.5. Ongoing

In the section on retrospective sensemaking, the significance of time to the process of sensemaking was explained and the fact that time exists in two forms: pure duration and discrete segments was highlighted. More importantly however, time only becomes discrete when individuals try to make sense of situations retrospectively, by bracketing or punctuating their experiences. Time as “pure

duration" however, never stops; it is a constant flow and to understand sensemaking is to understand how people "chop moments out of continuous flows and extract cues from those moments" (Weick, 1995:43). "People are always in the middle of things, which only become "things" when those same people focus on the past from some point beyond it" (1995:43). In effect, sensemaking never starts and the reason for that is because time is a continuum that never stops.

The reason people try to make sense of situations retrospectively or "chop moments out of continuous flows" is because the ongoing activity of sensemaking has been interrupted and they must make sense of the interruption and initiate appropriate action in order to complete the original process of sensemaking. Interruptions induce emotional responses or a state of arousal that signals that important changes have occurred in the immediate environment. Arousal has both physiological and psychological significance that in turn triggers a rudimentary act of sensemaking. It provides a warning that there is some stimulus to which attention must be paid and that appropriate action must be taken to remove or resolve the interruption (Weick, 1995).

2.10.6. Cues

It has been established that sensemaking is both an ongoing activity as well as a means by which individuals retrospectively deal with interruptions to situations they find themselves in the middle of. The question however, is how individuals deal with such interruptions to their organized sequence. The answer lies in the way individuals notice, extract and embellish cues. Cues are "simple, familiar structures that are seeds from which people develop a larger sense of what may be occurring" (Weick, 1995:50). These cues are only as relevant as the context they are extracted from; context affects what is extracted as well as the interpretation of the extracted cue. Since sensemaking tends to be swift; meaning it is more likely to see products than processes, cues become very

important in mapping the process. By tying elements in the process together cognitively, cues outline the passage from an indeterminate to a more well-articulated state of affairs. These cues are then given even greater weight when people act as if they are real (Weick, 1995:228-230).

2.10.7. Plausibility over Accuracy

To recap, sensemaking is about how individuals (identity construction) make sense of their situations (ongoing) and deal with interruptions to this ongoing flow (retrospective) by initiating some form of action (enactment), which is contingent on the conduct of others (social) as well as an ability to notice and extract relevant content (cues) that helps explain the action taken. What remains to be discussed therefore, is how individuals explain or account for their actions. It is here that language/sensegiving is most important, as it is the way in which individuals convey the decisions that led to their actions.

"Sensemaking takes a relative approach to truth, predicting that people will believe what can account for sensory experience but also what is interesting, attractive, emotionally appealing and goal relevant" (Fiske, 1992:879, cited in Weick, 1995:57). This means that the criterion of accuracy is secondary in any analysis of sensemaking because the emphasis is on the world view in which the individual sensemaker operates and accuracy is meaningless when each individual sensemaker constructs or rather reconstructs the past in hindsight and has a filtered sense of the present (Weick, 1995:57). In this way, sensemaking is about accounts that are socially acceptable and credible. What is necessary for sensemaking then is plausibility rather than accuracy. Table 2-1 below summarizes the sensemaking properties.

Table 2-1 Sensemaking Properties

Grounded in Identity Construction	The discovery of who I am through how and what I think, in relation to others
Retrospective	Creation of meaning from reflection and conceptualization of meaningful lived experience
Enactive of sensible environments	Constructing reality and order from creating, acting, and relating; producing part of the environment we face
Social	Contingent on conduct and interaction with others in shared learning, meaning construction and negotiated or joint action
Ongoing	'In process' and emergent – in-flow but subject to interruption and emotionality
Focused on and by extracted cues	Selective structuring of experience and meaning dependent on context
Driven by plausibility rather than accuracy	Coherence, reasonableness and emotional appeal are important in producing socially acceptable accounts or good stories. (language/sensegiving)

2.11. Sensemaking-Sensegiving Approach (SSA)

Sensemaking and sensegiving are not new concepts. However, they are still regarded as 'emergent' and ones that have been largely absent from entrepreneurial research. One notable exception is a contribution made by Hill & Levenhagen (1995) who used the concepts of sensemaking and sensegiving to explain how entrepreneurs cope with ambiguity by using mental metaphors. Similarly, Baez & Abolafia (2002) embodied all the aforementioned properties when they described sensemaking as a set of cognitive strategies for interpreting reality where actors normally enact routine behaviour most of the time but when faced with substantive interruptions to the established order or status quo such as new information, new technologies or changes in government policies, among others, some actors respond to these extraordinary interruptions as fundamental

exchanges in their environment and those cues lead them to alter routines to accommodate new expectations which they then share with others.

Besides validating Weick's seven (7) properties for sensemaking to occur, Baez & Abolafia (2002) also highlighted the importance of language and communication, which can be considered as the eighth criteria for sensemaking to occur. Entrepreneurs often use powers of persuasion, symbolic communication or strategic repertoires to build the trust of institutional actors and get them to perceive the opportunity through their eyes resulting in a shared reality. This notion of a shared reality parallels earlier discussion on sensegiving or attempts to influence others' interpretation of a given situation. While they were not the first authors to describe human behaviour in terms of 'sensemaking' and 'sensegiving', they applied this approach, in a public sector context, to identify and explain entrepreneurial behaviour, which is the focus of this thesis – specifically opportunity-based behaviour. However, the thesis will focus on early-stage entrepreneurial actors.

Cornelissen & Clarke (2010) argued for the application of a sensemaking approach to identify and explain entrepreneurial behaviour in the context of novice and experienced entrepreneurs, specifically during the early stages of new venture creation. They contended that a sensemaking approach predicated on a "direct relationship among language, cognition and enactment of entrepreneurs" (2010:539) could help develop a conceptual framework of the process undertaken by entrepreneurs to "imagine, refine and justify the idea for a new venture to others" (2010:539). The authors have undoubtedly contributed to the literature on new venture creation as well as sensemaking by exploring how entrepreneurs imagine and rationalize ideas for new ventures.

However, the focus of this thesis is to understand and explain not just the process undertaken by entrepreneurs to imagine and refine the idea for a new venture but the process of transition from idea conceptualization to opportunity exploitation that leads to the creation of new ventures. Additionally, the authors only utilised two of the properties of sensemaking – language and enactment, the latter, which includes cognition and have regarded the other properties as negligible. Even though the arguments for the properties selected are noteworthy, because this thesis will attempt to map out the process undertaken by entrepreneurs from the imagining of ideas to the recognition of an entrepreneurial opportunity and resultant formation of a new venture, and not just examine how entrepreneurs justify or legitimize their ideas, all the properties of the sensemaking approach will be utilised as a framework to unpack this process of entrepreneurial action.

Wood & McKinley (2010) on the other hand, specifically applied a sensemaking approach to explain the production of entrepreneurial opportunities. For these authors, entrepreneurial opportunities “arise from the efforts of individual entrepreneurs as they develop pathways to an imagined business venture” (2010:70). They argue therefore, that entrepreneurs are “an integral part of opportunity emergence as they invent parts of what they believe to be viable” and once they have invented the opportunity in their mind they will “engage in sensemaking” to test its viability “through interaction with family, friends and mentors” (2010:70). In this way, sensemaking acts as a means of objectifying the opportunity. The authors claim that “this objectification process transforms the subjectively represented idea into an objectified opportunity that has, for the entrepreneur, the quality of an external reality” (2010:70).

While these authors focused on the transition from idea conceptualization to entrepreneurial opportunity, their use of sensemaking was limited to a

mechanism for validating an entrepreneurial opportunity, and that too only in the mind of the entrepreneur. Other studies that have focused on how entrepreneurs validate opportunities or rather legitimize ventures have mainly adopted a sensegiving lens. This includes work by Holt & Macpherson (2010) on entrepreneurs' use of stories and rhetoric and work by Cornelissen et al (2012) on the use of non-verbal articulation such as gestures by entrepreneurs when they are communicating a meaningful course for a new venture. This study will seek to use both sensemaking and sensegiving as an integrated approach to capture both the decisions and actions that lead to entrepreneurial action because the entrepreneurial process may begin with the imagining of venture ideas but requires action oriented towards creating that new venture.

2.12. Chapter Summary

In this chapter, a literature review of the opportunity construct was presented and the implications of situating opportunity at the heart of the entrepreneurial process were discussed. This led to a realization that although opportunity has been treated as a theoretical construct, making opportunities happen is a practical, iterative process involving a series of actions and events. By situating opportunity as a real entity in the entrepreneurial process, it became apparent that the gap in the literature is in explaining how an entrepreneur makes sense of opportunities as s/he transitions from idea to enterprise. The Weickian sensemaking approach, together with sensegiving was explored as a possible theoretical framework for examining the entrepreneurial process and explaining how an entrepreneur transitions from idea conceptualization to opportunity exploitation. In the following chapter, this sensemaking (sensegiving) approach is presented as the basis of the theoretical framework to be used in this study.

Chapter 3 Theoretical Framework

In this chapter, the sensemaking (sensegiving) approach, (hereafter referred to as SSA), introduced in the literature review is expanded upon with specific reference to the entrepreneurial process. The application of the sensemaking and sensegiving theories to entrepreneurship is depicted in the form of a conceptual model to facilitate the research process. Finally, the merits of utilising SSA as a theoretical lens to unpack the entrepreneurial process and explain how an entrepreneurial actor transitions from idea conceptualization to opportunity exploitation are discussed.

3.1. SSA and the Entrepreneurial Process

Scholarly understanding of the entrepreneurial process and of how this process unfolds over time is greatly lacking in the field of entrepreneurship. What should have been a timely era to advance our understanding of opportunities has resulted in more empirical and theoretical contributions that are at best equivocal (Dimov, 2011). Moreover, recent studies, which are portrayed, as progressive and contributing to the development of the field are in fact rudimentary, lacking a unifying theory and pervade an almost relentless focus on the entrepreneur disguised under the rubrics of entrepreneurial cognition and entrepreneurial learning.

SSA is appropriate for examining the entrepreneurial process because the concept of sensemaking is in itself a process - the way in which we continuously interpret the world around us and create new meaning through our interaction with it (Weick, 1995). It is an everyday activity and "entrepreneurial action can only be fully understood if it is looked at both as a facet of wider society and culture in which it occurs and as something that human individuals actively engage with – as entrepreneurial actors" (Watson, 2009:251).

Additionally, the notion of sensemaking has been previously linked to entrepreneurship and more specifically to entrepreneurial opportunity recognition where "opportunity recognition is an aspect of the retrospective sensemaking that follows action". In other words, "opportunities would be the result of what individuals do rather than the result of what they see" (Gartner, Carter & Hills, 2003:109-110).

In terms of using SSA to examine the entrepreneurial process, this would be a novel lens for examining the entrepreneurial process as the extant literature on this topic is overflowing with human capital and information processing theories (Wood et al., 2012) or the structuration view of the relationship between the individual and the opportunity (Sarason et al., 2006). Furthermore, process models of venture creation by Bhawe (1994) and theoretical mappings of the opportunity identification process by Ardichvili et al (2003) while ground-breaking in its time have not adequately captured the iterative nature of opportunity recognition and evaluation. SSA can unpack the entrepreneurial process as well as explore the iterative relationship between the entrepreneurial actor, the venture idea and resultant opportunity.

SSA also offers a unique opportunity to better understand the cognitive abilities of entrepreneurs, and support extant literature on entrepreneurial cognitions. Extant research in the field of entrepreneurship that has sought to understand the cognitive capacity of entrepreneurs has mainly involved comparisons between entrepreneurs and non-entrepreneurs or entrepreneurs and managers. Little research has shown how entrepreneurs make sense of the complex world around them with the exception of Baron's (1998) hypotheses on how entrepreneurs may cope with cognitive errors and biases such as self-serving bias (attributing positive outcomes to internal causes and negative outcomes to external causes), affect infusion (when feelings shape thoughts and actions), planning fallacy

(tendency to overestimate how much can be accomplished in a given time), counterfactual thinking (imagining what might have been) and escalation of commitment (too much invested to quit). There has been a lack of research that examines how entrepreneurs make sense of opportunities in their environments differently to other entrepreneurs that result in novel actions.

In addition to this, Wood et al (2012) stated that the "richness of past contributions has masked the absence of an integral framework to organize the different kinds of cognitive processes that underpin entrepreneurial action" (p.207). However, to date, there has been a lack of theoretical or empirical contributions that address the different kinds of cognitive and action processes that underpin entrepreneurial action. Moreover, a theoretical framework that captures both the cognitive and action processes of individuals exploring ways to produce new goods and/or services is still required to advance our understanding of the entrepreneurial process. SSA seeks to do this while shedding light on the relative importance of intentional and emergent processes that lead to the development of new products, services and/or ventures.

Operationalizing SSA will involve interpreting the actions and decisions of entrepreneurial actors by reflecting upon seven (7) core questions related to the seven (7) sensemaking properties espoused by Weick (1995) through which sensemaking can occur: (1) How is identity used in enacting the opportunity? (2) How is retrospection used to make sense of the opportunity? (3) How was the opportunity enacted? How do the entrepreneurial actors describe the environment? (4) How do the entrepreneurial actors develop the opportunity in a social context? (5) In what ways are their sensemaking ongoing? (6) What were the cues focused on? (7) Is the entrepreneurial journey driven by plausibility or accuracy?

Additionally, as previously mentioned, individuals do not only engage in sensemaking but also sensegiving which is concerned with attempts to influence the way that another party understands or makes sense (Gioia & Chittipeddi, 1991). Accordingly, an additional question about how language and gestures are used by entrepreneurial actors to convey the idea, the opportunity and the venture will also be included.

These seven or rather eight tenets are most appropriate for understanding the entrepreneurial process that leads to the enactment of entrepreneurial opportunities. Firstly, because the entrepreneurial actor is an integral part of opportunity enactment, the entrepreneurial process is grounded in identity construction where the entrepreneurial actor can adopt multiple identities ranging from business owner to change agent. Secondly, entrepreneurial action is an ongoing process or series of events that are stimulated by cues from the environment. The entrepreneurial actor may have to overcome cognitive biases such as affect infusion, the planning fallacy and self-serving biases. How s/he copes with these biases may influence retrospective and prospective sensemaking.

Furthermore, when entrepreneurial actors rationalize pursued and missed opportunities retrospectively (once they have acted (enacted)) and validated their actions in the social world, they may also engage in counterfactual thinking and experience an escalation of commitment as they construct a plausible account of the events through the use of language, gestures, talk and/or communication.

This study will provide an interesting opportunity to compare the sensemaking processes of different entrepreneurial actors and identify and explain any differences in opportunity recognition among a cross-section of individuals who are revered and represented in the literature as a homogenous group, distinct

from the rest of the population. Figure 3-1 below shows a conceptual model of the entrepreneurial process and the role of sensemaking and sensegiving in the entrepreneurial process together with the proposed research question.

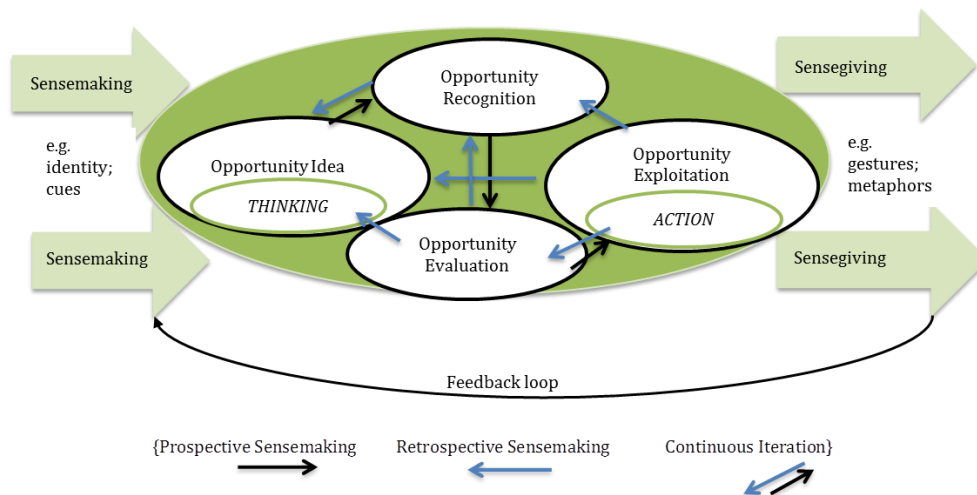


Figure 3-1 A Conceptual Model of the Entrepreneurial Process using SSA

Research Question: How do early-stage entrepreneurial actors make sense of the entrepreneurial process as they transition from having an idea to deciding to exploit it?

3.2. The Conceptual Model

Given the lack of an agreed upon definition for “an idea” and the difficulty in differentiating it from “an opportunity” because of the considerable overlap that prohibits a clear demarcation of where one ends and the other begins, ideas are conceptualized in the model above as products of “cognition” (thinking). This means that brainstorming, preliminary solutions for identified problems and identification of market needs or gaps by entrepreneurial actors are considered to be ideas because they do not require specific action. Thus, a venture idea is defined as “a preliminary solution for an identified problem or a goal a prospective entrepreneur wants to achieve that may take the form of imprecisely-defined market needs or un/under employed resources.”

At the opposite end of the model, opportunities that are exploited are conceptualized as products of "action" which involves the actual introduction of new products or services to particular markets or to new markets that have been created. As such, an entrepreneurial opportunity is defined as a "situation (the entrepreneurial actor, the venture idea and the fleeting circumstances that bring them together) in which new goods, services, raw materials or organizing methods are introduced into the market or the creation of a new market". However, to make the transition from idea generation to opportunity exploitation requires both cognition and action. As action is taken to realize ideas, they move closer to becoming opportunities. Moreover, ideas and opportunities are distinguished by the degree of cognitive and action processes undertaken by entrepreneurial actors.

This definition of an entrepreneurial opportunity is a combination of work on entrepreneurial opportunity by seminal authors (Dimov, 2011; Shane & Venkataraman, 2000; Eckhardt & Shane, 2003, Casson, 1982) and represents a conceptualization of an entrepreneurial opportunity indicative of the advancement of the field. Traditional definitions of an entrepreneurial opportunity have been challenged for its inapplicability to individual cases because of the emphasis it places on the objective existence of something that prospectively can only be discussed as a speculative idea and that can be fully articulated and explained only retrospectively (Dimov, 2011:60). It is argued here, that the proposed definition of an entrepreneurial opportunity emphasizes situations or conditions under which something is happening. It links the entrepreneur, the idea and the circumstances that lead to the recognition and evaluation of opportunities. In effect, it captures the prospective and retrospective dimensions of the entrepreneurial opportunity.

Chapter 3: Theoretical Framework

Entrepreneurial behaviour that is grounded in identity construction involves creating an entrepreneurial identity or becoming an entrepreneur. The development of entrepreneurial identity is visible through the narrative construction of the entrepreneurial journey. What the entrepreneur does shapes his/her identity and as such, observing the actions of the entrepreneur is also very important in understanding identity formation and evolution. The role of the family and its influence on entrepreneurial aspirations are also important indicators of becoming and behaving as an entrepreneur in society and can shed light on tensions between current and future identities that can lead to entrepreneurship.

The creation of meaning from reflection and conceptualization of meaningful lived experience is an important part of the entrepreneurial journey. Learning is an emergent, sensemaking process that entrepreneurs continually undergo. Through learning, entrepreneurs construct meaning through experience in a context of social interaction and create new reality. Both entrepreneurship and learning are behavioural and social processes so they are not just about 'knowing' but also 'acting' and they are not simply individual but constantly involve interaction with other people. Entrepreneurial learning involves learning to recognize opportunities and acting on those opportunities.

Enactment in entrepreneurship is all about recognizing opportunities and acting on those opportunities to create new goods, services or ways of organizing in existing markets or even the creation of new markets. It begins with the generation of ideas and is a process of building those ideas into opportunities. This process is ongoing, iterative, and can involve a series of intentional and emergent decisions and actions. Cornelissen & Clarke (2010), writing from an entrepreneurship perspective, contended that "although sensemaking has often been considered as retrospective it may also be prospective in the context of new

ventures” (p. 542) because some entrepreneurs create both the conditions and the market for new ventures and to possess such foresight means they must be able to make sense of environmental cues that lead to the potential future opportunities they believe exist or rather will exist. Each entrepreneur may have a different pathway to progress from idea to opportunity exploitation, which may or may not result in a venture and it is very likely that there are more than one set of cognitive structures that reflect the entrepreneurial mind-set (Krueger, 2007).

Finally, entrepreneurs often effect major changes when attempting to start their own ventures. They must use evocative language and construct narratives and stories or employ other sensegiving devices such as symbols and gestures to gain and sustain support for new ventures. These stories must be plausible and socially acceptable. Hill & Levenhagen (1995) were the first to suggest the importance of metaphorical language by entrepreneurs to communicate a clear sense of direction regarding emergent ventures. They argued that metaphorical sensegiving is especially valuable in the pre-organizational phases of new ventures and aids in focusing individual attention on salient cues thereby, preparing them to receive relevant information from their immediate environment. Holt & Macpherson (2010) subsequently agreed reiterating that sensegiving is a powerful sensemaking device entrepreneurs use to engage others in a dialogue and can take the form of stories and rhetoric in an attempt to gain legitimacy for new ventures.

Recently, Cornelissen et al (2012) showed that entrepreneurs also use non-verbal articulation such as gestures when communicating a meaningful course for a new venture. Table 3-1 below summarizes the sensemaking properties together with their potential for explaining entrepreneurial activity.

Table 3-1 SSA and Entrepreneurial Action (adapted from Rae, 2007)

Sensemaking Properties	Entrepreneurial Action
Grounded in Identity Construction: the discovery of who I am through how and what I think, in relation to others	Becoming and behaving as an entrepreneur in society – the influence of others on identity formation
Retrospective: creation of meaning from reflection and conceptualization of meaningful lived experience	Reflecting on learning - 'what works for me' as an entrepreneur – what could have been done better.
Enactive of sensible environments: constructing reality and order from creating, acting, and relating; producing part of the environment we face	Recognizing opportunities and innovating to create new products, services ways of working and organizations within an existing environment which impact on that environment
Social: contingent on conduct and interaction with others in shared learning, meaning construction and negotiated or joint action	Working with others Networking – social ties Entrepreneurial teams
Ongoing: 'in process' and emergent – in-flow but subject to interruption and emotionality	The real-life process of making things happen and making decisions in unpredictable environments
Focused on and by extracted cues: selective structuring of experience and meaning dependent on context	Paying attention to clues in the environment e.g. market signals, opportunities, competitor behaviour
Driven by plausibility rather than accuracy: coherence, reasonableness and emotional appeal are important in producing socially acceptable accounts or good stories.	The message or story e.g. business plan, pitching/presentation must be plausible to be accepted - sensegiving devices.

3.3. The Merits of using SSA

SSA can contribute not only to entrepreneurship and opportunity recognition literature but also to organizational learning and strategy literature because sensemaking theory is about the individual's worldview, thinking and action process that leads to decision-making. For entrepreneurship literature, this is in keeping with calls to move away from the trait-based approaches and attempts to uncover "the entrepreneurial personality" and allows future work to focus on building a theory of entrepreneurial action.

Moreover, Wood & McKinley (2010) advise that to understand entrepreneurship, scholars must “take account of both structure and agency so that we can appreciate how societal influences shape entrepreneurial agency and how agency redefines structure” (p.69). SSA can help us understand how entrepreneurs make sense of societal influences and how that process of sensemaking shapes entrepreneurial action, and how those very actions then redefine their sense of the complex world around them.

In terms of the opportunity literature, SSA can provide new insight to the individual-opportunity nexus (Shane, 2003). In terms of the individual component, the age old question about why people act entrepreneurially or more precisely why some people and not others recognize entrepreneurial opportunities can be asked in a new, insightful way that focuses on “how” rather than on “why” those individuals who have chosen the entrepreneurial route make sense of their world differently to other entrepreneurs. This will involve perceiving all individuals as entrepreneurial actors and attempting to understand an individual’s entrepreneurial experience or journey and how they make the transition from “having a venture idea to deciding to exploit it” and all the decisions and actions that lead to entrepreneurial action.

In terms of the opportunity itself, the question of the origin of opportunities still “looms large” in academic dialogue (Dimov, 2011:57) and SSA may complement existing literature on the ontology of an opportunity or provide new insights by examining how the entrepreneur’s world view or process of sensemaking influences the nature of opportunities. In so doing, this research will attempt to answer the call for a new nexus between action and interaction (Venkataraman, Sarasvathy, Dew & Forster, 2012).

Similarly, organizational learning involves many processes, attributes and orientations of which sensemaking is an integral part. As such, in understanding more about the “process through which various information, insights and ideas coalesce into something useful” (Dougherty et al. 2000:322), in this case the transition from idea conceptualization to opportunity exploitation, literature on organizational learning as it pertains to the process of sensemaking should also be enhanced. Furthermore, because sensemaking is linked to decision-making and entrepreneurial motivation, it can offer a different perspective for those involved in strategic management research that focus on how the entrepreneur exerts influence over new venture performance (Mitchell et al., 2000).

3.4. Chapter Summary

In this chapter, a case was made for utilising SSA as a theoretical approach for exploring the processes of opportunity enactment. There were three main outcomes. First, it was surmised, that SSA could advance our understanding of how the entrepreneurial process unfolds over time, and capture the everyday actions and decisions that underpin opportunity enactment. Second, it was suggested that SSA could possibly contribute to other literatures beyond entrepreneurship and opportunity recognition such as, the organizational learning and strategic management literatures. The third and primary outcome of the chapter was the crafting of the research question and the development of a conceptual model using the properties of SSA and the stages of the entrepreneurial process, postulated in the extant literature. The following chapter describes the methodological approach utilised to empirically address the research gaps, manifested in the conceptual model and expressed through the research question.

Chapter 4 Methodology and Methods

In chapter three, SSA was used as the basis of the theoretical framework to create a conceptual model of the entrepreneurial process that could explain how entrepreneurial actors transition from idea conceptualization to opportunity exploitation. This chapter will now describe the methodological approach that will be adopted to address the identified gaps in the literature highlighted by the conceptual model. It begins with a review of the philosophical underpinnings of social science research and discusses paradigms, epistemology and ontology. The chosen methodology, research design and research methods to be employed in the study are then discussed. A justification for the method of analysis used is also provided. Finally, given the nature of the research, a section on reflexivity is included to acknowledge the impact of the researcher on the research process and resultant findings.

4.1. Philosophy and Scientific Paradigms

Philosophy as an academic discipline is an attempt to understand reality and answer fundamental questions about knowledge and human nature. It is concerned with semantics (theories of meaning and truth), epistemology (theory of knowledge), metaphysics (general theories of the world), ethics (theories of value and of right action), and the development of valid arguments also referred to as logic (Bunge, 1974). Philosophers like Kant (1998), Hume (1969) and Leibniz (1976) have long debated the intersubjective, subjective and objective properties of knowledge and human nature respectively and represent the earliest works on a continuum between objective and subjective approaches to social science. Other philosophers have explored the importance of philosophy on rationality and science discussing models of rationality (Habermas, 1978, 1992) and the structure of scientific revolutions (Kuhn, 1962).

Chapter 4: Methodology and Methods

The concept of paradigms was made popular by Kuhn (1962) and although the concept has been subjected to a range of interpretations (Morgan, 1979), in a broad sense it has come to be associated with a “way of seeing” (Morgan, 1980:606) or viewing the world. Taken as an implicit or explicit view of reality, paradigms can represent “alternative realities” or “multiple worldviews” which may then include “different schools of thought, different methodologies and different research designs” (Morgan, 1980:607). The role of paradigms as views of social reality was explored by Burrell & Morgan (1979) who argued for four broad world views which are reflected in different metatheoretical assumptions about the nature of science, the subjective-objective dimension and the nature of society, and the dimension of regulation-radical change.

The four paradigms – functionalist, interpretive, radical-humanist and radical structuralist – reflect a network of related schools of thought, differentiated in approach and perspective but sharing common fundamental assumptions about the nature of reality they address (Morgan, 1980). Each of these four paradigms, shown in Figure 4-1 below defines the grounds of opposing modes of social analysis and has radically different implications for the study of organizational and individual phenomena.

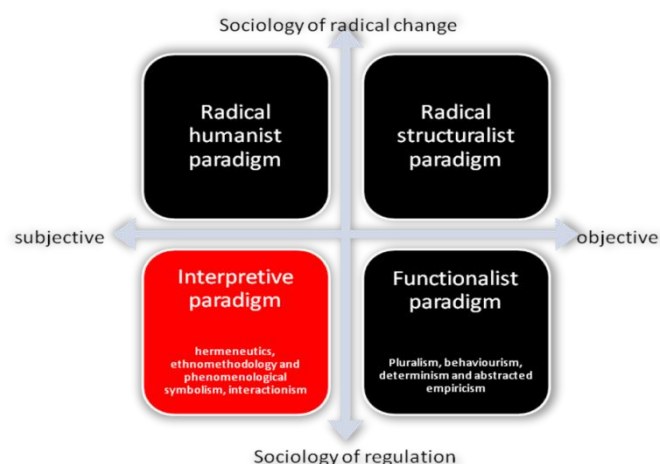


Figure 4-1 Paradigms (adapted from Morgan, 1980)

4.2. The Interpretive Paradigm

Of the four paradigms, I will be adopting the interpretive paradigm for this study. The interpretive paradigm is based upon the view that the social world has a very precarious ontological status, and that what passes as social reality does not exist in any concrete sense, but is the product of the subjective and inter-subjective experience of individuals (Morgan, 1980). Society is understood from the standpoint of the participant in action rather than the observer and the interpretive social theorist attempts to understand the process through which shared multiple realities arise, are sustained, and are changed (Morgan, 1980). Like the functionalist approach, the interpretive approach is based on the assumption and belief that there is an underlying pattern and order within the social world. However, the interpretive social theorist doesn't attempt to objectify the world but rather seeks to understand the subjectively derived meanings and understandings.

This study is situated within the interpretive paradigm because I seek to understand the process through which entrepreneurs make sense of venture ideas and transform them into entrepreneurial opportunities. This enacted process of sensemaking and sensegiving is the product of the subjective and inter-subjective experience of individual entrepreneurs who each have individual and shared multiple realities but still operate in an ordered social world governed by habituated patterns. Additionally, because I am interested in the entrepreneur's view of reality, I seek to examine the cognitive processes of the entrepreneur in action i.e. as s/he transitions from having a venture idea to acting upon it and as such, an Interpretivist perspective is most appropriate.

4.3. Epistemology and Ontology

Any chapter on methodology must address the researcher's understanding of reality, assumptions of the nature of knowledge, assumptions about the phenomena to be investigated as well as the best way to obtain that knowledge. In other words, the first step in selecting a methodological approach is to lay out the fundamental assumptions regarding ontology, epistemology and human nature (Morgan & Smircich, 1980).

Ontology is the study of the nature of reality and epistemology is the study of the nature of knowledge (Morgan & Smircich, 1980). Objectivist ontological assumptions view reality as objective, given or as a concrete state that exists independent of human behaviour. This then feeds into positivist epistemological assumptions that knowledge is real in the sense of having observable and measurable laws, patterns and regularities (Cunliffe, 2011:649). Subjectivist ontological assumptions on the other hand, view reality as subjective, imagined and as a product of the human mind. This also then feeds into interpretivist epistemological assumptions that knowledge is socially constructed through personal experiences.

	Subjectivist Approaches to Social Science				Objectivist Approaches to Social Science	
Core Ontological Assumptions	reality as a projection of human imagination	reality as a social construction	reality as a realm of symbolic discourse	reality as a contextual field of information	reality as a concrete process	reality as a concrete structure
Assumptions About Human Nature	man as pure spirit, consciousness, being	man as a social constructor, the symbol creator	man as an actor, the symbol user	man as an information processor	man as an adaptor	man as a responder
Basic Epistemological Stance	to obtain phenomenological insight, revelation	to understand how social reality is created	to understand patterns of symbolic discourse	to map contexts	to study systems, process, change	to construct a positivist science
Some Favored Metaphors	transcendental	language game, accomplishment, text	theater, culture	cybernetic	organism	machine
Research Methods	exploration of pure subjectivity	hermeneutics	symbolic analysis	contextual analysis of Gestalten	historical analysis	lab experiments, surveys

Figure 4-2 Subjective-Objective Continuum (Morgan & Smircich, 1980:492)

While these assumptions regarding the ontological and epistemological nature of reality and knowledge represent polar opposites respectively, as can be seen in Figure 4-2 above, there are myriad of combinations that exist in between the continuum created by these two polar views. Recently, Cunliffe (2011) broached the issue of intersubjectivity stating that it may no longer be possible for researchers to adopt either a subjective or an objective stance (2011:653) since it is now more difficult to clearly separate subjects from objects. She draws on Schutz (1970) and Garfinkel (1967) phenomenological work in the area of intersubjectivity and construes intersubjectivity as cognitive (common sense understandings), interactional (social and/or conversational practices) and as a process of sense making at an individual and community level (2011: 657).

More contemporary interpretations (Bakhtin, 1981, 1986; Shotter, 2008, cited in Cunliffe, 2011, p. 657) construe intersubjectivity as ontology – a way of being in the world where actors are embedded and intertwined with each other, coexisting and shaping each other's identities and understandings of the social world. The study of entrepreneurial opportunities was initially viewed according to the objective-subjective paradigmatic dichotomy.

In effect, when opportunities are conceived as objective, observable or 'discoverable', researchers adopted a realist ontological and positivist epistemological stance. Just as well, when opportunities are conceived as subjective, constructed or 'created', researchers adopted a social constructionist ontological and interpretivist epistemological stance. However, for the purpose of this study, opportunities are taken as a given hence, are perceived as objective and discoverable but because a subjectivist, socio-constructionist lens will be applied, that is, the SSA approach, to understand the opportunity phenomena and it may no longer be possible to separate the subject from the object, the work of this thesis falls into the domain of intersubjectivity.

Intersubjectivity as cognitive, interactional and as a process of sensemaking at the individual level as well as intersubjectivity as ontology – a way of being in the world where actors are embedded and intertwined with each other, coexisting and shaping each other's identities and understandings of the social world.

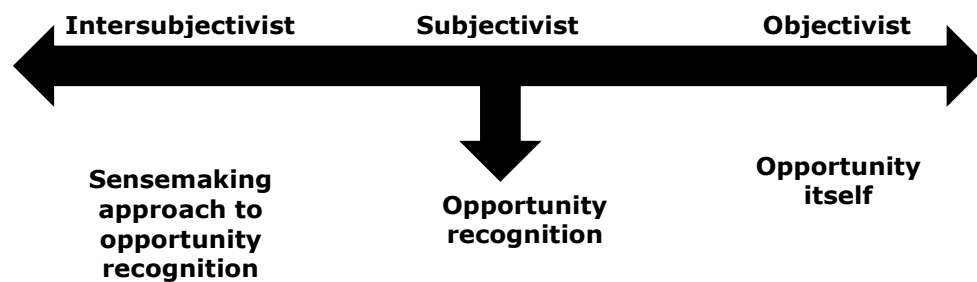


Figure 4-3 Conceptualizing Opportunity

As can be seen from Figure 4-3, while opportunities in themselves can be viewed as objective, existing independently of human action, the recognition of these opportunities by entrepreneurial actors can be subjective and dependent on an individual's interpretation of his/her social world (Shane & Venkataraman, 2000).

The intersubjectivity approach adds another layer by delving into the cognitive, interactional and processual nature of opportunity recognition. It is this intersubjective approach that captures the essence of opportunities. It does not dispute the fact that the opportunity itself may be objective and it shares the interpretivist epistemological stance by acknowledging that opportunity recognition is subject to the interpretations of individual actors but since these actors need validation from the social world and are in fact embedded and intertwined with other actors, coexisting and constructing each other's narratives (Ricoeur, 1992), the intersubjective approach is able to adequately capture the reflexive hermeneutic nature of opportunities.

4.4. Methodology

Methodology is concerned with the method(s) of data collection and the form of analysis used to generate knowledge (Cunliffe, 2011). It is to be distinguished from epistemology which embodies broader philosophical issues. The phenomenon being researched always dictates to some extent the choice of methodology. Since Low & Macmillan (1988) noted the lack of agreement on the defining concepts and variables characterizing the entrepreneurship field, not much has changed in the last twenty-six years, and though Gartner's (1988) call to move away from trait-based approaches and focus on entrepreneurial processes has been heeded (e.g. Bhawe, 1994; Ardichvili et al., 2003) there is much we still do not understand. Furthermore, because this study focuses on "how" questions about a contemporary set of events (Yin, 1984:13) and attempts to map out a process not yet thoroughly researched i.e. process of opportunity enactment, a case study is the logical methodology. Therefore, to address the research question outlined in the previous chapter, a case study methodology guided by the work of Yin (2009), Eisenhardt (1989) and Leonard-Barton (1990) was adopted in this thesis.

4.4.1. A Case Study Methodology

"A case study is a history of a past or current phenomenon drawn from multiple sources of evidence" (Leonard-Barton, 1990:249) and the evidence may be qualitative (e.g. words), quantitative (e.g. numbers) or both (Eisenhardt, 1989). The case study approach can be used to accomplish various aims: to provide description, to test theory or to generate theory (Eisenhardt (1989:535). The interest here is in this last aim, theory development from case study evidence. Yin (1981, 1984) was one of the first to introduce case study research as a means of building theory.

He described the case study as a research strategy and developed a typology of case study designs by which researchers could generate theory. As a research strategy, the case study focuses on understanding the dynamics present within single settings although it can employ an embedded design wherein there are multiple levels of analysis within a single study (Eisenhardt 1989:534).

Alternatively, it can involve multiple cases and numerous levels of analysis (Yin, 1984, cited in Eisenhardt). A single case study however, is subject to limits in generalizability and several potential biases such as “misjudging the representativeness of a single event, exaggerating the salience of datum because of its ready availability or biasing estimates because of unconscious anchoring” (Leonard-Barton, 1990:250). Yin argues therefore, for the use of multiple cases because they augment external validity and help guard against observer bias (1990:250). The rationale for the design of case studies however, whether single-case, multiple-case or embedded single and multiple case-designs should be largely dependent on the research questions and the unit of analysis (Yin, 2009). Figure 4-4 below depicts the basic types of case study designs mentioned above.

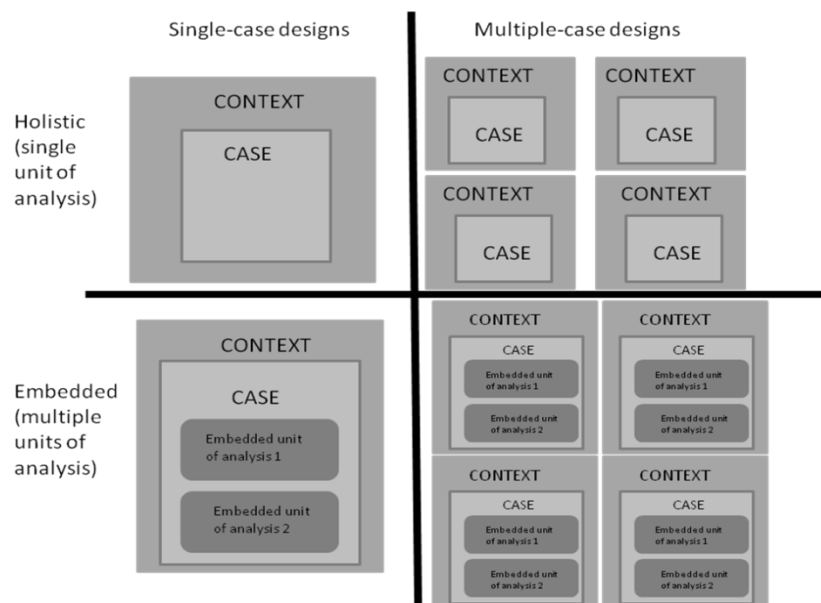


Figure 4-4 Basic Types of Case Study Designs (Yin, 2009)

Though useful and ground-breaking in its time, Eisenhardt (1989) argues that Yin's (1984) description of the different designs or forms a case study can take is merely a fraction of the theory-building process and offers a more detailed, prescriptive approach to conducting case study research, for the generation of theory. She advises that to begin researchers should start with at least an initial definition of the research question so as to give the study a well-defined focus, to minimise the possibility of being overwhelmed by the sheer volume of data and also to force the researcher to specify the kind of phenomena they are interested in exploring and the kind of data to be gathered. The identification of a priori constructs is also seen as important in the initial phases of theory building research.

Eisenhardt (1989) argues that the specification of a priori constructs will prove to be important as the study progresses and themes emerge from the data. However, she warns against rigidity and certainty in defining research questions and specifying constructs since "no construct is guaranteed a place in the resultant theory" (1989:536) rather what is most important is deriving a theory that is closely linked with the data.

Another important aspect of building theory from case studies is the selection of cases. Eisenhardt argues that the population is crucial because "it defines the set of entities from which the research sample is to be drawn" (1989:537). Additionally, the selection of an appropriate population then controls for extraneous variation. She highlights the Warwick study on strategic change and competitiveness as an example of drawing a research sample from a specified population of large British corporation in four market sectors where the specification of sectors allowed the researcher to control for extraneous variation and clearly delineated the boundaries of the study and hence the generalizability of the findings. Both Eisenhardt (1989) and Yin (2009) suggest that case

selection be based on a replication logic where each additional case either predicts the same results (a literal replication) or predicts contrasting results (a theoretical replication) that can then be used to refine the theory and extend its applicability.

