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# **Growing innovative ventures – An investigation of individual-opportunity nexuses**

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## **Abstract**

The importance of new ventures based on innovative products for economic prosperity has been frequently highlighted. However, the processes through which entrepreneurs create value on the market level using new ideas are not well understood. The objective of this thesis is to contribute towards the understanding of these processes. It starts out by providing a conceptualisation of the individual-opportunity nexus rooted in the entrepreneurship and the economic sociology literature. Against the backdrop of this literature, this thesis provides answers to questions as to how and why some individuals start innovative ventures; how these ventures are legitimised in a market; and how they are sustained given emerging rivalry.

To study these questions, four types of opportunities for creating innovative ventures were distinguished. Using this distinction, seventeen cases were selected based on publically available information. Data collection involved twenty-two face-to-face interviews which were complemented using secondary data. The resulting case data base was then explored for cross-case patterns within and across the four types of opportunities. These comparisons were used to develop new theory about innovative ventures.

The empirical results of this study show the existence of four individual-opportunity nexuses. These nexuses are not only relevant to how entrepreneurs become and stay involved in innovative ventures, but also to the challenges these ventures face. The study shows that there are distinct differences between the prior knowledge and the motivation of individuals pursuing a particular type of opportunity. Moreover, the type of opportunity pursued determines the challenges faced in legitimising innovative ventures. Whilst some entrepreneurs do not face major challenges in legitimising ventures or products, others have difficulties establishing their venture and/or their products as new economic entities. Finally, the study also shows differences regarding the intensity and the effects of emerging competition in the market of the innovative venture. Faced with these different environments, entrepreneurs need to aim at achieving fit between opportunity and strategy. Overall, this thesis contributes to the individual-opportunity nexus perspective of entrepreneurship and provides practical recommendations to individuals pursuing innovative ventures.

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# CHAPTER 1: INTRODUCTION

## 1.1 Opening comments

Drivers of economic growth and prosperity have frequently been a source of debate. In particular, entrepreneurs, who create value from new ideas, have been identified as a major driving force behind economic growth by providing new products and services, increasing market competition, or by creating employment (Baumol, Litan, & Schramm, 2007; Sheshinski, Storm, & Baumol, 2006). However, empirical accounts of the processes leading to entrepreneurial value creation through new business ideas remain rare (Bygrave, 2007).

The work of Schumpeter (1939) provides a starting point to shed light on this issue. For Schumpeter, entrepreneurs create value through innovation, and value creation through innovation drives economic progress by making predominant practices obsolete. Aldrich and Martinez (2001) agree with Schumpeter on the function of innovative entrepreneurship in the market economy. Whilst acknowledging that most entrepreneurs start as reproducers using existing business ideas, the authors argue that those who become innovators play a major role in driving economic progress by solving existing problems in a new way or by addressing new problems. In doing so, innovators face distinct challenges as they need to legitimise innovation in the marketplace (Aldrich & Fiol, 1994). To date, relatively little is known, as a whole, about these entrepreneurs as innovating individuals, their challenges and how they are overcome (Baumol, 2003; Bygrave, 2007; Kirzner, 1999).

Baumol (2010) reinforces the importance of studying innovative entrepreneurship for understanding economic growth. He investigates the role of innovators and sets out to compile existing evidence to provide the basis for a “microtheory of innovative entrepreneurship” aiming to better understand its value creation capacity from an economics perspective. This thesis aims to extend our understanding of innovative entrepreneurship by combining current thinking in entrepreneurship with an economic sociology perspective. Combining these perspectives makes this thesis more sociologically-orientated, focusing on how entrepreneurs enact the emerging environments they are embedded in.

Entrepreneurship literature encourages researchers to focus on the nexus between individuals and market opportunities to better understand the interplay between entrepreneurs and environments. In particular, this thesis focuses on individual-opportunity nexuses leading to innovative venture creation. To explain the nuances between the processes leading to

business formation, on the one hand, and the challenges encountered and the strategies chosen in building innovative ventures, on the other hand, four types of nexuses based on the type of opportunity to innovate are identified. These nexuses describe four distinct roads of innovative venture creation. Understanding these roads not only gives important insights into innovative entrepreneurship, but it also provides a basis to support innovative venture creation.

This introductory chapter is organised as follows. It will start with a brief introduction of the New Zealand context. The research issue and the methods used will then be introduced, after which the practical orientation of this research as well as the areas of contribution will be outlined. The chapter concludes with a brief outline of the structure of this thesis.