As a research strategy, the case study typically combines multiple data gathering methods. Eisenhardt (1989) purports that while interviews, observations and archival sources are particularly common, researchers are not confined to these choices and some researchers choose to combine these qualitative techniques with quantitative methods to strengthen their findings.

Yin (2009) states that case study evidence can come from multiple sources but chooses to elaborate on six sources of evidence: documentation, archival records, interviews, direct observation, participant-observation and physical artifacts, as these are the ones most commonly used in doing case studies. However, he does make allowances for the use of films, photography and videotaping, among others, concurring that the complete list of sources can be quite extensive. More importantly however, multiple data gathering methods are a significant part of case studies because "the triangulation made possible by multiple data collection methods provides a stronger substantiation of constructs and hypotheses" (Eisenhardt, 1989:538).

While multiple data gathering methods are crucial for substantiating constructs and hypotheses, the frequent overlap of data analysis with data collection is crucial for theory building. Van Maanen (1988) contends that field notes go a long way in achieving this as they provide a running commentary about what is happening in the research and involve both observations and analysis, preferably separated from each other (cited in Eisenhardt, 1989). Overlapping data analysis with data collection is viewed as quite beneficial to the researcher as it allows for

adjustments to the data gathering methods as data analysis may reveal particular themes or unexpected opportunities that the researcher may wish to probe further. These alterations or additions to the methodology is not a license to be unsystematic but rather gives the researcher much needed flexibility to better ground the theory or provide new theoretical insight (Eisenhardt, 1989).

In order to better ground the theory in the data and/or provide new theoretical insights through the generation of propositions, Eisenhardt (1989) suggests two steps for analysing data: within-case analysis and cross-case analysis. Within-case analysis typically involves detailed case study write-ups for each site. These write-ups may take the form of narratives (Mintzberg & McHugh, 1985), transcripts (Gersick, 1988) or even tabular displays and graphs (Leonard-Barton, 1990). The objective is to become intimately familiar with each case by providing a detailed, descriptive account. This process allows for unique patterns of each case to emerge and helps researchers cope early in the analysis process with the enormous volume of data or as Pettigrew (1990) eloquently described it - "the ever present danger of death by data asphyxiation." This type of analysis also serves as a prelude to conducting cross-case comparisons or cross-case analysis since the unique patterns that emerge from individual cases can then be used to generalize patterns across cases (Eisenhardt, 1989).

Cross-case analysis, as the name implies, involves the search for patterns across cases. The key to good cross-case analysis is to analyse the data in many divergent ways. Eisenhardt (1989) suggested three ways in which data can be analysed under cross-case comparison. The first tactic is to select categories or dimensions and then look for within-group similarities coupled with intergroup differences. These categories can be derived from extant literature, the research questions or randomly by the researcher. A second tactic is to select pairs of cases and list similarities and differences between each pair. The search for

similarities between divergent cases or alternatively the search for differences between similar cases forces the researcher to go beyond initial impressions and use different lenses to uncover the subtleties of individual cases. The last tactic involves dividing the data by data source. This is relatively easy as qualitative studies generally employ a range of data generation methods and when a pattern from one data source can be corroborated by the evidence from another the finding is stronger and better grounded (Eisenhardt, 1989).

Additionally, conflicting evidence forces the researcher to probe deeper to reconcile the conflict or explain the difference. Both types of analysis i.e. within-case and cross-case analysis will produce themes, concepts and possibly even relationships among variables (Eisenhardt, 1989). These insights must then be compared to extant literature. According to Eisenhardt (1989), the key to this process is to consider a broad range of literature because literature discussing similar findings will tie together underlying similarities not normally associated with each other resulting in a theory with stronger internal validity and wider generalizability (p. 544) whereas examining literature which conflicts with emergent theory represents an opportunity to make a novel contribution.

Moreover, researchers should not attempt to dismiss conflicting literature as a main strength of case study research is the likelihood of generating novel theory. However, it is important to remember that case study theory building is a bottom-up approach such that the specifics of data produce the generalizations of theory and as such, researchers run the risk of developing a very idiosyncratic theory with limited applicability (Eisenhardt, 1989:547). Table 4-1 below summarizes the step-by-step approach to conducting case study research discussed above.

Table 4-1 Building Theory from Case Studies (adapted from Eisenhardt, 1989)

Step	Activity	Reason
Getting started	<ul style="list-style-type: none"> ✓ Definition of research question ✓ Possibly a priori constructs 	<ul style="list-style-type: none"> ✓ Focuses effort ✓ Provides better grounding of construct measures
Selecting Cases	<ul style="list-style-type: none"> ✓ Neither theory nor hypotheses ✓ Specified population ✓ Theoretical not random sampling 	<ul style="list-style-type: none"> ✓ Retains theoretical flexibility ✓ Constrains extraneous variation and sharpens external validity ✓ Focuses effort on theoretically useful cases i.e. those that replicate or extend theory by filling conceptual categories
Crafting Instruments and Protocols	<ul style="list-style-type: none"> ✓ Multiple data collection methods 	<ul style="list-style-type: none"> ✓ Strengthens grounding of theory by triangulation of evidence
Entering the field	<ul style="list-style-type: none"> ✓ Overlap data collection and analysis including field notes 	<ul style="list-style-type: none"> ✓ Speeds analysis and reveals helpful adjustments to data collection
Analysing Data and Developing Theoretical Constructs	<ul style="list-style-type: none"> ✓ Within-case analysis ✓ Cross-case pattern search using divergent techniques 	<ul style="list-style-type: none"> ✓ Gains familiarity with data and preliminary theory development ✓ Forces investigators to look beyond initial impressions and see evidence through multiple lenses
Comparison with Literature and reaching closure	<ul style="list-style-type: none"> ✓ Comparison with similar literature ✓ Comparison with conflicting literature ✓ Theoretical saturation 	<ul style="list-style-type: none"> ✓ Sharpens generalizability, improves construct definition and builds internal validity ✓ End process when marginal improvement becomes small

4.5. Research Design

For this study, an inductive multiple-case research design was used to explore “how early-stage entrepreneurial actors make sense of the entrepreneurial process as they transition from having an idea to deciding to exploit it.” Early-stage entrepreneurial actors based in a university incubator were followed for one year using a range of data gathering methods. Case selection is based on extant literature and follows the recommendations of Yin (2009) and Eisenhardt (1989) theoretical replication logic, which also informs the unit of analysis selected for the study. A combination of retrospective and real-time cases informed by Leonard-Barton’s (1990) work in this area was subsequently chosen as appropriate for this study and the benefits of such a combination are also discussed.

4.5.1. Population

The case studies were drawn from a single site: The Enterprise Lab of student and graduate businesses based at the University of Nottingham. This site of nascent entrepreneurial actors in higher education i.e. entrepreneurial actors currently in the process of starting a business (Reynolds & White, 1997) in a university incubator was selected as an appropriate population because it allows the researcher to control for extraneous variation by specifying the contextual boundaries of the study. Additionally, because “nascent entrepreneurs continuously evaluate the merits of the opportunities they pursue, abandoning those that lack promise and persisting with those that remain attractive” (Dimov, 2010:1123) they represent the ideal setting to examine the entrepreneurial process from as early as idea conceptualization to opportunity exploitation.

While there are noteworthy limitations of utilising student data, the focus is on the cognitive processes of individuals as they make sense of their venture ideas

and attempt to transform them into entrepreneurial opportunities. As such, anyone with a venture idea is considered a prospective entrepreneur, whether student or experienced entrepreneur.

4.5.2. Sampling (Case Selection)

Within this specified population, case selection is based on Yin (2009) and Eisenhardt (1989) theoretical replication logic. A case selection matrix was developed from extant literature on the factors that influence the tendency of people to exploit entrepreneurial opportunities. There were a number of psychological and non-psychological factors deemed to influence the likelihood of opportunity exploitation (Shane, 2003). However, case selection was limited to non-psychological factors such as: age, education, business knowledge, technical knowledge, entrepreneurial experience, family background and gender because by using these factors as part of the case selection process, any findings can be more easily generalized across these categories. These seven factors were then grouped together into four main categories: (1) age/education level; (2) business and technical knowledge; (3) entrepreneurial experience/family background and (4) gender. See Figure 4-5 below for a depiction.

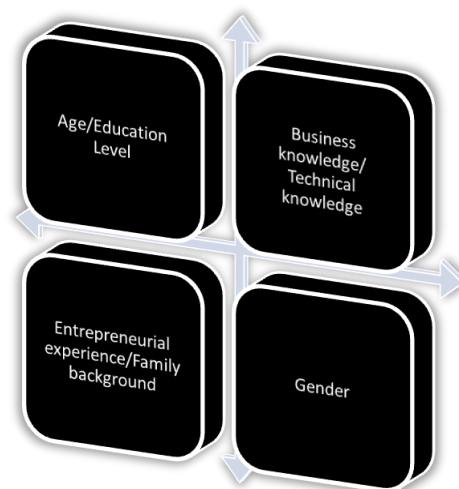


Figure 4-5 Theoretical sampling

To make the categories applicable to the specified population, Category 1 was divided into undergraduates (UG) and postgraduates (PG), Category 2 was grouped together under a new heading 'Discipline' and included three branches: Social Sciences (SS), Engineering & Science (ENG) and Arts & Humanities (ARTS). Category 3 was simply divided into those with entrepreneurial experience or family background (EEFB) and those without while Category 4 was male and female. Based on this, the minimum number of cases required per categorical combination is twenty-four (24). However, it is not necessary to have a sample of the population fit all the categorical combinations of the matrix when using theoretical sampling because under this replication logic the selection of cases is based on the prediction of contrasting results. However, the likelihood of participation waning over the year is high and this was therefore, also taken into account when choosing the number of cases. See Table 4-2 below for a depiction of the case selection matrix.

Table 4-2 Case Selection Matrix

UG/PG/DISCIPLINE	EEFB	NONE	M	F
UG/SS	2X		✓	
UG/ARTS		X		✓
PG/SS	X	X	✓	
PG/SS		X		✓
PG/ENG		4X	✓	
UG/ENG		X	✓	
PG/ARTS		X		✓

4.5.3. Unit of Analysis

Given the individual components under study i.e. the idea, the individual and possibly the venture itself it is appropriate to classify the research as having three units of analysis i.e. the idea level, an individual level and an organizational level. However, because of the overlap or continuous iteration between idea, individual and resultant venture it was decided that an embedded multiple-case design i.e. multiple units of analysis would be superfluous and as such, a holistic multiple-case design with the individual as the unit of analysis was chosen instead. Figure 4-6 below shows the case study design selected for this study.

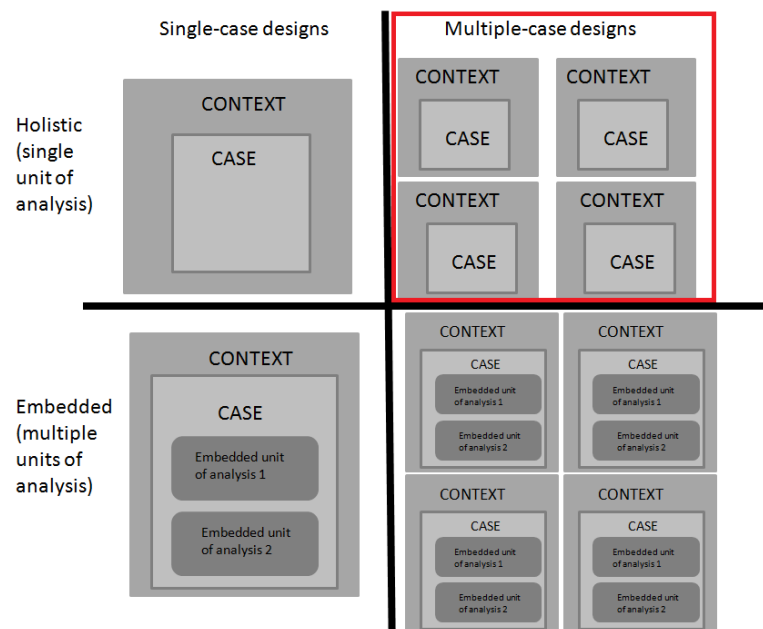


Figure 4-6 Case Study Design – A Multiple-Case Design

4.5.4. Synergy of Retrospective and Real-time Case Studies

There were twelve (12) initial cases for the study comprised of both retrospective accounts of individuals' entrepreneurial experience as well as real-time observations over the period of one year. Two cases were pilot studies while of the remaining ten cases, two were retrospective accounts and the remaining eight cases were real-time accounts generated from repeated observations, interviews and mappings/imagery over the period of one year.

These two kinds of case studies offer opportunities for complementary and synergistic data gathering and analysis (Leonard-Barton, 1990:248). Retrospective case studies, as the name implies, are historical accounts of the phenomenon being studied. These types of case studies offer the opportunity to "identify patterns indicative of dynamic processes" (Leonard-Barton, 1990:248). Real-time longitudinal studies on the other hand, provide "a close-up view of those patterns as they evolve over time" (1990:248). Given that "all research methods are seriously flawed – though each is flawed differently" (McGrath, Martin & Kulka, 1982:15), the specific strengths in each method compensates for the weaknesses in the other and can enhance the internal and external validity of the study (Leonard-Barton, 1990). Table 4-3 below depicts the specific strengths and weaknesses in the data-gathering process for each type of case study as well as the effect on three kinds of validity: internal, external and construct, from combining the two types of case studies.

Table 4-3 Comparison of Two Methodologies (Leonard-Barton, 1990:253)

Research Activities	Methodology	
	Single-Site In-depth, Longitudinal	Multiple-Site Retrospective
1. Data-Gathering		
a. Efficiency	Low; danger of data overload; much unusable data	Relatively high; focused data-gathering
b. Objectivity	Danger of too deep involvement, developing unconscious biases	Danger of unconsciously accepting respondent bias
c. Pattern recognition	Microscopic examination of details of process	Recognition of overall patterns in process
2. Establishing Validity		
a. External Validity	Low generalizability	Relatively high generalizability; variety of situations
b. Internal Validity	Relatively high; good opportunity to establish cause and effect	Lower; potential confusion about cause and effect
c. Construct Validity	Opportunity to test sensitivity of construct measures to passage of time	Opportunity to validate stability of construct across situations

From Table 4-3 above it can be surmised that the more the in-depth, real-time longitudinal study approximates a true ethnographic, participant-observation methodology, the more the researcher sacrifices efficiency for richness of data. Furthermore, in order to observe critical events, it is often necessary to spend an inordinate amount of time on noncritical ones and in building relationships with the people involved (Leonard-Barton, 1990). The one-year longitudinal study proposed here may not achieve the depth of ethnographic immersion described by Van Maanen (1988) but the study will involve spending whole days at the site because the phenomenon of interest, namely the development of venture ideas into entrepreneurial opportunities, cannot be totally tracked through scheduled interviews or known events. With real-time longitudinal studies however, the researcher is in danger of losing objectivity and becoming too involved with the research participants i.e. going native (Gold, 1958).

Retrospective studies can counteract this limitation by alerting the researcher to the possibility of biases influencing the study. However, with retrospective studies there is a danger of unconsciously accepting the biases of informants and as such, the researcher often has to work harder to be a critical audience, aware of everyone's vulnerability and subjective perceptions (Sears & Freedman, 1974). More on the danger of biases influencing the study is discussed in the section on Reflexivity.

Retrospective case studies can also help strengthen the research focus by highlighting patterns and recurrent themes, which then serve as a benchmark for the in-depth longitudinal study. In terms of validity, both types of case studies are quite complementary; while retrospective cases have a lower potential for establishing cause and effect relationships, the in-depth study compensates by having relatively high internal validity. Similarly, in-depth studies generally have low generalizability but retrospective studies have relatively high external validity.

In terms of construct validity, the combination of both types of case studies is quite synergistic as retrospective studies offer opportunities to validate constructs across situations whereas in-depth studies offer opportunities to validate constructs over time. In effect, together they enhance the evidence derived from the data-gathering process and its applicability.

4.6. Research Methods

Case study evidence can come from many sources (Yin, 2009). For the purposes of this study, four sources have been selected: Interviews, observations (direct and participant), imagery/mapping of accounts and documentation. Participants in the incubator were provided with an information sheet (See Appendix IX) either directly or through the incubation co-ordinator in accordance with the ethical considerations undertaken prior to the fieldwork process.

From November 2012 – January 2013 and then again from April 2013 – September 2013, interviews were conducted and visual maps/drawings were obtained from consenting participants. Participants were a mix of undergraduate, postgraduate taught and postgraduate research students from a range of disciplines: science and engineering, arts and humanities and social sciences¹.

Interviews were conducted and visual maps/drawings were obtained at the convenience of the participants. Some interviews were conducted at the incubator while other interviews required travel to the participant's department or place of study (this involved moving between the campuses²). The duration of the interviews varied between forty-five and ninety minutes.

¹ 12 participants gave their consent for this study. There were four undergraduate and eight postgraduate students; five from a science and engineering background, five from social sciences and two from arts and humanities.

² The interviews were conducted across the following campuses: University Park, Jubilee and Sutton Bonington.

Participants were also observed on three occasions. They were first observed at an ideas-opportunity recognition workshop, where they were asked to generate ideas for a business. At this particular workshop, I also participated in the idea generation process with persons seated on my respective table. Then, they were observed at a business boot camp workshop where they were mentored on areas of business practice such as, finance and marketing. Finally, they were observed at the Student Venture Challenge entrepreneurship competition giving their presentations/ business pitches to potential investors. The three observed events occurred within the incubation facilities.

Documentary information gathered included business plans, proposals and presentation slides, which participants provided at the end of the respective interview or via email a few days after the interview. Other documentary evidence such as press releases and newspaper articles were obtained from the press section of the incubation webpage³.

No single source has a complete advantage over all the others. In fact, a good case study will utilise as many sources as possible because the various sources are highly complementary (Yin, 2009). Additionally, high-quality case studies are dependent on the use of multiple sources of evidence, the creation of a case study database and the researcher's ability to maintain a chain of evidence (Yin, 2009:101). These particular sources have been chosen because they are appropriate for answering the research questions and for capturing the different types of data that is required to answer those questions. Additionally, in terms of triangulation, these sources allow for adequate convergence of evidence and meet the research design challenges of validity and generalizability discussed above.

³ <http://www.nottingham.ac.uk/business/businesscentres/hqi/news.aspx>

4.6.1. Interview Method

This is one of the most important sources of case study information (Yin, 2009). Interviews can be classed into two types: in-depth interviews and focused interviews (Merton, Fiske & Kendall, 1990, cited in Yin, 2009), with the first type taking the form of guided conversations while the latter comprises more structured questions.

In-depth interviews involve asking respondents about facts as well as their opinions about events in which the researcher is interested in the respondent's insights and personal thoughts. When respondents' insights lead the researcher to other research participants with similar or contrasting stories they become informants and are often critical to the success of the case study (Yin, 2009). In-depth interviews will be an important part of the case study because in order to capture the transition from venture ideas to entrepreneurial opportunities and develop the appropriate propositions, both factual events that occurred during this entrepreneurial journey as well as the opinions and individual insights of research participants as they reflect upon their actions and thinking processes during and after the journey are required.

Focused interviews on the other hand, are open-ended conversations that could typically last for an hour and follow a certain set of questions derived from the case study protocol, which is the initial line of inquiry developed by the researcher. A major purpose of this type of interview is to corroborate facts that have already been established by other methods or even in a previous in-depth interview. This type of interview is also necessary for this study because research participants will be interviewed over a period of time, at different points in time and clarification may be required of data previously gathered at one point that may no longer be relevant at later stages in the data gathering process.

However, there is often a continuum between the line of inquiry pursued by the researcher and the actual stream of questions posed to research participants. Yin (2009) distinguishes between Level I questions which make up the case study protocol and form the initial line of inquiry from Level 2 questions which are the actual conversational questions posed in a friendly and non-threatening way to research participants. Table 4-4 below shows the case study protocol for this study. The interview questions have been divided into phases according to the time period collected. Additionally, also included in the protocol are questions related to the sensemaking approach, which, as aforementioned, was chosen as the theoretical framework to identify and explain the cognitive and action processes undertaken by entrepreneurs attempting to transform their venture ideas into entrepreneurial opportunities.

Table 4-4 Case Study Interview Protocol

Phase I: Idea Business model canvas and activity pages	<p>What is the unique selling point?</p> <p>Who is the customer?</p> <p>Who are the suppliers?</p> <p>What are the key resources?</p> <p>Have you thought about cost?</p> <p>Where is the revenue coming from?</p> <p>Distribution channels? Partnerships?</p> <p>How does the idea relate to your personal goals?</p> <p>How will you benefit?</p> <p>What do you want to achieve?</p> <p>What excites/stimulates/interests you?</p> <p>What about balancing academics and business?</p> <p>Has the experience of family members in business influenced your aspirations?</p>
Phase II: Idea to Opportunity (in conjunction with Phase I if the participants' idea is well developed)	<p>Is it an idea or an opportunity?</p> <p>How do you think an entrepreneur takes an idea and makes it an opportunity? How did you do it?</p> <p>What is the opportunity? Why? Who for? How to realize it?</p> <p>Has anyone else noticed/seized this opportunity?</p> <p>Do you think this is a current or future opportunity?</p> <p>How is your opportunity different?</p> <p>How does your opportunity create new value?</p>

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Identity construction	How do you view yourself in comparison to others in the world? Do you compare yourself to others? When you think about your identity? Who are you? Where did this identity come from? When things work out how do you feel? When things do not work out.... Do you reinvent yourself? Would you say you have a changing sense of self?
Retrospective	Looking back over your entrepreneurial journey, list 3 things you are proud of and 3 things you regret. Looking back over the past 3 months/6 months/ 9 months, list 3 things you are proud of and 3 things you regret. Do you often imagine what might have been?
Ongoing	N.B. can only be observed
Cues	N.B can only be observed
Enactment	When did you join the Enterprise Lab? At what stage was the venture then? Did you at any point have a business plan? Did you partake in any seminars/workshops offered by the Lab? Did you do research on the industry? Did you do any marketing/promotional activities? Did you network or form partnerships? If yes, with whom? Take me through your entrepreneurial journey. What steps did you take?
Social	Why entrepreneurship? What influenced/encouraged you? Do you know other entrepreneurs? Does your family have business or entrepreneurial experience? Are you in business alone or with others? If with others, how did you meet them? How do you view others who are not entrepreneurs? Do you feel part of the status quo?
Plausibility	How do you gain legitimacy for your ideas?
Language (sensegiving)	How do you convey your ideas to others? E.g. investors, peers, family Do you feel confident that others can see the opportunity you present to them? Do you have difficulty expressing your ideas?

Since this study focuses on a process of cognition and action, the use of interviews as a source of evidence is most appropriate because interviews focus on behavioural events and provide verbal reports of actions taken (Yin, 2009). However, like other methods it is not without its limitations. Common problems associated with interviews are bias, poor information recall by participants or inaccurate articulations of events. Audio tapes and recordings of interviews provide a more accurate rendition of events and as such, all interviews for this

study will be digitally recorded with participants' permission or consent. Recordings however, do not override good listening skills therefore, note taking will also form part of the interview process.

4.6.2. Direct and Participant Observations

The underlying premise of doing case study research is the idea that the researcher is able to capture the phenomena being studied in its natural setting. Assuming the phenomena is not historical, the relevant behaviours and/or environmental conditions associated with the phenomena will be available for observation (Yin, 2009). Thus, such observations form a crucial part of the case study evidence. There are two types of observations that are important for this study: direct observations and participant-observations.

Direct observations can range from formal to casual data gathering activities. Most formally, observational instruments can be developed as part of the case study protocol and the fieldworker may be asked to assess the occurrence of certain types of behaviours during certain periods of time in the field (Yin, 2009). For this study, this will involve observations of workshops and business competitions such as the Ideas & Opportunity recognition workshop, Business Boot camp as well as the Student Venture Challenge⁴. Less formally, direct observations may occur in conjunction with other methods such as interviews. For this study, such observational evidence will be useful in providing additional information about the case organization itself i.e. the university incubator (Enterprise Lab), through participants' feedback both verbal and non-verbal about the facilities available to them. Participants may also be videotaped or asked to share video footage of them working in the university incubator and at certain events.

⁴<http://www.nottingham.ac.uk/business/businesscentres/hgi/student-enterprise/studentventurechallenge/index.aspx>

Participant-Observations on the other hand, are a specific mode of observation in which the researcher is not merely a passive observer (Yin, 2009) but becomes immersed in the case study setting to the extent that s/he is included in events or holds specific roles and responsibilities. Participant-observations seek to uncover, make accessible and reveal the meanings (realities) people use to make sense of their daily lives (Jorgensen, 1989). While there are obvious advantages to this method such as greater access to events and/or groups, the ability to manipulate events and the opportunity to perceive reality from the viewpoint of the participant (the insider) (Yin, 2009), there are also major problems of bias and conflict between being a good observer taking notes and raising questions, and being an attentive participant (Yin, 2009). For this study, these biases are reduced as my role as participant-observer is limited to becoming a member of the Enterprise Lab and having access to events, seminars, workshops and networking activities where there is the freedom to directly observe the research participants in their natural setting.

4.6.3. Imagery/Mapping Accounts

Social science research has often been classed as a "discipline of words" (Mead, 1995, cited in Banks, 2001). However, researchers in the social sciences have begun to adopt more anthropological methodologies accepting the merits of visual methods and their place in mediating and constituting human social relationships (Banks, 2001). Furthermore, it is often difficult for people to express their ideas and thoughts in words and more insight can be gained from a depiction of these cognitive data than would have been achieved with other methods such as interviews. For this study, because it involves capturing the cognitive and action processes of entrepreneurs attempting to transform their venture ideas into entrepreneurial opportunities, research participants will be asked to visually represent their ideas or stage of their venture at different

periods throughout the year (3 - 6 month intervals) on a business model template, ideas space templates and/or opportunity maps. The business model template referred to as the business model canvas (Osterwalder & Pigneur, 2010) captures the value propositions or unique selling points of the idea, the expected revenue streams, cost estimates, key activities and resources among other facets of the business model and will be extremely useful in assisting participants in articulating their ideas.

The idea space templates and opportunity maps were adapted from Rae (2007) and are simplified versions of the business model canvas to cater for the range of stages of development of participants' ideas. In addition to using the templates, participants will be asked to think-aloud and/or talk-aloud while drawing or filling in the sections on the templates. This will assist in preserving the temporal properties of the cognitive process (Ericsson & Simon, 1993). Furthermore, participants will be asked to give retrospective accounts for the same cognitive processes that are previously assessed through verbal protocol analysis (i.e. think-aloud; talk-aloud).

4.6.4. Documentation

Documentary information is relevant to every case study topic and can take many forms: letters, emails, diaries, notes, agendas, minutes, proposals and even news clippings and articles. As a source of evidence, it is most useful in corroborating and augmenting evidence from other data sources (Yin, 2009). As such, for this study, documentary evidence will be helpful in verifying correct spellings of business venture ideas and/or company names that may have been mentioned in an interview or visually represented on the business model canvas.

In addition to corroborating information, documentary evidence allows the researcher to make inferences about events as it reflects a communication among parties attempting to achieve some objective at a specific time and in a specific

context (Yin, 2009). The use of business plans and proposals as documentary evidence can therefore, serve to highlight the communication of a specific purpose (e.g. gain funding for a business venture) to a specific audience (investors, peers) at a specific point in the entrepreneurial journey. Like all methods, the use of documentary evidence is not without its limitations. It can be very time-consuming analysing a range of documentation and there is the danger of over-reliance on documentary evidence. Therefore, it is important to supplement evidence derived from documentation with other sources addressed above especially where documentary evidence is contradictory. Table 4-5 below summarizes the different sources of evidence discussed above.

Table 4-5 Sources of Evidence (Yin, 2009)

Sources of Evidence	Strengths	Weaknesses
<i>Interview Method</i>	<ul style="list-style-type: none"> ➤ Targeted – focuses directly on case study topics ➤ Insightful – provides perceived causal inferences and explanations 	<ul style="list-style-type: none"> ➤ Bias due to poorly articulated questions ➤ Response bias ➤ Inaccuracies due to poor recall ➤ Reflexivity – interviewee gives what interviewer wants to hear
<i>Direct Observations</i>	<ul style="list-style-type: none"> ➤ Reality – covers events in real time ➤ Contextual – covers context of “case” 	<ul style="list-style-type: none"> ➤ Time-consuming ➤ Selectivity – broad coverage difficult without a team of observers ➤ Reflexivity – event may proceed differently because it is being observed ➤ Cost – hours needed by human observers ➤ Bias due to participant-observer’s manipulation of events
<i>Participant-Observations</i>	<ul style="list-style-type: none"> ➤ Insightful into interpersonal behaviours and motives 	
<i>(Imagery/ Mapping of accounts)</i>	<ul style="list-style-type: none"> ➤ Insightful ➤ Cross-comparison if standardised 	<ul style="list-style-type: none"> ➤ Time-consuming ➤ Selectivity
<i>Documentation</i>	<ul style="list-style-type: none"> ➤ Unobtrusive – not created as a result of the case study ➤ Broad coverage – long span of time, main events and settings ➤ Exact – contains exact names, references and details of events 	<ul style="list-style-type: none"> ➤ Retrievability – can be difficult to find ➤ Biased selectivity if collection is incomplete ➤ Reporting bias – reflects (unknown) bias of author ➤ Access – may be deliberately withheld

4.7. Reflexivity

The fieldwork process did not unfold as planned. I initially wanted to interview case participants three times over the year from October 2012 – September 2013. However, it was more challenging than I thought it would be to re-interview participants as they transitioned through the process of opportunity enactment. Participants could not be re-interviewed on schedule because they were fixated at particular transition points in the process. For some participants, no progress had been made (according to the participants' accounts) and as a result, there was no need at that time for a second interview. Other participants were too busy engaged in getting support for their ideas from relevant stakeholders like the Nottingham Council or The University of Nottingham to take time away for a repeat interview. Given the research timescales and the availability of participants for repeat interviews, I was only able to interview participants twice over the given period.

I transcribed all the interviews myself in an attempt to remain as close to the data as possible. However, transcribing was a tedious, iterative process. At times, I had to listen to a recording five times to make sure I heard it correctly and represented it in the transcription as I heard it. Meaning was created through a constant interplay of presence/absence and what was not said was as important as what was said because each supplemented the other (Cunliffe, 2003). Whenever I doubted what I had heard I corroborated it with any documentary evidence and the sensemaking maps. These sensemaking maps participants were asked to draw during interviews proved to be a valuable source of rich, contemporaneous data. However, there was so much variation in the drawings partly because of the idiosyncratic knowledge base of the participants as well as the fact that I allowed participants to self-select the drawing template from among four templates: a blank sheet of paper; six questions: who, what, where,

when, why and how; a combination of six questions and cost vs. benefits and the most sophisticated option - the business model canvas. Given the variability, these sensemaking maps were ultimately used to corroborate data from other sources. However, on reflection, I know that much more could have been done with these maps/drawings.

Data analysis proved to be a valuable learning experience spanning just over three months. There was much trial and error before robust theoretical constructs began to emerge from the data pool. At one point, I could relate to Pettigrew's (1990) warning of 'death by data asphyxiation'. However, by following the guidelines of case study research purported by Eisenhardt (1989), I was able to navigate through the data pool and develop theory grounded in the data that was useful for answering my research question.

On a final note, I also kept a journal during the fieldwork process almost as an auto-ethnography as advised by Humphreys (2005). This process of reflection allowed me to track my progress and I found myself wishing that I had kept a journal at the start of my doctorate so as to track my entire PhD journey and not just the data gathering process. In future, I will remember to keep a journal as I plan to continue to conduct research in academia.

4.8. Method of Analysis

Following the use of the case study as a research method or strategy, the analysis of the data generated from the cases will follow the recommendations of Eisenhardt (1989) in terms of conducting within-case and cross case-analyses as well as comparisons with similar and contrasting literatures. Data collection began in 2012 and was carried out from mid-October until the end of September the following year. The study began with two pilot cases in October. Field notes were

subsequently written for each pilot case (*Appendix II*) and the findings from these were used to revise the initial interview schedule (*Appendix I*) resulting in the final case interview protocol shown in Table 4-4 above. Once the interview schedule had been revised and deemed satisfactory for continued data collection, phase one of the interview process began in November 2012 and ended in January 2013. During this time, interview data and imagery were collected from nine case participants.

Observational data was then collected during the period February 2013 – March 2013. Following this, the second phase of interviews (*See Appendix IV for schedule*) as well as the collection of visual maps drawn by participants (imagery) commenced from April 2013 until September 2013, where three of the cases were re-interviewed and a new case was added as a result of the observational data collected in the prior period. It should be noted that throughout the entire data collection period, archival documents such as press releases, business plans and presentation slides were collected intermittently. Table 4-7 below provides a summary of the data gathering process in the Case Organization i.e. university incubator (Enterprise Lab).

Table 4-6 Data Gathering Process

Pilot Interviews	First Interviews		Direct and Participant Observations	Second Interviews
Join university incubator	After attendance at ideas and opportunity recognition workshop	Or within 3 months of attending ideas and opportunity recognition workshop	Business Boot camp and Student Venture Challenge	Reflection and Aftermath
Imagery/Mapping Accounts	Imagery/Mapping Accounts		Archival Documents	Imagery/Mapping Accounts
Oct. 2012	Nov. 2012 - Jan. 2013		Feb. – Mar. 2013	Apr. – Sept. 2013

4.8.1. Coding

Interviews from all ten cases were transcribed verbatim and coded using a combination of coding techniques (Miles, Huberman & Saldana, 2013). See *Appendix III and Appendix V for excerpts of interview transcripts*. The first wave of coding involved the use of elemental methods such as descriptive coding, in vivo coding and process coding. Descriptive coding was necessary to provide an inventory of topics for indexing and categorising across the variety of data forms used in this study (field notes, interviews, observational data, archival documents and visual maps drawn by case participants.) In vivo coding was used where necessary to maintain the salience and context of relevant chunks of data. Finally, process coding became necessary to capture the actions of individuals over time as new information emerged, changed or occurred in particular sequences. The second wave of coding involved the use of sub-coding the general code entries in accordance with the nine a priori codes to create categories, themes, causal explanations, relationships among actors and theoretical constructs. These a priori codes were based on the research question and existing literature and are shown in Table 4-8 below. The table also displays the different types of coding mentioned above using one case as an example.

Table 4-7 A Priori Codes and Coding methods used in Data Analysis**A PRIORI CODES**

Topic	Code
Idea/Opportunity (the initial thoughts that stimulated action)	IDE/OPP
Opportunity Recognition (how this idea/opportunity came to be noticed)	OPREC
Opportunity Evaluation (researching the idea/opportunity)	OPEVA
Opportunity Exploitation (creation of a new product or venture)	OPEXP
Identity (concept of self during the process)	IDEN
Retrospection (motivations for business start-up)	RETRO/ MOT
Enactive in sensible environments (steps to exploit idea/opportunity involves a series of actions/activities)	ENAC
Cues (specifics that were noticed)	CUE
Language/sense giving (use of language in conveying the idea/opportunity)	LANG
Social (use of social networks/ contacts to seek feedback for the idea/opportunity)	SOC
<i>"Yea it is a service. There is definitely...I'll circle the stuff that is relevant yea so there is definitely technology involved from my experience and knowledge of being senior IT manager and having technical specialisms in advanced networking technologies. There's people... so this is the stuff about autistic spectrum and wanting to do something to help not only my son but people like him who really need opportunities for life and their life outcomes"(DE5 Consulting, Interview 1, p.1)</i>	
<i>"definitely technology involved"</i>	<i>In vivo coding</i>
<i>"from my experience and knowledge of being senior IT manager" >>> prior knowledge and experience</i>	<i>Descriptive coding</i>
<i>"so this is the stuff about autistic spectrum and wanting to do something to help not only my son but people like him who really need opportunities for life and their life outcomes">>> wanting to help son</i>	<i>Process coding</i>
<i>(MOT) wanting to help son (IDE/OPP) "definitely technology involved" (OPREC) prior knowledge and experience</i>	<i>Sub coding</i>

4.8.2. Within-Case Analysis

The next stage of analysis involved writing up the most promising codes in the form of a descriptive narrative. A descriptive narrative was first written for one case using the extracted themes and then subsequently written for the other nine cases in the study to assess how well each case matched up to the emergent themes. Besides these narrative descriptions, visual displays were also created from the narrative descriptions to aid in the analytical process for each case. This mainly involved reconstructing the sequence of events from venture idea to

opportunity recognition, opportunity evaluation and opportunity exploitation (where applicable, as some cases had not reached this stage) as well as the construction of a time-line, where applicable. Respondents were then asked to review the narrative and timeline where applicable and confirm that the information was as accurate as possible in the second round of interviews.

In an attempt to move away from mere description and focus on “how” these individual cases transitioned from having a venture idea to deciding to exploit it, an interim case summary was written for each of the ten cases this time using the sensemaking properties to explain what was happening during each stage and between stages. This involved reviewing the transcripts and first narrative and linking the sensemaking properties (identity construction, retrospect, social, ongoing, cues, plausibility, language, enactment) to themes in the data. The selection of which sensemaking properties were relevant for which stage (e.g. identity construction relevant in the venture idea stage but not opportunity recognition stage) was chosen based on the themes that emerged from the first case narrative on “what” was done at each stage.

As a result, not all of the sensemaking properties were seen to be relevant for each stage of the entrepreneurial process. Once the interim case summary was constructed and supported with vignettes from the interview transcripts, after several iterations, these summaries were used for cross-case analysis. In addition to this, the visual displays were also updated, highlighting the sensemaking properties as they occurred throughout the sequence of events with a final display summarising the sensemaking processes undertaken in each case as the participants transitioned from having an idea to deciding to exploit it.

4.8.3. Cross-Case Analysis

With the insights from the within-case analysis, cross-case analysis was then undertaken to identify underlying patterns and similarities across all ten cases in the study. The cases were arrayed on a continuum starting from the idea stage and culminating in the growth/expansion of the new venture. Some cases were very rich and complex while others were somewhat underdeveloped. This was due to the stage of development of the cases upon termination of data collection. At the end of the data collection period, five of the cases which began at the idea stage did not transition any further, while one case transitioned to the creation of a new product and venture. Two other cases which began at the idea stage transitioned to its first sale, and two more cases transitioned to the growth/expansion point.

Thus, due to the saturation of data at certain stages of development as well as the fact that using ten cases for a multiple-case study can become unwieldy with too many data to scan visually and too many permutations to account for (Miles, Huberman & Saldana, 2013), five richly researched cases were chosen for multiple-case sampling. These five cases were arrayed as follows: one case which remained at the idea stage, one case which transitioned from the idea stage to new venture creation, two cases which transitioned from the idea stage to its first sale and one case which transitioned from the idea stage all the way to the growth/expansion of the venture. Table 4-9 below provides summary information on the five selected cases. (Data on the non-selected cases is provided in *Appendix VIII* with a justification for their exclusion). The five selected cases were then analysed with the aim of identifying underlying patterns and themes. An example of this process of thematic analysis is displayed in Tables 4-10 and 4-11. Further examples of the process of thematic analysis are provided in the Appendices (*Appendix VII*).

Table 4-8 Summary Information of Case data

Features	The Pocket Square Company	Munchies Milkshake	DE5 Consulting	e-Book	Neehoy
Domain	Fashion/Clothing industry	Food/Beverage industry	Digital services	Virtual marketplace	Digital services
Founding team	Single entrepreneur	Two entrepreneurs	Single entrepreneur	Single entrepreneur	Team of three engineers and two others
Founding context	Stumbled into an opportunity	Identified a gap in the market	Stumbled into an opportunity (push and pull factors)	Identified a problem	Created technology to address a need
Initial funding	Family funding and university grant	Self-funded	Self-funded	Self-funded	University grant
Archival data	Business plans, presentations company website Press releases, Imagery	Facebook page, promotional videos on YouTube Imagery	Business plans Imagery	Business plan Imagery	Business plans, consultant portfolio Press releases, Imagery
Internal sources					
External sources					
Number of interviews	3	3	3	2	3
Internal informants	Founder	Both founders	Founder	Founder	Founder
External informants	Enterprise Lab Coordinator and Lab consultant	Enterprise Lab Coordinator	Enterprise Lab Coordinator	Enterprise Lab Coordinator	Enterprise Lab Coordinator

Table 4-9 Cross-Case Analysis: Identifying patterns and themes I

Interview data	First-order codes	Second-order codes	Emergent Themes (sensemaking perspective)
<i>The idea for my business begins with a problem. The problem I'm trying to solve is that of basically people trying to lose weight which is quite a common problem especially in the western world today</i> (eBook)	Problem	Solving problems	Problem sensing
<i>they've always right just said find a problem, find a solution or find several solutions then get the best one that's how we are taught may not always be right</i> (TPSC)	Problem	Finding problems	
<i>"There is definitely opportunities...ahm; I'll come on to the problem."</i> (DE5)	Problem	Identifying problems	
<i>"There is a gap in the market."</i> (Munchies)	Gap in the market	Identifying gaps	
<i>"..frustrated with a lot of the services out there that offer similar types of service to what we're working on and we thought well we could probably build something better"</i> (Neehoy)	Frustration/ Dissatisfaction	Solving problems	

Table 4-10 Cross-Case Analysis: Identifying patterns and themes II

	First-order codes	Second-order codes	Emergent Themes (sensemaking perspective)
"You could lose weight easily" (eBook)	Domain name	Organizational identity	Referent identity labelling
"The pocket square company" (TPSC)	Business name	Organizational identity	
"DE5 is a post code and I have chosen that as the name of my business." (DE5)	Post code/business name	External Imagery	
"Like M – McDonalds first letter is M and that is just a powerful logo just the M itself so we thought well when we design our logo we're going to make sure the M really is significant." (Munchies)	Reference to McDonalds	Organization mimicry	
"Nee – means no and hoy means throw it is a bit of a cultural pitch. I'm from the north east, Middlesbrough" (Neehoy)	Cultural background	Point of reference	

4.9. Chapter Summary

This chapter explored the philosophical underpinnings of social science research discussing the notion of paradigms, epistemology and ontology. An interpretive paradigm was selected and intersubjective ontological and epistemological positions were adopted given the nature of the study and the inability to clearly distinguish the subject from the object (Cunliffe, 2011). A case study methodology was then chosen following the protocols espoused by Yin (2009), Eisenhardt (1989) and Leonard-Barton (1990) given the resultant research objectives and research question. The sources of case study evidence were then described, discussed and summarized in tabular form. A section on reflexivity was added to highlight my awareness of the role of the researcher as a co-constructor of knowledge. However, although reflexivity has become a central theme of qualitative research, much more about the concept needs to be elucidated before we, as qualitative researchers, are comfortable using it. This was subsequently followed by a justification of the methods of analysis used and samples of the coding method.

Chapter 5 Findings I

In this chapter, the preliminary analyses for the five case studies are presented along with timelines and graphical depictions constructed by the researcher to depict the founding process. Case analyses presented in this chapter are both theory-driven in terms of the analytical framework that was used (i.e. the sensemaking perspective), and data-driven in the sense that it is reliant on the data that was gathered (i.e. observational, archival and interview data as well as the imagery/mappings of accounts each founder was asked to draw at different intervals throughout the data gathering process).

5.1. Overview

The events observed from the interview data and individual sensemaking maps the founders were asked to draw (See Appendix VI for drawings), were reconstructed⁵ by the researcher. The following case histories and timelines are therefore, representative of the ordering of events as they occurred during the founders' entrepreneurial journey. Of these events, some were observed as occurring simultaneously and a dotted line is used to connect those concurrent events⁶. All the events were then interpreted by the researcher as possible sensemaking processes. All seven properties of sensemaking identified in the literature (Weick, 1995) (identity, retrospection, social, enactment, ongoing, plausibility and cues) were used as the initial framework.

⁵ Mapping the events observed from the interview data and sensemaking maps in a sequential order sometimes using dates/time where provided by the respondent.

⁶ Concurrent events were found in four of the five cases and a dotted line was used consistently across cases to depict this.

Two of the properties (retrospection and ongoing) were found to be implicit. Retrospection, as the name implies, relied on the respondents' ability to recall events whereas the ongoing property of sensemaking was only evident through interruptions or situations that required sensemaking. As a result, these two properties were not explicitly recorded. Additionally, it should be noted that the plausibility property was linked with language/sensegiving in the analysis as the latter was found to be implicit in the former.

Events in the timelines were superimposed with its respective sensemaking property in the following manner: as relating to the identity property of sensemaking if references were made to the forming of an individual or organizational identity; as relating to the cues property of sensemaking if references were made to some form of information the founders acquired through market research or general awareness of their environment. In cases where language was used to convey to others the idea or potential opportunity, these events were superimposed as relating to the plausibility/language property of sensemaking. However, where plausibility/language was present it often involved communication with other people and as a result this was also linked to the social property of sensemaking.

Finally, all other events not falling under these previous properties were superimposed under the enactment property as they represented action-based events. These sensemaking exchanges were then categorised according to the stage of the entrepreneurial process in which they occurred. A basic "idea-to-opportunity-to-exploitation" conceptualization of the entrepreneurial process was used. Additionally, between certain stages of the entrepreneurial process a transition stage was included to depict the shift from one stage to another. There were two transition stages: the first, between the idea and opportunity stage and

the second, between the opportunity and its exploitation. The proceeding sections will detail the case histories of the five enterprises that were used in this study.

5.2. Case Study 1: DE5 Consulting (DE5)

DE5 Consulting (DE5) is a sole trader business providing a range of consultancy services such as bid writing, business and marketing advice, IT procurement, contract negotiation, network design, information service advice and computer installations/repairs and advice, to community groups, SMEs and social enterprises. The main service is bid writing for grants/funding for sources such as Rural Community Broadband Fund (RCBF). The unique selling point of the business is that it provides employment for youngsters with Autistic Spectrum Disorder (ASD), Asperger's Syndrome and Dyslexia. Additionally, it offers a 20% pro-bono commitment which no other IT consultancy offers.

The business began trading in May 2012. The founder, Rich, has 20 years' experience as an IT manager at the CTO level and expert knowledge of networking technologies. By profession, he is a Chartered Engineer and is currently pursuing a Masters in Computer Science and Entrepreneurship at a UK University. During the founding of DE5, twenty-four events were observed (Figure 5-1). These twenty-four events were interpreted using the sensemaking framework (identity, retrospection, social, enactment, ongoing, plausibility/language, and cues). Five of the properties of sensemaking were found and were subsequently mapped on to the events timeline in the following manner: identity represented by a circle; social represented by a diamond; enactment represented by a rectangle; plausibility/language represented by a hexagon and cues represented by a triangle (Figure 5-2).

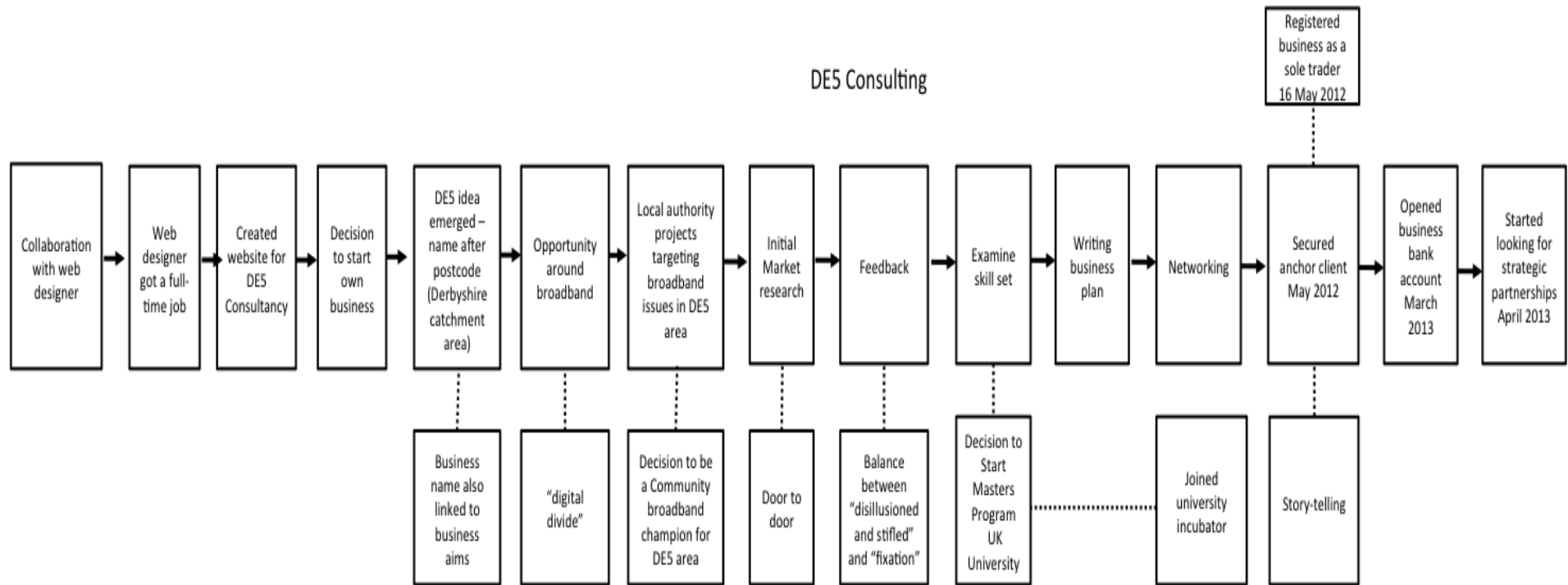
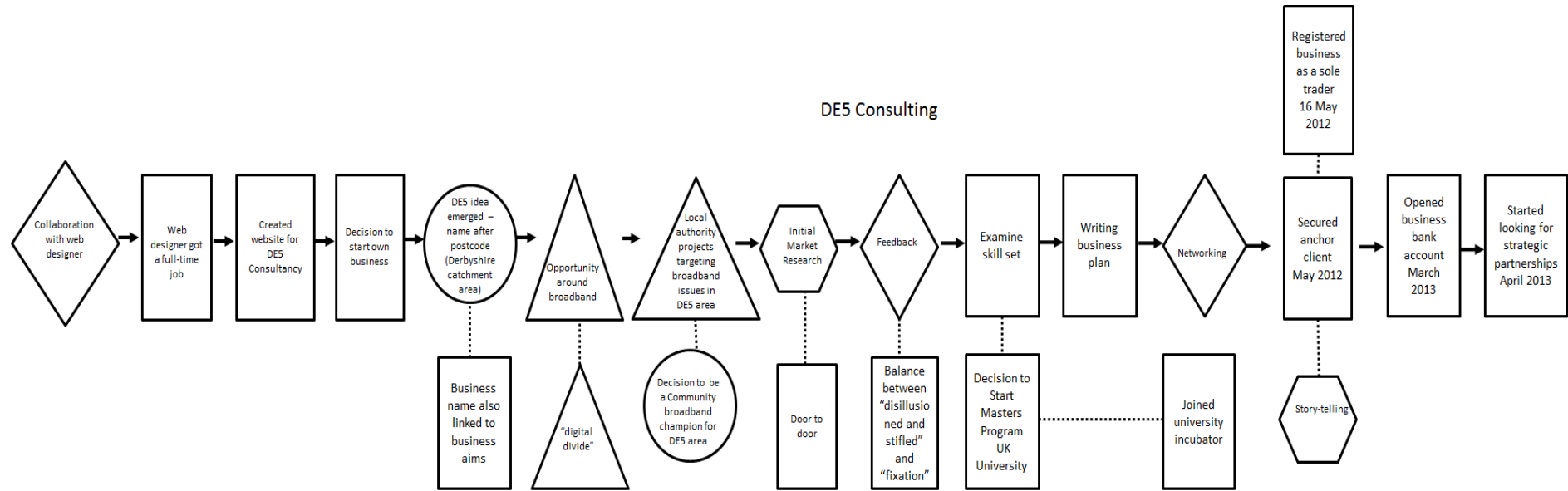
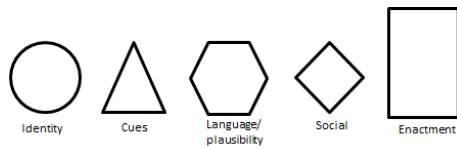


Figure 5-1 Timeline of the founding process of DE5

Chapter 5: Findings I



Key to sensemaking properties



Identity (circle); Cues (triangle); Plausibility/language (hexagon); Social (diamond); Enactment (rectangle).

Figure 5-2 Timeline of DE5 with sensemaking properties

It was observed that in the founding of DE5 Consulting, both individual (community broadband champion) and organizational (DE5 named after postcode) identities were being formed {identity property}; the founder was able to notice potential opportunities around broadband as well as the actions of existing stakeholders such as the local authority project {cues property}; activities such as door-to-door market research and networking involved the use of speech and some level of persuasion {use of plausibility/language property}; and that these activities were directed at certain persons who then provided feedback {social property}. Finally, the founder also engaged in writing a business plan, registering the business and opening a business bank account, among other activities, which were observed as action processes and therefore, observed as part of the {enactment property of sensemaking} (Figure 5-2). These sensemaking exchanges displayed in Figure 5-2 above were then categorised according to the stage of the entrepreneurial process in which they occurred in order to derive some understanding of how each of the observed sensemaking processes influenced the movement of the entrepreneurial actors through the entrepreneurial process (Figure 5-3).

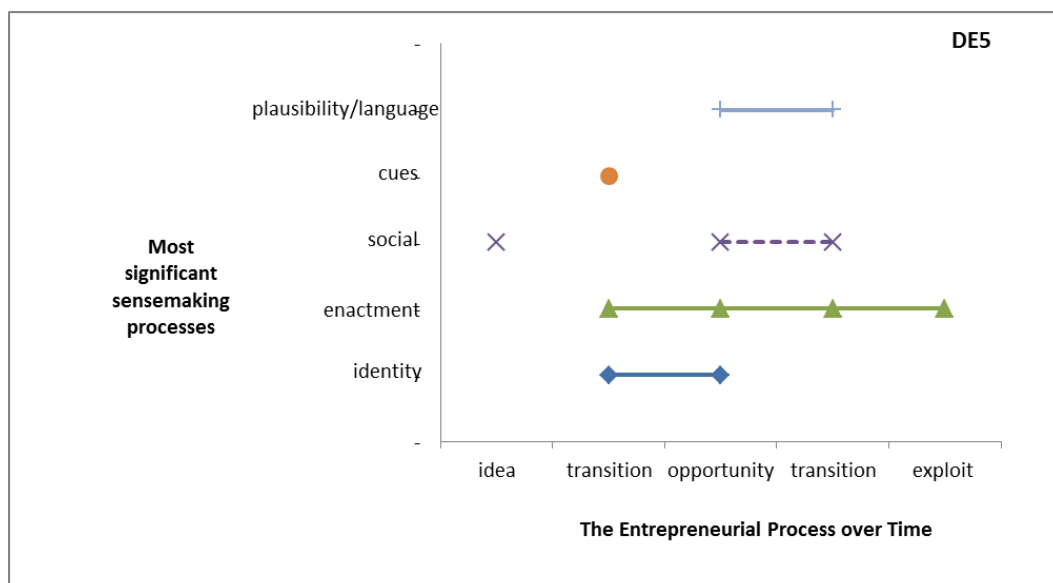


Figure 5-3 Sensemaking exchanges in the Entrepreneurial Process of DE5

It was observed that the entrepreneurial process for Rich began with social interaction as the founder collaborated with the web designer. Cues and Identity construction seemed to be a bridging point between the idea and opportunity stage along with the sensemaking process enactment. These three sensemaking processes seem to be important, either individually or conjointly, in understanding how the entrepreneurial actors in this study made the first transition from idea to opportunity. Identity construction continued to be important at the opportunity stage and the sensemaking processes of social interactions became important again at the opportunity stage when feedback was received from initial market research and continued in the transitional phase between opportunity and exploitation when the founder did some networking and acquired his first client. The sensemaking processes of plausibility/language also became important when the founder did his initial market research at the opportunity stage and in the transition to opportunity exploitation where story-telling was used to secure the anchor client. Enactment continued to be important and remained consistent until opportunity exploitation.

These particular exchanges in sensemaking processes seem to imply that sensemaking is constantly in flux and different sensemaking processes are utilised as they become necessary to deal with a particular situation or to support a subsequent action. This may also explain why the only sensemaking process that is consistently ongoing throughout Rich's entrepreneurial process is enactment. Sensemaking is as much a thinking process as it is an action process (Weick, 1995; Gioia & Chittipeddi, 1991). For each sensemaking property that is manifested (e.g. identity construction, cues, social...) there appears to be some corresponding action oriented towards substantiating the given sensemaking property. Once the action has been taken it seems that another sensemaking process replaces the previous one and another action is taken and so the cycle between the manifestation of a sensemaking property and the realization of that

property through action continues. This supports the notion that sensemaking is a cyclical process (Gioia & Chittipeddi, 1991).

5.3. Case Study 2: Munchies Milkshake (MM)

Munchies Milkshake is a milkshake delivery business catering primarily to university students at University of Nottingham and Nottingham Trent University. It was founded by two management undergraduate students and is Nottingham's first milkshake delivery business. The idea behind the venture was to provide a healthy alternative to fast food. Some of the other product offerings include cookies, pancakes and sandwiches with the potential to expand the brand to lunches and snacks for corporate clients as well as a retail branch marketed towards supermarkets to distribute munchies toddler food, smoothies and bottled milkshakes. The actions and events that led to the formation of Munchies began with the founders' realization that there was not anyone in Nottingham providing a delivery service like this and the potential opportunity to start something led to the creation of a brand, a logo and a marketing campaign that resulted in the Munchies Milkshake delivery business. During the founding of Munchies, nineteen events were observed. As in the above case, concurrent events are connected by a dotted line. Once the events in the founding of Munchies Milkshake were ordered in the form of a timeline (Figure 5-4), the analytical framework (i.e. the seven properties of sensemaking theory: identity construction, retrospection, social, enactment, ongoing, cues, plausibility/language) was superimposed onto the events timeline which led to the observation of five of the sensemaking properties (identity, social, enactment, plausibility/language, and cues). The events timeline was then reproduced to display the observed sensemaking processes. As in the above case, the sensemaking properties are represented by a selection of shapes (e.g. circle, triangle, rectangle etc.). This is depicted in Figure 5-5.

Munchies Milkshake

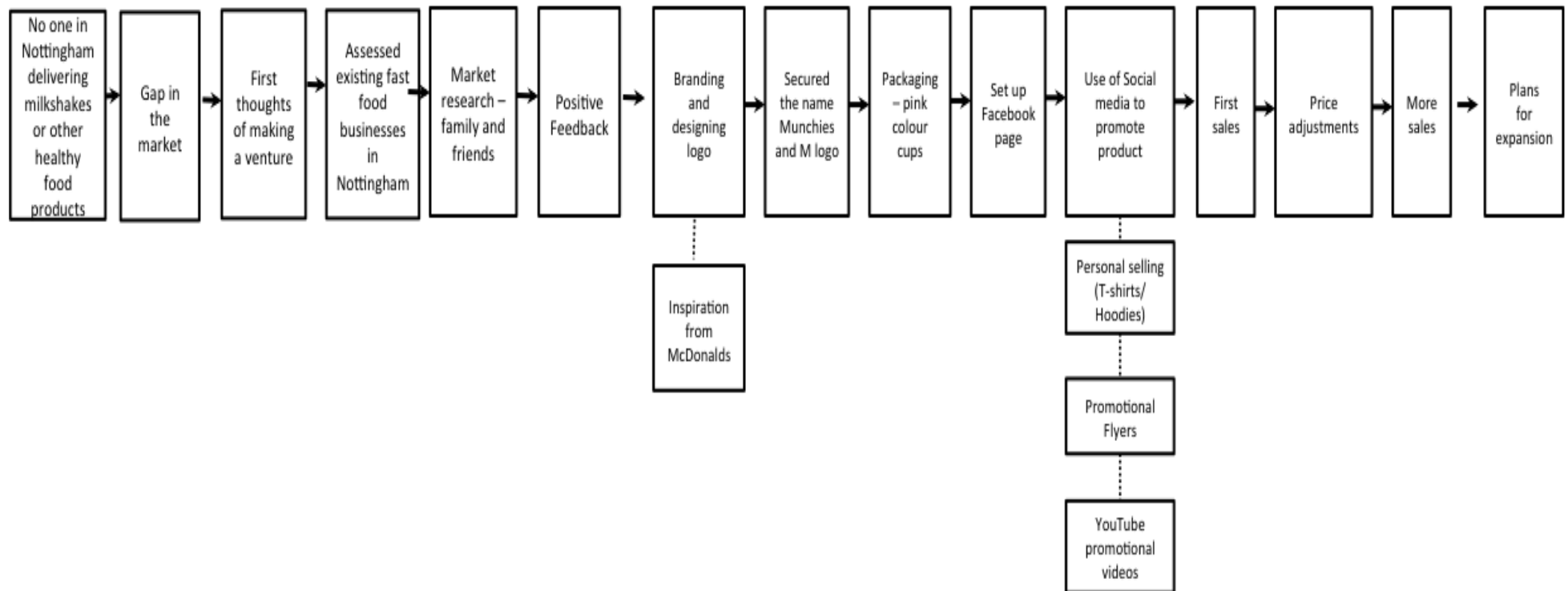
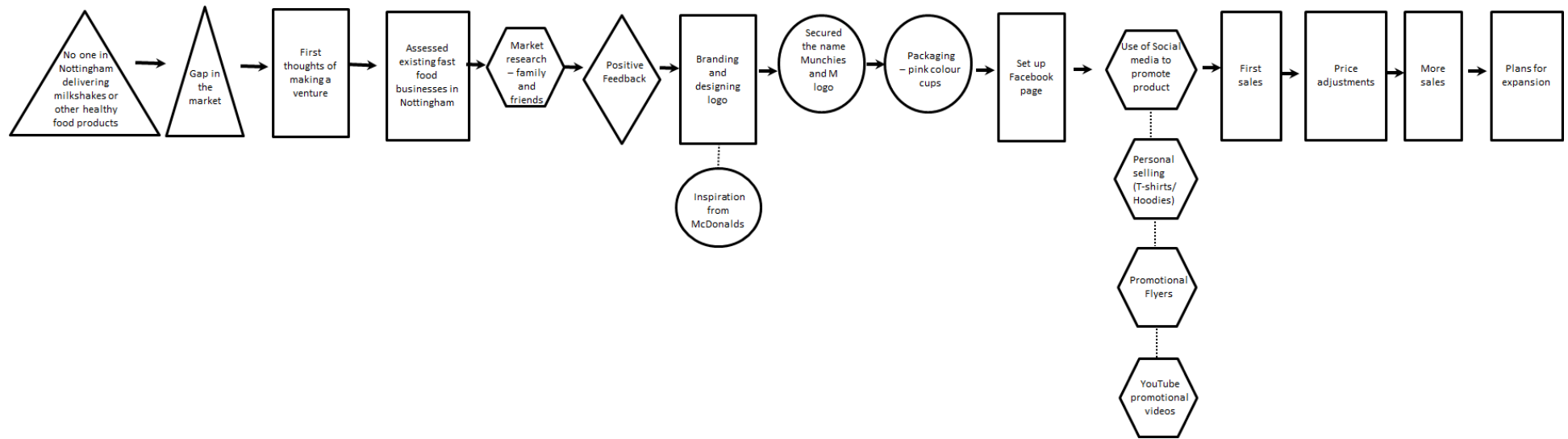


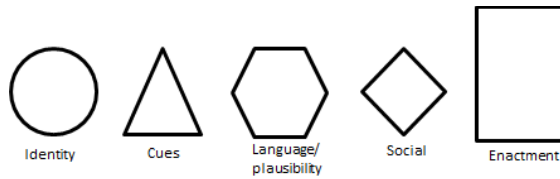
Figure 5-4 Timeline of the founding process of MM

Chapter 5: Findings I

Munchies Milkshake



Key to sensemaking properties



Identity (circle); Cues (triangle); Plausibility/language (hexagon); Social (diamond); Enactment (rectangle).

Figure 5-5 Timeline of MM with sensemaking properties

As aforementioned, Figure 5-5 depicts the sensemaking processes observed during the entrepreneurial journey of Munchies Milkshake. It was observed that in the founding of Munchies Milkshake, an organizational identity was being formed using the McDonalds brand as a point of reference {identity property}; the founders were able to notice a gap in the market and that no one in Nottingham was delivering milkshakes {cues property}; market research and promotional activities involved the use of speech and some level of persuasion {use of plausibility/language property}; and these activities were directed at family and friends who then provided feedback {social property}.

Finally, the founders also engaged in setting up a Facebook page and negotiating pricing, among other activities, which were observed as action processes and therefore, observed as part of the {enactment property of sensemaking}. These sensemaking exchanges displayed in Figure 5-5 above were then categorised according to the stage of the entrepreneurial process in which they occurred (Figure 5-6) in order to gain insight into the relevance of the sensemaking properties at different stages of the entrepreneurial process.

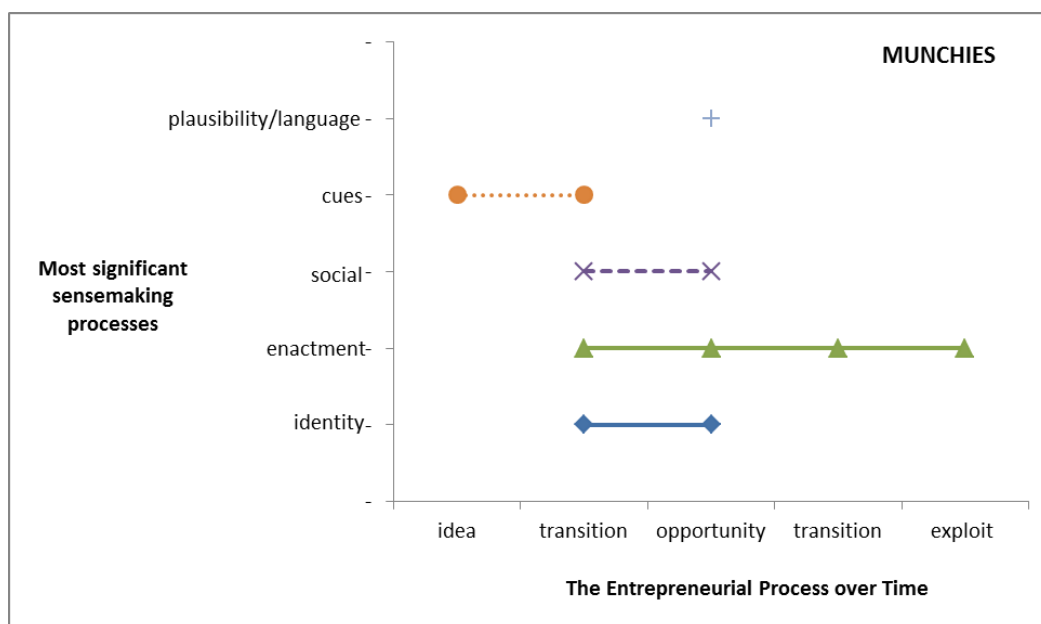


Figure 5-6 Sensemaking exchanges in the Entrepreneurial Process of MM

It was observed that the entrepreneurial process began with the founders noticing certain cues. It seemed that the sensemaking processes of social interactions and enactment became important in the transition from idea to opportunity and continued to be important at the opportunity stage. Additionally, cues and identity construction seemed to also be a bridging point between the idea and opportunity stage with identity construction also continuing to have prominence at the opportunity stage, as in the case of DE5. The sensemaking processes of plausibility/language became important at the opportunity stage when the founders used the promotional videos and other marketing tools to promote the emergent venture. Finally, enactment continued to be important after opportunity exploitation as the founders planned to expand the venture.

These findings in the case of Munchies augur well for the notion that the sensemaking processes of cues, identity construction and enactment are somehow interrelated and contribute in some way to the transition from an idea to an opportunity. Furthermore, the exchanges in sensemaking observed in the case of Munchies provide some indication as to the prevalence of the properties during the entrepreneurial process. Some properties appear to be repeated throughout the entrepreneurial journey, such as social interactions, cues and identity construction while others seem to be concentrated on one stage of the process (e.g. plausibility/language property at the opportunity stage). The frequency by which the sensemaking properties appeared in the entrepreneurial process taken by the founders of Munchies Milkshake may be an indication of its importance to that particular stage and/or its importance to the overall evolution of the entrepreneurial process.

Despite the central place of identity in sensemaking (as the first of Weick's (1995) seven properties of sensemaking), it was initially assumed that the properties occurred in a sequential manner in order for sensemaking to be

accomplished. "People concerned with *identity* in the *context of others* engage *ongoing* events from which they *extract cues* and make *plausible* sense *retrospectively*, all the while *enacting* more or less order into those ongoing events" (Weick, 1995:18). However, Weick himself acknowledged the crudeness of such a sequence stating that "it omitted feedback loops, simultaneous processing and the fact that over time, some steps may drop out" (p. 18). The above cases provide empirical justification for the latter of Weick's propositions, that is, evidence of simultaneous processing having occurred and the fact that over time, some steps drop out.

5.4. Case Study 3: Neehoy

Neehoy is a peer-to-peer recycling application created by three PhD candidates at the Horizon digital economy research centre. The business was incorporated as a limited liability company with a shareholder agreement in 2012 and includes a graphic designer and a chartered accountant in addition to the three founders. It operates as a social network platform that enables individuals and organizations to recycle unwanted items. Working with businesses, local authorities, organizations and charities, the founders have created reuse communities or "networks" in which items can be offered and requested using a free mobile application. Users offer items by taking a photo of the item they no longer need, which is then distributed throughout the networks. People interested in taking the item can respond using private in-app messaging to arrange collection. Networks can be based on geographic area and the use of mobile location sensors facilitates easy distribution of items to any given neighbourhood. Neehoy also makes this process easier by utilising existing social networks (e.g. Facebook friends) and by building on existing connections and relationships between individuals and groups.

As in the above cases, Figure 5-7 below is a reconstruction of the events in the entrepreneurial journey of Neehoy. During the founding of Neehoy, eighteen events were observed. As in the other two cases, some events occurred simultaneously and were therefore, depicted by a connected dotted line. Additionally, as in the other two cases, the sensemaking framework was used by the researcher to interpret the timeline of events generated from the different data sources. The following sensemaking properties (identity, social, enactment, plausibility/language, and cues) were directly observed in the case of Neehoy and then mapped onto the events timeline in accordance with the mapping framework used in the other cases. The mapping of the sensemaking properties onto the events timeline is depicted in Figure 5-8 below.

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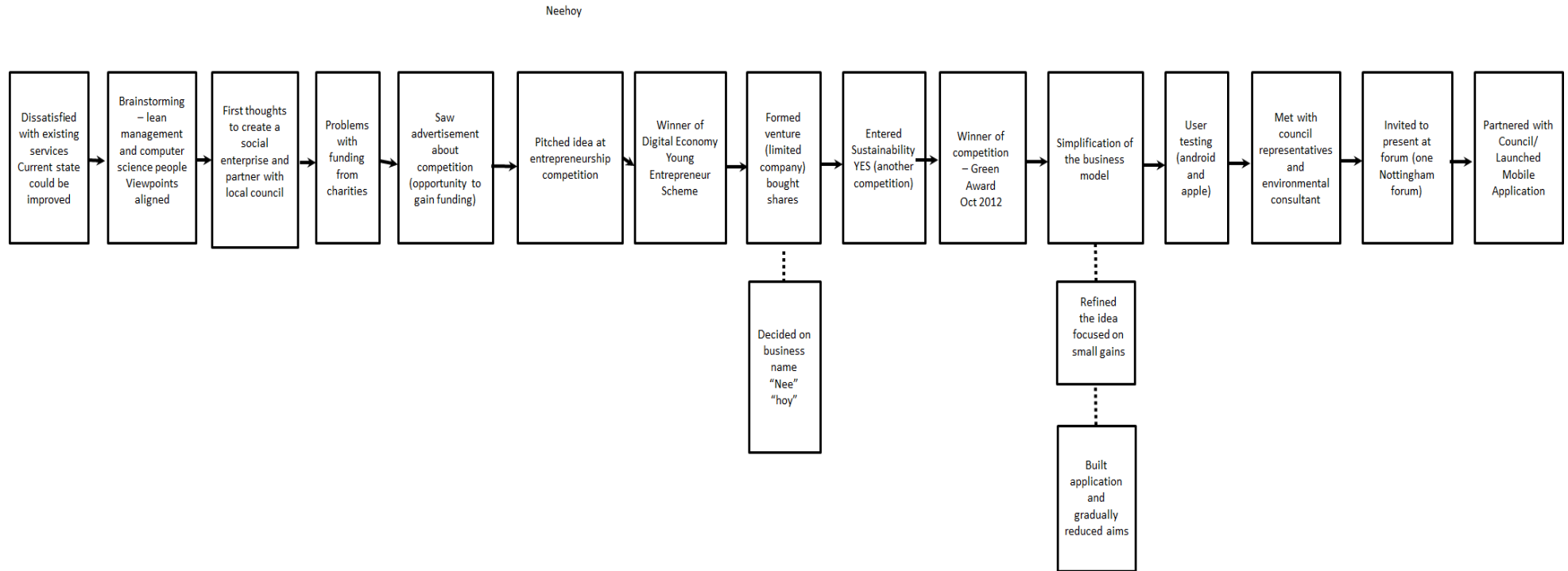
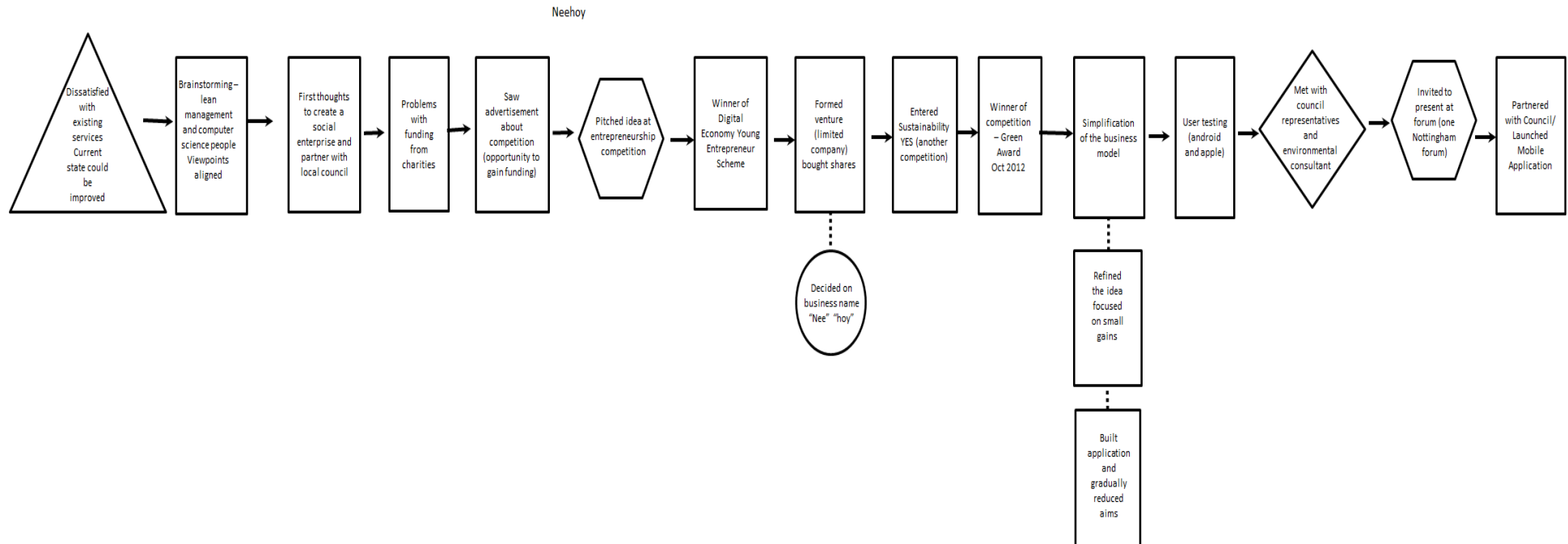
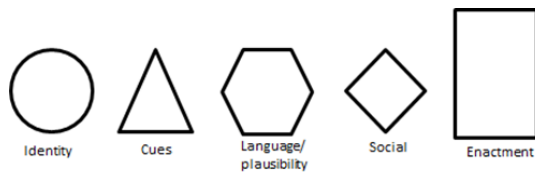


Figure 5-7 Timeline of the founding process of Neehoy

Chapter 5: Findings I



Key to sensemaking properties



Identity (circle); Cues (triangle); Plausibility/language (hexagon); Social (diamond); Enactment (rectangle).

Figure 5-8 Timeline of Neehoy with sensemaking properties

Figure 5-8 shows that during the founding of Neehoy, it was observed that an organizational identity ("Nee" means "no"; "hoy" means "throw") was being formed {identity property}; the founders were able to notice what was lacking in existing recycling services {cues property}; the founders also entered several entrepreneurship competitions where they pitched their idea which involved the use of speech and symbols {use of plausibility/language property}; these pitches were directed at potential investors and the general public who provided feedback {social property}. Finally, the founders were also involved in building the mobile application and user testing activities, among others, which were observed as action processes and therefore, observed as part of the {enactment property of sensemaking}.

These sensemaking exchanges displayed in Figure 5-8 above were then categorised according to the stage of the entrepreneurial process in which they occurred (Figure 5-9) in keeping with the analysis done in the other two cases.

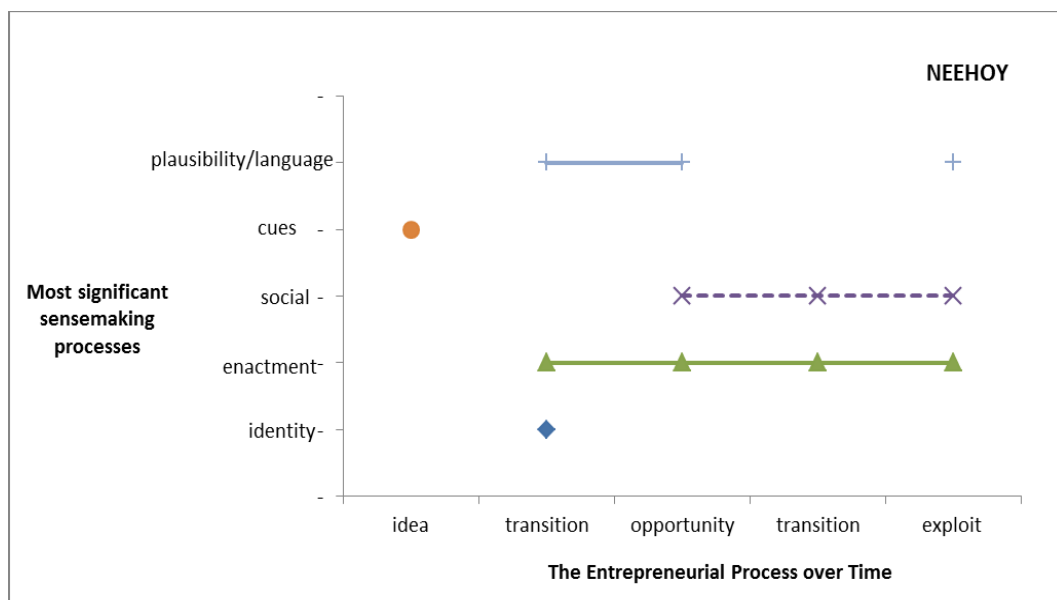


Figure 5-9 Sensemaking exchanges in the Entrepreneurial Process of Neehoy

One of the benefits of using the graphical depictions was the ability to highlight the subtle nuances within and across cases. In the case of Neehoy it was observed that the entrepreneurial process began with social interaction as well as the founders noticing certain cues. In addition to this, sensemaking processes of identity construction and enactment appeared again in the transition from an idea to an opportunity. This added further weight to the possible claim that cues, identity construction and enactment were fundamental to the start of the entrepreneurial process.

On the other hand, the case of Neehoy highlighted delays in certain sensemaking processes as well as sporadic exchanges in other sensemaking processes. In the case of the former, sensemaking processes of social interactions only became important during the transition to exploitation when the founders met with council representatives. In the previous case studies, social interactions occurred much earlier in the process. Additionally, the type of social interaction also seems to be different across these three cases. This could suggest some association between the type of social interaction (e.g. family; friends; council representatives) and its positioning and relevance at particular stages in the entrepreneurial process.

In terms of erratic behaviour, the founders of Neehoy seemed to have relied extensively on the sensemaking process of plausibility/language. This sensemaking property appeared in the transition from an idea to an opportunity and then at the opportunity stage as the founders presented their business idea at entrepreneurship competitions, and finally, at the exploitation stage. Previous notions of the relevance of this sensemaking property had been limited to the opportunity stage of the entrepreneurial process with a possible overlap into the transition phase between opportunity and exploitation. However, the findings in the case of Neehoy emerging from the graphical depictions point to an earlier need for the plausibility/language property.

However, since the founders of Neehoy used the plausibility/language property consistently throughout the entrepreneurial process to gain external funding for the idea by attending entrepreneurship competitions, it seems that the repeated use of the property is not an indication of its importance to the process but that in the specific case of Neehoy, a social enterprise, the founders had to continually project their ideas to gain funding in order to keep the idea alive.

5.5. Case Study 4: The Pocket Square (TPSC)

The Pocket Square Company (TPSC) is a fashion retail company that designs, creates and sells pocket squares for the breast pocket of any jacket or blazer. It was founded in 2010 by Mr A and is managed by Mr A with the help of Mr A's father who holds the position of Chairman and Mr A's mother and sister who provide fashion and marketing advice. By all accounts, this could be considered a family business.

Traditionally, pocket squares have been gendered, privileging men as sole wearers. However, the Pocket Square Company's product designs are made with both men and women in mind. Each pocket square is handmade in the United Kingdom using top quality fabrics sourced from all over the world. The Pocket Square Company not only distinguishes itself based on quality but also on shape. According to the founder, "the shape makes the difference", and each pocket square is precisely designed and sized to ensure easy manipulation into any desired shape or angle. Based in the United Kingdom, pocket squares are readily available from the e-commerce website www.thepocketsquarecompany.co.uk, retail shops like Harrods, Selfridges and Savile Row in London or hotel shops like the Dorchester.