## **1.2 The research issue**

In its investigation of innovative ventures, this thesis combines two streams of literature, namely entrepreneurship, and that the sociology of markets, a combination justified by looking at recent developments in both fields. As we will see, these developments assist in understanding how entrepreneurs establish innovative ventures in the marketplace, but at the same time, leave many questions unaddressed. The entrepreneurship literature has started to embrace the individual-opportunity nexus since it provides a broad conceptual framework encompassing a large number of approaches to the study of entrepreneurship. Despite its appeal, however, the individual-opportunity nexus has its shortcomings. Most importantly, it lacks clear conceptualisation. On the one hand, work on the individual entrepreneur has already provided some insights into why some individuals discover or create opportunities, while others do not. On the other hand, the concept of opportunity has remained very elusive and ill-defined (Dimov, 2011). To make matters even more problematic, opportunities are often assumed as given, and only very few attempts have been made to describe their origins.

The specification of the research problem has to encompass how the nexus between individuals and opportunities to create innovative ventures should be studied from a process perspective. This specification has two components, namely (a) the boundary conditions and (b) the content of the process. Regarding the boundary conditions, this thesis focuses on entrepreneurial projects which provide the temporal and conceptual boundaries to the process of innovative venture creation from the perspective of the entrepreneur. The content of the

process, on the other hand, derives from combining the entrepreneurship with the sociology of markets literature.

This thesis follows the Bygrave-Moore model (Bygrave, 1989) to conceptualise the stages of the entrepreneurial process. Bygrave argues that the entrepreneurial process has four important stages; those of innovation, the triggering event, implantation, and growth. However, these stages are very broad, and need clarification. To further conceptualise this process, this thesis uses Davidsson's (1991) ability-motivation-opportunity framework to uncover the individual human capital, motivation, and perceived opportunity of entrepreneurs to investigate the subjective element of the entrepreneurial process.

The second development in entrepreneurship literature related to the research problem derives from a lack of conceptualisation of 'opportunity'. As already pointed out, opportunity is mostly assumed as a given precondition of entrepreneurship and does not arise from the interaction between individual and environment. If the environment of entrepreneurial activity is explicitly researched, this usually happens on a national or network level rather than on the level of opportunity. Sociology-inspired work in the field of entrepreneurship, for instance, often investigates the network environment of the entrepreneur that facilitates opportunity recognition or exploitation (Hoang & Antoncic, 2003). Similarly, Sarasvathy's (2001a) effectuation theory emphasises the importance of committed business partners in the entrepreneurial process. These lines of research share a focus on the enabling effects of environment and on the factors facilitating opportunity recognition, exploitation, or creation. However, the major challenges or events in the process of establishing a new, innovative venture often remain unaddressed.

This leads to the second stream of literature used in this thesis, the sociology of markets, which focuses on how market exchange is organised. Specifically, it investigates the framework and social interaction that facilitate the evaluation and exchange of artefacts such as products or company shares. Building on the work of Max Weber on the market, this thesis argues that the entrepreneurial venture faces two major problems in becoming established in a market; those of legitimacy and of competition. The problem of legitimacy involves the issue of what can be brought to a market (products, services, etc.) and by whom (individuals, businesses, etc.). The problem of competition, on the other hand, involves questions of legitimate alternatives in the same market. Beckert (2009) has recently pointed out that these two problems are central to the questions raised in the sociology of markets. In embracing

these two problems, this thesis provides conceptualisation of opportunity that has the potential to resolve the question of how innovative ventures are established in the marketplace.

Figure 1.1 provides an overview of the theoretical perspectives that guide the research. On the left-hand side, it shows the focus on innovative ventures derived from Schumpeter (1939), Baumol (2003), and Bygrave (2007). Researching these ventures requires a number of decisions. First, the individual-opportunity nexus (Eckhardt & Shane, 2010) encourages researchers to investigate both the subjective phenomena of venturing individuals and the more objective phenomena of opportunity that makes these efforts worthwhile. Both of these phenomena need to be conceptualised. In other words, the individual-opportunity nexus requires a decision about what should be studied under the terms ‘individual’ and ‘opportunity’. Second, Low and Macmillan (1988) pointed out that researchers need to make a decision about how they intend to study the phenomena of entrepreneurship. Here, the Bygrave-Moore model (Bygrave, 1989) represents a suitable starting point.