During the founding of TPSC, thirty-four events were observed (Figure 5-10). As in the above cases, the sensemaking properties were superimposed on the events timeline (Figure 5-11). It was observed that the founder of TPSC began forming an organizational identity through the founding of “The Pocket Square Company” {identity property}; the founder acquired relevant information about the poor quality of existing pocket squares {cues property}; marketing campaigns such as “where’s your square?” involved the use of speech, symbols and some level of persuasion {use of plausibility/language property}; the founder had social interactions with persons at the Henley Regatta as well as elicited the help of friends to create a website {social property}. Finally, the founder also engaged in entrepreneurship competitions (e.g. student venture challenge) and writing a business plan, among other activities, which were observed as action processes and therefore, observed as part of the {enactment property of sensemaking}.

Chapter 5: Findings I

The Pocket Square Company

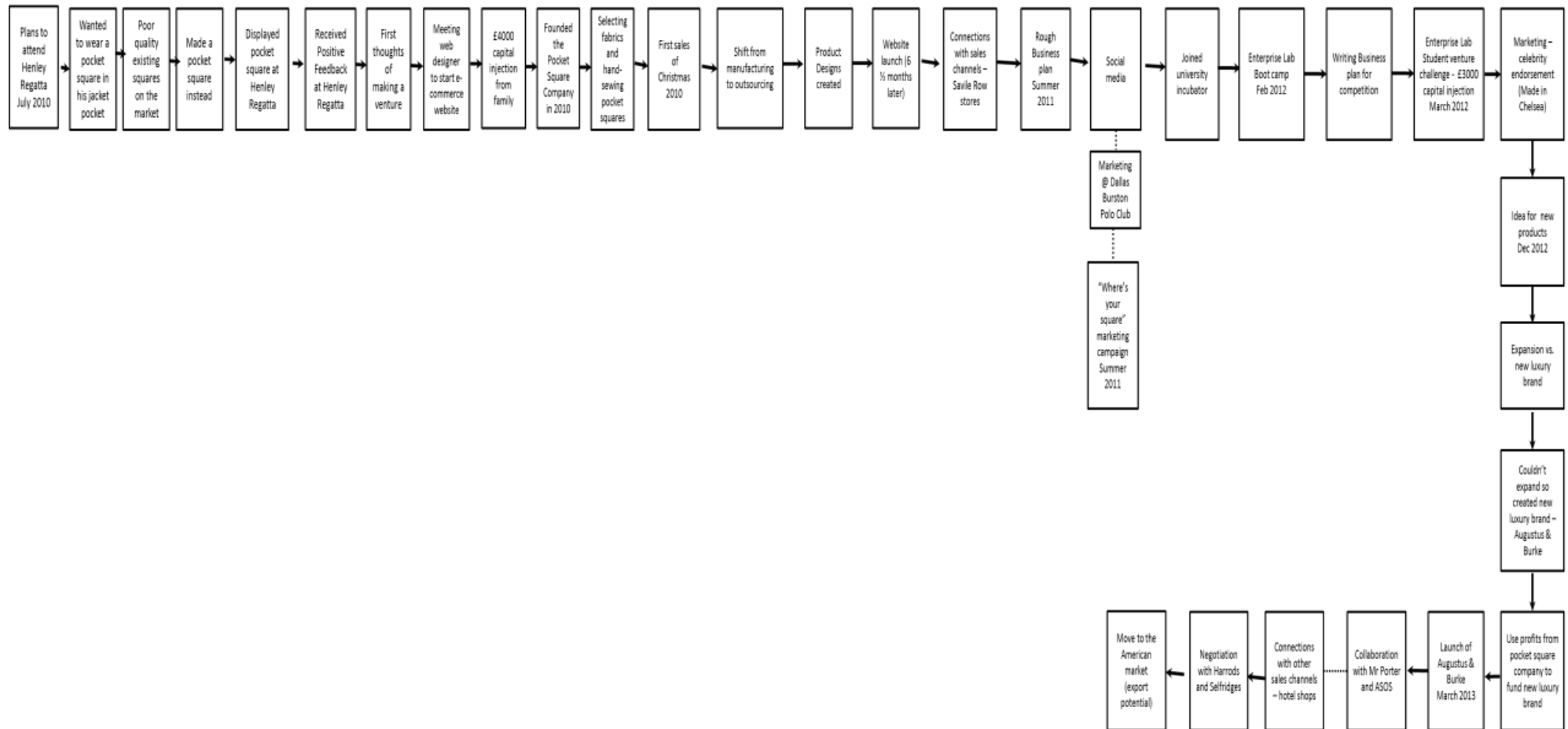
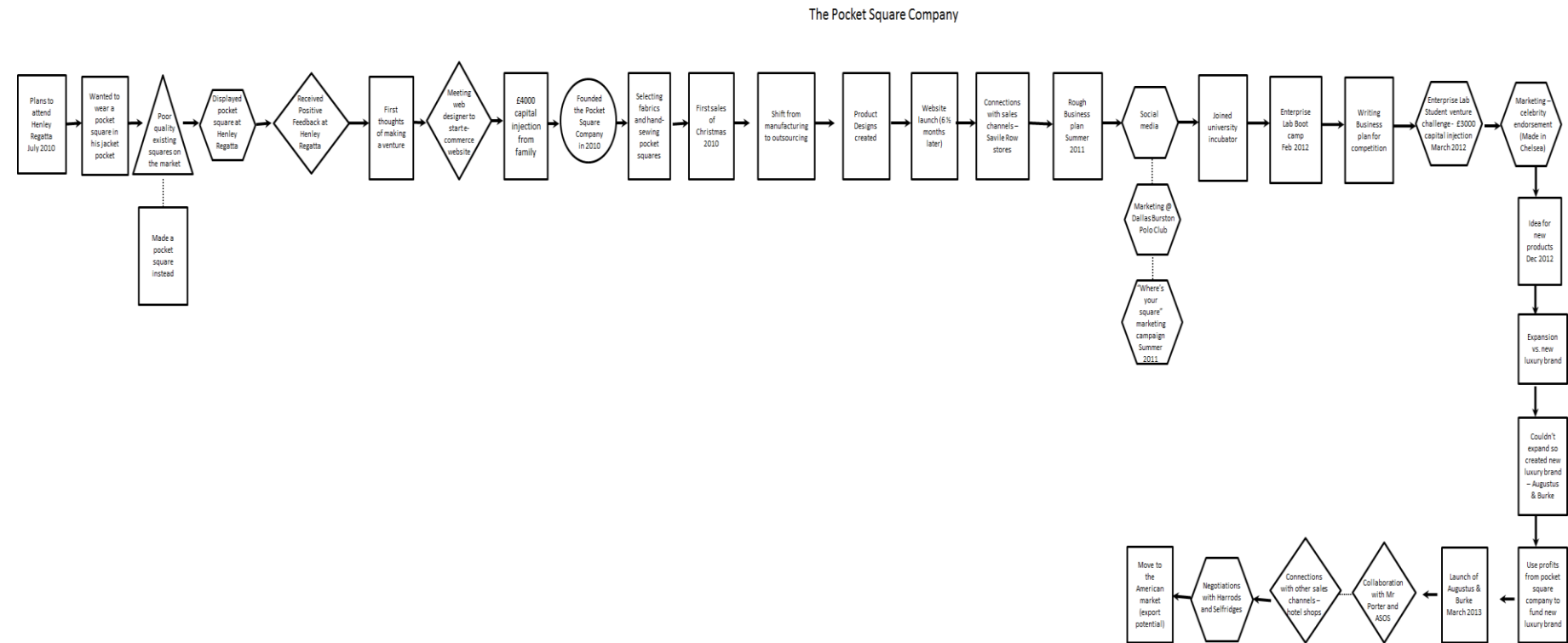
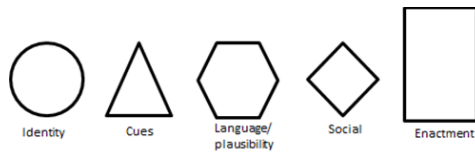


Figure 5-10 Timeline of the founding process of TPSC

Chapter 5: Findings I



Key to sensemaking properties



Identity (circle); Cues (triangle); Plausibility/language (hexagon); Social (diamond); Enactment (rectangle).

Figure 5-11 Timeline of TPSC with sensemaking properties

These sensemaking exchanges displayed in Figure 5-11 above were then categorised according to the stage of the entrepreneurial process in which they occurred (Figure 5-12). It was observed that the entrepreneurial process began with enactment. As in the case of DE5 and Munchies Milkshake, cues and identity construction seemed to be a bridging point between the idea and opportunity. Also in the transition stages, it seemed that the sensemaking processes of plausibility/language and social interactions became important when the founder decided to display his pocket square creation at the Henley Regatta and then received feedback on the pocket square idea respectively. The sensemaking process of social interaction remained consistent throughout the process as additional feedback was received from family and potential customers. Enactment also remained consistent throughout the entrepreneurial process. The sensemaking process of plausibility/language became important again during the opportunity stage in the form of entrepreneurship competitions (e.g. student venture challenge) and marketing campaigns, which required the use of speech and symbols (actual representations of the pocket square), and continued to be important in the transition to exploitation.

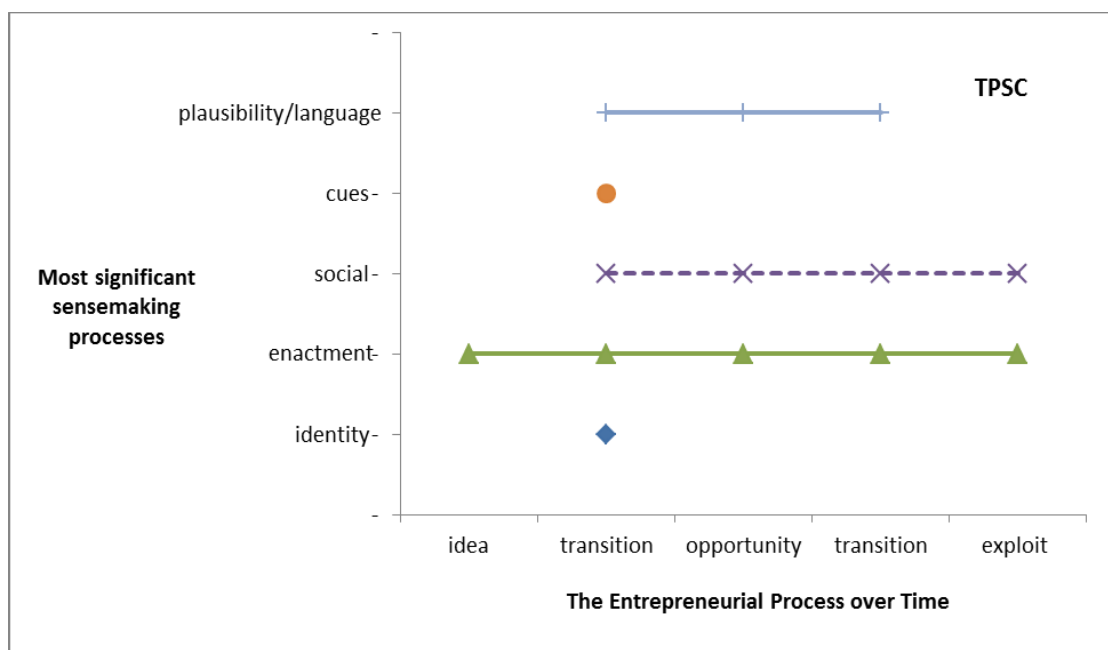


Figure 5-12 Sensemaking exchanges in the Entrepreneurial Process of TPSC

The graphical interpretation of the prevalence of the sensemaking properties at different stages of the entrepreneurial process undertaken by the founder of the Pocket Square Company (TPSC) seemed to concur with all three preceding cases. In fact, each graph that was produced in this preliminary analysis became an important part of the later cross-case analysis as it offered a visual comparison that other forms of cross-case analytical methods, such as listing similarities and differences, could not provide. The graph of TPSC showed that the founder's actions were similar enough to the cases of DE5 and Munchies Milkshake to support a theory of interrelatedness among the sensemaking processes yet different enough to the other cases to add some weight to the claim that the frequency of the plausibility/language property of sensemaking is dependent on the need to gain funding and general support to keep the idea alive.

5.6. Case Study 5: Weight Loss eBook (eBook)

"You could lose weight easily" is a weight loss eBook written and published by Sab. Sab was pursuing a Law degree from a UK University when she decided to start an internet-based business writing weight loss eBooks. This is Sab's first attempt at writing an eBook and there are plans to distribute the eBook to the American and British markets targeted at individuals of any age category who wish to lose weight healthily and permanently.

As in the above cases, the following figure (Figure 5-13) is a timeline reconstructed by the researcher to depict the founding process of the eBook. During the founding of the eBook, eight events were observed. In this case, only three of the sensemaking properties were observed and mapped on the events timeline in accordance with the analytical framework used in this study.

Figure 5-14 depicts the three sensemaking properties: an organizational identity ("You can lose weight easily") was being formed {identity property}; the founder was able to notice three specific causes of the weight loss problem she previously identified {cues property}. Additionally, the founder was also involved in building a website and writing a business plan as well as writing the eBook {enactment property} and she had future plans to promote the eBook using viral marketing.

It should be noted that the case of the eBook did not make it to the opportunity exploitation stage. However, the influence or lack of plausibility/language cues provided key insights into the entrepreneurial process (Figure 5-15).

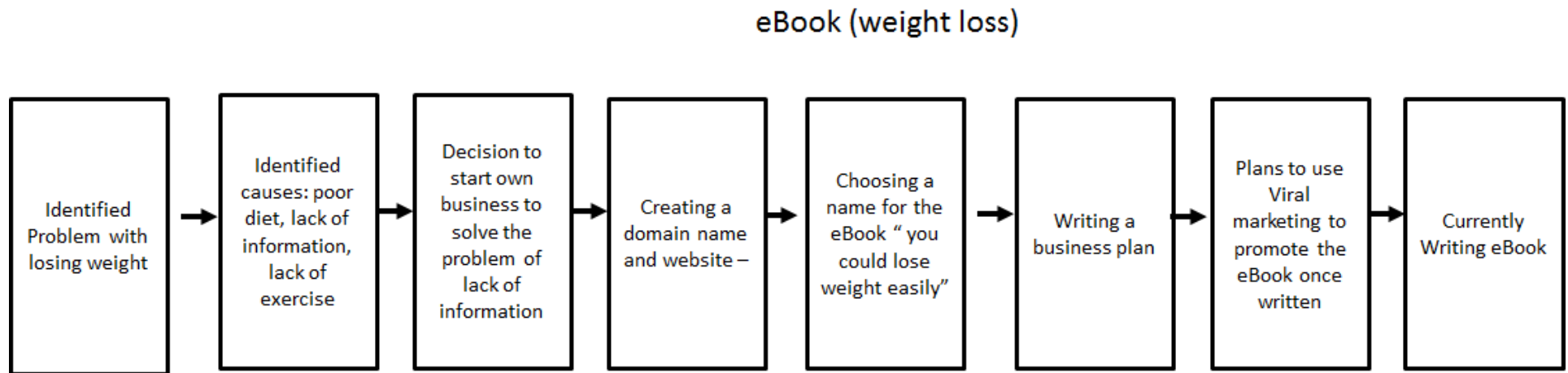
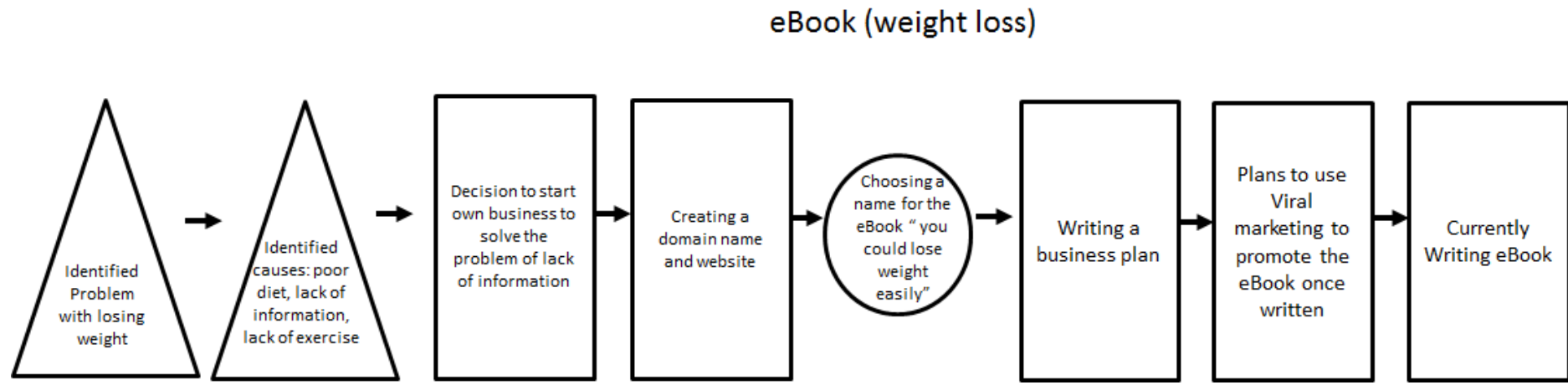
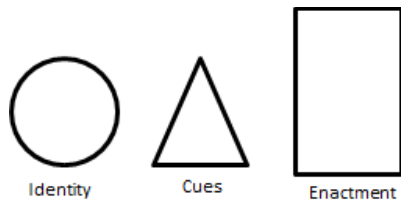


Figure 5-13 Timeline of the founding process of eBook



Key to sensemaking properties



Identity (circle); Cues (triangle); Plausibility/language (hexagon); Social (diamond); Enactment (rectangle).

Figure 5-14 Timeline of eBook with sensemaking properties

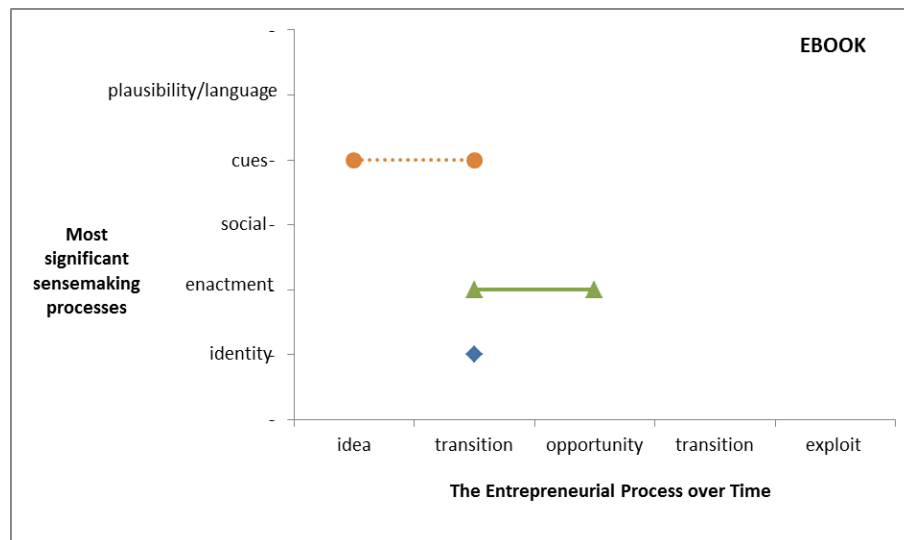


Figure 5-15 Sensemaking exchanges in the Entrepreneurial Process of eBook

5.7. Chapter Summary

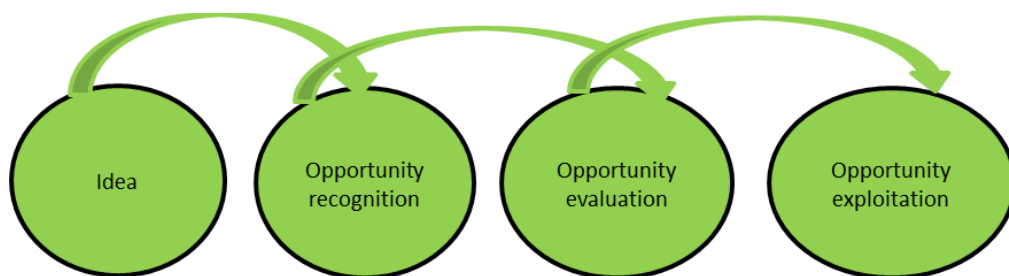
In this chapter, the analytical framework and preliminary findings were presented in the form of case analyses, graphs and the construction of visual maps reflective of a timeline of events. The sensemaking framework used in the analysis was useful in unpacking the entrepreneurial process and interpreting the data as five of the seven sensemaking properties were found in the majority of the case studies. The mapping of the sensemaking properties onto the entrepreneurial process in graphical form highlighted the prevalence of the properties at different stages of the process for each of the cases. In the following chapter, these cases will be analysed in more depth with particular reference to the function of the sensemaking properties at different stages of the entrepreneurial process. It should be noted that the enactment property of sensemaking has been interpreted throughout as essentially 'action' and that in itself is evident in the entrepreneurial process. As a result, the focus of the next chapter will be on explaining the role of the other sensemaking properties (identity, social, cues and plausibility/language) at different stages of the entrepreneurial process.

Chapter 6 Findings II

In this chapter, the preliminary findings presented in the previous chapter are explored in more depth thematically. This is achieved by exploring the role of the sensemaking properties identified in the first-order analysis of the five case studies. Each sensemaking property that was identified in the initial analysis (e.g. cues, identity construction, social, and plausibility/language) is further analysed according to the stage of the entrepreneurial process in which it occurs beginning with the idea stage, followed by opportunity recognition, then opportunity evaluation and finally, opportunity exploitation. The case analyses presented in this chapter also explore the function of each of the sensemaking properties that appeared to be intrinsic in the transition from one stage of the entrepreneurial process to another.

6.1. The Entrepreneurial Process

As identified in the literature review, the entrepreneurial process begins with an idea, followed by opportunity recognition, then opportunity evaluation and finally, opportunity exploitation (Figure 6-1).



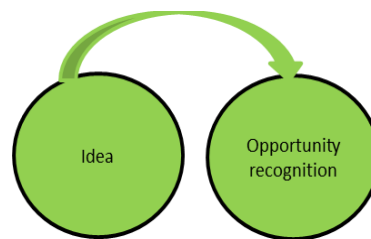
Adapted from Dimov (2007a) and Shane & Venkataraman (2000)

Figure 6-1 The Entrepreneurial Process

As the intention of this study was to identify and explain how entrepreneurial actors transition from having an idea to deciding to exploit it, these stages were used as the basis for the analysis to capture the actions and events that transpired during the entrepreneurial journey of each of the entrepreneurial actors in this study. In the following section, the findings related to the idea and opportunity recognition stages of this process are presented.

6.2. Idea to Opportunity Recognition

In the entrepreneurial process depicted above, the first action or event that transpires is the transformation of the idea into an opportunity. This is referred to as opportunity recognition within the literature (Figure 6-2).



Adapted from Dimov (2007a) and Shane & Venkataraman (2000)

Figure 6-2 Idea to Opportunity Recognition

As previously mentioned in the methods chapter, the early-stage entrepreneurial actors in this study entered the incubator already having an idea. However, the findings from this study suggest that the first event that actually transpired was the transformation of the idea into a potential opportunity in the minds of each of the entrepreneurial actors. This is depicted below in Figure 6-3 where the findings that emerged from the data are represented as an unshaded circle⁷.

⁷ All unshaded circles in this chapter are representative of findings that emerged out of the data.

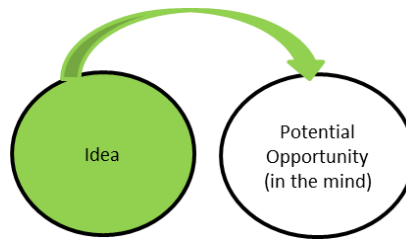


Figure 6-3 Idea to Potential Opportunity

Furthermore, it was observed during the case studies that the entrepreneurial actors transformed the idea into a potential opportunity in their minds by gathering information relevant to the idea. This event (i.e. the process of gathering information) that emerged from the data was interpreted by the researcher as equivalent to the process of noticing and extracting cues found in the sensemaking literature (*refer to Chapter 5, Section 5.1*).

6.3. Cues

In the sensemaking literature, the process of noticing refers to the activities of filtering, classifying and comparing. Noticing determines whether people even consider responding to environmental events. If events are noticed, people make sense of them; and if events are not noticed, they are not available for sensemaking. It is through the process of noticing that cues are extracted for sensemaking. How cues come to be noticed is not made explicit in the sensemaking literature. However, the findings in this study shed light on the process of noticing in an entrepreneurship context as three ways in which entrepreneurial actors notice cues emerged from the data: (1) *problem sensing*, (2) *establishing causation* and (3) *appraising existing solutions*.

6.3.1. Problem Sensing

The findings indicate that the early-stage entrepreneurial actors in this study first held perceived information about a problem that others faced or they themselves

currently or previously faced. For the purposes of this study, perceived information about a problem is termed *problem sensing*. Problem sensing emerged from the findings as a foundational cue. That is, the basis from which all other cues stemmed, and it was the first set of information that ratified the idea in the mind of the founders. An example of this is the case of the weight loss e-book. When asked about the process taken to transform the idea into an opportunity, the founder of the e-book, Sab, said that,

"The idea for my business begins with a problem. People always talk about making money but I think it is about more than making money. What you need to do is create value in somebody's life, which I think is really important so it is that you solve somebody else's problem usually in exchange for.... I guess.... let's just say a small venture. The problem I'm trying to solve is that of basically people trying to lose weight which is quite a common problem especially in the western world today." (W Loss e-book, INT1: P1).

Sab therefore, noticed that weight loss was a problem others faced and decided to build the idea for her business around solving this problem. This demonstrates that the circumstances under which the founder was able to notice that there was a problem revolved around the proliferation of the problem and/or the number of persons affected.

Another example of problem sensing was observed in the case of The Pocket Square Company (TPSC). When asked in the interview about the process taken to develop his idea into a business, the founder of TPSC, Alex, said that it was about,

"Finding the problem that sort of thing. At this university (University of Nottingham) the way things are drilled into you especially with the modules that we've done at Uni in the first year they've always right just said find a problem, find a solution or find several solutions then get the best one that's how we are taught may not always be right" (TPSC, INT1: P1)

Alex was able to draw upon his training and experience in "problem finding" when he found himself faced with a problem. *"Yea I was going to the Henley regatta yea so I was like I need a square could not find one. Mum was like oh well we'll make one that will look better (than the ones they saw)" (TPSC, INT1: P12)*. The founder of TPSC was able to notice that there was a problem with obtaining suitable quality pocket squares after he sifted through the existing pocket squares and could not find one that was suitable for the Henley Regatta. Thus, Alex was able to notice a problem with the pocket squares because they (the pocket squares) fell below the level he deemed to be satisfactory or acceptable.

Similarly, when asked about the process taken to develop the idea into an opportunity, the founder of DE5, Rich, said,

"There is definitely opportunities...ahm; I'll come on to the problem. The opportunity at the moment is around broadband. You only have to go a couple of miles from where I live to be in a white area which is basically you cannot get anything more than dial-up or 3G on a mobile sim" (DE5, INT1: P4).

The above findings indicate that Rich was able to notice that there was a problem with broadband faced by himself and others in his local community because the

level of broadband coverage in the area was below the level Rich would define as satisfactory or acceptable.

Likewise, problem sensing in the case of Neehoy was observed as dissatisfaction with existing services geared towards waste management. One of the founders, John, explained,

"We have quite a lot of discussions about what we'd like to see as a product, frustrated with a lot of the services out there that offer similar types of service to what we're working on and we thought well we could probably build something better" (Neehoy, INT1: P3).

The findings indicate that John was also able to notice that there was a problem with existing recycling services because he felt that these services were substandard and that he and his team could build something more acceptable.

Finally, in the case of Munchies Milkshake, the idea for the milkshake business emerged from the identification of a gap in the market. The founders of Munchies believed that within the fast food market there was a segment of the market that was not being catered to and they thought that they could provide a healthy alternative to fast food. *"There is a gap in the market. We just kind of explained not everyone wants a pizza."* (Munchies, INT1: P2). The founders of Munchies were therefore, able to notice a gap in the market because they identified a situation in which their aspirations for a healthy fast food product were unmet. For the purposes of this study, the identification of a gap is regarded as analogous to problem sensing in the other cases and therefore, the case of Munchies Milkshake is also an example of problem sensing.

In each of the above case studies, the entrepreneurial actors noticed a problem or in the case of Munchies Milkshake a gap in the market was noticed. The data suggests that the founders were able to notice one problem they wanted to solve because the circumstances around which the problem was noticed triggered their aspiration levels. In all of the cases, the problem was representative of something that fell below a level they deemed to be satisfactory or acceptable. The cases in this study are therefore, consistent with extant literature that sensemaking is often triggered by violated expectations (Maitlis & Christianson, 2014). This process of gathering information about problems, which emerged from the findings, was referred to in the analysis as problem sensing. Once problem sensing had been witnessed, it was observed that the early-stage entrepreneurial actors in this study then gathered information concerning the causes of the problem or the gap in the market that they had previously identified. The following section therefore, presents the findings related to noticing causal explanations.

6.3.2. Establishing Causation

The findings indicate that the early-stage entrepreneurial actors in this study gathered information about the causes of the problem identified. For the purposes of this study, noticing causal explanations for a problem or gap is termed as *establishing causation*. An example of establishing causation was observed in the case of the weight loss e-book. After establishing that people had problems losing weight, the founder of e-book noticed three main causes for the weight loss problem. *"What's causing this is obviously stuff like lack of exercise or perhaps eating the wrong things and also lack of information"* (W Loss e-book, INT1: P1). Categorising the problem into causes helped the founder of the e-book to narrow down which aspects of the problem to focus on. In this case, there were three possible causes for which Sab began devising a solution.

Another example of establishing causation was observed in the case of DE5 Consulting. After establishing that there was a problem-opportunity with broadband in his local community, Rich noticed that the broadband problem was caused by the existence of a “digital divide”. *“There is this whole digital divide between the parts of the country that have got good broadband and those that can hardly get a service at all.” (DE5, INT1: P4).* The founder of DE5 therefore, noticed one causal explanation for the broadband issue. In this case, categorising the problem into a singular cause helped Rich to devise solutions that could address that specific cause.

In the case of the Pocket Square Company, the data indicate that after Alex established that there was a problem finding suitable pocket squares, he then noticed additional cues related to the suitability of existing pocket squares. *“People will not buy it because one it is tatty and two they fold in the pocket they just slump and look lifeless” (TPSC, INT1: P11).* Categorising the problem with the pocket squares into different causes helped the founder of TPSC to narrow down which aspects of the problem to focus on. In this case, there were two or three possible causes for which Alex began devising a solution.

Similarly, after the founders of Neehoy established that there was a problem with the existing recycling options available to consumers; they then noticed additional cues related to the inadequacy of the existing recycling products. *“...None of the services are available on mobile, none of them really tap into the kind of wealth of social information you carry around with you on your mobile phone” (Neehoy, INT1: P4).* These additional cues helped to categorise the problem into a causal explanation. As a result, the founders of Neehoy began devising a solution to address that specific cause (i.e. the lack of mobile – related recycling services).

Finally, in the case of Munchies Milkshake, after establishing that there was a gap in the market for a healthy fast food option, the founders of Munchies noticed additional cues related to the perceived gap. "*You get lots of deliveries like pizza, Chinese food, and Indian food*" (Munchies, INT1: P2). These additional cues helped to categorise the problem into a causal explanation. As a result, the founders of Munchies began devising a solution to address that specific cause (i.e. the overabundance of unhealthy fast food delivery).

In each of the above case studies, the entrepreneurial actors noticed causal explanations for the problem identified. By categorising the problem into different causes, the founders began to devise one or more solutions depending on the number of causal explanations that were noticed. This process of gathering information about causal explanations, which emerged from the findings, was referred to in the analysis as establishing causation. Once establishing causation had been witnessed, it was observed that the early-stage entrepreneurial actors in this study then gathered information concerning existing competitors and stakeholders in the market. The following section therefore, presents the findings related to noticing the actions of competitors and stakeholders.

6.3.3. Appraising Existing Solutions

The findings indicate that the early-stage entrepreneurial actors in this study gathered information about existing stakeholders as well as information about the products and/or services of perceived competitors in the market. This usually involved noticing which, if any, of the causal explanations competitors and/or stakeholders were currently solving through the creation of new products/services or had already solved with existing products and/or services. For the purposes of this study, noticing the actions of competitors and stakeholders is termed *appraising existing solutions*.

It was observed during the case study of the e-book that after categorising the problem into three causes (lack of exercise, eating the wrong things and lack of information), the founder of the e-book then compared all the existing online weight loss products on the market.

"If you go online with all the different products one thing says do this the other says do that. There is either a lack of information or inconsistency in information because there is so much information"
(W Loss e-book, INT1: P1).

The founder of the e-book then realized that people who want to lose weight tend to be very inconsistent in their approach to weight loss because of the lack of information provided by existing weight loss products on the market. As a result, Sab had identified one of the causal explanations that had not already been solved (i.e. the lack of information). By appraising existing solutions the founder of the e-book was therefore, able to devise a solution that did not already exist. *"So what my business is trying to do is basically bring the information to people and let them help out each other as well"* (W Loss e-book, INT1:P1). This proposed solution represented a potential opportunity in the mind of the founder of the e-book.

In the case of the Pocket Square Company, it was observed that after categorising the problem of the poor quality pocket squares into three specific causes (tatty, slumped and lifeless), the founder of TPSC, decided on a solution with the help of his family, mainly his mother who was with him at the time. He decided to make his own pocket square.

"The founders of the pocket square company figured if you want something done do it yourself. So they did!" (TPSC, Archival Data: Company website). This decision however, came after the founder appraised the quality of all the pocket squares that were currently

available on the market. "There have always been pocket squares.... but rather poor material" (TPSC, INT1: P11).

The findings suggest that appraising existing solutions was important in devising a solution for the pocket square problem because by noticing what competitors were doing "wrong", Alex was able to devise a solution that improved upon what was currently being offered.

Where only one causal explanation was noticed, such as in the case of DE5 Consulting; the founder, Rich, was faced with a couple of solutions that could address the cause of the problem he had identified (i.e. the digital divide).

"So there's a huge amount of money being invested through government initiatives. There are two pots basically there's a local authority project in every local authority area in Derbyshire it is called Digital Derbyshire and in Nottinghamshire there's a similar programme and so on in every county" (DE5, INT1:P4).

After appraising these two "pots" or stakeholders in the market, Rich realized that he had identified a causal explanation that was currently being solved. As a result, he decided to partner with one of the stakeholders.

"So, I'm a community broadband champion for Derbyshire. It is a volunteer position. I serve the DE5 area and if you go to the Derbyshire county council website and look at the broadband project and click on contact your champion the enquiries for my area come to me so I can go and speak to businesses, to private householders and so on about how they can go about getting support for broadband in their area." (DE5, INT1:P4).

Noticing the actions of stakeholders was therefore, important for the founder of DE5 while he was devising a solution because by appraising the existing solutions, Rich was able to act quickly and gain acceptance and support from one of the existing stakeholders.

Similarly, after the founders of Neehoy categorised the problem with the existing recycling services into a main cause (none of those existing services were offered on mobile or tapped into the social wealth people carry around on their mobiles), they realized that the Nottingham Council was already involved in promoting more recycling.

"So Nottingham council was in the Nottingham Post saying they've missed their landfill targets obviously a significant burden on tax payers" (Neehoy, INT1:P6). Furthermore, the founders of Neehoy believed that the Council had the means to address the same causal explanation they had noticed. "The local council was in a brilliant position to release an app (mobile application) that encourages people to recycle" (Neehoy, INT2:P1).

By appraising the actions of existing stakeholders, in this case the Nottingham Council, the founders of Neehoy decided that a possible partnership with the local council would be in their best interest. *"So what we hope is that we can partner with the council give them the opportunity to publicly brand the app and say we're working on this problem with them like a novel solution" (Neehoy, INT1:P6).* The founders later narrowed down two or three things in theory that they could do better than other existing recycling products and decided to focus on a mobile application with social metrics. *"Our focus really is to generate some kind of sociable recycling platform." (Neehoy, INT1: P5).*

Appraising existing solutions was therefore, the final step in choosing a solution. The proposed solution represented a potential opportunity in the mind of the founders of Neehoy. Finally, in the case of Munchies Milkshake, after the founders of Munchies categorised the gap in the market into a main cause (lots of deliveries of pizza, Chinese and Indian food) it was observed that after coming to the conclusion that *"there is not really a healthy product that is delivered at the moment to your door or to your office premises"* (Munchies, INT1: P2) the founders appraised existing milkshake establishments in the Nottingham area and realized that none of them deliver to people's doors. *"There are obviously stationary premises like the Shakeaway in Nottingham and Cookieshake but there is not much that actually delivers to people's doors"* (Munchies, INT1: P1).

As a result, the founders of Munchies devised a solution that brought together the delivery service offered by the fast food market with a healthy food product. Thus, by appraising existing solutions the founders of Munchies were able to devise a solution that did not already exist.

"So because we realized there was no one in Nottingham providing a service like this and we thought right well that's a central opportunity we thought well who's going to be the people to start something up like this in Nottingham and we thought we'll be the people because if it is not us someone else will just do it" (Munchies, INT1:P6).

The proposed solution represented a potential opportunity in the mind of the founders of Munchies.

In each of the above case studies, the entrepreneurial actors noticed the actions of perceived competitors or stakeholders. By noticing the actions of competitors and/or stakeholders, the founders were able to decide on a solution that addressed the causal explanation previously noticed. This process of gathering information about the actions of competitors and stakeholders, which emerged from the findings, was referred to in the analysis as appraising existing solutions. The overall process of noticing involving problem sensing, establishing causation and appraising existing solutions that emerged from the findings seemed to be important in transforming the idea into a potential opportunity in the minds of each of the entrepreneurial actors in this study. Problem sensing helped the founders filter information to find one problem they wanted to solve. Once problem sensing had occurred, the founders then established causal explanations for the problem. Establishing causation classified the problem into manageable chunks which then allowed the founders to devise one or more solutions.

Finally, appraising existing solutions allowed the founders to compare the possible solutions against what perceived competitors or stakeholders were currently doing or had already done in order to decide on a solution that had not been done before or in some cases partner with the existing stakeholder and decide on a solution together. It is through this process of noticing that sense was made of the idea and it was transformed into a potential opportunity in the minds of each of the entrepreneurial actors in this study (Figure 6-4).

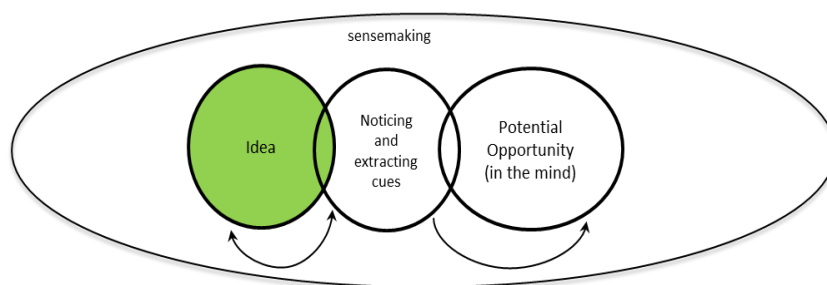


Figure 6-4 The process of noticing (sensemaking)

6.4. Identity

As identified in the literature review, identity is a key aspect of sensemaking and is the starting point from which sensemaking processes occur. In this study, the researcher was therefore, interested in the creation of individual and organizational identity during the entrepreneurial process. The following section will examine the role of identity within each entrepreneurial journey experienced by the early-stage entrepreneurial actors in this study and explain how it helped shape their ideas.

The data presented in *Chapter 5* suggests that during the process of noticing and extracting cues, the early-stage entrepreneurial actors in this study were beginning to form an organizational identity (Figure 6-5).

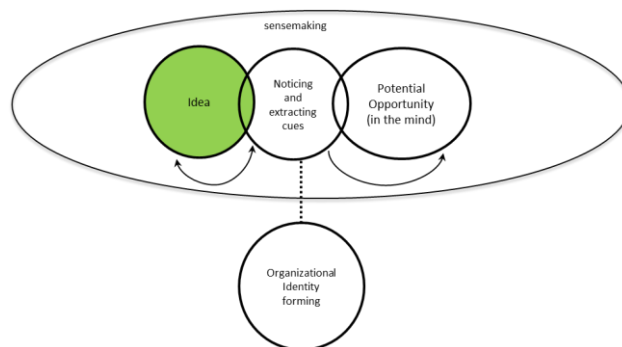


Figure 6-5 Identity Forming

In the case of DE5 Consulting, the business name, "*DE5 Consulting*", is strongly linked to a location. "*DE5 is a post code and I have chosen that as the name of my business*" (DE5, INT1: P2). In this example, the founder, Rich, began forming an organizational identity by drawing upon an external image, that is, the postcode. In addition to this, the business name "DE5" is an acronym for "Diverse Enterprise" and there are "five" key strands to the business: (1) bid-writing, (2) IT procurement, (3) contract negotiation, (4) network design, and (5) information service advice and computer installations/repairs. This also forms part of the organizational identity Rich is seeking to create. The use of the postcode as a

point of reference as well as the use of acronyms in naming the business venture was observed as unique and integral to creating an idiosyncratic organizational identity.