**Figure 1.1: Overview of the research issue**

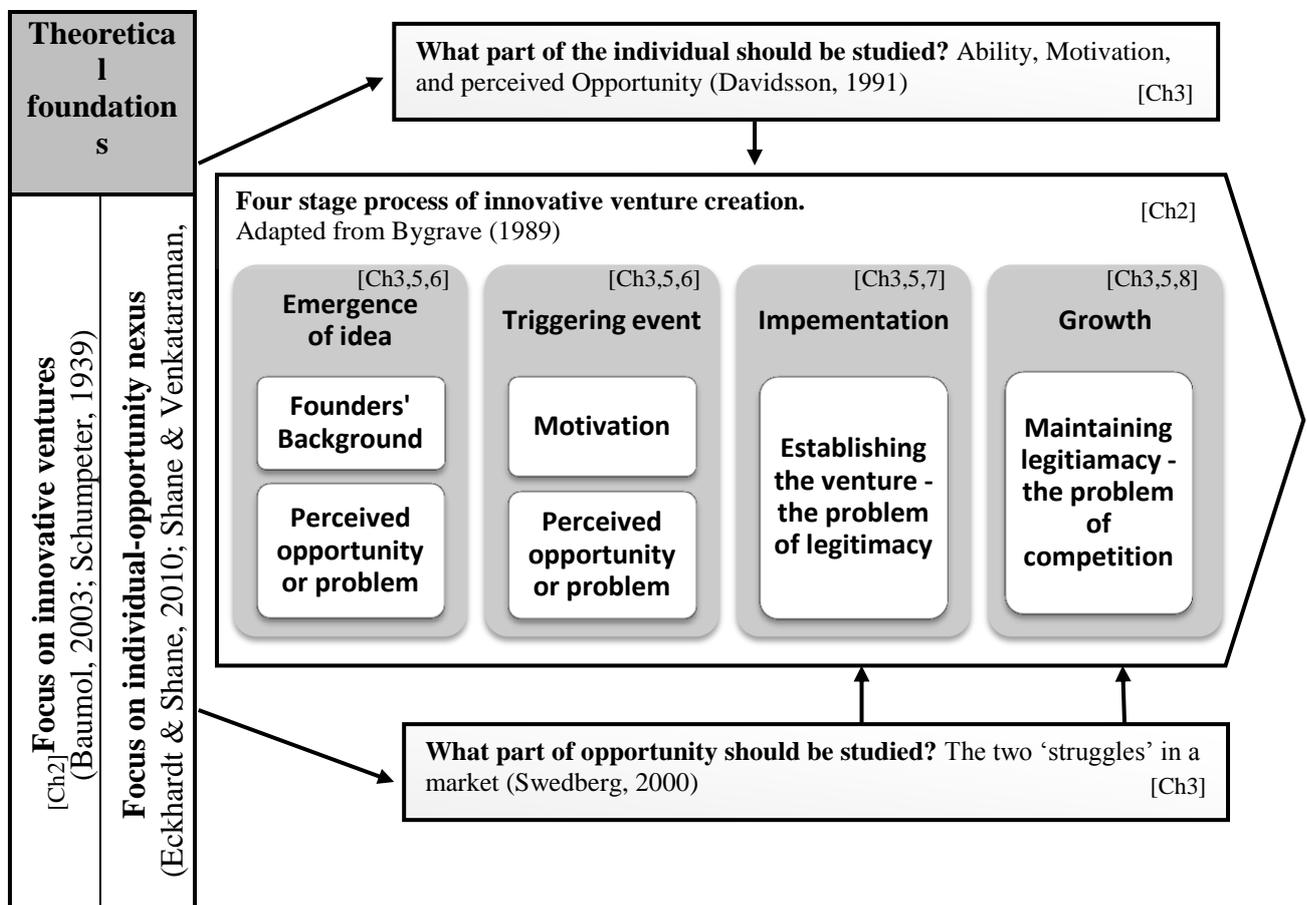


Figure 1.1 also indicates the primary function of the different streams of literature for this thesis. It shows the stream of literature discussed in the theoretical chapters as well as the stages of the entrepreneurial process discussed in the empirical chapters. The grey area marks the developments that gave rise to the research questions, while the white area shows the concepts that guided the resolution of these questions. The lack of process studies of the entrepreneur as innovator and the lack of work on the market environment in entrepreneurship together gave rise to an interesting opportunity for research. This thesis addresses this opportunity with the following three primary research questions:

Q1: How and why do entrepreneurs start innovative ventures?

Q2: How do entrepreneurs legitimise innovative ventures in the marketplace?

Q3: How does emerging competition impact on innovative ventures, and how do entrepreneurs pursue competitive advantage?

And one secondary research question:

Q4: Does the type of opportunity make a difference with regard to the three primary research questions?

These questions about how entrepreneurs aim to establish innovative ventures interacting with their market environments are consistent with questions raised in the current entrepreneurship and strategy literature concerning such issues as the micro foundations of dynamic capabilities, strategic entrepreneurship and developments in the sociology of markets. This thesis provides evidence to inform these lines of inquiry.

### **1.3 The research lenses**

To address these research questions, this thesis builds further on process studies in the tradition of the individual-opportunity nexus. Chapter 4 engages in the ongoing discussion about the ontological underpinnings of the individual-opportunity nexus and whether it should be studied as a dualism or a duality. This thesis argues that duality offers more potential to build practically relevant theory and thus rests on the philosophical foundations of critical realism. Following suggestions made by the entrepreneurial processes literature as well as critical realism, this study involved the collection of data from multiple cases.

Seventeen entrepreneurial projects pursued in the conventional and the high-technology sectors have been included in this study. Selected on the basis of three criteria, the projects first needed to indicate the pursuit of innovation and a key decision maker needed to be identifiable. Second, projects needed to fit the sampling frame derived in chapter 4, a sampling frame which distinguishes four types of projects depending on the degree to which technology and customer demand for innovation were pre-existing. Both sampling conditions were satisfied by following the print media such as *The New Zealand Business Herald*, *Unlimited Magazine*, and *Sunday Star Times*, as well as a number of New Zealand and international innovation awards in the high-tech as well as the conventional sectors. Finally, projects needed to have resulted in the creation of an organisation. This was satisfied by sampling for businesses that had been in operation for at least five years and that provided employment.

Following suggestions made in the entrepreneurship literature, as well as critical realism, the main mode of data collection was the stories of the entrepreneurs themselves (Bygrave, 2007; Easton, 2010; Fletcher, 2007). Using entrepreneurs as key informants is at the core of entrepreneurship research and insights about the key individual are one of the core contributions of entrepreneurship as a field of research. Moreover, focusing on the entrepreneur as an innovating individual has wider implications for our understanding about economic growth and prosperity. The primary data, therefore, was that of interview data, which was triangulated using secondary sources.

The data analysis process followed Yin (2008) and Miles and Huberman (1994). Firstly, within-case vignettes providing narratives of the entrepreneurs' stories were prepared in order to facilitate further analysis. The ensuing cross-case analysis focused on two types of constant comparisons between the cases; those between entrepreneurial projects in the same cell, which is itself a form of triangulation, and those between the cells. This study thus rests on non-random sampled cases and the constant comparison between data collected from these cases. These two conditions are the core elements of qualitative work (Eisenhardt, 1989; Suddaby, 2006). The findings presented are the result of these comparisons.

## **1.4 Practical orientation and contributions**

Most current academic efforts have led to a divide between academic entrepreneurship research and entrepreneurial practice (Sarasvathy, 2004b). The mismatch between our knowledge about the phenomenon of entrepreneurship and the realities that entrepreneurs face is increasing. Bygrave (2007) argues that this development has been fuelled by the desire of academics to please their peers rather than practitioners or policy makers. To make matters worse, this trend is likely to continue, even in the more practitioner-orientated domains such as strategic entrepreneurship (Meyer, 2009).

This thesis takes on the challenge of providing evidence that is not only interesting from a theoretical perspective, but that is also useful. For instance, explaining the mechanisms that have facilitated the founding and growth process of innovative ventures can provide valuable lessons for entrepreneurs who will face similar challenges in the future; explaining growth processes at the firm level may have implications for policy makers, and here critical realists aim at impact as well (Leitch, Hill, & Harrison, 2010). Even though results do not need to be directly actionable, they need to make a difference – i.e. results should have practical relevance (Bundel, 2007; Danermark, Elkström, Jakobsen, & Karlsson, 2002).

By appropriately accommodating opportunity in the entrepreneurial process, this thesis provides further insight into the nature of the challenges faced by entrepreneurs who started innovative ventures as well as the strategies used to overcome these challenges. The contributions can be summarised as follows. First, this thesis provides a conceptualisation of the concept of opportunity from an economic sociology perspective. Second, it derives a typology of opportunities, enabling the analysis of the similarities and differences in the pursuit of these opportunities. Finally, it uncovers the existence of four types of individual-opportunity nexuses. These insights have practical relevance, and a number of strategy recommendations are derived from this study. Each empirical chapter concludes with practical recommendations. The discussion as well as the conclusions drawn from this study have both practical as well as theoretical implications.

## **1.5 The New Zealand context**

The fieldwork was carried out in New Zealand, a country characterised by a large number of small and micro-sized businesses. In 2009, there were 463,278 businesses registered in New Zealand. Almost 70% of those businesses had no employees and 97.2% employed no more than 19 employees (Ministry of Economic Development, 2010). To accommodate for this distinct preponderance of small businesses, the OECD suggests defining small and medium-sized enterprises (SMEs) in New Zealand as businesses that have no more than 19 employees, as opposed to the more commonly used definition of less than 250 employees used in the EU (Lindner, 2005).