The founders of Neehoy also began forming an organizational identity during the process of noticing and extracting cues. According to one of the founders, John, the emergence of a business identity was strongly linked to his cultural background. *"Nee – means no and hoy means throw it is a bit of a cultural pitch. I'm from the north east, Middlesbrough"* (Neehoy, INT1: P4). These findings suggest that the founders of Neehoy used the cultural nuances associated with a place as a point of reference in forming an identity for their recycling business idea. The use of cultural phrases as a point of reference for naming the business venture was observed as central to the creation of an idiosyncratic organizational identity.

In another case, Munchies Milkshake, the findings suggest that the founding of Munchies Milkshake is strongly linked to a popular fast food chain.

"Like M – McDonalds first letter is M and that is just a powerful logo just the M itself so we thought well when we design our logo we're going to make sure the M really is significant. We're going to take a little chomp out of the M" (Munchies, INT1: P6).

The founders then invented the concept of "Munchies" after the popular phrase "just get the munchies" and designed the packaging. *"We're going to deliver in cups and the cups are unique in terms of the fact you see these clear plastic ones that you get nowadays in cafes and restaurants and our distinctive colour is pink."* (Munchies, INT1: P3). According to the empirical findings, the founders of Munchies Milkshake believed that the pink colour would add to the identity of the

venture because *"psychologically people more inclined when they see pink to make impulsive purchases and it'll stand out in the supermarket"* (Munchies, INT1: P3). In this way, the founders of Munchies relied on an imagined referent (the effect of the pink colour on consumers) in the creation of an organizational identity for the milkshake business. Thus, during the process of noticing and extracting cues, the founders of Munchies Milkshake began forming an organizational identity for their milkshake business idea by drawing upon external images, that is, the McDonalds brand and the pink imagery. These points of reference were observed as important in helping to create an idiosyncratic identity.

In the case of the e-book, the founder, Sab, believed that people found it difficult to lose weight healthily and permanently because they were unrealistic about their commitment to weight loss. *"When people want to lose weight sometimes they've got things or they'll suggest very crazy diet or exercise programs and nobody could actually keep up."* (W Loss e-book, INT1: P1) She associated this with the style and format of existing weight loss books that were quite demanding and impersonal. She then decided that her weight loss e-book would adopt a more personal, individualised style that people could actually keep up with because they would be in control of their own weight loss. *"So what I'm trying to do is create a very flexible system where people can decide for themselves what they want to do and provided they follow 7 basic principles they can lose weight in their own way"* (W Loss e-book, INT1: P1).

To put this into practice, she named the e-book "You could lose weight easily" and selected youcanloseweighteasily.com and youcanloseweighteasily.co.uk as domain names for the company website. She also adopted a conversational style of writing that was less authoritarian and more informational. *"I think the way in which we are appealing to customers just by keeping it very straightforward and*

simple and flexible as well because so many diets say you have to follow a points system or something this just takes you over the basics" (W Loss e-book, INT1:P3). Moreover, during the process of noticing and extracting cues, Sab began forming an organizational identity for her business idea by creating an idiosyncratic domain name for the business website.

Finally, the findings suggest that the founder of the Pocket Square Company also began forming an organizational identity by creating a website for the pocket square business. *"Yea things always take longer than you think. I think it took me to launch my website 6 ½ months it should have taken two that's because I was using a friend to develop the website and I got a very good price on it so it probably was not in his best interest to get it done within a certain timeframe"* (TPSC, INT1:P7). In this case, the business name was directly linked to the product (i.e. the pocket square).

The data therefore, suggests that during the process of noticing and extracting cues the early-stage entrepreneurial actors in this study began forming an organizational identity for their ideas by using external images as a point of reference. These points of reference ranged from locations/places to existing, renowned brands. More importantly, the points of reference were essential in creating an idiosyncratic organizational identity. Once the idea was transformed into a potential opportunity in the minds of the entrepreneurial actors, it was observed that the process of forming an organizational identity that was idiosyncratic seemed to be important in positioning the potential opportunity as novel and helped transfer that potential opportunity from the minds of the entrepreneurial actors into something tangible that they could use in communication with others. The use of external images as a point of reference in forming an idiosyncratic organizational identity, which emerged from the findings, was interpreted by the researcher as similar to the idea that sensemaking is self-

referential. Within the sensemaking literature, people take the cue for their identity from the conduct of others. "How can I know who I am until I see what they do?" is implied in sensemaking grounded in identity (Weick, 1995). Thus, drawing upon the literature and the findings that emerged from the data, the forming of an idiosyncratic organizational identity by using external images as points of reference was termed as referent identity labelling (Figure 6-6).

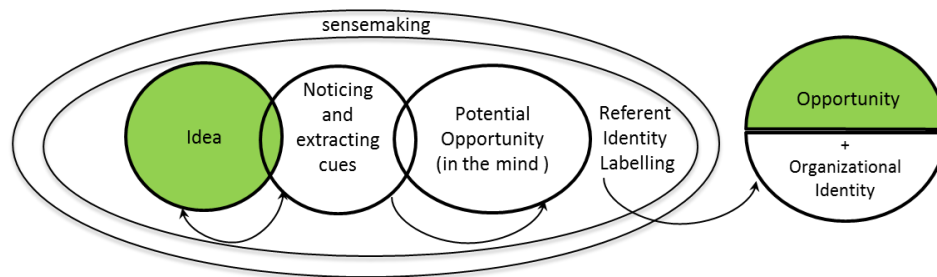


Figure 6-6 Referent Identity Labelling

In all of the above cases (eBook, DE5 Consulting, Neehoy, Munchies and TPSC), the founders were able to successfully transfer the potential opportunity from their minds into something tangible. They did this by creating an idiosyncratic organizational identity through referent identity labelling (the use of external images as points of reference).

6.5. Opportunity Recognition to Evaluation

As identified in the literature, the second action or event that transpires in the entrepreneurial process is the transition from opportunity recognition to opportunity evaluation (Figure 6-7).



Adapted from Shane & Venkataraman (2000)

Figure 6-7 Opportunity Recognition to Opportunity Evaluation

However, the findings emerging from the data indicated that it is in fact a transition from a potential opportunity (no longer only in the mind of the entrepreneurial actor but made tangible by the forming of an idiosyncratic organizational identity through the process of referent identity labelling) to the evaluation of that opportunity (Figure 6-8).

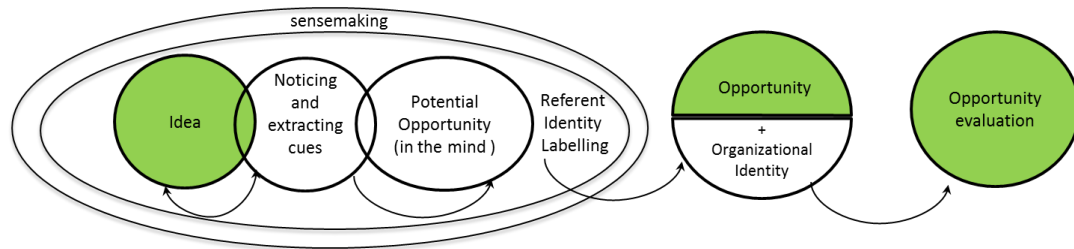


Figure 6-8 Idea to Opportunity Evaluation

It is at this stage that the case of the e-book is no longer included in the analysis. The founder of the e-book was able to successfully transform the idea into a potential opportunity in her mind via the process of noticing and extracting cues, which involved problem sensing (e.g. weight loss problem in western world), establishing causation (e.g. lack of exercise, eating wrong things, and lack of information) as well as appraising existing solutions (e.g. inconsistency in information in all the different products online). She was also able to transfer the potential opportunity from her mind into something tangible by creating an idiosyncratic organizational identity (e.g. youcanloseweighteasily.co.uk as a domain name for the company website).

However, she failed to transition beyond the opportunity and organizational identity forming point (Figure 6-8) because she did not want to communicate the opportunity to others before she finished writing the e-book. *"I'm also worried I mean I kind of want to see it first and then tell people rather than have the pressure of expectation from other persons"* (W Loss e-book, INT1: P6). Without projecting the opportunity and the emerging organizational identity, Sab had no

way of evaluating her opportunity beliefs and as a result, she did not persist in enacting the opportunity. In the remaining case studies (DE5, TPSC, Neehoy and Munchies), it was observed that opportunity evaluation occurred in two parts (Figure 6-9).



Figure 6-9 Opportunity Evaluation as a two-step process

6.6. Opportunity Evaluation: Step 1

At this stage of the entrepreneurial process, the researcher was interested in the actions taken by the entrepreneurial actors in this study to evaluate the opportunity. The findings emerging from the data suggested that the entrepreneurial actors in this study performed two actions that validated the opportunity. This section will examine the first action taken and its importance to the overall evaluation process.

During the case studies, it was observed that the sensemaking process of noticing and extracting cues was substituted for a different set of processes as the entrepreneurial actors moved into the opportunity evaluation stage of the entrepreneurial process. This was observed when the entrepreneurial actors were asked in the interview whether their family had any influence on their aspirations to start a business. While some of the entrepreneurial actors responded with a response congruent with extant literature (i.e. that they came from an entrepreneurial background (e.g. father is an entrepreneur), all of the entrepreneurial actors in this study said that they had asked their family what they thought about the opportunity.

The findings emerging from the data suggested that there was a shift from the sensemaking process of noticing and extracting cues to asking family members what they thought about the opportunity. This sensemaking shift was interpreted by the researcher as similar to the social process of sensemaking found in the literature (*refer to Chapter 5, Section 5.1*).

6.6.1. Social

Within the literature, even though sensemaking tends to occur in the mind of the sense maker, it is never a solitary process. Decision-making occurs either in the presence of others or with the knowledge that these decisions may be implemented, understood or approved by others (Weick, 1995).

6.6.2. Plausibility/Language

It was also observed from the data that this change in sensemaking process was accompanied by the use of language (talk) and gestures when the entrepreneurial actors communicated the opportunity to other people. The use of language and gestures was interpreted by the researcher as similar to the process of sensegiving found in the sensemaking literature (*refer to Chapter 5, Section 5.1*).

Within the literature, sensegiving is defined as attempts to influence the sensemaking of others (Gioia & Chittipeddi, 1991) through the use of various sensegiving devices such as language, rhetoric, gestures, symbols and metaphors (Nicholson & Anderson, 2005; Holt & Macpherson, 2010; Cornelissen, Clarke & Cienki, 2012). As a result, the findings emerging from the data coupled with the sensemaking literature suggested that the entrepreneurial actors in this study moved from the sensemaking process of noticing and extracting cues to the social process of sensemaking, which involved the sensegiving process of language and communication. Additionally, it emerged from the data that this sensegiving

process was a means of validating the opportunity by projecting it to others in the social world. For the purposes of this research, this first step is labelled: *projecting opportunity beliefs* (Figure 6-10).

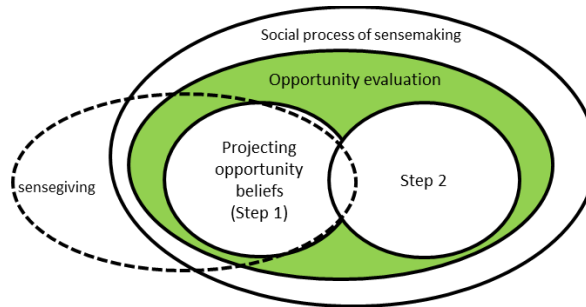


Figure 6-10 Step 1 Sensegiving process of projecting opportunity beliefs

Furthermore, it emerged from the data that some of the early-stage entrepreneurial actors in this study first projected their opportunity beliefs to family members. For the purposes of this study, opportunity beliefs that were projected to family members were labelled as falling under the *familial domain*.

6.6.2.1. Familial Domain

Following the process of noticing and extracting cues, where the idea was transformed into a potential opportunity in the minds of the founders; and the transference of this potential opportunity into something tangible through the formation of an idiosyncratic organizational identity, the founders of Munchies Milkshake decided to test the viability of the opportunity. The data suggests that they first projected their opportunity beliefs to their family and friends. "*We then researched so we asked our family and friends spoke to people for you know is the idea viable.*" (Munchies, INT1:P6). This was important for the entrepreneurial process because it was an opportunity for the founders to obtain feedback on the feasibility of the milkshake delivery idea. It was evident from the findings that the sensegiving devices used here by the founders of Munchies was mainly language (talk) or speech.

In the case of the Pocket Square Company the data highlighted the importance of family within Pocket Squares. Alex would not have been able to start this venture without the capital injection from his family because he had other commitments namely attending university and he did not have the time to search for funding or raise finance for the venture at the same time. *"My family have been a great support to start this venture...we put "£4000 of our own capital into this...I know some families would say just cannot do it at the moment whereas my dad is saying you have a little project but do not let it overtake your work" (TPSC, INT1:P4).*

Familial support in the form of a capital injection was therefore, crucial in getting the business up and running in the absence of other forms of financing. In addition to this, Alex also drew upon the knowledge of those in his family. The data suggests that Alex's family had a background in fashion and in business from which he got his inspiration. *"I got all my fashion interest from my mom and my sister. My sister did fashion marketing and then I have always been inspired by my dad because he set up his own practice" (TPSC, INT1:P4).* This was important to the entrepreneurial process because Alex's family was able to provide support both in terms of fashion advice for the creation of the pocket squares as well as business advice in terms of operating a start-up venture. In terms of the sensegiving devices used here it was evident that Alex mainly used language (talk) or speech to communicate the opportunity to his family members.

In the case of DE5 Consulting, the founder, Rich, projected his opportunity beliefs to his wife.

"I see myself as a bit of a facilitator for other people as well to start their businesses I'd like to do that and it might be that if I was able to do some research in entrepreneurship that'd be another way that I could provide that help. My wife said to me are

you mad... why do you want to go and do that? You'll be retired by the time you're finished" (DE5, INT1:P1).

This was important to Rich's entrepreneurial journey because it was the first opportunity he had to obtain feedback on the feasibility of the opportunity. As in the above cases, it was evident that the sensegiving devices used by Rich to communicate the opportunity to his wife was mainly language (talk) or speech.

On the other hand, the founders of Neehoy did not project their opportunity beliefs to family members. Following the simplification of the product, the founders moved into what they referred to as the late stages of development or user testing phase where the next three to four months would be spent working on the development of the mobile application to android and iOS platforms. During that time, the founders projected the completed prototype of the idea to colleagues in the department to test out and provide feedback. *"Yea you see it is technically up and running but we haven't publicized the fact so it is a very select few people have used it because as I have said we haven't publicized it" (Neehoy, INT2: P1).* In this way, the founders of Neehoy eventually projected their opportunity beliefs to trusted colleagues. In addition, as observed in the other cases, it was evident that the sensegiving devices used by the founders were mainly language (talk) and speech.

6.6.2.2. Public Domain

Besides projecting the opportunity beliefs to trusted colleagues or family members (familial domain), it emerged from the data that some of the entrepreneurial actors also projected the opportunity to potential customers. For the purposes of this research, opportunity beliefs projected to potential customers was labelled as falling under the *public domain*.

In the case of DE5 Consulting, Rich was interested in working in his community area of Derbyshire (DE5 area) and therefore, decided to project his opportunity beliefs to members of his local community. He *"started door knocking on local businesses who might be interested in listening to [my] story and what [I'm] aiming to offer and do"* (DE5, INT1: P3). This was important for the entrepreneurial process because it was an opportunity for Rich to obtain feedback on the feasibility of the opportunity. Rich also used story-telling to 'give sense' about the opportunity to potential customers.

Once the founder of the TPSC had the support of his family in pursuing his business idea, he used the Henley Regatta as the first opportunity to display the pocket square he had created. It was at this event that he first wore a pocket square he had made and tested out public opinion of the pocket square opportunity. Compliments on his attire acted as verbal validation that people really liked it. The data indicates that Alex also attended the Dallas Burston Polo Club and asked, "Would you wear this?" (showing them a pocket square that he had made) in an attempt to obtain feedback on the feasibility of the pocket square opportunity. The response at this event was also positive and encouraged him to continue pursuing the opportunity. It was evident from the findings that Alex used a combination of language (talk), speech and symbols (actual representations of the pocket square) to communicate the opportunity to potential customers.

6.7. Opportunity Evaluation: Step 2

This section continues on from Step 1 and will examine the second action taken to validate the opportunity. Validation occurred by first projecting opportunity beliefs to family members and in some cases to potential customers (step 1). It emerged from the data however, that projection of opportunity beliefs was only

one half of the evaluation process and the only reason the opportunity was projected to others was to receive feedback. As such, the findings emerging from the data pointed towards a second evaluation step, which was labelled as *internalizing feedback* (Figure 6-11) because it was by internalizing feedback received from projecting the opportunity beliefs that the early-stage entrepreneurial actors in this study were able to fully evaluate and validate the opportunity.

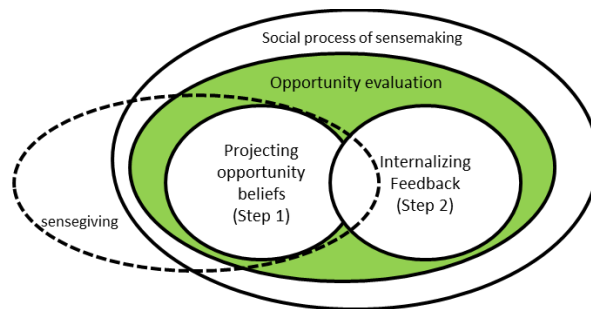


Figure 6-11 Step 2 Internalizing Feedback

As the founder of DE5 Consulting explained,

"There's then the cycle of the refining with these ideas and it goes two ways. First of all you critically review what you've done yourself based on your own ideas...I call this self-assessment and then you have people who are more expert than you in different things so you might want to call those gatekeepers and you surround yourself by people.... and they give you feedback on whether your ideas are feasible and you also assess yourself as to sometimes you might have people telling you no that's not going to work you've not thought of this, you've not thought of that and so on if you only consider your external then you might just become disillusioned and stifled similarly if you only look at your own ideas you do not see the external perspective and then you suffer fixation. So the entrepreneurial process that I believe in it requires both" (DE5, INT1:P7-8).

In the case of DE5, it would appear that feedback played an important role in validating the founder's start-up ideas and in driving future actions. According to Rich, if he had relied exclusively on feedback from others he may have become "disillusioned and stifled". However, he admitted that if he had only looked at his ideas and ignored external perspectives then he may have become "fixated". These findings suggest that feedback from others, when consistent with Rich's sensemaking and sensegiving would have encouraged him to continue pursuing the opportunity while feedback that challenged Rich's sensemaking and sensegiving could potentially have discouraged him from continuing with his idea.

The findings suggest that Rich sought to have a balance between his sensemaking and sensegiving of the opportunity. He was able to achieve this balance by reconciling the feedback from others with his own ideas about the validity of the opportunity. Rich was able to reconcile the feedback by deciding whether to make sense of what he received. This process of receiving feedback about the validity of the opportunity was observed as an additional sensemaking process that is not currently explained in the literature. It is therefore, proposed that an additional sensemaking process termed *sense receiving* be introduced to explain how Rich internalized the feedback received before reconciling his sensemaking and sensegiving of the opportunity.

6.8. Sense receiving

The findings relating to Step 2 indicate that the early-stage entrepreneurial actors in this study internalized the feedback received from projecting their opportunity beliefs through a novel sensemaking process labelled: *sense receiving*. This process of *sense receiving* defined for the purposes of this research as *receiving and acting upon the sensegiving of others*, emerged from the data and seemed to have occurred after the founders' initial sensemaking and sensegiving had been

accomplished. Deciding whether to make sense of what is received influences future sensemaking and consequently future sensegiving. In effect, receiving and acting upon the sensegiving of others resulted in secondary sensemaking that was, in some cases, in conflict with initial sensegiving. When *sense receiving* resulted in conflict between secondary sensemaking and initial sensegiving, the founders in this study took actions to achieve a balance between their discrepant sensemaking and sensegiving of the opportunity. In cases where secondary sensemaking and initial sensegiving were congruent, the process of sense receiving merely reaffirmed the founders' sensemaking and sensegiving of the opportunity (Figure 6-12).

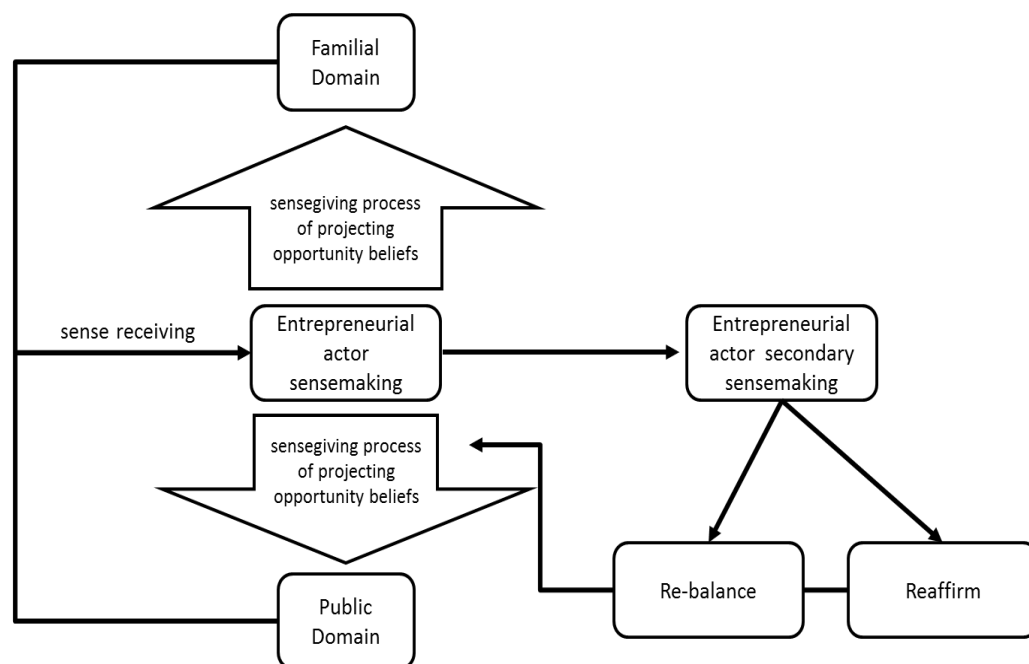


Figure 6-12 Sense receiving process

Examples of *sense receiving* identified in the other case studies are subsequently discussed below. The data indicates that the founders of Munchies Milkshake received feedback from the public domain regarding customers' actual pricing preferences that was inconsistent with their research. *"I mean so obviously you find things out so like we realized that the price may have been too high to start*

with even though our research said that that was the price” (Munchies, INT1:P5). The founders subsequently altered the initial pricing on their product so as to generate additional sales. *“So for this month we’ve actually reduced the price for the whole month and we started to see an increase in the demand for the product” (Munchies, INT1:P5).* These actions were observed as examples of *sense receiving* having occurred.

The founders of Munchies first made sense about what they thought the price should be (sensemaking), then gave sense about the pricing of their product by selling it at a certain price (sensegiving) then when they received sense that the price was too high (*sense receiving*) they then redefined their sensemaking about the pricing of their product; that it was too high and subsequently changed their sensegiving about the pricing of their product by selling it at a cheaper price. In effect, *sense receiving* was an important process in how the founders internalized the feedback to bring their secondary sensemaking and initial sensegiving of the opportunity back into balance.

The case of the Pocket Square Company is another example. The data suggests that initial feedback from the public domain regarding customers’ knowledge of pocket squares was inconsistent with the founder’s beliefs. *“It is quite difficult when some people are not used to fashion. If you say a tie people know what a tie is people go pocket square well what is a pocket square so it is very difficult some people do not know the product” (TPSC, INT1:P8).* To overcome this, Alex adjusted his pitch to incorporate visual aids to better convey the opportunity to the market.

“It is very difficult sometimes to convey exactly what it is so usually I have to do it by actually bring in stuff and showing people but if I cannot I do that I usually wear one anyway so I just go it is

one of these ... okay so even if I do not have a pocket on I'll wear one in my back pocket so have it popping out the back like a fashion accessory" (TPSC, INT1: P8).

The data indicates that Alex received positive feedback from this new approach. *"70% of people saying yes...if people liked it...obviously there was a market" (TPSC, INT1: P9).*

Similar to the case of Munchies, these actions by the founder of TPSC were observed as examples of *sense receiving* having occurred. Alex first made sense about customers' knowledge of what a pocket square was as similar to his knowledge in that they knew exactly what it was (sensemaking). However, when he gave sense about the pocket square using language (talk) and speech (sensegiving), some people could not relate to him or to the product because they did not know what it was. Once Alex received sense that talking to people about the pocket squares was not effective in conveying the opportunity (*sense receiving*) he redefined his sensemaking about the ways in which he could better convey what a pocket square was to his potential customers. He subsequently changed his sensegiving about the pocket square opportunity by actually bringing pocket squares he had made and showing it to people. Thus, *sense receiving* was an important process in how the founder of TPSC internalized the feedback received to re-balance his sensemaking and sensegiving of the opportunity.

Finally, in the case of Neehoy, validation of the opportunity came in the form of awards from the business competitions the founders had entered and from people telling them that they liked the idea behind their business.

"I guess recognition that the idea is good or people like the idea not necessarily that it is good people like the idea that there is

some mileage in it is satisfying. I'm proud of what we've built so far I'm sure I'll be ecstatic once it is released more enthused other people like the idea. Six of us got people involved quickly because we've got so much work but it is more than the physical support people can offer its the fragility of ideas if you cling to it, it dies you've got to socially ingratiate yourself and we're still sort of tinkering on the edge of that precipice but it is encouraging when other people say they like it" (Neehoy, INT1:P7).

In this case, feedback received was consistent with the founders' sensemaking and sensegiving of the opportunity (i.e. there was already a balance between the founders sensemaking and sensegiving of the opportunity). It was observed that in such cases *sense receiving* still occurred to confirm or rather reaffirm the founders' sensemaking and sensegiving about the opportunity (Figure 6-13).

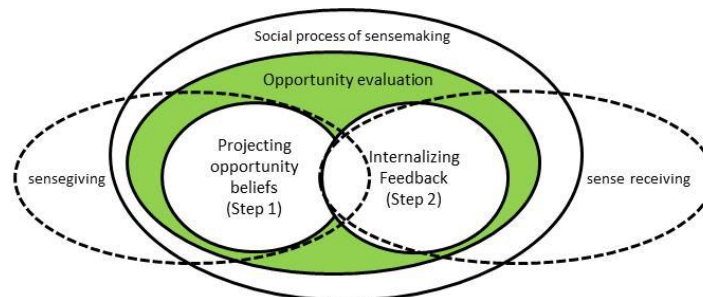


Figure 6-13 Sense receiving process of internalizing feedback

As a result, the findings indicate that throughout the evaluation process, the entrepreneurial actors in this study engaged in sensemaking, sensegiving and sense receiving processes. Also emerging from the data, was a feedback loop (Figure 6-14) between the overall process of evaluation (projecting opportunity beliefs and internalizing feedback) and the sensemaking process of noticing and extracting cues.

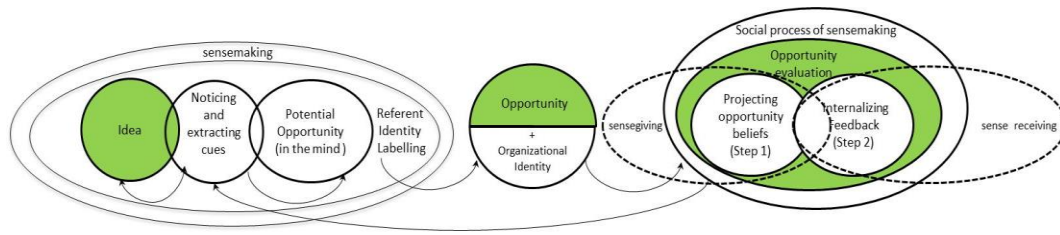


Figure 6-14 Sensemaking-Sensegiving-Sense receiving

This is because when sense receiving occurred it called into question the information (cues) that was noticed in a previous stage that was used to transform the idea into a potential opportunity in the minds of the founders. Moreover, sense receiving can motivate entrepreneurial actors to reconsider the sense that they have already made, question their underlying assumptions derived from cues that were noticed and possibly re-examine their course of action. This explains how entrepreneurial actors can return to the start of the entrepreneurial process and undergo one or more iterations of the pre-evaluation stages of the entrepreneurial process.

In this way, sense receiving may be particularly important in an entrepreneurship context compared to other domains such as, disaster management and organizational change, where sensemaking has previously been investigated. This is because in these other domains, the disaster or change is final and there can be no re-doing of one's actions. However, in an entrepreneurship context, entrepreneurial actors constantly sensemake, sensegive, receive feedback from relevant stakeholders, and sensemake and sensegive again to test new assumptions/cues arising from feedback received. In effect, entrepreneurial actors are constantly undergoing iterations of sense receiving due to the dialogical and permeable nature of the entrepreneurial experience.

On another note, Figure 6-14 above also depicts the opportunity as defined in part by the forming of an organizational identity. Accordingly, the following

section presents the findings related to the development of that formative organizational identity during the rest of the entrepreneurial process.

6.9. Organizational Identity

Prior to the opportunity evaluation stage, the early-stage entrepreneurial actors in this study were forming an organizational identity, which helped transfer the potential opportunity in their minds into something tangible that could be evaluated. The previous section explained how the opportunity was evaluated. However, during the evaluation process, the findings that emerged from the data suggested that the opportunity was not the only thing that was evaluated. It was also observed from the data that the early-stage entrepreneurial actors in this study projected the emerging organizational identity for evaluation.

In the case of DE5 Consulting, the data indicates that when Rich went door-to-door sharing his opportunity beliefs to the potential target market (i.e. in the public domain) he also shared the emerging identity of the business.

"I have never worked as a salesman but I think that the skill of a salesman and an entrepreneur are intrinsically similar. I do not actually mention in the business plan DE5 is a post code but it is assumed because I was working in Derbyshire that everyone understood that was why and the anchor contract that I got and still have was a result of networking. I was invited along to the launch of new version of software from the company that I now do work for and as a result of a conversation I had with them afterwards they offered me a contract" (DE5, INT1: P9).

The findings therefore, suggest that Rich projected the emerging “post code”, “Derbyshire-related” business identity in the public domain. This was important for Rich’s entrepreneurial journey because it was the first opportunity he had to obtain feedback on the “new” organizational identity. The data suggests that by projecting the organizational identity Rich obtained his first client. In effect, the organizational identity provided some legitimacy to his opportunity beliefs. Sensegiving devices, mainly language (talk) and speech during Rich’s networking activities were used to convey the emerging organizational identity.

Similarly, the data indicate that when the founder of TPSC attended the Dallas Burston Polo Club to display his pocket square creation he also conveyed the emerging identity of the pocket square business.

“I state we are a gentlemen’s tailoring company that can design bespoke products and the highest quality fabric products when u mention that to people if they’re interested in the market they are switched on especially if you talk about marketing to the high end. For me I make sure as a professional I say to the professional market you know this is a professional product so that kind of switches them again” (TPSC, INT1: P8).

The empirical findings therefore, suggest that Alex projected the emerging “gentlemen’s tailoring”, “bespoke” business identity in the public domain. This was an important part of the entrepreneurial process because it provided some legitimacy to the pocket square. Through the use of sensegiving devices, mainly language and speech, Alex was able to convey that his pocket square creation was actually part of a larger company targeting fashion-conscious gentlemen.

The case of Munchies Milkshake is another example. When the founders of Munchies conducted market research in the Nottingham area and identified two distinct market segments: corporate clients and students, the findings indicate that the founders' also projected the emerging, "sustainable" and "environmentally friendly" business identity into the public domain. *"It is like a kind of sustainable, environmentally friendly option so and we feel from that research that that's something the corporate clients would really value while students do not really."* (Munchies, INT1: P3). Projecting the emerging identity of the milkshake business was important to the founders' entrepreneurial journey because it helped them to position themselves according to the needs of their market segment. For their corporate clients, the founders realized that projecting a sustainable, environmentally friendly company would give them some legitimacy in the eyes of their corporate clients but may not be what gives them legitimacy among the student market.

Finally, the data indicates that the founders of Neehoy entered a series of business competitions to gain recognition and funding for their recycling application idea.

"We entered another competition recently it was like a green business award and got through to the grand final of entrepreneurship two days after Notts Tuesday (A Technology Entrepreneurship competition hosted by University of Nottingham) it was really really tough presenting in front of 150 people on a stage. We kind of showed a wizard of Oz prototype for the entrepreneurship competition so we can show it pull the strings behind the curtains and make it appear as though it worked" (Neehoy, INT1: P6).

At these competitions, the founders therefore, projected the emerging identity of the recycling business by showing “a wizard of Oz prototype” under the name “Nee –hoy” in front of an audience of potential investors and colleagues. Neehoy’s sensegiving of the emerging identity of the recycling business was important in gaining legitimacy for the new venture. Participating in these competitions was an avenue to present the new organizational identity and capture the interest of potential investors and customers.

It was evident from the findings that sensegiving processes of language (talk) and speech were imperative in bringing the formative identity into existence. It emerged from the data that this sensegiving process was a means of testing the emerging identity by projecting it to others in the social world. The findings emerging from the data also indicated that early-stage entrepreneurial actors in this study projected the emerging identity to potential customers in order to gain legitimacy for the “new” organizational identity. For the purposes of this study, projecting an emerging organizational identity is labelled as *identity projection*. It was subsequently observed from the data that once the early-stage entrepreneurial actors in this study projected the emerging identity in their social world, they then received and internalized feedback about the emerging organizational identity (Figure 6-15).

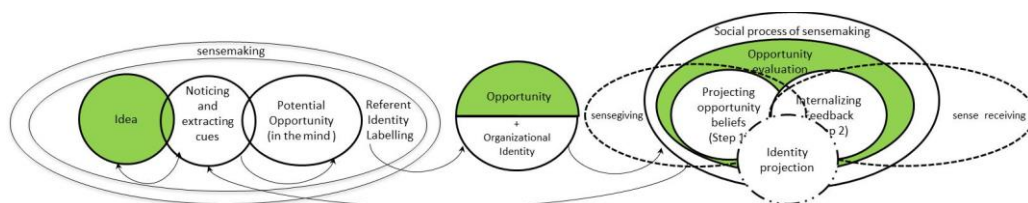


Figure 6-15 Identity Projection

Once identity projection had been witnessed, it emerged from the findings that the early-stage entrepreneurial actors in this study proceeded to make the new

organizational identity official. In the case of DE5 Consulting, the data indicates that after the opportunity and emerging organizational identity had been validated (through projecting opportunity beliefs and internalizing feedback), Rich secured his first client.

"I got my anchor client in the first four weeks of start-up through networking and through explaining what I was hoping to do and just telling my story honestly about where I was and what I was hoping to offer and that happened quite naturally" (DE5, INT1: P9).

With the acquisition of this client, Rich then proceeded to register the business as a sole trader. *"It was easy to register the business as a sole trader with the tax office after the anchor contract that I got. They offered me a contract and that is 90% of the revenue the company has had in the first few months" (DE5, INT2: P1).* The registration of DE5 Consulting as a sole trader business was the first official action to formally confirm the organizational identity of the new business. As a result of having clients, Rich also had to open a business bank account. According to the findings, it became necessary to open a business bank account because Rich was unable to deposit cheques that were not in his name.

"I also have just taken out a business bank account. Initially did not have a business bank account was just using a current account and sometimes customers would write me a check to DE5 and I could not pay it in and had to ask them if they could change it" (DE5, INT2: P2).

These findings highlight another action, that is, the opening of a bank account in the name of DE5 Consulting, which Rich engaged in as part of formally confirming

the identity of the new business. Similarly, after the opportunity and emerging organizational identity had been projected to family, friends and potential customers, and feedback was received and internalized regarding originality and pricing preferences of consumers, the findings indicate that the founders of Munchies Milkshake proceeded to develop the branding and packaging of the new product. "... *Then we developed the brand so we got people to design the logos and then we figured out ways to make the brand better and what we're going to offer*" (Munchies, INT1: P6). The action of creating a brand identity and designing logos for the new product was the first official act to formally confirm the identity of the new product and the organizational identity of the new business.

Once the brand identity had been created, the founders began producing T-shirts, Hoodies and promotional flyers to market their business idea to the student community in Nottingham. The founders also used YouTube and Facebook to build up a big online presence and market their business idea to the student community in Nottingham. According to one of the founders, "*yea we're just trying to build up a big online presence at the moment through social media we've got a really good idea for a promotional video that could go viral like a really good idea*" (Munchies, INT1: P5). Alternatively, "*if you want a milkshake go on our Facebook page munchies Nottingham www.facebook.com/munchiesnotts and like it. Our reach is like 2000 already people can like the page and order*" (Munchies, INT1: P6). These findings highlight another action, that is, the creation of a Facebook page and promotional videos, which the founders engaged in as part of formally confirming the identity of the new product and the organizational identity of the new business.

In the case of the Pocket Square Company, after the initial market research and validation of the pocket square opportunity and pocket square company, the founder spoke to a web designer about setting up an e-commerce website for the

pocket square business. *"I think it took me to launch my website 6 ½ months it should have taken two that's because I was using a friend to develop the website and I got a very good price on it"* (TPSC, INT1: P7). The meeting with the web designer represented the first step or action geared towards formalising the organizational identity of the new business.

Finally, in the case of Neehoy, after winning their first business competition, the founders' *"formed the company and [we] decided to go down the limited company route and buy shares"* (Neehoy, INT2: P5). The registration of Neehoy as a limited liability company was the first official action to formally confirm the organizational identity of the new business. In addition to this, once the user testing phase was completed and the product application was publicized the founders of Neehoy finally partnered with the local council who subsequently advertised the mobile application in the 2013/14 Winter edition of 'The Arrow', the City Council's magazine for residents. *"Do not throw away unwanted presents – Neehoy! Do you have a lot of unwanted household items that could be recycled or reused? Help is on hand with the new app Neehoy..."* (Neehoy, Archival Data: Magazine Article, p.22).

In this way, the founders of Neehoy also formally confirmed the emergent organizational identity of the recycling business through advertising in the local magazine. In all of the above cases, the findings emerging from the data suggested that the formalisation of the organizational identity coincided with the exploitation of the opportunity. In the case of DE5, the opportunity was exploited as a new venture. For the founders of Munchies, TPSC and Neehoy, exploitation took the form of a new product and a new venture. The data therefore, suggests that after the opportunity had been validated (through projecting opportunity beliefs and internalizing feedback); the early-stage entrepreneurial actors in this study took actions that officially confirmed the emergent organizational identity of

the new business. For the purposes of this study, making the emergent organizational identity official is labelled as a formalised organizational identity (Figure 6-16).

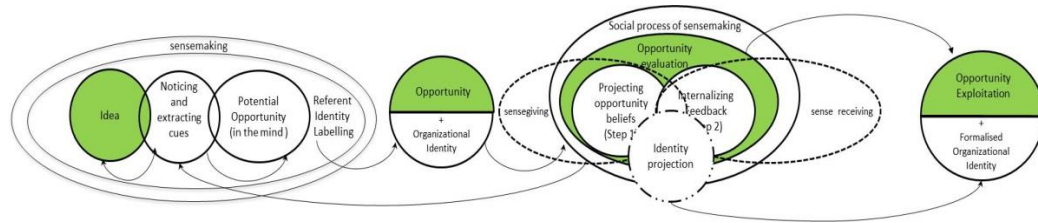


Figure 6-16 Opportunity Exploitation and Identity Formalisation

6.10. Chapter Summary

In this chapter, the theoretical constructs that emerged from the in-depth thematic analysis were highlighted and explained in the context of the entrepreneurial process. Key theoretical constructs, which were particularly important at specific intersections on the entrepreneurial trajectory such as, between the idea and the opportunity and between evaluation and exploitation, were presented as unshaded portions in the depiction of the entrepreneurial process. The sensemaking process of identity as well as the process of noticing and extracting cues (which involves problem sensing, establishing causation and appraising existing solutions), were found to be especially important at the initial stages of the entrepreneurial process. Social and plausibility/language were found to be more important at later stages of the entrepreneurial process. In addition, novel theoretical concepts such as 'projecting opportunity beliefs' and 'internalizing feedback' were introduced as part of the existing opportunity evaluation construct. The concept of internalizing feedback was then linked to a new sensemaking related process termed in the analysis as sense receiving. These emergent theoretical constructs will be subsequently discussed in the following chapter.

Chapter 7 Discussion

In this chapter, the findings presented in the previous chapter are discussed in comparison with the relevant extant literature. The discussion begins with a reiteration of the main premise of the thesis and a depiction of the theoretical model developed in Chapter 6 alongside a depiction of an established model in the entrepreneurial process literature. The opportunity and sensemaking constructs elicited in the theoretical model are then discussed to explore what the empirical findings add to both the entrepreneurial process literature and the sensemaking literature. Finally, implications of the empirical findings are proposed.

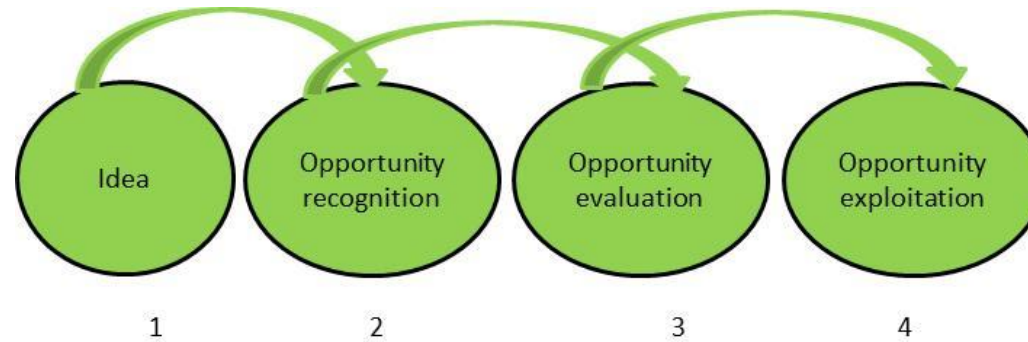
7.1. The Entrepreneurial Process

This study unpacked the entrepreneurial process (Figure 7-1) and explains how the entrepreneurial actor transitions from having an idea to deciding to exploit it through addressing the following research question, “How do early-stage entrepreneurial actors make sense of the entrepreneurial process as they transition from having an idea to deciding to exploit it?” This research question was formulated to directly address the gap in the literature on the entrepreneurial process.

Extant research on the entrepreneurial process has focused mainly on factors that increase the likelihood that opportunities can be recognized by an alert entrepreneur and how the entrepreneur’s evaluation of recognized opportunities impacts upon entrepreneurial action as well as the judgments associated with those evaluations (Wood, Williams & Gregoire, 2012). Relatively little research has focused directly on the processes by which the entrepreneur transitions from having an idea to deciding to exploit it (Choi & Shepherd, 2004; Dimov, 2010).

This study sheds light upon this 'black box' between idea conceptualization and opportunity exploitation by exploring the sensemaking and sensegiving processes experienced by prospective student entrepreneurs in a university incubator. In addition, it delineates the transition paths taken by these early-stage entrepreneurial actors as they developed ideas into entrepreneurial opportunities. Furthermore, this study has implications for researchers interested in university entrepreneurship in terms of widening the sampling frame to include the formation of new enterprises by university students.

Overall, the findings from this study provide a more detailed theoretical model of the entrepreneurial process (Figure 7-2); one where the entrepreneurial actor is a sensemaking agent who moves through the entrepreneurial process through a series of sensemaking exchanges. The following sections discuss the significance of these findings and the implications in comparison with extant research on the entrepreneurial process.



Adapted from Dimov (2007a) and Shane & Venkataraman (2000)

Figure 7-1 The Entrepreneurial Process

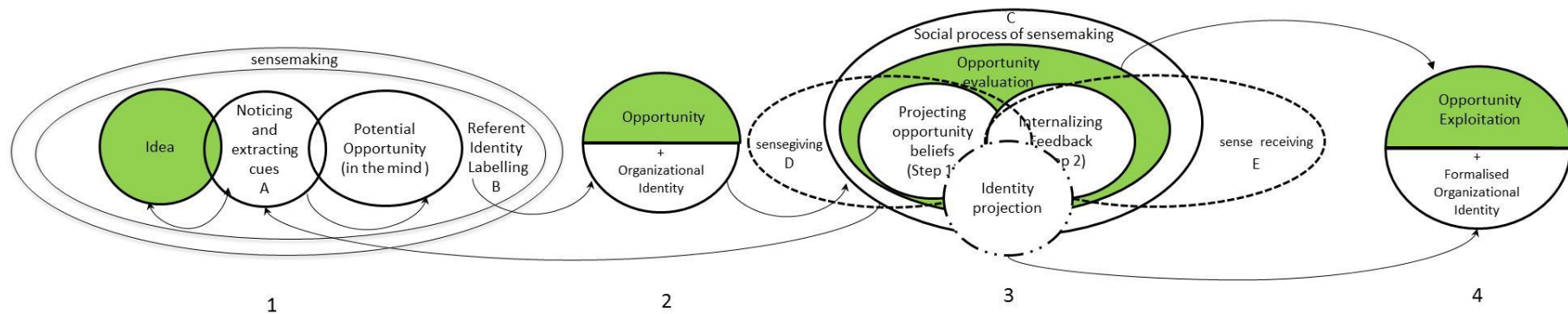


Figure 7-2 Observed Entrepreneurial Process with sensemaking exchanges

7.2. Stage 1: The Idea

The conceptualization of the entrepreneurial process presented in the literature (Figure 7-1) begins with the idea stage. This is because it is now accepted that opportunities do not simply “jump out” in a final, ready-made form but emerge from an iterative process of shaping and development, which begins with the birth of opportunity ideas (Lumpkin, Hills & Shrader, 2003, cited in Dimov, 2007a). Through an in-depth analysis of the sensemaking and sensegiving of early-stage entrepreneurial actors in a university incubator, this study delineates what happens to that idea during that iterative process of shaping and development, which results in entrepreneurial opportunities. The transition from idea to opportunity is outlined in Figure 7-2, 1&2 and was observed to be strongly influenced by two sensemaking processes: cues (Figure 7-2, 1A) and identity (Figure 7-2, 1B).

7.2.1. Cues

The initial step to develop the idea into an opportunity involved noticing and extracting cues from the immediate environment. According to Weick (1995:50), cues are “simple, familiar structures that are seeds from which people develop a larger sense of what may be occurring”. Cues were found to be noticed and extracted via problem sensing, establishing causal explanations and appraising existing solutions of competitors and/or stakeholders. Once cues were noticed and extracted, it was observed that they were used to develop the idea iteratively, which then led to the forming of a potential opportunity in the mind of the entrepreneurial actor (Dimov, 2007; Wood & McKinley, 2010; Klein, 2008; Shackle, 1979).

Previous models and explanations of this early phase of the entrepreneurial process have suggested that entrepreneurial actors scan and search their

immediate environment (Cyert & March, 1963; Herron & Sapienza, 1992; Sine & David, 2003; Bhawe, 1994; Kirzner, 1973; Shane & Venkataraman, 2000) either deliberately or passively (Long & McMullan, 1984; Koller, 1988; Peterson, 1988) for entrepreneurial opportunities. On the other hand, Baumard (1994) argued that the first step of any intelligence process is not to scan but to notice. The findings from all five case studies suggest that entrepreneurial actors make sense of opportunities by first noticing and then searching.

Furthermore, it was found that it is not the opportunity that is noticed but cues, which then lead to the forming of potential opportunities in the mind. These findings therefore, demonstrate that both noticing and searching may be occurring in the entrepreneurial process. Additionally, it seems to suggest that extant research on search processes and Baumard's view of noticing as the first step of any process are merely partial understandings of the events occurring in the entrepreneurial process. These seemingly polar views have been consolidated with the insights provided by the findings from this study to create a more complete picture of the initial stages of the entrepreneurial process.

This was demonstrated in the case of the e-book where the founder noticed and extracted one problem she thought needed solving (weight loss) before she established causal explanations for that problem (e.g. lack of exercise, eating the wrong things and also lack of information), probably through some search mechanism, and then appraised the existing solutions for that problem by scanning the offerings of perceived competitors (online competitors). This finding is consistent with Kang & Uhlenbruck (2006) who theorized that some entrepreneurs attempt to reduce uncertainty about potential opportunities through "information searching and sensemaking" (p. 50). This study suggests that early stage entrepreneurial actors may have reduced uncertainty about potential opportunities via the sensemaking process of noticing and extracting

cues, which was found to involve some degree of information gathering. These cues represented information that these actors first noticed and later scanned from the environment using some search mechanism, and then made sense of it. While Kang & Uhlenbruck (2006) did not elaborate on the sensemaking process used by the entrepreneurs in their study to reduce uncertainty, it is however, surmised that their findings are analogous to the ones in this study. The implication of this is not to supplant extant work on the role of search in the entrepreneurial process but to supplement it and highlight pre-search actions that could be significant during the early stages of the entrepreneurial process.

In some cases, noticing and extracting cues involved interactions with other social groups and the early stage entrepreneurial actor, namely family and friends. In the case of TPSC, family members were involved in the problem sensing phase of the process when the founder went shopping with his mother for pocket squares and he realized that the quality of the squares was substandard and that he and his mother could possibly make a pocket square that was of better quality. *"Yea I was going to the Henley regatta yea so I was like I need a square could not find one. Mum was like oh well we'll make one that will look better (than the ones they saw)" (TPSC)*. This seems to be consistent with the theoretical propositions of Wood & McKinley (2010), who purported that the idea is objectified in the mind of the entrepreneur via "a sensemaking process of interactions between the entrepreneur and his or her peers: for example, family, friends and mentors" (p. 68).

However, Krueger (2007) previously argued that it was likely that there was "more than one set of cognitive structures that reflected the entrepreneurial mind-set and more than one configuration of developmental experiences to get there" (p. 131). It is argued here, that Wood & McKinley merely described one transition path entrepreneurial actors could take in the transition from idea to

entrepreneurial opportunity. While their theoretical claims seem to capture the path taken by the case of TPSC, their propositions do not cover the path taken by the case of the eBook. In effect, the findings in this study have demonstrated that Wood & McKinley's claims represent only one aspect of what may be occurring during the initial stages of the entrepreneurial process. Furthermore, it is argued that the findings in this study have also expanded upon the claims of Wood & McKinley by adding nuance to their partial view of the sensemaking process of interactions between the entrepreneur and his or her family and friends by defining exactly what is being exchanged (i.e. noticed and extracted cues) between these groups and the entrepreneur.

Additionally, the overall process of noticing and extracting cues involving problem sensing, establishing causation and appraising existing solutions is similar to the processes of causation, which involve considerable amounts of time and analytical effort rather than the processes of effectuation (Sarasvathy, 2001). The implication of this in practice is to reiterate the importance of causation in human reasoning and decision-making and to re-open the discussion on which parts of the entrepreneurial process, causation-type decision-making may be most useful. Furthermore, given that both causation and effectuation are "integral parts of human reasoning that can occur simultaneously, overlapping and intertwining over different contexts of decisions and actions" (Sarasvathy, 2001:245), it is argued that the theoretical model presented in this thesis (Figure 7-2) may be depicting the pre-effectuation stages of the entrepreneurial process. This is further supported by the case of TPSC, where subsequent to starting TPSC the founder essentially effectuated into another clothing/fashion business that was considered a spin-off from the original start-up. *"Well they both relate to one another but obviously pocket square is so concise needed to expand outwards so I have started a new business it is called Augustus & Burke" (TPSC).*

Once the potential opportunity had been formed in the mind of the entrepreneurial actors via the sensemaking process of noticing and extracting cues which, in some cases, involved the sensemaking processes of social interactions between family and friends, it was observed that sensemaking processes related to identity transformed the potential opportunity in the mind of the founders into an entrepreneurial opportunity.

7.3. Stage 2: The Opportunity

As aforementioned, the transition from idea to opportunity (Figure 7-2, 1&2) was also strongly influenced by the sensemaking process of identity. Given this finding, the opportunity recognition stage postulated in the literature (Figure 7-1, 2) was replaced with a conjoint of the opportunity and organizational identity making the first transition from idea to opportunity + organizational identity (Figure 7-2, 2).

7.3.1. Organizational Identity

The forming of an organizational identity early in the entrepreneurial process (Lounsbury & Glynn, 2001; Navis & Glynn, 2011) was found to have occurred through a process of noticing and extracting external images of other organizations or places as points of reference (termed in the analysis as referent identity labelling - Figure 7-2, 1B), which helped transfer the potential opportunity in the mind of the founders into something tangible (i.e. into an entrepreneurial opportunity).

DiMaggio and Powell (1983) noted a similar tendency for organizations to define themselves in terms of other organizations in a given industry. Furthermore, extant research on organizational identity formation (Czarniawska & Wolff, 1998; Gioia, Price, Hamilton & Thomas, 2010) claims that new organizations often use

mimetic processes in the formation of their identities. Mimicry was demonstrated in the case of DE5 Consulting, where a post code in the Derbyshire area was used as a point of reference in the naming of the business venture. *"DE5 is a post code and I have chosen that as the name of my business" (DE5).*

Brewer (1991) on the other hand, theorized that people attempt to achieve a state of optimal distinctiveness sufficiently similar to a preferred group but different enough to be distinctive (cited in Gioia et al., 2010). This was demonstrated in the case of Munchies Milkshake where the founders used the McDonald's 'M' identity as a benchmark but still made their own 'M identity' distinctive. *"Like M – McDonalds first letter is M and that is just a powerful logo just the M itself so we thought well when we design our logo we're going to make sure the M really is significant. We're going to take a little chomp out of the M"* (Munchies). The forming of an idiosyncratic organizational identity provided a degree of legitimacy for the emergent entrepreneurial opportunity and resultant new products and/or ventures. This is consistent with Clegg, Rhodes & Kornberger (2007) who argued that organizational members undertake identity construction work not for their own sake but to facilitate legitimacy formation (cited in Gioia, Price, Hamilton & Thomas, 2010).

Both identity and cues were found to be important sensemaking processes that affect how entrepreneurial actors theorize their world and the relationships and opportunities within it. Cornelissen & Clarke (2010) have previously claimed that entrepreneurs theorize their world and the relationships and opportunities within it through verbal interactions with others. They therefore, argue for a sensemaking approach predicated on "language" (p. 539) as opposed to the sensemaking processes of identity and cues observed in this study. It is argued that their findings are also a partial understanding of what is occurring in the entrepreneurial process. The implication of this in practice is to increase

awareness of passive (noticing and extracting cues, and identity construction) as well as active (verbal interactions) forms by which potential entrepreneurs may theorize their world. It may even be argued that, in terms of the ordering of events, more active forms of theorizing about opportunities are likely to follow on from and articulate the more passive forms of theorizing.

These findings have however, also demonstrated the relative importance of the sensemaking properties in an entrepreneurship context. Sensemaking processes such as, cues and social interactions were found to be relevant between the idea stage and the formation of a potential opportunity in the mind; whereas, sensemaking processes such as, identity were observed as being important in the transition from potential opportunity to actual opportunity. The literature on sensemaking generally portrays the sensemaking processes as occurring in a sequential manner beginning with identity construction (Weick, 1995). However, the findings in this study have suggested that there may be exchanges in sensemaking occurring rather than a sequencing of sensemaking events such that some sensemaking processes become necessary at particular points in time and thus, have more weight than others at any one point in time.

By making the first transition in the entrepreneurial process more explicit from a sensemaking perspective, this study has therefore, also demonstrated a time lag between the potential and actual realization of an entrepreneurial opportunity. This time lag is made apparent by the exchanges in sensemaking (from cues to social interactions to identity construction) between the idea and opportunity stages. Furthermore, the empirical material also suggests that the role of identity in the entrepreneurial process may not end with its mimetic and legitimizing role but may also be important in delineating the nature of opportunities. These findings therefore, directly address the ontological nature of opportunities. More

importantly, it seems to draw together competing positions on the ontology of opportunities.

On one hand, the ontology of opportunities taken by the constructivist school (see Alvarez & Barney, 2007; Baker & Nelson, 2005; Sarasvathy, 2001; Weick, 1979) assumes entrepreneurial opportunities are endogenously created. On the other hand, proponents of the discovery school postulate that entrepreneurial opportunities exist exogenously, that is, are discoverable (Shane & Venkataraman, 2000; Kirzner, 1973; Shane, 2003). The discovery school recognizes the ontological difference between an opportunity (objective phenomena) and a potential opportunity in the mind (that which is subjective to the individual). However, it neglects this nuance by labelling this process – ‘opportunity recognition’ (Figure 7-1, 2).

Most of the studies on opportunity recognition have not attempted to measure the time horizon of fruition across which entrepreneurs sought opportunities (Sandberg & Hench, 2004) even though Kirzner’s work on alertness is sufficiently elastic to cover not only the perception of existing opportunities but also the perception of intertemporal, speculative opportunities that can only be definitely realized after the lapse of time (Kirzner, 1984:53, cited in Sandberg & Hench, 2004:275). Kaish & Gilad (1991) alluded to the fact that the temporal orientation and scope of one’s thinking about opportunities could have an effect on the entrepreneurial alertness of entrepreneurs compared to other groups e.g. managers. However, there have been few propositions about the effects of time on the nature of the opportunity itself.

This framework presented in *Figure 7-2* suggests that the time-horizon across which opportunities are sought may have a major bearing on the ontological status of the opportunity. Moreover, the implications of this for the

entrepreneurial process literature relates to the *timing* of opportunities. In this study, the subjective parts of the opportunity have been separated from the objective parts, as they occurred over time in the respective case studies, demonstrating that the differing ontological perspectives of the opportunity construct (i.e. discovered vs. created) each explain a fraction of the entrepreneurial process. This has implications for researchers attempting to reconcile these seemingly opposing views of the opportunity construct.

7.4. Stage 3: Opportunity Evaluation

As the above highlights, in the entrepreneurial process observed in this study, opportunities are first perceived in the mind through a process of noticing and extracting cues and then through the formation of an organizational identity the perceived opportunity is made tangible (i.e. becomes an entrepreneurial opportunity). As such, at this stage of the entrepreneurial process, the opportunity is ready to be evaluated.

These findings unravelled additional actions and events occurring within the opportunity evaluation stage (Figure 7-1, 3). The opportunity evaluation process appeared to be strongly influenced by two sensemaking processes: social (Figure 7-2, 3C) and plausibility (which was linked to language/sensegiving) (Figure 7-2, 3D). These sensemaking and sensegiving processes were found to be working in tandem throughout the evaluation process as the entrepreneurial actors projected their opportunity beliefs through speech and symbols to family members and to potential customers.

In addition, it was also found that the entrepreneurial actors in this study received feedback from these same groups. This was referred to as *sense receiving* (Figure 7-2, 3E) and defined as *receiving and acting upon the*

sensegiving of others. In the following sections, the role of family involvement in the entrepreneurial process will be discussed first followed by the role of potential customers. Finally, the role of feedback in the entrepreneurial process is discussed (Figure 7-3).

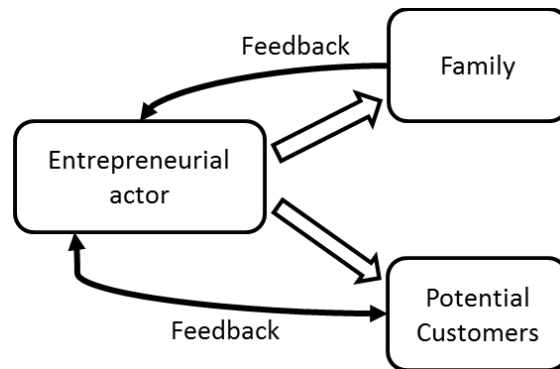


Figure 7-3 Family, Customers and Feedback in the Entrepreneurial Process

7.4.1. The involvement of family in the entrepreneurial process

Family members were observed as the first social group used by the entrepreneurial actors as part of the opportunity evaluation process. In the case of Munchies Milkshake, the involvement of family and friends during the evaluation stage of the entrepreneurial process was important in deciding the viability of the opportunity as a potential business. This is consistent with a study by Klyver (2007), who investigated the shifting involvement of family members in the entrepreneurial process using Danish GEM data, and found that family members are most strongly involved in the emergence phase when the final decision to start or not had to be made.

In other cases such as in the case of TPSC, the involvement of family members during the evaluation process was important in terms of acquiring the requisite resources to start the business. *"My family have been a great support to start this venture...we put "£4000 of our own capital into this...I got all my fashion interest from my mom and my sister. My sister did fashion marketing and then I have always been inspired by my dad because he set up his own practice" (TPSC).*

Birley's (1985) study on the role of networks in the entrepreneurial process clearly depicted family members as the main sources of help in assembling the resources of raw materials, supplies, equipment, space, employees and orders. Klyver (2007) also noted that the evaluation phase is characterized by resource acquisitions. He claimed that the acquisition of resources requires a more convergent behaviour that calls for strong and emotional supportive ties typically provided by family members (Evald et al., 2006, cited in Klyver, 2007:270). The findings here are therefore, consistent with extant literature and reiterate the role of family in the entrepreneurial process.

7.4.2. The involvement of potential customers

Given that people are typically uncertainty averse (Kahneman & Tversky, 1979), entrepreneurs exploiting new products are likely to face considerable demand uncertainty (Knight, 1921; Olson, Walker & Reukert, 1995). Entrepreneurs therefore, often need to resolve some of the uncertainty surrounding market demand before they can determine whether their new product is sufficiently valuable to commit to its full-scale exploitation (Choi & Shepherd, 2004). According to Aldrich & Fiol (1994), customer demand for new products depend, in part, on whether customers know of the new product and find it valuable.

This study indicates that in resolving some of that uncertainty surrounding market demand, the entrepreneurial actors projected their opportunity beliefs to potential customers using speech and symbols to gauge whether they knew of the new product and/or found it valuable. This was best demonstrated in the case of TPSC where the founder used a combination of language (talk), speech and symbols (actual representations of the pocket square) to communicate the opportunity to potential customers by attending different venues where he knew his potential target market frequented and asked "Would you wear this?"

(showing them a pocket square that he had made). As such, the implications of this for the entrepreneurial process literature is that some depth has been added to the findings of Choi & Shepherd (2004) by highlighting *how* entrepreneurs may go about establishing the belief that customers will value their new product(s).

7.4.3. The role of feedback in the entrepreneurial process

It was also found that the entrepreneurial actors in this study expected to receive feedback from the above-mentioned groups. The notion of receiving and internalizing feedback during the entrepreneurial process is consistent with extant literature. Bhavé (1994) first identified that the process of new venture creation was “feedback-driven” (p. 223) stating that when business concepts were novel and there were no precedents to guide entrepreneurs, they had to “introduce their products to customers, receive feedback, and only then further develop the business concept until a close match with customer needs was established” (Maidique and Zirger 1985, cited in Bhavé, 1994:231).

Bhavé (1994) further theorized that feedback from customers could be classified as either strategic or operational. Strategic feedback affected the business concept while operational feedback related to suggestions for product changes such as additional or altered features in products (1994:235). The empirical findings described here both support and expand upon the theoretical claims of Bhavé’s model of new venture creation in so much as the entrepreneurial actors were found to have received and internalized operational feedback from potential customers in terms of pricing preferences as in the case of Munchies Milkshake and product features as in the cases of TPSC and Neehoy. Strategic feedback, on the other hand, relating to the novelty of the business concept was received from family members (e.g. in the cases of Munchies Milkshake and TPSC) rather than potential customers as purported by Bhavé (1994). See *Figure 7-4* below.

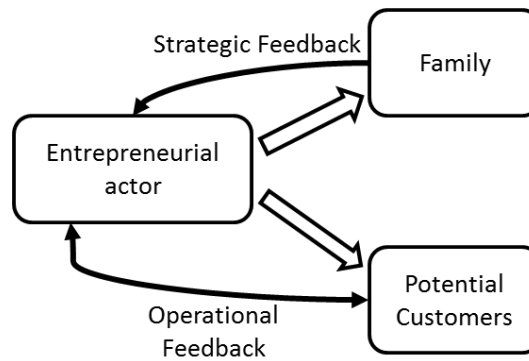


Figure 7-4 Strategic vs. Operational Feedback from Family and Customers

In addition to operational and strategic types of feedback, it was found that the entrepreneurial actors received both positive and negative feedback or rather feedback that was consistent or inconsistent with their opportunity beliefs. Much of the empirical evidence on the effects of positive and negative feedback are anecdotal. However, it is generally accepted that positive feedback affects expectancies for future business start-ups while there is a strong perseverance in the face of considerable negative feedback (Mitchell, Busenitz, Lant, McDougall, Morse & Smith, 2002). The empirical evidence indicated that negative feedback or feedback inconsistent with the entrepreneurial actors opportunity beliefs that was of an operational nature prompted a change in entrepreneurial behaviour (e.g. a change in the pricing of the product in the case of Munchies Milkshake) whereas there was a strong perseverance in the face of considerable negative feedback of a strategic nature (e.g. ignoring his wife's criticisms in the case of DE5).

Figure 7-5 below depicts the outcomes for the different types of negative feedback. When the entrepreneurial actor is faced with negative strategic feedback, from family members, s/he continues on the entrepreneurial path (enactment) but ignores the feedback received (inaction) thus, persevering in the face of negative feedback. However, when the entrepreneurial actor is faced with negative feedback of an operational nature, from potential customers, s/he continues on the entrepreneurial path (enactment) but incorporates the feedback

received (action). In effect, the negative operational feedback leads to a change in entrepreneurial behaviour.

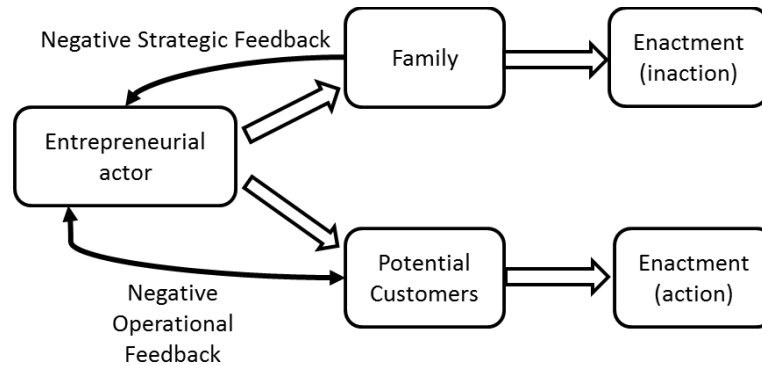


Figure 7-5 Negative Feedback Outcomes

The findings shed light on the sensemaking exchanges that occur throughout the entrepreneurial process. In addition, they also illustrate the involvement of different actors, other than the entrepreneurial actor, and their impact upon the entrepreneurial process. Implications of feedback received from these actors were also discussed and new insights were added to the body of literature on the entrepreneurial process. The following sections now discuss in more detail the significance of these findings to the sensemaking literature.

7.5. Sensemaking and Sensegiving

In this study, the entrepreneurial process was explored to analyse actions and events (Section 7.4) as well as outline the transition paths taken by entrepreneurial actors as they developed ideas into opportunities (Section 7.2 and 7.3). This has not been extensively investigated to date. These findings emerged from an inductive-deductive process that drew upon the seven tenets of the Weickian sensemaking perspective. Consequently, two distinct contributions to the sensemaking literature are suggested. Specifically, (1) the sensemaking process of noticing and extracting cues was empirically demonstrated in an entrepreneurship context, and (2) a new theoretical concept labelled as *sense*

receiving was found in the analysis. These two contributions to the sensemaking literature will now be discussed below.

7.5.1. Sensemaking in an entrepreneurship context

This study explored how the sensemaking process of noticing and extracting cues was operationalized in the entrepreneurial process. It was observed that during the entrepreneurial process, the entrepreneurial actors in this study engaged in a process of noticing that involved problem sensing, establishing causation and appraising existing solutions. According to the sensemaking literature, the process of noticing involves activities such as “filtering, classifying and comparing” (Weick, 1995:51). However, these activities have yet to be empirically tested. It is suggested that the findings in this study empirically demonstrated these claims made in the sensemaking literature.

First, it is suggested that problem sensing is part of the process of filtering because noticing one problem from among a host of information resembles the act of filtering or represents one way in which filtering could occur. Second, establishing the causes of a problem identified is suggested here as related to the process of classifying in the sensemaking literature, as the action of dividing the problem into different causal explanations resembles a method of classification. Finally, it is demonstrated that the process of comparing in the literature is highly analogous to the appraisal of existing solutions by the entrepreneurial actors in this study. In assessing the offerings of perceived competitors and stakeholders, the entrepreneurial actors were essentially comparing themselves to these entities as well as comparing the entities against each other. The implications of these findings therefore, add depth and context to the claims made in the sensemaking literature.

7.5.2. Sense receiving

Much of the literature on sensemaking and sensegiving focuses on how individuals 'make sense' and 'give sense'. There is also a third construct termed sensebreaking, defined as "the destruction or breaking down of meaning" (Pratt, 2000:464). While there is less research on sensebreaking, it is considered to be an important part of processes involving sensemaking and sensegiving (Maitlis & Christianson, 2014). Sensebreaking has primarily been explored as activities undertaken by leaders or managers (Mantere, Schildt, & Sillince, 2012; Pratt, 2000) and is regarded as a prelude to sensegiving in which leaders or organizations fill the meaning void created through sensebreaking with new meaning (Pratt, 2000).

Recent work by Monin et al (2013:257) on giving sense to and making sense of justice in post-merger integrations further confirmed the above-mentioned sensemaking and sensegiving related constructs. The authors also extended the theoretical sensemaking constructs by highlighting different forms of sensemaking such as "acceptance, resistance and distancing" as well as forms of sensegiving acts such as "sensebreaking" (breaking previously established senses of justice). New theoretical constructs such as "sense specification" (providing specific meanings to justice) and "sensehiding" (deliberately avoiding particular senses of justice) were also added to the body of literature.

The empirical findings in this study point to another sensemaking and sensegiving related construct labelled: *sense receiving* (Figure 7-2, 3E). It was found that when the entrepreneurial actors made sense of an opportunity and gave sense about that opportunity to others, they then received sense about that opportunity through feedback from others. *"I mean so obviously you find things out so like we realized that the price may have been too high to start with even though our research said that that was the price"* (Munchies, INT1:P5). Deciding whether to

make sense of what is received influences future sensemaking and consequently future sensegiving. In the case of Munchies Milkshake, the founders decided to make sense of the feedback received and as a result experienced “new” sensemaking and sensegiving. “*So for this month we’ve actually reduced the price for the whole month and we started to see an increase in the demand for the product*” (Munchies, INT1:P5).

The act of receiving sense therefore, seems to be a key link between ‘past’ sensemaking and sensegiving, and ‘future’ sensemaking and sensegiving. In other words, *sense receiving* highlights the point at which sensegiving has occurred and ‘new’ sensemaking begins (Figure 7-6). In fact, *sense receiving* is otherwise referred to as *receiving and acting upon the sensegiving of others*. Without the concept of *sense receiving*, sensemaking and sensegiving are incomplete. *Sense receiving* therefore, seems to be an implicit, yet crucial, part of the entire sensemaking and sensegiving process.

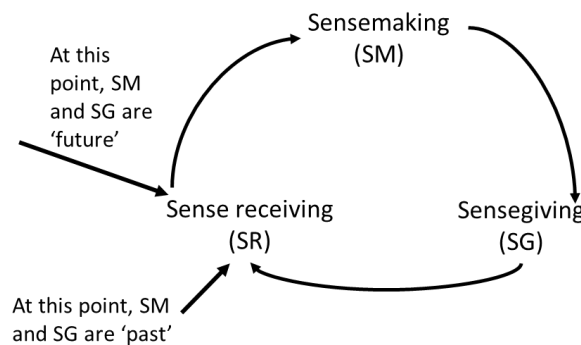


Figure 7-6 Past and Future-oriented sensemaking and sensegiving

This is a novel theoretical concept derived from the analysis in this study. However, it is suggested here that there may be some implicit reference to this phenomenon in earlier work on sensemaking and sensegiving as well as in the broader communication literature. For example, the empirical findings from Gioia & Chittipeddi’s (1991) study on strategic change showed sensemaking and

sensegiving occurring in the data generated phases of “envisioning” and “signaling” respectively followed by a phase of “re-visioning” and “energizing”.

The authors noted that resistance to the proposed strategic change arose in the re-visioning phase. “Not surprising, some vested interests began to object to aspects of the espoused change, including questioning whether the status quo had to change at all. Pockets of opposition emerged, threatening the young momentum for change” (1991:440). It is suggested here that this feedback was internalized via a process of sense receiving to the point that ‘new’ sensemaking and sensegiving about the change process was made and communicated respectively. This is demonstrated in a quote by one of the managers that among the strategic change initiatives outlined in the envisioning phase, “some called for restructuring, others called for growth and still others called for retrenchment” (p. 440). These itemised changes were proposed by the manager after receiving the feedback from other members of the organization and were subsequently implemented in the energizing phase. It is argued here, that *sense receiving* may have been important in transitioning from the re-visioning phase to the energizing phase in this context.

In the same way, within the information processing literature, basic forms of communication are based on a sender and a receiver, and some form of feedback to confirm that the message was received as intended (Shannon & Weaver, 1949). It is suggested here that this simple sender-receiver-feedback logic seems to underlie the exchanges between sensemaking, sensegiving and *sense receiving*, and then back to sensemaking to start the process again.

The sensemaker can be likened to the sender who first makes sense of the information s/he wishes to send to the receiver. S/he then gives sense to the receiver in the form of a message. When the receiver sends acknowledgement of

the message, the sensemaker receives sense based on the feedback from the receiver and starts making sense again either to confirm in his/her mind that the message was received as intended or to alter the message and re-send it if it was not received as intended. In an entrepreneurship context, the 'sensemaking entrepreneur' makes sense of potential opportunities in his/her mind, and then gives sense to others (e.g. family-based ties and/or potential customers), about the entrepreneurial opportunity (from among the potentials) and finally, receives sense from others about the viability of the entrepreneurial opportunity before making sense again on how to proceed towards full-scale exploitation of that opportunity based on the feedback received.

Weick, Sutcliffe & Obstfeld (2005) confer that communication is a central component of sensemaking to the extent that sensemaking "takes place in interactive talk and draws on the resources of language in order to formulate and exchange through talk, symbolically encoded representations of circumstances" (Taylor & Van Every, 2000, cited in Weick et al., 2005:413). The implications of a notion of sensemaking as involving basic communication principles of send (sensemaking and sensegiving) and receive (*sense receiving*) can shift our understanding of what may lead entrepreneurs to action (exploitation). In other words, the creation of new products, services and/or ventures may not be solely derived from sensegiving devices (Holt & Macpherson, 2010; Cornelissen & Clarke, 2010) whereby events and organizations are "talked into existence" (Weick et al., 2005:409), as previously believed, but also via a process of *sense receiving* whereby feedback from relevant others namely family-based ties, potential customers, existing competitors and relevant stakeholders is internalized by the entrepreneurial actor and events and organizations are then co-constructed through this dialogical process.

7.6. Chapter Summary

In this chapter, the implications of the empirical findings and their relevance to the entrepreneurial process and sensemaking literatures were discussed. Key sensemaking constructs such as identity, cues, social (interactions) and plausibility/language (sensegiving) were established as important sensemaking processes enabling entrepreneurial actors to transition from ideas to entrepreneurial opportunities. Cues and identity were especially important in illustrating a time lag between the potential and actual realization of an entrepreneurial opportunity. Social (interactions) and plausibility/language (sensegiving) provided insight into the role of other actors in the entrepreneurial process and illustrated several feedback processes. A novel theoretical construct labelled *sense receiving* was also developed that expanded upon the opportunity evaluation stage as well as explained the cyclical process of sensemaking and sensegiving in more depth. Thus, adding to both the entrepreneurial process literature and the sensemaking literature. Overall, the empirical discussion revealed a sensemaking entrepreneur who makes sense of ideas and develops these ideas into opportunities by enacting a series of sensemaking exchanges, which over time, may lead to full-scale exploitation.

Chapter 8 Conclusions

In this chapter, a summary of the empirical findings is presented followed by a synthesis of the theoretical and empirical contributions made in this thesis. The limitations of this research are discussed and emphasis is given to highlighting future research avenues that emerged from this research.

8.1. Introduction and Overview

This study analysed the entrepreneurial process and explained how the entrepreneurial actor transitions from idea to exploitation. This was captured within the underpinning research question: "How do early-stage entrepreneurial actors make sense of the entrepreneurial process as they transition from having an idea to deciding to exploit it?" This was explored through a one-year, inductive, multiple-method case study research involving early-stage entrepreneurial actors in a university incubator.

The conceptualization of the entrepreneurial process used in the analysis began with the idea stage, followed by opportunity recognition, then opportunity evaluation and finally, opportunity exploitation (Dimov, 2007; Shane & Venkataraman, 2000) reflecting a linear process suggested within the extant literature (Chapter 2) and in accordance with the research question (Chapter 3). The main findings however, indicated that although there is some degree of linearity to the entrepreneurial process, in essence, the entrepreneurial experience is more complex and iterative than previous models (e.g. Ardichvili et al., 2003; Shane & Venkataraman, 2000; Bhawe, 1994) have suggested.

Chapter 8: Conclusions

The theoretical framework of the sensemaking perspective (Weick, 1995), together with the concept of sensegiving (Gioia & Chittipeddi, 1991) was utilised to explore the unfolding of the entrepreneurial process. This framework comprises seven properties: identity construction, retrospection, social (interactions), enactment, ongoing, cues and plausibility (linked with language/sensegiving). These seven properties were outlined and discussed in *Chapter 3* and operationalized in *Chapter 4*.

The sensemaking properties were operationalized in the following manner: In instances where references were made to the forming of an individual or organizational identity, this was interpreted as related to the identity property of sensemaking. In instances where respondents recalled events this was seen as related to the retrospection property. In instances where interruptions or situations required sensemaking, this was interpreted as related to the ongoing property of sensemaking. In instances where references were made to information the founders acquired through market research or general awareness of their environment this was recorded as related to the cues property of sensemaking. In cases where language/sensegiving was used to convey to others the idea or potential opportunity this was seen as relating to the plausibility property of sensemaking. Where plausibility/language/sensegiving was used in communication with other people, this was recorded as relating to the social property of sensemaking. Finally, when events in the entrepreneurial process were interpreted as representative of actions taken, this was recorded as relating to the enactment property of sensemaking (Chapter 4 and Chapter 5).

The sensemaking theoretical framework readily facilitated the exploration of the entrepreneurial process as five of the seven sensemaking properties were found to be prevalent in the majority of case studies (Chapter 5). Furthermore, the main findings from *Chapter 5* indicated that the sensemaking properties: cues,

identity construction and enactment were interrelated and contributed to the transition from an idea to an entrepreneurial opportunity. These findings from this preliminary analysis provided the foundation for the subsequent in-depth thematic analysis, where the observed sensemaking exchanges highlighted in *Chapter 5* were categorised and explained in *Chapter 6*, according to the stage of the entrepreneurial process in which they occurred.

The exchanges in sensemaking observed provided some indication as to the prevalence of the properties at different stages of the entrepreneurial process. Some properties were found to be repeated throughout the entrepreneurial journey, while others seem to be concentrated on one stage. This called into question prior assumptions that sensemaking was a sequential process beginning with identity construction (Weick, 1995). According to Weick (1995), the interdependent properties were assumed to carry equal weight; although one or more properties could become more important according to the situation (Helms Mills, Thurlow & Mills, 2010).

The findings demonstrated that there may be exchanges in sensemaking occurring rather than a sequencing of sensemaking properties such that some sensemaking properties become necessary at particular points in time and thus, have more weight than others at any one point in time. This therefore, provided empirical evidence and justification that over time, some sensemaking properties become more or less visible.

By mapping out the entrepreneurial experience of early-stage entrepreneurial actors in a university incubator, this study identified and outlined more than one transition path taken by entrepreneurial actors as they made sense, gave sense and received sense about their ideas and developed these ideas into entrepreneurial opportunities (Chapter 7). This finding reinforces theoretical

frameworks such as path-dependency theory or more cognitive approaches to entrepreneurial behaviour such as Krueger's (2007) multiple configurations of developmental experiences that lead to an expert entrepreneurial mind-set.

Furthermore, the findings have provided a more detailed theoretical model of the entrepreneurial process from a sensemaking perspective. This theoretical model depicts the entrepreneurial actor as a sensemaking agent who transitions from one stage of the entrepreneurial process to the next through a series of sensemaking exchanges, which over time, may lead to full-scale exploitation. Of these sensemaking exchanges, the sensemaking property noticing and extracting cues was found to be important in the transition from an idea to a potential opportunity in the mind of the entrepreneurial actor. Additionally, the sensemaking property identity was observed to be important in the transition from a potential opportunity in the mind to an entrepreneurial opportunity that could be exploited (Chapter 5).

Cues and identity were identified as important sensemaking processes through which entrepreneurial actors theorize their world and the relationships and opportunities within it; opportunities that are created, discovered or both – so demonstrating that both ontological assumptions are partial understandings of the events occurring in the entrepreneurial process, distinguished only by the temporal dimensions of the opportunity development process (Chapter 6 and Chapter 7).

The sensemaking property of social interactions and language became important later in the entrepreneurial process (during the opportunity evaluation stage) as the entrepreneurial actors project opportunity beliefs through speech and symbols. This was directed at family members and potential customers (Chapter 5 and Chapter 6). Accordingly, the outcome from this research demonstrates the

involvement of different actors, other than the entrepreneurial actor, and their role in, and impact upon the entrepreneurial process/experience (Chapter 7).

Finally, it was also found that the entrepreneurial actors received feedback from family and potential customers. This led to the formation of a novel theoretical construct labelled: sense receiving, to adequately explain how entrepreneurial actors receive and act upon the sensegiving of other actors. This additional process of sense receiving also illustrated the nuances of sensemaking in terms of differentiating between 'past' and 'future' sensemaking and sensegiving. It was proposed that this new sensemaking sensegiving related construct be established as a crucial part of the entire sensemaking and sensegiving process (Chapter 6 and Chapter 7).

In terms of the entrepreneurial process literature, a more detailed theoretical model of the entrepreneurial process was developed that explains the transition paths entrepreneurial actors take on their entrepreneurial journey from idea to entrepreneurial opportunity exploitation. This detailed explanation of the entrepreneurial experience highlights the sensemaking exchanges that occur throughout this process and depicts the entrepreneurial actor as a sensemaking agent who makes sense, gives sense and receives and acts upon the sensegiving of others on his/her way to full-scale exploitation of new products and/or ventures (Chapter 6 and Chapter 7).