New Zealand has a history of comparing well in traditional entrepreneurship studies that investigate business founding activities. The latest available Global Entrepreneurship Monitor report (GEM) for New Zealand shows very high involvement in such activities. About 28% of the New Zealand working population is said to be actively engaged in entrepreneurship (Frederick & Chittock, 2006). The capital, Auckland, is amongst the prime metropolitan regions for entrepreneurial activity compared with other GEM countries. By analysing data from 2001-2006, Bosma, Jones, Acs, Autio, and Levie (2008) found that Auckland ranked fourth amongst the most entrepreneurial metropolitan areas in the world. Moreover, early stage entrepreneurship in New Zealand is associated with comparatively high growth expectations, indicating that New Zealand entrepreneurs are not afraid to 'think big' (Bosma, Acs, Autio, Coduras, & Levie, 2009). To complete the picture, New Zealand businesses also report high levels of innovative activity. In the two years leading up to 2009 almost half of New Zealand businesses innovated (Statistics New Zealand, 2011).

Barriers to starting a business are comparatively low and market access, at least locally, is reasonably unproblematic. The OECD (2011), for instance, places New Zealand amongst the least restrictive countries in which to do business, and The World Bank (2011) ranks New Zealand as the third easiest, as well as being the benchmark in the ease of starting a business. These low barriers to market entry and business founding, coupled with a strong entrepreneurial spirit, lead to extensive participation in early stage entrepreneurial activities in New Zealand.

At the same time there are problems, many of which appear to be structural. Most businesses remain small and a large number of them do not survive. In the twelve months before February 2009, New Zealand had 51,682 company births and 52,708 company deaths.

These numbers are remarkable considering the country's small population of about 4.4 million. As in many other countries, business survival is positively associated with firm size and since many New Zealand businesses do not ever take on employees, most company deaths are amongst zero employee businesses (Ministry of Economic Development, 2010).

As well as the majority of the entrepreneurial efforts not leading to employment and often being abandoned quickly, there is another interesting point about business growth in New Zealand. Start-ups that begin to employ most likely remain in the 1-5 employee size band, and only 15% of all employing start-ups ever employ more than five people. Also, profitability per employee in micro and small businesses tends to be much higher than in medium-sized businesses. For instance, once the business exceeds five employees, profits per employee almost halve, and profits only increase notably once the business has grown to over 100 employees. It seems that many New Zealand entrepreneurs are not willing to risk profitability to pursue business growth (Ministry of Economic Development, 2010).

Productivity growth in New Zealand has lagged behind the OECD average for quite some time (OECD, 2011). The GDP per capita difference between New Zealand and its closest neighbour and main trading partner, Australia, is widening despite many initiatives to combat this development (Taskforce, 2009). With the GDP gap, the wage gap is widening further, triggering a 'brain drain', mainly to Australia but also to other OECD countries. Almost one quarter of New Zealanders with tertiary education live and work in other OECD countries, and those who return do so for personal rather than financial or career reasons (Gibson & McKenzie, 2009).

This evidence could be an indicator for a lack of marketable innovation and competitiveness at a national level, despite reportedly high levels of innovation at the firm level. Suspicion about a lack of competitiveness despite high levels of early stage entrepreneurship and self-reported firm innovativeness is supported by looking at the firms directly. Less than 10% of employing New Zealand businesses have any R&D spending and overall levels remain low by OECD standards. Moreover, many firms have a strong domestic focus and only about 15% of those with six or more employees have sales outside New Zealand (Statistics New Zealand, 2011).

In sum, the evidence about entrepreneurship in New Zealand and its impact is mixed. On the one hand, some entrepreneurship studies and government agencies paint a pleasing picture. Levels of entrepreneurship and innovation tend to be high in a very favourable

business environment. On the other hand, the large majority of these firms operate only locally; the economy as a whole seems not to increase productivity or wealth and fails to avoid a brain drain to other OECD countries. Studying ventures that have led to wealth creation and employment based on innovation in the New Zealand context, therefore, presents an interesting opportunity to produce research with practical relevance in resolving this issue.

## **1.6 The plan of the thesis**

The thesis is structured as follows. Chapter 2 outlines the theoretical foundations of the thesis. It contains three issues central to the study of entrepreneurship: (a) a discussion about whether entrepreneurs create businesses or value from new ideas; (b) a conceptualisation capable of providing insights into the individuals who become entrepreneurs; and (c) the role of entrepreneurship for the market process as well as the corresponding interpretations of the entrepreneurial process. Chapter 3 further builds on the literature of the entrepreneurial process from an economic sociology perspective. In doing so, the chapter develops the conceptual lens to investigate the interaction between the entrepreneurial venture and the market environments. In particular, two individual-level struggles in creating ventures based on new ideas will be discussed, namely the struggle for legitimacy and the competitive struggle.

Chapter 4 outlines the methodology and methods used in this study. This study uses a multiple case study approach in order to examine processes of innovative venture creation from the perspective of the venturing individual. Four types of opportunities that sustain these ventures have been distinguished to guide the data collection. The first results chapter, chapter 5, introduces the seventeen projects. The ensuing three results chapters are organised in the same sequence as the literature review and the research questions. Chapter 6 goes to the core of the individual-opportunity nexus by investigating differences in how entrepreneurs became involved in their businesses as well as how these differences influence business growth. Through this analysis, this thesis uncovers the existence of four types of individual-opportunity nexuses.

Chapter 7 builds on these nexuses by focusing on the problem of legitimacy of the innovative venture. It shows that the problem of legitimacy consists in fact of two challenges in the case of innovative ventures, namely the challenge of legitimising the innovative

product as well as the venture as a new economic entity. Moreover, these challenges are experienced to varying degrees, depending on the type of individual-opportunity nexus. Chapter 8 investigates the problem of competition from the perspective of the individual. The chapter shows that the intensity of competition varies across the four types of nexuses and that entrepreneurs need to choose appropriate strategies to stay ahead of their emerging rivals. Chapter 9 discusses the findings in relation to current research trends. Finally, chapter 10 outlines the conclusions that can be drawn from this research.

## CHAPTER 2: THEORETICAL PERSPECTIVE

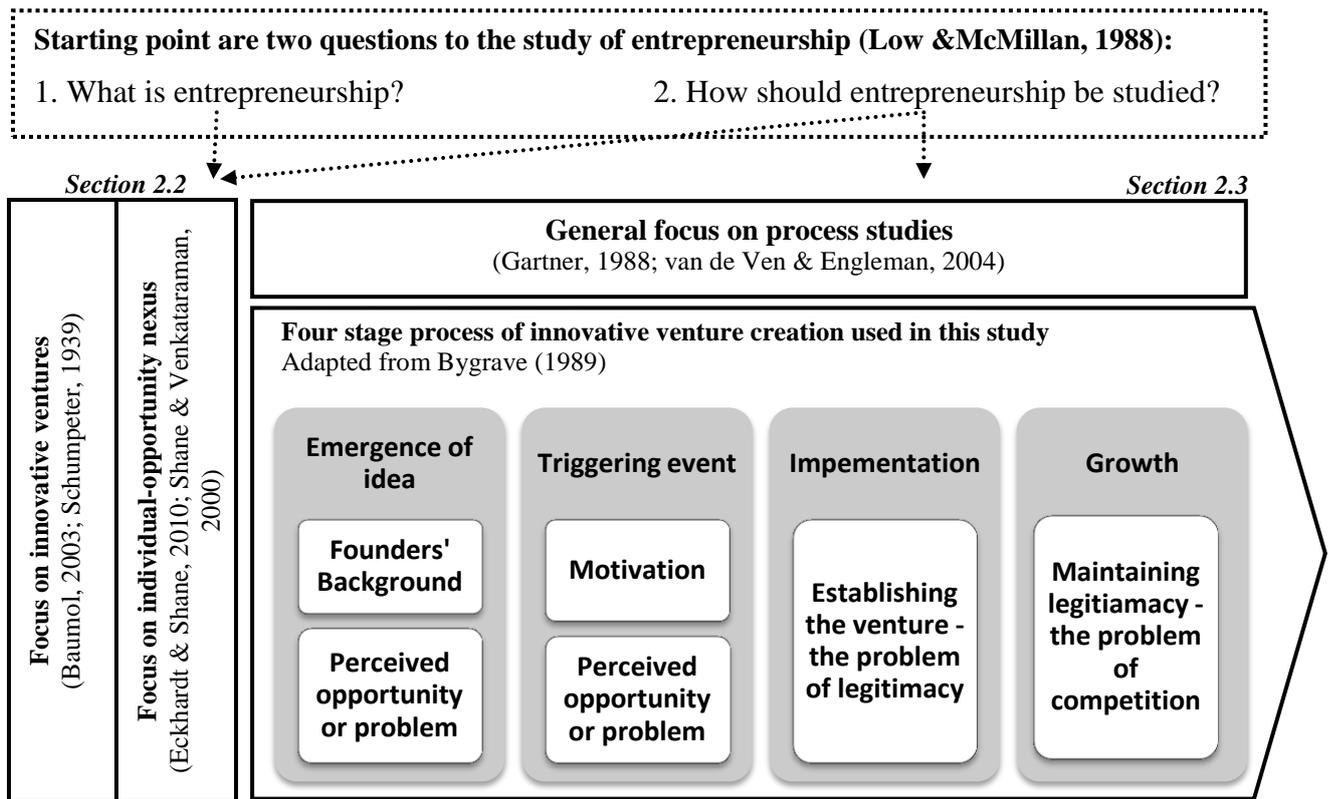
### 2.1 Introduction

The field of entrepreneurship remains highly fragmented. Researchers have approached the phenomenon of entrepreneurship from economics, sociology and psychology perspectives using a variety of methods and conceptual frameworks. This diversity has been interpreted as a mixed blessing (Brush, Manolova, & Edelman, 2008; Gregoire, Noel, Dery, & Bechard, 2006), and suggestions to further synthesise future research efforts have been made (Shane & Venkataraman, 2000). Gartner (2001) uses the well-known metaphor of the diverging reports blind men give from examining different parts of an elephant to demonstrate that researchers have developed different, sometimes divergent, accounts of the same phenomena.