8.2. Novel Contributions of the Thesis

The overarching aim of this thesis was to explore the sensemaking and sensegiving processes experienced by early-stage entrepreneurial actors involved in enacting an opportunity within a university incubator. In this setting, the potential entrepreneur makes sense of opportunities as s/he transitions through

the phases of the entrepreneurial process. "How" this transition occurs is both crucial to the unfolding of the entrepreneurial process and is afforded relatively little attention within current theorizing. As such, there was scope to develop a more complete and theoretically rich understanding of the entrepreneurial process by following the entrepreneurial journey of these actors in the university incubator. Accordingly, the central theoretical contribution made in this thesis lies in advancing our understanding of the entrepreneurial process by analysing the transition paths taken by early-stage entrepreneurial actors as they made sense of opportunities.

The first theoretical contribution therefore, relates to the concept of sensemaking exchanges. The entrepreneurial paths mapped out in this thesis depict a process that is part linear, part iterative, involving a series of sensemaking exchanges. This is a shift away from the dominant conceptualization of a process as linear or sequential involving well-defined, blocks of stages. As such, the contribution presented here is novel because it is one of few studies that empirically capture the iterative parts of a process that has long since been portrayed as linear as well as illustrate the temporal dimensions of the opportunity construct. Moreover, this research is consistent with recent calls for more process theories (Langley, Smallman, Tsoukas & Van de Ven, 2013).

The second theoretical contribution relates to the sensemaking process of noticing, which was found to be important in iteratively shaping and developing the idea into a potential opportunity. This process of noticing preceded the search and/or scanning mechanisms employed by the entrepreneurial actors in this study. Accordingly, the contribution lies in highlighting pre-search actions that occur in the early phases of the entrepreneurial process. In addition, the introduction of the sensemaking concept of noticing to the entrepreneurial process also challenges the relevance of the concept of alertness given the

debates in the literature between search and alertness. Moreover, it was found that entrepreneurial actors do not notice opportunities but rather notice cues through problem sensing, establishing causation and appraising existing solutions. Our understanding of what cues look like in an entrepreneurship context was therefore, extended to include problems, causes and solutions. Kirzner (1973) noted that entrepreneurs are alert to opportunities, which often appear as undefined market needs (problems) or underutilised resources and capabilities. This is consistent with a cue construct and the sensemaking process of noticing rather than an opportunity construct and the concept of alertness.

As shown in the theoretical model developed in this study, cues precede the realization of the opportunity. In fact, it is through the process of noticing and extracting cues that opportunities are constructed in the mind and then eventually enacted. This is because entrepreneurial actors notice undefined problems, establish the causes of this problem and appraise available and potential solutions before becoming alert to the existence of an opportunity. Accordingly, the novel contribution lies in deconstructing the nuances surrounding the concepts of noticing and alertness.

The third theoretical contribution relates to identity. In this study, an organizational identity emerged, alongside the development of the entrepreneurial opportunity, in a series of transitions from forming to projecting and finally, formalising. Our understanding of how organizational identity emerges over time was extended to include specific identity processes that occur during the entrepreneurial process (i.e. referent identity labelling, identity projection and formalising the identity).

The concept of identity – “the notion of who an individual is, in relation to others – is increasingly being used in organization and management studies to relate

individual lives to organizational and social contexts” (Watson, 2013:8). The entrepreneurial process entails more than just the recognition and evaluation of opportunities but also includes the transition from an adult with a business idea to an individual entrepreneur, to a nascent entrepreneur involved in start-up activities, to the creation of an infant firm and finally, to an established new venture (Reynolds, Carter, Gartner & Greene, 2004). As such, identity making is central to the entrepreneurial process and to the outcomes of that process, that is, the creation of new organizational forms (Navis & Glynn, 2010, 2011).

Extant research on identity in the nascent entrepreneurial process has mainly drawn upon the social identity literature (Tajfel, 1982) or role identity theory and the career and entrepreneurship literatures (Hoang & Gimeno, 2005, 2010). Some studies explicate the role of entrepreneurial stories in crafting a new venture identity (Lounsbury & Glynn, 2001). While others, (Cardon, Wincent, Singh & Drnovsek, 2009) have constructed role identities linked to particular entrepreneurial activities at different stages of the entrepreneurial process (e.g. an inventor identity for opportunity recognition, a founder identity for venture creation and a developer identity for venture growth). A novel contribution of this thesis is that it illustrates the identity processes that may be associated to the transition between being a nascent entrepreneur and founding a new venture.

Finally, the fourth theoretical contribution relates to the construct of sense receiving. Sense receiving goes beyond receiving cues and includes verbal and non-verbal interactions and feedback received from influential actors such as family, friends and potential customers. It is more than just the physical support that people can offer and is in fact a necessary step in evaluating opportunity beliefs given the fragility of ideas. This study showed that the feedback received from these influential actors was of a strategic or operational nature, both positive and negative and a means by which the entrepreneurial actors socially

ingratiated themselves in recognition of the fragility of their ideas. Accordingly, a novel contribution of this thesis to the entrepreneurial process literature relates to the possibility of constructing a new typology of feedback that incorporates the different sources (e.g. family members and potential customers), the different types of feedback (e.g. strategic; operational, positive, negative), as well as the different feedback outcomes arising from the different combinations.

Sense receiving also highlights the point at which sensegiving has occurred and 'new' sensemaking begins. In effect, it provides new insight into when sensemaking becomes 'past' and 'future'. Although retrospective sensemaking is a key property of the Weickian approach, sensemaking can also orient to the future (Gephart, Topal & Zhang, 2010; Cornelissen & Clarke, 2010). In Weickian views, sensemaking occurs only after it is triggered by the breakdown, collapse, or disruption of meanings due to unusual environmental events or to sensebreaking. Sensemaking occurs to restore meaning and ends when meaning is restored as that 'new' meaning is then communicated via the process of sensegiving. Disruptions to sensemaking however, lead to the use of repair practices to restore a sense of shared meaning (Gephart et al., 2010).

This restored sense of shared meaning or future-oriented sensemaking as Gephart et al refer to it, comes about "through the construction of intersubjective meanings, images, and schemes in conversation and non-verbal behaviour, where these meanings and interpretations create or project images of future objects and phenomena" (2010:9). Sense receiving therefore, occurs during the construction of these intersubjective meanings in conversation, as it is the mechanism by which verbal and non-verbal feedback from others is received and internalized. Sense receiving therefore, acts as a repair practice between past sensemaking and future sensemaking.

As such, a novel contribution of this study is that it highlights the process through which future-oriented sensemaking may occur. In addition to this, sense receiving portrays the intersection of sensemaking and opportunity enactment as a dialogical process through which new products and new organizations are co-constructed by the entrepreneurial actor and relevant others. According to Emirbayer & Mische, agency “is always a dialogical process” by which actors “engage with others” to “imagine, negotiate, talk, and make commitments that invent the future” (1998: 973). In effect, the entrepreneurial process has been portrayed as involving agency, thereby, reiterating claims made in the extant literature.

8.3. Limitations

This study focused on mapping a series of events embedded in a cycle of cognition and action. Accordingly, operationalizing Weick’s approach/ the individual properties of sensemaking proved to be sufficient, novel and insightful in comparison to previous approaches; such as, structuration theory (Giddens, 1991), institutional entrepreneurship (DiMaggio, 1988), Dubin’s (1978) methodology for theory building (used by Ardichvili et al., 2003) or even a blending of sensemaking and institutional entrepreneurship. However, as with all research, this study was not without its limitations. The following sub-sections detail some of these limitations.

Analytical Limitation

As previously mentioned, this study focused on identifying and explaining the sensemaking and sensegiving processes experienced by early-stage entrepreneurial actors as they transitioned from idea to enterprise. During the analytical phase of this research, emphasis was placed on identifying and explaining the processes that were similar in all of the case studies and less

attention was given to accounting for the differences among cases. For example, in some of the cases, the entrepreneurial actors were engaged in forming an individual identity whereas in all of the cases, actors eventually formed an organizational identity. Preference was therefore, given to identifying and explaining the processes that led to the construction of an organizational identity.

Similarly, when analysing the exchanges in sensemaking that occurred over the course of each case participant's entrepreneurial journey, emphasis was placed on identifying and explaining the relevance of the processes at the point it occurred during the entrepreneurial process and less attention was given to understanding the relevance, if any, to patterns in the order and duration of the processes. While this may be a limitation of this study, essentially it was a trade-off between building a normative model of the sensemaking and sensegiving processes experienced during the entrepreneurial process, and accounting for differences among cases. The former option was chosen.

Theoretical Limitation

The Weickian sensemaking perspective was used in this study as the theoretical framework for exploring the entrepreneurial process. Weick's (1995) approach to sensemaking is criticised for its inability to account for issues of power and emotion (Helms Mills et al., 2010). The Weickian sensemaking perspective therefore, only goes so far in addressing how processes are interpreted and enacted.

In this study however, Weickian views on sensemaking were blended with the process of sensegiving (Gioia & Chittipeddi, 1991), because Weick et al (2005) later added language, talk and communication to his framework, stating that they were central to sensemaking such that an individual's environment and related events were essentially talked into existence. Maitlis (2005) also postulated that

sensemaking is inherently social and discursive. This is analogous to sensegiving as individuals do not only make sense of their situations but they also attempt to influence or shape the interpretations of others through the use of language, metaphors, narratives, gestures and other coercion tactics. Thus, as Maitlis & Lawrence (2007) surmised sensegiving is also a political process, involving the "role of power, complexity and distributed authority within the construction of enacted accounts" (McAdam & Marlow, 2011:452). Sensegiving therefore, addresses a sensemaking gap as it acknowledges the role of power. In effect, the issue of power was accounted for by looking at the sensegiving/persuasion tactics of the entrepreneurial actors.

In terms of accounting for emotion, previous research has been conducted on the role of emotion in shaping sensemaking processes (Maitlis, Vogus & Lawrence, 2013) and Weick (1995) himself acknowledged that "interruptions to sensemaking generate emotion" and "these emotions affect sensemaking because recall and retrospect are mood congruent" (p. 47, 49). This study focused on the cognitive and action processes inherent in the entrepreneurial process. An individual's cognition and behaviour are influenced by their emotional state (Baron, 2008). As a result, this study indirectly accounted for the role of emotion in the decision-making processes that resulted in entrepreneurial action.

On another note, there are several models of the entrepreneurial process in the extant literature (e.g. Bhawe, 1994; Shane & Venkataraman, 2000; Ardichvili et al., 2003; Lumpkin, Hills & Shrader, 2003). However, in this study, only one model was utilised as a starting point for the research. That is, beginning with an idea, followed by opportunity recognition, then opportunity evaluation and finally, opportunity exploitation. This conceptualization of the entrepreneurial process however, is in fact, a composite model that draws upon the thinking of Dimov (2007a) and Shane & Venkataraman (2000). In addition, this framework is well

established in the extant literature and captures elements of the other models that were not directly utilised.

Methodological Limitation

The study was limited by its methodological framework in that the case studies were drawn from a university incubator and the findings generated may only be generalizable within the context of university entrepreneurship. However, as mentioned throughout, a diverse sample of university students participated in this research. Some of these participants were mature students who previously held employment before returning to higher education. There was also a mix of participants pursuing undergraduate and postgraduate degrees that incorporated other fields of study beyond the typical science and engineering backgrounds. Judging by these case studies, university students should not be ignored when examining the impact of universities on the creation of new firms or more broadly, not overlooked as prospective entrepreneurs and conduits of entrepreneurial economic development.

Empirical Limitation

The findings in this study revealed novel concepts relating to the construction of an organizational identity such as referent identity labelling, identity projection and formalised identity. These concepts, though developed from using the concepts of sensemaking as an analytical frame, created gaps in our understanding of organizational identity formation that sensemaking on its own is unable to address and in the process, further questions arose that sensemaking alone cannot answer.

For example, this study explains how an organizational identity is initially formed, that is, through observing and mirroring existing identities in the environment (referent identity labelling) and is then tested or validated through interactions

with others (identity projection) and then becomes established among the other existing identities (formalised identity). This study however, does not explain how dominant assumptions privilege some identities over others in the first place that they become available for mirroring or how entrepreneurial actors create them as meaningful for themselves. For example, the case of Munchies Milkshake and the McDonald's identity. The purpose of research however, is to stimulate further thinking on a given topic. As such, questions about the social identities or personas that individuals see in the culture around them and which they may decide to emulate are encouraged.

Technical Limitation

Finally, the study was not without some technical limitations. While there are several qualitative software packages such as NVivo, as well as transcription services available to speed up the transcribing and coding of data, in this study none of these data management tools were utilised. Interviews were transcribed by one researcher and coding involved manual in vivo coding, descriptive coding, process coding and a range of other coding methods prescribed by Miles, Huberman & Saldana (2013). Although data analysis took three months and involved the construction of various timelines, graphical depictions and several revisions of data analysis tables, closeness with the data was achieved that may have otherwise not occurred. However, for future research projects, NVivo would ideally be incorporated into the study as a data bank, providing added transparency and portability. Additionally, transcription services may be utilised for transcribing interview data generated from second and third rounds of interview proceedings.

8.4. Future Research

The work of this thesis advances our understanding of the sensemaking and sensegiving processes experienced by early-stage entrepreneurial actors as they transition from idea to enterprise. This research provided new insights into identity dynamics in the entrepreneurial process as well as led to the introduction of a new sensemaking sensegiving related construct labelled sense receiving. As a result, in terms of potential future research avenues, three amongst many are noted:

First, this research was contextualised within a university setting. The theoretical model developed in this study (Chapter 6 and Chapter 7) can therefore, be used to examine and compare the entrepreneurial process of other entrepreneurial actors in different contexts. In so doing, future research could go beyond the scope of this study and investigate links between sensemaking and entrepreneurial performance/failure and/or the role of sensemaking in decisions to persist (or not) on the entrepreneurial journey. Alternatively, the individual theoretical constructs developed in the model such as, cues, identity and the resulting sensemaking exchanges could be explored in other settings where change is inherent.

Second, the theoretical model developed in this study depicted identity transitions occurring throughout the process from forming, to projecting and finally, to formalising (Chapter 6). However, this study only focused on the emergence of organizational identity. Future research could examine self-identity formation and its relation to organizational identity. Social identity and the interaction among individual/social and organizational identities could also be explored.

Chapter 8: Conclusions

The final suggestion for future research relates to the theoretical construct; sense receiving, which emerged from this study. Given that this theoretical construct emerged from research on entrepreneurial actors, it is suggested that future research could be directed at understanding how the processes of sense receiving are used by others. For example, leaders and/or managers in organizations charged with the implementation of new ideas or change initiatives and so contribute to literature on strategic management and organizational behaviour, where the concepts of sensemaking and sensegiving were originally applied.

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Appendices

Appendix I: Initial Interview Schedule

Background Information

Where are you from?

Where did you do your schooling?

What was your first degree?

What is your highest level of qualification?

Do you have prior business experience or entrepreneurial experience?

Does your family have business or entrepreneurial experience?

Are you in business alone or with others? If with others, how did you meet them?

Mapping the Thinking Process

Can you write in the form of a timeline the evolution of your present venture?

Was this the first venture? If not, include in the timeline all the events that eventually led up to the creation of this present venture.

Can you take me through the timeline? What led you to the first point?

Do you consider your venture to be novel? If yes, what is novel about it? If no, why not?

Mapping the Action Process

When did you join the Enterprise Lab? At what stage was the venture then?

Did you at any point have a business plan?

Did you partake in any seminars/workshops offered by the Lab?

Did you do research on the industry?

Did you do any marketing/promotional activities?

Did you network or form partnerships? If yes, with whom?

Did you meet with investors or seek financial advice?

Appendix II: Field Notes (Pilot Study)

Excerpt from Pilot Study #1

The Case of the Translation Business (PKB)

The translation service business was started by three friends: Ben, Paul and Kevin in 2007 in Aberdeen. "So three people who were involved in the initial start-up was myself, Paul and Kevin." It was Kevin who initially came up with the idea because he did translating and was an expert translator. Additionally, Kevin's girlfriend did translations and she was a student who knew of other people taking translation classes. According to one of the founders, the group believed that there was a gap in the market for translation services that they could meet. "Translations are very expensive and large publishers who work internationally need quick translations of things and they pay very large amounts of money to do so and so our idea was basically to get native speaking students, international students and you'd have an expert translator so someone who is trained and has the expertise has worked in the industry – Kevin – and Kevin would look after the various people."

Motivations for business start-up

The other two founders contributed to the start-up of PKB Translations in different ways based on their background. "My [Ben] background was studying for a business degree at the time and I was looking to find business for a start-up and interest in the market and understand the marketing side of it. Paul was our IT guy he had also previously set up a business which had done quite well he did in Bulgaria I do not know if you remember he used to buy houses and sell them as holiday homes over here did quite well for him and Kevin is the guy who initially came up with the idea and also did translating which was what the business was about."

Appendix III: Interview Transcripts (1st round)

11.22.12 Interview 1 DE5 Consulting (49:30)

Interviewer: So this is like an activity page

Interviewee: Okay

Interviewer: I'm giving people so they can draw their idea out but depending on how advanced the idea is you can choose which model is best for you

Interviewee: Okay

Interviewer: Yea or alternatively you can draw on the back for yourself

Interviewee: it is kinda of a just quick fix is that...there is a possibility because I'm studying entrepreneurship that one of the projects in the course of my degree will result in a new business venture which would change the course of what I do. I might still be able to continue the business I already started up because that's only one or two days a week and what I'd like to be able to do is actually have fingers in lots of pies. Um, I see myself as a bit of a facilitator for other people as well to start their businesses

Interviewer: Do you want to help other people start up as well?

Interviewee: Yea I'd like to do that and it might be that if I was able to do some research in entrepreneurship that'd be another way that I could provide that help. I'll go with the front one (activity page) because it is got more prompts. I like it yea and I need prompts because I'm 48 years old and my memory doesn't work like it used to when I was 18. My wife said to me are you mad... why do you want to go and do a PhD? You'll be retired by the time you're finished.

Interviewer: Oh gosh ...then you'll have your own business

Interviewee: I said yea... I do not need to work again now will I. So where do we start here

Interviewer: Anywhere you like maybe here so you can tell me about the

product but I think yours is a service because it is consultancy

Interviewee: Yea it is a service. There is definitely...I'll circle the stuff that is relevant yea so there is definitely technology involved from my experience and knowledge of being senior IT manager and having technical specialisms in advanced networking technologies. There's people... so this is the stuff about autistic spectrum and wanting to do something to help not only my son but people like him who really need opportunities for life and their life outcomes

Interviewer: In the business plan, you said you partnered up with someone else

Interviewee: Yea I wrote that back in June... May time and one of the guys who I mentioned there the web designer was it Martin Wilson he's actually got a full time job now so he's not doing a start-up. The original idea was that I work with start-ups and we support each other and he was going to do a web design business launch and I was going to use him for my website and recommend him to other people but that's not worked out I have done my own website in the end. Knowledge here is important... at the moment it is mainly my knowledge but I'd like to bring in knowledge from the other people I have worked with. Purpose is a good word because when I see purpose I think of what the ethical reasons for me starting up and this is almost a social enterprise for me whether it is registered as a community interest company in the future or not the ethics of what I want to do are more closely aligned with social enterprise model. The only reason I have not done it already as a community interest company is because they're very easy to start they're very difficult to stop

Interviewer: They're very?

Interviewee: Difficult to stop...It is easy to create a community interest company

but there's only two ways you can close it down. One is by winding up all the assets and giving them to a charity or being taken over by another charity. you cannot as a director of a community interest company wind up and take the assets yourself

Interviewer: And you cannot sell it to someone else...

Interviewee: No you can have a salary from a community interest company but I think the concept of in legal terms is one of a not for profit organization. Although you need to make a surplus to operate the only well the primary benefit apart from the philanthropic ones would be to draw a salary from it.

Interviewer: Philanthropic ones they still have to make a surplus too. Social enterprise people think they do not have to make a profit.

Interviewee: Well its bad business... you cannot run at a loss unless you've got that loss covered by grant funding. So next one I'm going to circle is place because DE5 is a post code and I have chosen that as the name of my business and I do not actually mention in the business plan DE5 is a post code but its assumed because I was working in Derbyshire that everyone understood that was why so in my career I have worked all over the world and I have spent more time than I'd care to remember commuting to the wrong end of the M1 motorway and I have reached that stage in life where I do not want to spend 3 hrs. a day sitting in a traffic jam. So DE5 is the middle part of Derbyshire and the aspiration of my business idea was to primarily serve the local community and businesses in that area. Benefits for me are less travel, people on my doorstep, more direct benefit to the community in which I live, putting something back instead of just treating the town where I live as a dormitory as a lot of people you know who are very successful do because there are no professional jobs in the immediate area. It is a former coal

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mining district coal mining start in 1970s 80s and there is still a lot unemployment even though it is not officially categorised as an area of significant economic deprivation. There are other areas in Derbyshire that are... so DE5 there is definitely a place link to the business and its aims ironically the first community project that I picked up was in central Bedfordshire.. is 85 miles away but that's just one of these thing... you know you just have to go where the work is

Interviewer: Or bring the work to you, which is what you've done

Interviewee: Yea...So I'm going to circle close or remote use too because it is kinda linked to the place. It is also important as I bring in the people to the business that it is close to them and accessible because one of the issues with autistic spectrum kids is that they cannot tolerate um

Interviewer: Noise is it

Interviewee: Long journeys, noise, any intense experience. They have sensitivities to light and sound and so on. So, about the furthest I can take my son is about 20min to half an hour on a car journey without having to tranquilize him first. So it is important... that was another reason for me to look to being locally based and I started door knocking on local business who might be interested in listening to my story and what I'm aiming to offer and do. I did some of that before and during the start-up... weeks and months.

Interviewee: Um... (Looking at activity page)

Interviewer: Yea some of them are a little...because if you're doing a product then I guess these others will apply like colour and all these things

Interviewee: Yea I mean I have ideas for products...yea....I'm just going around picking them out in order really. This digital – analog thing if you look at the...there's five points in the business plan there is process

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yea and then there's this network enabling thing. so the processes are the project management service

Interviewer: Is this the bid writing stuff and all these things...

Interviewee: Yea... well the bid writing more like for the digital-analog transition. There's project management procurement which is my offer to SME to take care of their IT contracts and renegotiations and getting better value for them. I have had a lot of experience in driving down costs for major businesses I have managed IT for and small business doesn't necessarily have the time or the skill and just goes with whatever they hear of which is not necessarily the best solution. you know for want of a better expression get ripped off by some of the suppliers and they end up paying more than they really need to. So it is about value I think. Project management is a module I'm doing on the MSc. I also in September just the week before I joined the full time course at Uni did Prince...Prince 2 I do not know if you have heard of that but it is a UK government methodology for project management developed by the OGC and in the UK and in a lot of other parts of the world where UK projects have been implemented Prince is the recognized methodology for project management. So I accredited myself as a Prince practitioner as well as the existing experience in being a project manager and managing projects.

Interviewer: What's OGC?

Interviewee: Office of Government and Commerce

Interviewer: Okay

Interviewee: Demand here (drawing on activity page) I'll mention the computer repairs because it is kinda of like tuck there back in the bottom of the last one of the five things that I offer and this is because I'm involving other people. initially it is just my son so he does the

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repairs and he's 16 now and so he will go along with me and under my supervision he'll do virus fixing, upgrades, new hard disks, memory expansion, slow running and so on and he's very adept at that because he's been off school for the last almost two years self-taught himself because of an interest in IT a lot of the things and I have given him old computers and bought him new parts that he then gets a lot of reward and self-teaching how these all work together and he's very interested in the high end so it is quite expensive business buying the latest graphics cards and solid state disks and so on.

But he's actually very good at advising people who want high end computing for gaming typically or 3-D work on how to spec a machine, how to put it together and so on. so there's a... it is kind of like on the lower end of what u can price for your service.....I'm working on a £25 an hour rate for that but he gets a salary when he does the job so it is good for the business because when I pay someone else it is knocked off the profit but it stays in the family if it is a member of my family that's doing that work. So he's happy doing that because it is developing him into someone who actually can see some purpose and value in life whereas he's seen no purpose and value in school and education. Yea and this was part of the reason why I started up business because if I'm working full time for a corporate employer there is no way I can involve my son or anyone like him in finding opportunities for him to develop. There is demand – I was always asked even when I was working full time to help friends and family and neighbours if they have a computer problem at home

Interviewer: Ahh

Interviewee: I'd be the one getting the phone call if the broad band's not

working.

Interviewer: can you come fix this please...

Interviewee: Can I come and fix your router and so on and I use to do it and you know all I ever got in return was boxes of chocolate and bottles of wine and I thought well actually you know I could charge for doing this I should I should do and I have since actually done some work on a paid basis for people who I use to do it for free and that's quite kind of nice because they know respecting that it is a business footing that we're working on and it is also helping... helping me get launched and so on

Um there is definitely opportunities...ahm; I'll come on to the problem. The opportunity at the moment is around broadband and it is not going to be something that makes me a lot of money if any money. Um, but there is this whole digital divide between the parts of the country that have got good broadband and those that can hardly get a service at all. You only have to go a couple of miles from where I live to be in a white area which is basically you cannot get anything more than dial-up or 3G on a mobile sim and so there's a huge amount of money being invested through government initiatives. There's two pots basically there's a local authority project in every local authority area in Derbyshire it is called Digital Derbyshire and in Nottinghamshire there's a similar programme and so on in every county. Derbyshire spending about 7.5 million of their own money and then there's a match contribution to make it about 15 million from the government to contribute to the cost of making broadband available and to 95% of the county and the percentages are the same goals in every area by 2015 and for the other 5% for them to get at least 2meg connectivity....and in order for them to do that what we'll be doing

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with this money is that we're going to tender and be inviting bids from commercial suppliers to enable areas that do not have broadband to get broadband.

So, I'm a community broadband champion for Derbyshire. It is a volunteer position. I serve the DE5 area as a broadband champion and if you go to the Derbyshire county council website and look at the broadband project and click on contact your champion the enquiries for my area come to me so I can go and speak to businesses, to private householders and so on about how they can go about getting support for broadband in their area. I can tell them what's available now, what technologies might be coming in the future and I can help them make representations for grant funding either through the council project or through the road broadband UK Initiative. There's another £20 million pot for community projects to bid for funding to put in broadband themselves rather than waiting for a commercial supplier

Interviewer: Why are they not going out to these areas?

Interviewee: It is because it is not commercially viable at the moment. If it is a vastly populated area where you got maybe 10 miles from the telephone exchange...once you're more than 2 km from the telephone exchange the broadband signal just peters out. We've got about 15% of Derbyshire...270,000 premises are in this category which is a lot of people... a lot of businesses and it means that because of the dependence on the internet these days businesses and people see the internet as a deciding factor on where they're going to live and work.

Interviewer: Yea

Interviewee: And where they're going to set themselves up and ultimately if rural

areas continue to have a lack of broadband then they'll be it will be like the industrial revolution all over again where people will have to move into the towns and cities to work if not live. So there is a strong interest there politically in what's going on, nationally as well as locally. I have spoken to the project managers in Nottinghamshire and Bedfordshire because the project I have picked up in Bedfordshire is actually for a cluster of businesses that are 1 mile from the M1 motorway but the only broadband they can get is through a mobile phone and they're 2 miles from Cranfield university who's got a 10 gig connection over fibre and I'm writing a feasibility study for them that shows the scale of investment that if they put together a corporate venture they'll be able to put in better broadband than BT would deliver even with the local authority support

I was expecting a call.....sorry about that.....I have ideas all the time. I can of like rather talk about ideas than problems although in entrepreneurship theory you start with the problem

Interviewer: I have realized everyone's saying they have a problem and this is they've come up with the solution

Interviewee: Yea but technology often comes the wrong way so it is I have got an

idea and I'm trying to find a problem that it fits and this is the classic criticism of IT that IT vendor will come up with a new, cool piece of tech and then they'll try to foist it on the market to find a problem for which that meets a requirement. It is interesting doing the entrepreneurship theory here on problem discovery and the obvious the ideal place to be as an entrepreneur is to know a problem and to have a solution for that problem and to be the first there. I mean I do not claim with my business to be in that coveted

space of being there with a unique solution to a problem that nobody else can solve. Um, but I do have ideas all the time.

I had a little idea even on a Sunday. I went abseiling for my son's birthday, he was thirteen and we went to up in Derbyshire into Miller's Dale it is very pretty part of the country and there's a big viaduct on an old railway line and you can abseiling off this bridge it is about 100 feet down into the river and I was hanging off this rope and I was thinking I wonder what happens to the old ropes when they're worn out and they cannot be used anymore and I got back up and asked the instructor say what do you do with the old ropes and he said ohh I have to bin them I said why and he said well if they've been used for about 3 or 4 months he takes groups of people out day in day out doing this abseiling they pick up metal, they pick up bits of grit and stone and so on and they have to be thrown away...and he said also if they get a fall and you get a primary shock on the rope even if it is only a day old you have to throw that rope away the whole thing and they're a £150 each these ropes I said what do you do with them I said I just bin them and then it occurred to me so why cannot I start up a little side line business making dog walking leads out of these old climbing ropes because climbing ropes are nice to feel you know they look good and even if they're a bit warn they're still good bits of material because I have got my dog and I needed to buy a new lead and I was like ohh it'd feel nice to have a climbing rope made into a dog lead

Interviewer: How did you think of that? Moving from climbing ropes to dog leads?

Interviewee: Mhmm...with having my dog and obviously use a dog lead every

day so um yea that's a nice idea. I do not know if there is any money in it but it is more of a like a product idea that came to me then for doing something because it would not cost that much to get the bits to fabricate dog leads and they're about £5 each and compare to cost must be less than £1 so you maybe you can go online with a type of B2C model where you sell direct with very little overhead and you can have the climbing dog brand or something like that

Interviewer: And Nottingham is quite a big dog community. People have their dogs in the parks... all over

Interviewee: Yea you never know some idea might pop up like that or through the MSc project in the course of the next few months that leads to another business idea and I'd quite like that. I think we've covered most of things. The last one I'll pick out for now if that's okay is language and I would say that I have been a hobby collector of languages during my life. so I like I can speak quite fluently in French, German. I have picked up spatterings of wherever I have gone to work so a bit of Chinese a bit of Polish and so on Spanish and that really gives me an interest in kind of if not travelling at the moment because I cannot because of my son but working internationally. at the moment it is not there in the business plan but what I have been able to do is influence the choice of client I'm working for so my anchor client which is based in Loughborough the work I'm doing for them is about international expansion and a technology sales transformation programme I'm also managing their analyst relation programme working with Gartner & Forrester to get them recognized on the vendor assessment and research that Gartner & Forrester do. So that is all international stuff so I have in the course of the consultancy that I'm doing

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Interviewer: Yes I was just thinking you have the consultancy and then you have this other service you're providing

Interviewee: I have this week had a conference call with Shanghai on Monday, one

yesterday with states and then tomorrow I have a conference call with Paris and this is all for one of my clients in the consultancy so because of the interest in language and me having worked internationally in the past it drives me to choose opportunities where I can still work international and actually it is a really nice place to be at the university because of so many international students. I'm really happy about that because I love meeting people from all around the world and hearing their story and looking at where they're going in life and what they're hoping to achieve.

Can I tell you about an idea that we're working on in class for a project? There's a group of students – five of us – there's a Bulgarian, a Malaysian, Chinese, Hungarian

Interviewer: Ohh no ... do you understand each other?

Interviewee: and me...yea...yea we understand each other as long as we're speaking English. I do not know much Bulgarian yet. And then they're all from different disciplines so cultural studies, sustainable energies, crop biotechnology, computer science and engineering...and the amazing thing is when we come together to look at a problem what we come up with is far broader and creative than would ever be the case if you were just a bunch of students from one discipline.

Interviewer: It is nice...everyone has a different perspective

Interviewee: Because you can say ohh I think I could inject something into a

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cow's stomach to stop it producing methane and the crop bio scientist would say no you cannot do that because it'll affect the meat and so on and so on. Anyway, it is good. The idea we have for a business which is a project we're working on right now is a you know have you heard of moneysupermarket.com

Interviewer: Mhmm

Interviewee: And you know how that works and the model... very successful and you've got other similar things like compare the market for insurance

Interviewer: Go compare

Interviewee: yea and so on and the concept we've got is universitysupermarket.com and what it is...is based on the experience of all these international students that I'm working with to produce a website that will provide at a fraction of a cost of an agent - an agent-like service for international students to choose the country and choice of institution that they wish to apply for. There's an opportunity because demand for higher education internationally is growing at a rate of about doubling every 4 years something like that. Students like the Chinese student in my group pay £2000 for an agent just to advise them and then they pay on top of that all the visa fees and the course fees and accommodation and so on and it is not possible at the moment to compare like with like very easily.

So comparing a course in Sweden to one in the UK you look the only place you can look is the institution website and they'll present it in a different way in every institution so it would not involve a lot of data manipulation and understanding and maybe a lot of work involved in people pulling this together. But where's the revenue in this. Well first of all you could offer a free basic service to any

student making an application but then offer a premium service to have an advisor provide the virtual agent and with us having this breadth of different international students in the project group we could recruit native speaking people from each country to work on behalf of the website to provide at a much lower cost base the agent service that exists today and also there's potential for the universities to then sponsor maybe features or advertising on their website.

Interviewer: Ohh nice

Interviewee: So that's another idea being looked at

Interviewer: how do you think an entrepreneur takes an idea and makes it into an opportunity? Do you have a process in your mind or do you is it a process that you follow...

Interviewee: Well I'm going to draw on the back now...so this is

Interviewer: Because I know you were saying with yours technology is not like you started with a problem it is like technology is there and then you sort of have to find it but do you have an idea of how..

Interviewee: Yea I do...I do...yea...I think this is my idea. There's two sources of ideas and this is the process of how it works. So imagination and reality are the two ingredients in my process. This is like the dreams of possibilities that the entrepreneur has and which is based on knowledge but it could include abstract concepts and so on and then there's reality which is experience, other people's research and so on and then both of those go into the entrepreneurial process which is opportunity recognition and exploitation and a lot of other things as well. There's then the cycle of the refining with these ideas and it goes two ways. first of all you critically review what you've done yourself based on your own ideas...I call this self-assessment and then you have people who

are more expert than you in different things so you might want to call those gatekeepers and you surround yourself by people who know about Bulgarian education systems or climbing ropes and dog leads or whatever it is and they give you feedback on whether your ideas are feasible and you also assess yourself as to sometimes you might have people telling you no that's not going to work you've not thought of this, you've not thought of that and so on if you only consider your external then you might just become disillusioned and stifled yea.... similarly if you only look at your own ideas

Interviewer: You could be on cloud nine...

Interviewee: You do not see the external perspective and then you suffer fixation. so the entrepreneurial process that I believe in it requires both. You have the ideas they come they draw on your own imagination and the way that they come together is in analogies so you understand as someone with experience in a particular domain how something works. You spot a problem in another discipline that maybe has a correlation to the principles of what you know in another area and then that's where you can by drawing analogies you come up with original, new ideas and that then takes you into the entrepreneurial process and this is something I have called the imagination theory of entrepreneurship. You can have that for free.

Interviewer: Free consultancy

Interviewee: I have written a paper on that as well

Interviewer: Really...nice. How do you view yourself in comparison to others in the world? Do you compare yourself to others?

Interviewee: Yea but I'm relaxed about who I am and just being myself now. I do not strive to be like anyone else I'm not motivated purely by money as long as I can take care of myself, my family...I'd rather just spending spend my time doing what makes me happy and

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what gives me a buzz working entrepreneurially surrounding myself by people who have excellence and passion for what they do and connecting them with good technology and innovation around the world.and somewhere in there there's a business strap line

Interviewer: Would you say you have a changing sense of self? Are you Richard the...MSc student

Interviewee: Yea I'm Richard III ...yea I have had an interesting life. I was a policeman for 10 years and I then when I was 26 went to Uni did my first degree I was a mature student already when I did my bachelors. I then I have worked in IT for over 20 years and worked my way up from technician to Chief Technology Officer and I'm very fortunate now I can work exactly almost exactly as I choose with whom I choose and it is a real privilege to be able to do that.

Interviewer: Yea that's very nice. If you had to look back over your entrepreneurial journey so far, can u name three things that you're proud of?

Interviewee: Well I started being an entrepreneur in the playground really. I was the kid making stuff at home bringing into school to sell.

Interviewer: Oh yes yes you were telling me about the poppies

Interviewee: I used to make bob see wood *** gliders and sell them for 50 pence and I knew my raw material cost was less than 10p so I'd make a nice bit of extra pocket money doing that...and then the poppies as well. I do not know you know what makes people become an entrepreneur at what stage in their life because I always said to myself every time I was working really hard for somebody else that if I was working this hard for myself I'd be making a lot more money and being a lot more successful but I guess it doesn't really matter what stage in life you... you know want to be your own boss. I think doing it when you've got a real

foundation of experience makes you more likely to be successful because you know the things that stop me becoming my own boss when I was younger was the fact that I'd got a mortgage, more dependencies you know if I did not get the salary every month then I did not know how things would work but I have come to a stage where there's both a pull and a push factor so the pull was actually wanting to do this...the push was actually having the opportunity to be made redundant and financially that gave me a package which released me from being in a place where I had to go and work 50/60 hours a week because I was contracted or required or expected to do that and so some interesting notes...

There was Isobel O'Neil did a session with us in creative problem-solving on what makes an entrepreneur start up you know what are the factors is it the family background, is it people around them is it the environment you know Boston, Massachusetts might be more conducive to doing a start-up than Boston, England and so on. But I think there is a lot more talk about entrepreneurs and the word is overused because of all the TV reality shows in the UK now I do like watching them but it is not quite the same as doing it for real...but it is a terms that's so wide... used to describe anything from what I'm doing I'm just self-employed doing a bit of consultancy to a Richard Branson type individual who's a serial entrepreneur and you know the head of multiple multinational businesses.

Interviewer: So how is your opportunity...you consider it an opportunity...the business that you have now. It is not just an idea?

Interviewee: No, I mean I'm making money and it is paying for my university experience. I could make a lot more money if I was doing it full time but it is also about work-life balance

Interviewer: And you're alright balancing the academics and the business

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Interviewee: I'm still working just as hard as I was when I was employed as a senior manager but it is I'm doing things that I'm enjoying and things that I'm choosing to do myself rather than stuff that I have got to do whether I want to or not.

Interviewer: Are you alright conveying your idea to others?

Interviewee: Ahh I hope so... yea...

Interviewer: Like do you feel confident that other people can see the opportunity you present to them when you tell them about your consultancy business and what you're trying to achieve... giving employment to people with ASD... you feel they can see the opportunity that you can see

Interviewee: Yea I have never worked as a salesman and I think that the skill of a

salesman and an entrepreneur are intrinsically similar because certainly when it is just you – you are the sales director, you're you know the chief exec you're everybody and you have to be able to say ohh at least yourself to be an entrepreneur. I got my anchor client in the first four weeks of start-up through networking and through explaining what I was hoping to do and just telling my story honestly about where I was and what I was hoping to offer and that happened quite naturally and since then to be honest because I'd also applied for the MSc I haven't gone out marketing because I do not have the capacity to take on another client of that scale... not until I finish study or it is work that I can pass on to people that I can employ and at the moment the consultancy I have to do myself. The repairs I can pass on to my son and I have got a friend who works as well in their area who's also self-employed. Yea but I'm very confident in the academic environment speaking about my ideas and persuading people... sometimes in

business I have experienced times when I have not been as successful as I'd have liked to have been in persuading other people about my ideas where I have not got the investment for the new project or come up with an idea that's not been adopted for whatever reason and that's one of the things that I hope that academic opportunities here will help me improve. Sadly, the projects where we have to generate a business idea and then pitch it you know they're directly correlate to those kind of scenarios that you really face in business

Interviewer: Okay thank you very much.

11.09.12 Interview 1 Max & Pier – Munchies (Excerpt)

Interviewer: This is a selection of models to help you convey your idea. Choose the one you relate to most and fill in the boxes as best as you can. If none of them apply, feel free to turn it over and draw from scratch. You will be recorded while you draw out your idea.

(Selected model 2 – six questions)

Interviewer: How does the idea relate to your personal goals? Do you sort of identify with this?

Max: yea and also as well ever since I was 17....18... I have always been into entrepreneurship stuff it is something I'm interested in because my family are all entrepreneurs

Max: maybe before because we realized there wasn't anyone in Nottingham providing a service like this and we thought right well that's a central opportunity

Pier: we thought well who's going to be the people to start something up like this in Nottingham and we thought we'll be the people because if it is not us someone else will just do it

Max: and then we then researched so we asked our family and friends ...spoke to people for you know...is the idea viable... and they were like yea makes sense... hasn't been done before...it is quite cool. Then we developed the brand so we got people to design the logos and then we figured out ways to make the brand better and what we're going to offer

Interviewer: How did you come up with Munchies?

Max: just get the munchies

Pier: it is good like M – McDonalds first letter is M and that is just a powerful logo just the M itself so we thought well when we design our logo we're going to make sure the M really is significant so on our logo there is a little chomp out of the M

Max: turn around and show Cherisse

Pier: This is all hoodies and T-shirts we've made

Interviewer: Ahh like you've eaten out of it

11.28.12 Interview 1 Neehoy (Excerpt)

Interviewer: So I'm looking at the process...the thinking and action process that you go through to take the idea to a business

Interviewee: Yea

Interviewer: And how you sort of realize when the idea becomes an opportunity and then you develop the opportunity

Interviewee: Yeaokay

Interviewer: So I have an activity page to help people conceptualize their idea

Interviewee: Right

Interviewer: Usually I ask them to pick which one they can relate to more. So there's this one where you can fill in about your idea or a basic one where you can plot who your targeting why and what your business is about and your idea can be in the middle, or some people prefer

this one because they say they're solving a problem or there's this canvas where you actually plot or they can just draw

Interviewee: We actually did that. We did a workshop recently and we used the canvas and what I could do is send you it. It is filled in. We started thinking about the idea about a year ago and it was just kind of conversation in a cafe on campus and we thought it would be best suited as a mobile app see even back even thought it should be a mobile app the ethos persisted but the way we practically approached it thought we need a web platform first applied to a couple of social enterprise funds....charities or non-profit there is clearly some mileage in approaching social funds rather than pure commerce so we applied for a couple one but we did not get very much feedback I think possibly because our ideas were still embryonic but I say primarily because of the amount of competition hundreds applying for the same funds so put it on the back burner after not getting that funding saw the advert for entrepreneurship maybe work better as a business could offer equity to people help design it as a business for social goodrevenue generation is dependent on the social good anyway so it did not seem like we compromised the values of the idea ..we try it ...fortunately we won.

12.05.12 Interview 1 The Pocket Square Company (Excerpt)

Interviewer: Okay so generally I ask people to draw their idea out but since you're more of a retrospective study you can draw the process you've taken to get your idea into a business

Interviewee: Okay so like from finding the problem that sort of thing

Interviewer: Yea if that's the way you did it. Usually these are prompts to help them map out their idea but you can start from scratch

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Interviewee: Let me just see what other people have been doing make sure I get it right do not want to give you some work and it is wrong

Interviewer: There's no right but it interesting that you started with a problem because a lot of people said their business is a solution for something

Interviewee: Yea

Interviewer: They saw a problem or a need

Interviewee: Well I think that's esp. at this university the way things are drilled into you

Interviewer: How does the idea relate to your personal goals?

Interviewee: To my personal goals. It is getting deep.....okay well I have always been a very motivated individual always wanted to set up a business so that's one thing I have always wanted to do and then an opportunity came round when I said I was at an event I was going to get a pocket square could not find one made one wore it and people really like it so at this event that I was at which I was going to anyway people really liked it so I thought I could start making them and people start buying them so really the actually business related to my own personality of being outgoing and like to dress really well so my key resource from having a good time and just putting my personality into the business esp. with this fashion being on trend and then obviously being really committed towards it being successful because I really cannot stand failure I understand failure occurs but I'll do my damnnest not to. So that's the one thing my parents say I never stop in the sense sometimes it is a bad thing I did not have a break with anything so even with this I'm doing course work doing this while doing exams while going to London doing meetings yea I may have to bunk a few

lectures to go get supplies so after this I'll be doing my work till 2 3 o'clock in the morning

11.07.12 Interview 1 eBook (Excerpt)

Interviewer: This is a selection of models to help you convey your idea. Choose the one you relate to most and fill in the boxes as best as you can. If none of them apply, feel free to turn it over and draw from scratch. You will be recorded while you draw out your idea.

(Selected model 3 – problem)

Interviewee: Well the idea for my business begins with a problem because all businesses are out there to make money but you cannot make money if you do not solve somebody else's problem. So the problem I'm trying to solve is that of basically people trying to lose weight which is quite a common problem especially in the western world today. People are trying to lose weight but they are not sure how best to do it permanently or fit it around their lifestyle.

Interviewer: Hmm

They also need to do so healthily and permanently. (Writing on activity pages given). Do you want me to write something or draw it...or

Interviewer: No, no, no yea....You can write or draw... if you feel you need to draw you can turn it around on the back and draw something.

Interviewee: Well what's causing this is obviously stuff like lack of exercise or perhaps eating the wrong things and also lack of information. So what my business is trying to do is basically bring the information to people and let them help out each other.

Appendix IV: Interview Schedule (2nd round)

Change/Progress

What happened since last we spoke?

What new developments since last interview?

Were there any changes to the business model?

Have your customers started purchasing?

Have you started selling your product?

Has this process changed you in any way?

Mapping the journey/experience

Could you take me back to the idea formation process – step by step?

Critical Moments/Milestones

Were there any critical moments?

What do you think helped form the venture?

Planning

Did you have a business plan?

Do you currently have a business plan?

Appendix V: Interview Transcripts (2nd round)

Interview 2 Neehoy (Excerpt) 30 July 2013

Interviewer: What's been happening with Neehoy. Have you guys changed anything developed anything new done user testing because that's where you were at the last stage

Interviewee: Yea...but I cannot remember how long ago it was that I spoke to you

Interviewer: I think I interviewed you somewhere btw Jan and April

Interviewee: Our aim was to release the public facing version of the application as soon as possible I suspect when I was speaking to you in April I was saying that we would be releasing it in May and it took us a long time to familiarize our self with the way you submit applications to the apple app store and its quite a slow process you need to go through a review it is fundamentally different from android but we think it is essential that we are on both platforms

Interviewer: So you've done the android platform

Interviewee: We've developed the app I can show you in my pocket on the iPhone now in fact let me get it out so you can have a look at it so you can see it is

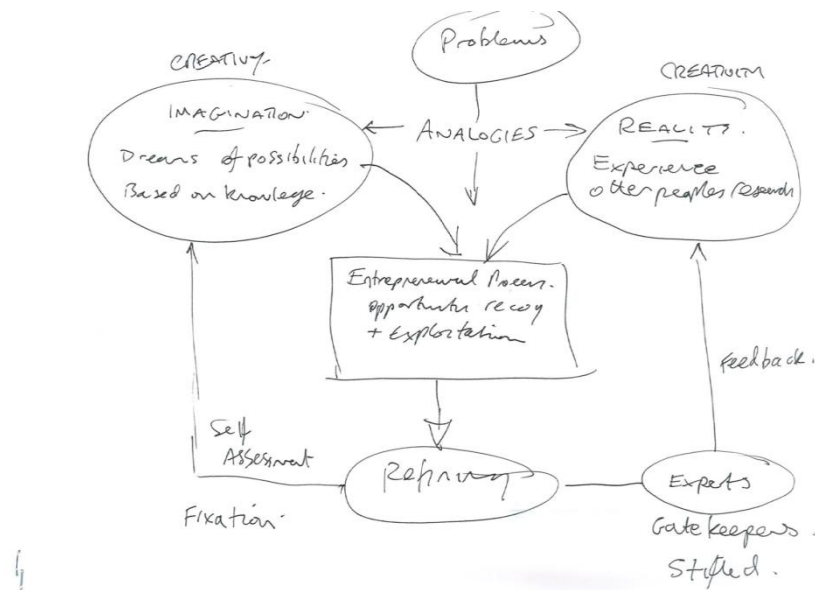
Interviewer: Operational, up and running

Interviewee: Yea you see it is technically up and running but we haven't publicised the fact

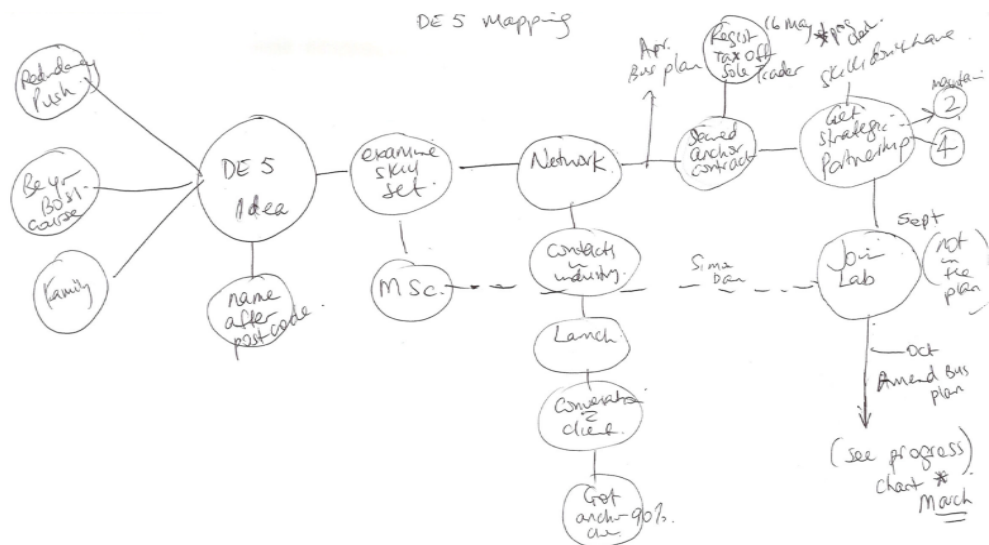
Interviewer: Why

Interviewee: Because I was speaking to the local council because they are in a brilliant position to release an app that encourages people to recycle

Appendix VI: Imagery/Mapping of Accounts

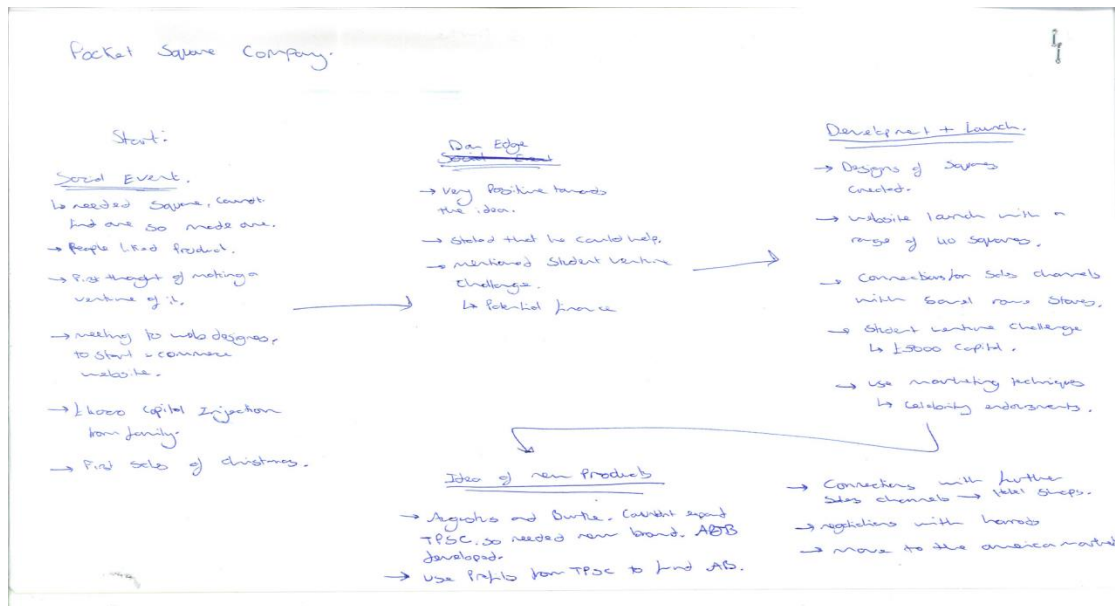


DE5 before the process of opportunity enactment

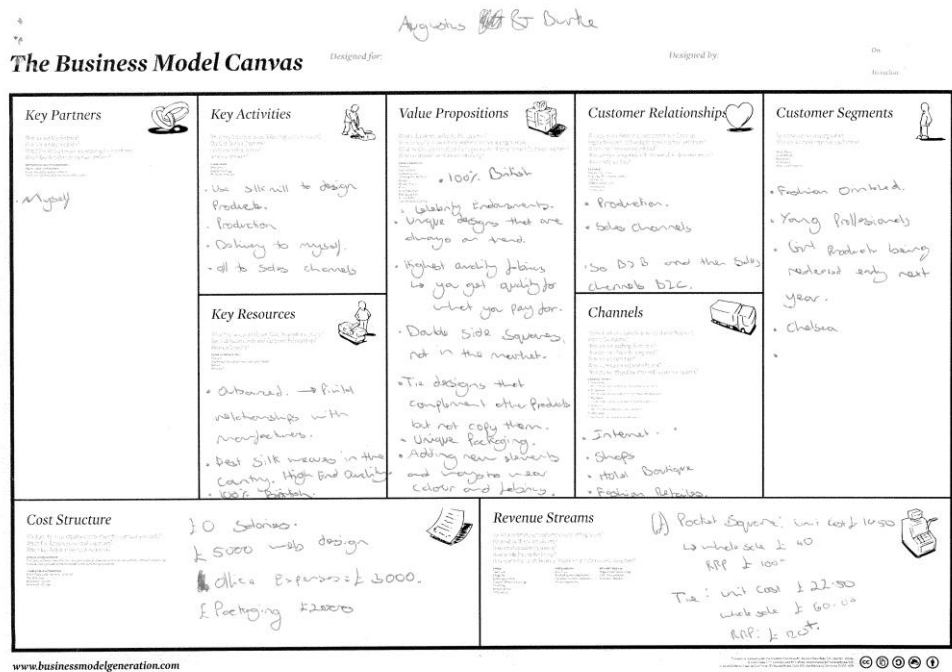


DE5 after the process of opportunity enactment

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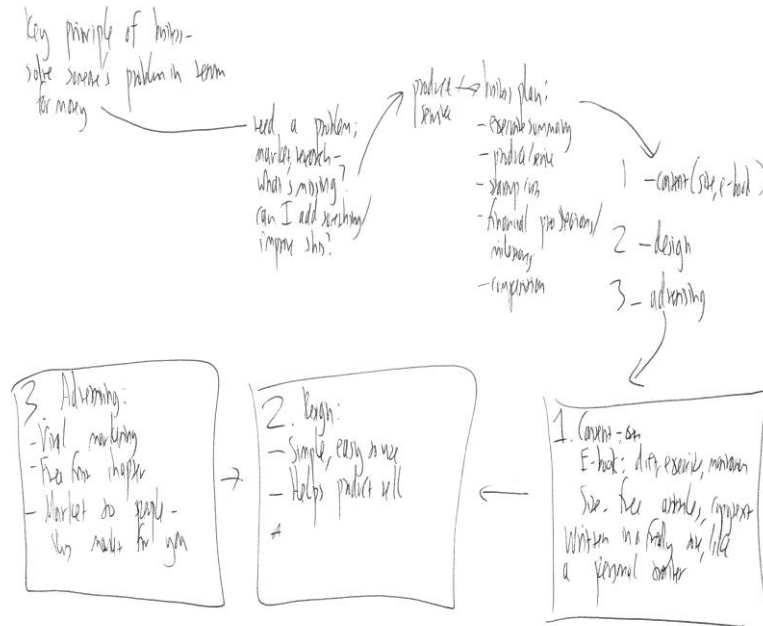


TPSC during the process of opportunity enactment

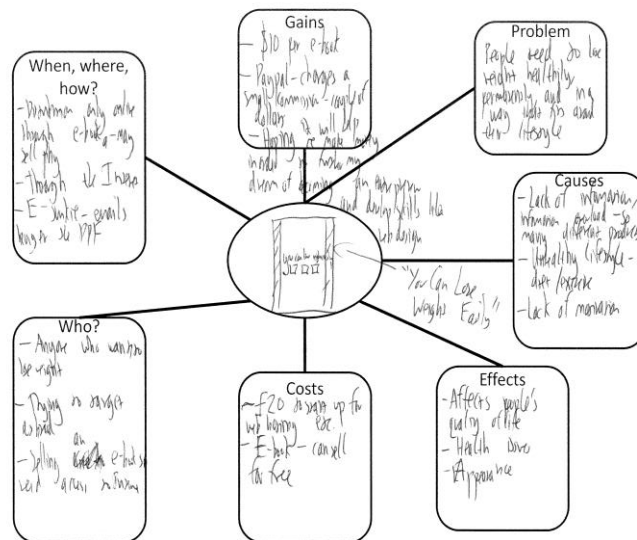


TPSC after the process of opportunity enactment

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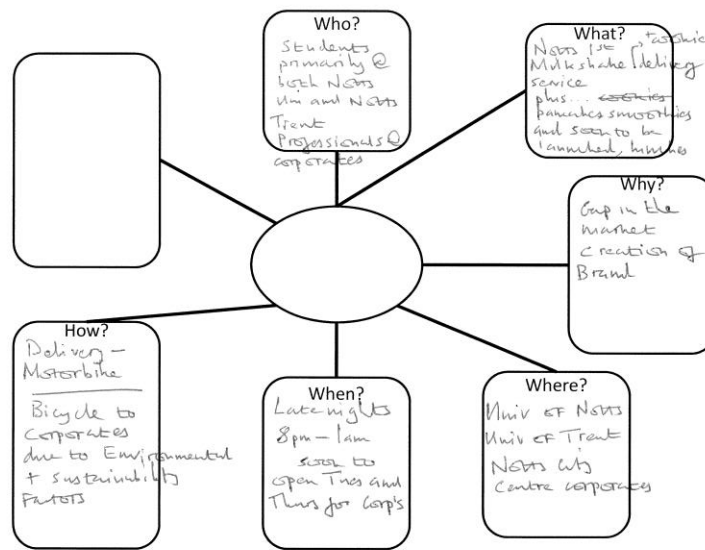


eBook before the process of opportunity enactment

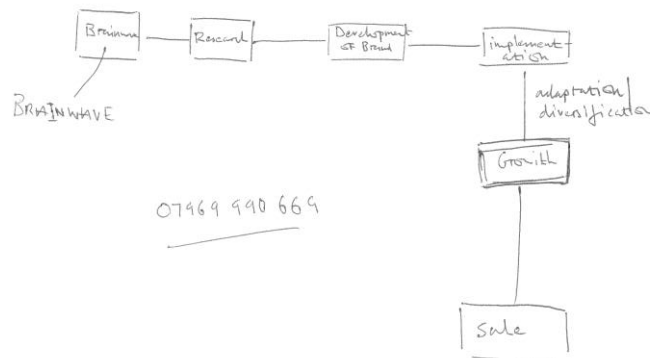


eBook during the process of opportunity enactment

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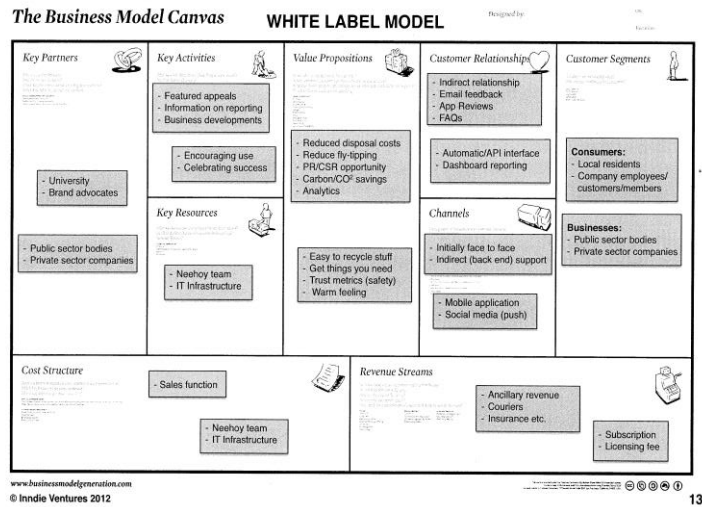


MM during the process of opportunity enactment

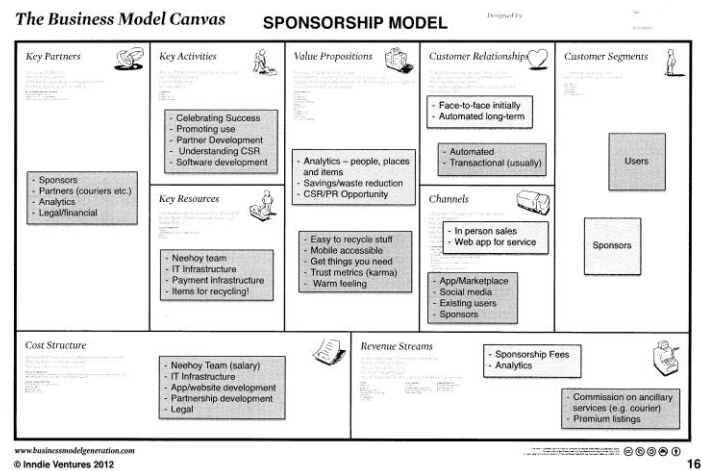


MM after the process of opportunity enactment

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Neehoy before the process of opportunity enactment



Neehoy after the process of opportunity enactment

Appendix VII: Cross-Case Analysis (Thematic Analysis)

Cross Case Analysis: Identifying patterns and themes III

	First-order codes	Second-order codes	Emergent Themes (sensemaking perspective)
"what's causing this is obviously stuff like lack of exercise or perhaps eating the wrong things and also lack of information" (eBook)	Causes	Causal explanation	Establishing Causation
"people will not buy it because one it is tatty and two they fold in the pocket they just slump and look lifeless" (TPSC)	Reasons not to purchase	Cause of the problem	
"there is this whole digital divide between parts of the country that have got good broadband and those that can hardly get a service at all" (DE5)	Digital divide	Cause of the problem	
"None of the services are available on mobile none of them really tap into the kind of wealth of social information you carry around with you on your mobile phone" (Neehoy)	Unavailability	Categorising the problem	
"You get lots of deliveries of pizza, Chinese food and Indian food. There is not really a healthy product that is delivered at the moment to your door or office premises" (Munchies)	Wide selection (or lack)	Noticing perceived competitors	Appraising Existing Solutions
"If you go online with all the different products one thing says do this other says do that. There is either a lack of information or inconsistency of information" (eBook)	Different existing products	Noticing problems with competitor products	
"there is a huge amount of money being invested through government initiatives" (DE5)	Government investment	Noticing actions of perceived stakeholders	

Appendix VIII: Data on Excluded Cases

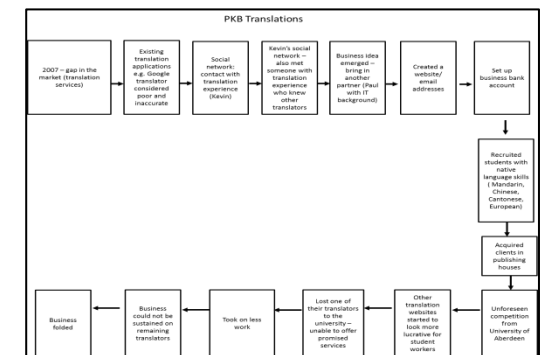
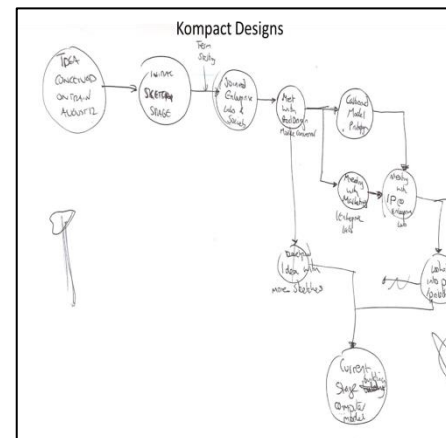
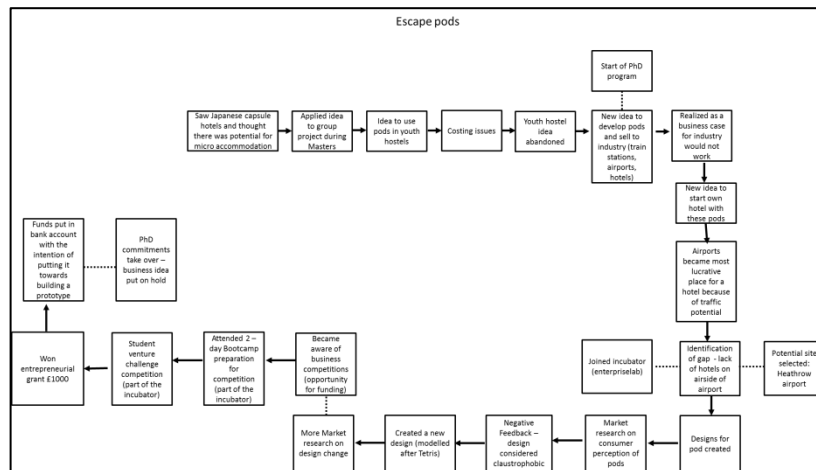
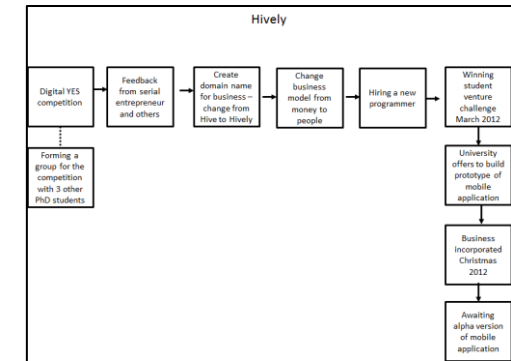
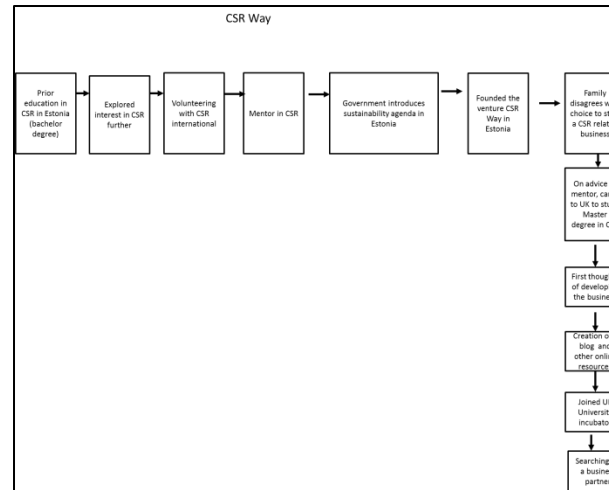
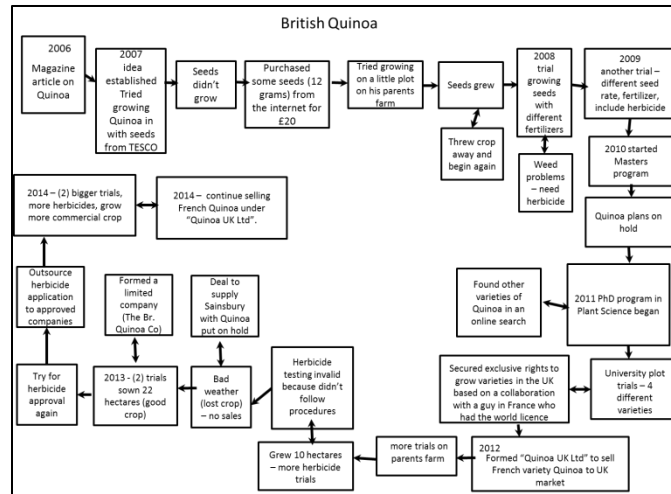
<i>Company</i>	<i>Sector</i>	<i>Business Description</i>	<i>Stage of Development</i>	<i>Reason for Exclusion</i>
1. PKB Translations	Services sector	"translation services for English, Mandarin, Spanish and Cantonese"	Exit (business failed)	Pilot Study
2. Hively	Technology sector	"location-based sharing application for android phones"	Start-up stage	Selected Neehoy instead
3. CSR Way	Consulting & Advisory	"corporate social responsibility advisory services to small and medium sized enterprises"	Start-up stage	Business is in Estonia (native country)
4. Kompact Designs	Manufacturing Industry	" a folding, ergonomic chair"	Seed to start-up stage	Very early-stage
5. Escape pods	Airline Industry	" micro-accommodation on the airside of airports modelled after Japanese capsule hotels"	Seed to start-up stage	Could not continue with idea because of a lack of financial resources – dropped out of study
6. HD Magazine	Services sector	Magazine for young adults modelled after "Ted Talks"	Seed stage	Pilot Study
7. British Quinoa	Food & Beverage Industry	"British manufacturer and supplier of Quinoa"	Development stage	Entered the project late. Selected because won the student venture challenge the year following the start of the data collection.

Data Gathering (Excluded Cases)

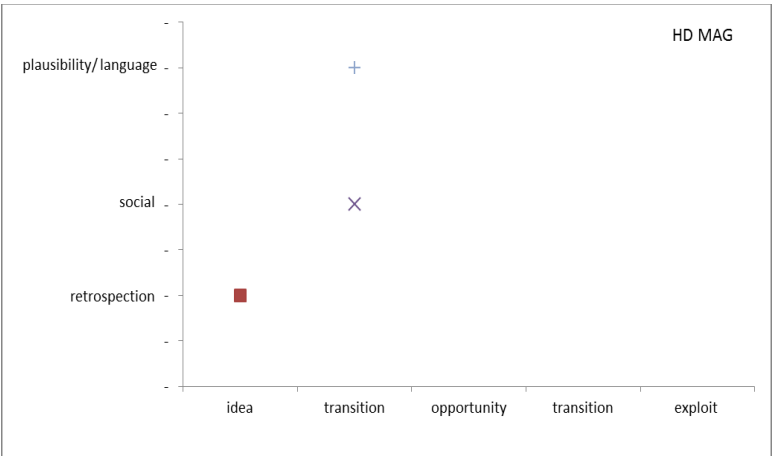
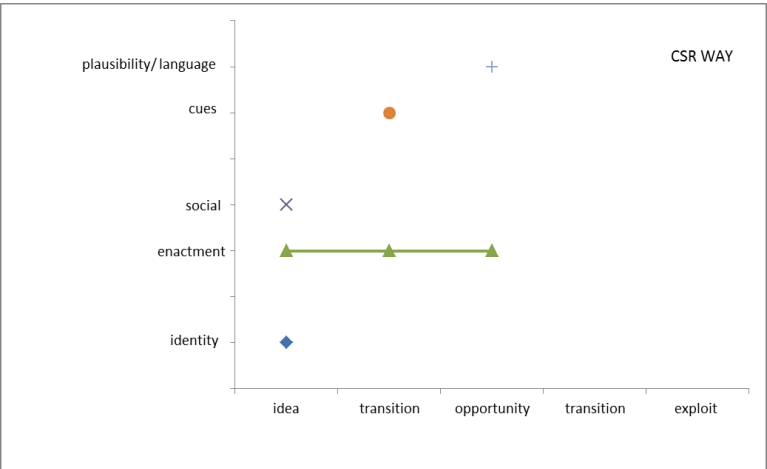
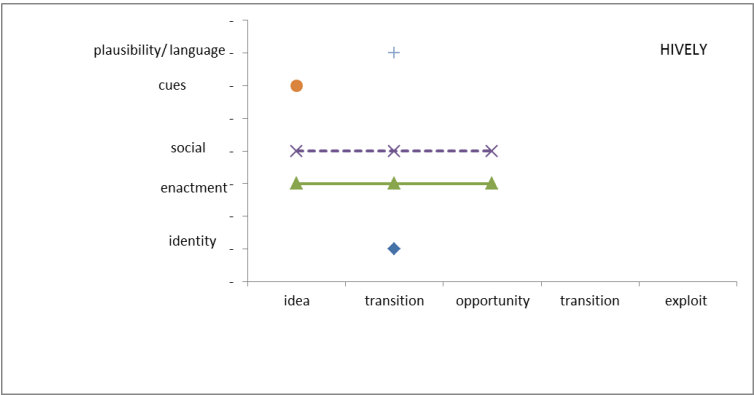
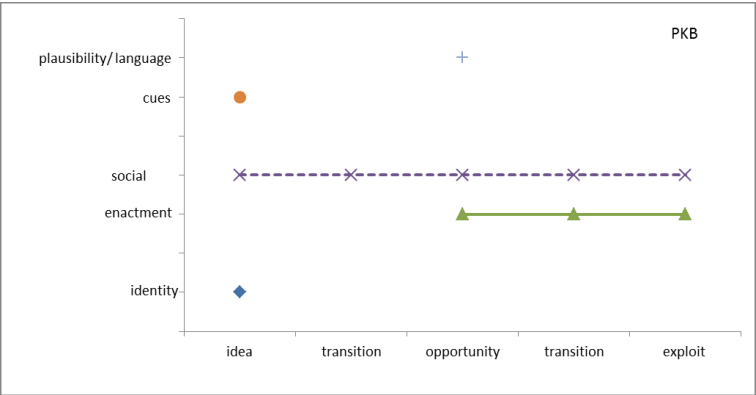
Company	Interviews		Interview Total	Direct Observations ⁸		Imagery(I) and Archival Documents(AD)	
	Founder Interviews	Interviews with others		Number	Examples	Number	Examples
PKB Translations	1	n.a	1	n.a.	n.a.	1	mapping of accounts
Hively	2	n.a	2	3	business bootcamp, student venture challenge, digital YES competition	1. 1.	mapping of accounts, press release
CSR Way	1	n.a	1	1	enterprise lab showcase	1.	mapping of accounts
Kompact Designs	1	n.a	1	4	business bootcamp, student venture challenge, enterprise lab showcase, ideas/ opp.-rec workshop	1.	mapping of accounts
Escape pods	1	n.a	1	n.a.	n.a.	1. 1.	mapping of accounts press release
HD Magazine	1	n.a	1	1	coffee morning networking	1.	mapping of accounts
British Quinoa	2	n.a	2	2	business bootcamp, SV challenge	1. 2. 2 1	mapping of accounts press release business plan presentation slides

⁸ ** Total number of hours of observation calculated as follows: (10 hours – Bootcamp; 7 hours – Student venture challenge; 3 hours – digital YES; 2 hours – goal setting workshop; 2 hours – enterprise lab showcase; 7 hours – ideas workshop; 2 hours – coffee morning). This does not include time spent in Enterprise Lab. Regular visits to the university incubator were made in the first three months of data collection. (5 hours/3x p/w/6 weeks Oct-Dec) = 90 hours. Total hours of observation = 123 hours.

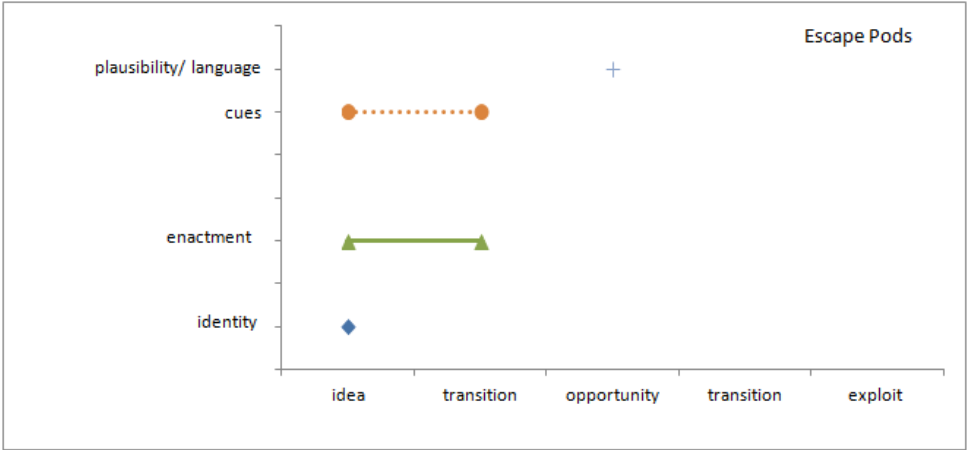
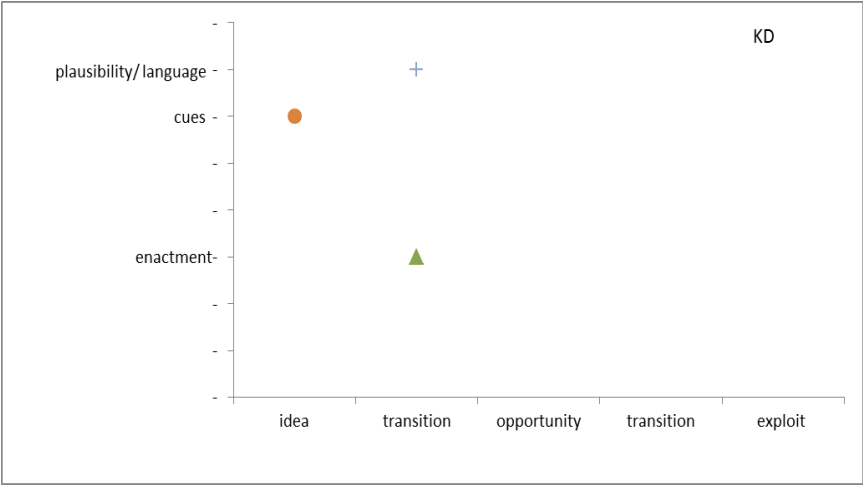
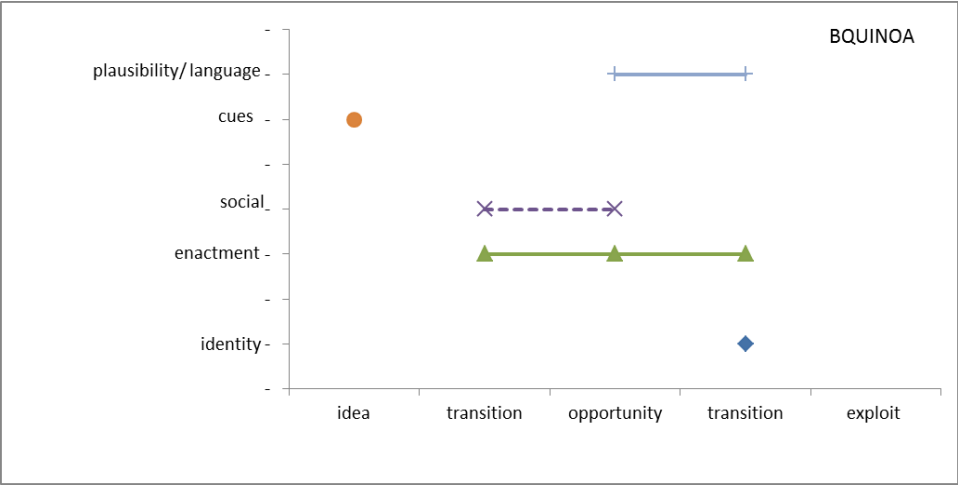
Timelines (Excluded Cases)



Sensemaking Exchanges (Excluded Cases)



Sensemaking Exchanges Continued (Excluded Cases)





Appendix IX: Participant Information Sheet

Information for Research Participants

Thank you for agreeing to participate in the research project. Your participation in this research is voluntary, and you may change your mind about being involved in the research at any time, and without giving a reason. However data gathered up until the point of withdrawal will still be used in the study.

This information sheet is designed to give you full details of the research project, its goals, the research team, the research funder, and what you will be asked to do as part of the research. If you have any questions that are not answered by this information sheet, please ask.

What is the research project called?

A Sensemaking Approach to the emergence and development of entrepreneurial opportunities

Who is carrying out the research?

Student research – PhD Business and Management (Entrepreneurship Division)

What is the research about?

The objective of the research is to map out the opportunity development process using a novel lens (sensemaking theory) that addresses the cognitive and action processes of entrepreneurs who attempt to transform their entrepreneurial ideas into entrepreneurial opportunities. The fundamental questions to be answered are: how and when entrepreneurial ideas become entrepreneurial opportunities? This involves understanding and explaining the process by which entrepreneurs make their ideas actionable.

What groups of people have been asked to take part, and why?

Students and graduates of the University of Nottingham who have access to and are members of the Enterprise Lab in the Sir Colin Campbell Building. This group was chosen because they represent a cohort of nascent entrepreneurs and are based in a lab that is designed as a germinator to help develop ideas into business concepts and ultimately ventures.

What will research participants be asked to do?

Participants will be asked to visually represent their ideas/ stage of their venture at different points in time over the academic year. Also participate in interviews, share video footage of themselves explaining their ideas/ their entrepreneurial journey as well as allow the researcher to observe them on a day-to-day basis at the Enterprise Lab and at scheduled events such as Idea Generation Day, Business Bootcamp etc.

What will happen to the information I provide?

Individual research participants will be anonymised if participants do not want the name of the venture idea or company name to be revealed. Otherwise research participants will be identifiable by the title of their business venture idea or company name. However, because it is student businesses/nascent ventures and the title of the venture idea or company name is likely to change over time, participants may be anonymised according to industry e.g. Retail Co. 1, Manufacturing Co. 2, etc. Interview data will be stored on the recorder and office and home pcs and only the researcher will have access to these. All information provided through the different research methods will be used to construct both individual and group case studies.

What will be the outputs of the research?

This is a student research so main output will be doctoral thesis. But it is the hope that information provided will assist in the output of peer reviewed publications and conference papers.

Contact details

Researcher: [Cherisse Hoyte, 07721 941 374, lixch@nottingham.ac.uk , NG7 2QX]

[Dr. Hannah Noke: Hannah.noke@nottingham.ac.uk]

[Professor Simon Mosey: simon.mosey@nottingham.ac.uk]

Complaint procedure

If you wish to complain about the way in which the research is being conducted or have any concerns about the research then in the first instance please contact the [Principal Investigator or supervisor].

Or contact the School's Research Ethics Officer:

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Nottingham University Business School
Jubilee Campus
Nottingham NG8 1BB
Phone: 0115 846 6604
Email: adam.golberg@nottingham.ac.uk