Gartner (2001) draws attention to the negative consequences of the theoretical incoherence of the field. He concludes that diversity demands that researchers choose “sides” and clearly state their assumptions and perspectives in order to enable the development of a more systematic body of knowledge in entrepreneurship (Gartner, 2001). Low and MacMillan (1988) argued that this choice requires answering two central questions: what exactly should be studied under the term entrepreneurship, and how should it be studied? The purpose of this chapter is to provide such boundaries to the focus of this research grounded in the existing literature on entrepreneurship, and to show how these boundaries are situated within the field as a whole.

To achieve both these aims, this chapter is structured in two sections (see Figure 2.1). Section 2.2 develops a working definition of entrepreneurship. Based on the work of Schumpeter, it argues that entrepreneurs create innovative ventures – ventures founded with the intention of making a difference with regard to the technologies used or the customer preferences they satisfy. It further argues that subjectivism provides an important cornerstone in entrepreneurship and that the emergence of an innovative venture thus needs to be studied from the perspective of the entrepreneur who created it. The chapter then discusses the need for financial viability of the idea for the innovative venture. Building on the individual-opportunity nexus, it argues that innovative entrepreneurship rests at the intersection of two phenomena, these being the existence of opportunities to innovate, and the venturing individuals who take advantage of those opportunities.

*Figure 2.1: Chapter overview*



This chapter deals with the origins of opportunities and the agency of the entrepreneur in the market process, the discussion showing the two are closely related. Two dominant views are identified. In the first view, which has its roots in economic equilibrium models, opportunities are an independent variable explaining entrepreneurial activities. Entrepreneurs discover and act upon pre-existing opportunities which lead the market to equilibrium.<sup>1</sup> In the second view, entrepreneurs are a disequilibrating force, creating their own opportunities. Whilst there is some agreement that the two types of opportunities can co-exist, there is still some controversy over how this co-existence can be addressed empirically. In other words, it remains unclear how opportunity can be simultaneously a dependent and an independent variable in entrepreneurship.

Section 2.3 embraces this issue. First, research on the entrepreneurial process is reviewed. It is revealed that the differences in the assumptions about the nature of opportunity have also penetrated process research, resulting in two different views on the entrepreneurial process. This thesis argues that adopting a stronger process focus makes the

<sup>1</sup> Opportunities for profit are absent if market equilibrium is established, making equilibrating entrepreneurship a force that erodes the reason for its existence.

controversy about the origins of opportunity meaningless, since process research highlights the importance of events and not that of variables. In order to accomplish this process focus, the thesis defines the process of establishing an innovative venture in the marketplace as an entrepreneurial project.

The chapter concludes with conceptualising entrepreneurial projects for the purpose of this thesis. Building on Bygrave (1989), four important events in entrepreneurial projects are identified: the emergence of the idea, the triggering event, the implementation of the idea and the growth of the business (see Figure 2.1). The chapter lays the broad foundations for the empirical work as well as further theoretical discussion.

## **2.2 Scope of entrepreneurship research – mapping a terrain**

### **2.2.1 Business creation or innovation**

There exists a certain degree of disagreement in the literature about what kind of phenomenon should be studied under the term entrepreneurship. Two streams of literature have emerged, one focusing on business founding activities and the other on opportunities to innovate. Over the years, the former view has clearly dominated. Many researchers followed Gartner's (1988) suggestion and defined entrepreneurship as venture-creating activity (Reynolds et al., 2005). From this perspective, entrepreneurs pursue opportunities to create businesses. Defining entrepreneurship as business formation has not been without its critics, particularly since start-up activities cannot be linked to the positive consequences associated with entrepreneurship such as economic growth and employment (e.g. Carland, Hoy, Boulton, & Carland, 1984). Also, the largest project in this line of research, the GEM study, constantly struggles to establish a correlation, let alone causality, between business founding activities and economic growth. To tackle this issue, other measures are included to create an entrepreneurial 'super-index' which is difficult to decompose and only partly represents actual start-up efforts (Bosma et al., 2009).

Criticisms as well as inconclusive evidence have, mostly out of convenience, been ignored. Start-up activities are fairly straightforward to conceptualise, making this a frequently asked question in large-scale surveys. However, this ease in conceptualisation comes at a cost. Researchers often find themselves with a large, undifferentiated sample of individuals involved in some sort of business founding activity. Because of the large number of business founders and owners, a loss of detail is almost inevitable, making it impossible to

look more closely at the processes of value creation. This loss in detail appears to be acceptable as entrepreneurs falling under the ownership definition often do not differ from their non-entrepreneurial counterparts. This is especially true in industries with high rates of self-employment or franchising. To be fair, individual entrepreneurs are not at the core of these studies. Instead, the focus lies on the link between the legal activity of registering a business, and the prosperity and growth of countries or regions (Bosma & Harding, 2007; Davidsson, 2005b). Whether or not this correlation actually exists, and whether high founding rates are the cause of prosperity rather than a result of different developmental stages of an economy, will continue to be debated.

The second stream of literature to distinguish entrepreneurs from non-entrepreneurs originates from Schumpeter's (1939) work on the business cycle. For Schumpeter, entrepreneurs introduce innovative knowledge, products, routines or ways of production into the social and economic context. Hence, research in this tradition is concerned with economic and social change rather than with business creation. Instead of intending to establish a relationship between business founding and economic growth, research in the Schumpeterian tradition directly focuses on the businesses that have shown the desired qualities such as innovation, growth and wealth creation (Dodgson, 2011; Hwang & Powell, 2005); or, to use Drucker's (1985) definition: "Entrepreneurs innovate. Innovation is the specific instrument of entrepreneurship. It is the act that endows resources with a new capacity to create wealth" (p. 27). This thesis builds on this approach.

To emphasise the centrality of newness, two core ideas in Schumpeter's work need to be highlighted, namely innovation and creative destruction. Innovation drives economic growth. Like Drucker, Schumpeter (1947b) defines entrepreneurship as "the doing of new things or the doing of things that are already being done in a new way (innovation)" (p. 151). For Schumpeter, entrepreneurs drive economic progress which, in his view, materialises rather violently, as innovation has the capacity to make existing knowledge obsolete and to bring entire industries into disarray whilst new dominant products, knowledge and routines are being established. Entrepreneurial innovation drives this process of creative destruction by which existing technologies, products, and firms are constantly replaced by emerging ones (Spencer, Kirchhoff, & White, 2008).

In this view, entrepreneurship brings about change (Baumol, 2002a). It is an activity occurring in the space of new problems, new solutions, and new opportunities to create wealth. Entrepreneurs do something different or differently and change how other people solve their problems, perceive value, or the very way in which they see the world. This approach has attracted increasing attention amongst institutionalists (Aldrich & Martinez, 2001; Hwang & Powell, 2005; Powell & Colyvas, 2008) as well as researchers interested in economic growth and prosperity (Baumol et al., 2007).

Both of these traditions display an interest in the environment of entrepreneurship. This interest needs further clarification, since it is rooted in both a certain degree of agreement with economics as well as a deep disappointment with some of the delivered answers. Consensus is, perhaps, most obvious in the innovation literature that suggests that innovation is the major driver of economic growth (Fagerberg & Verspagen, 2007; Silverberg & Verspagen, 1994). Baumol (2007) emphasises the innovative capacity of individual entrepreneurs in driving economic change. He dismisses the predominant practice of taking firm-founding as a proxy for innovative activity. Baumol (2010) argues that even though a certain number of new businesses are based on new ideas, this is not universally the case. Instead, businesses are frequently established in the absence of innovation.

Aldrich and Martinez (2001) view entrepreneurs within a continuum between innovators and reproducers. A pure, or Schumpeterian, innovator disrupts competitive situations or established social norms. The pure reproducer, at the other extreme of the continuum, entirely complies with and often maintains the status quo. This differentiation seems useful as it offers a possibility to establish some common ground between the apparently irreconcilable approaches to entrepreneurship. In acknowledging innovation as a potential part of entrepreneurship, Aldrich and Martinez (2001) move away from the extreme of an exclusively ownership-driven definition. In addition, the authors encourage comparisons between different forms of entrepreneurship on the individual and the firm level. Whilst Schumpeter (1939) basically agrees with Aldrich and Martinez (2001) on the existence of a continuum between innovators and reproducers, he is not interested in comparing the different types of entrepreneurship. Instead, he argues that researchers should separate innovative entrepreneurs from replicative ones (or reproducers), and that they should draw their attention towards the former type of entrepreneurship to study economic change.

Figure 2.2 positions the two approaches to entrepreneurship in a continuum between the focus of business ownership and the focus on innovation. Both extreme positions are legitimate. However, they are also easily challengeable from the opposite point of view. Researchers focusing on innovation will struggle to acknowledge ownership studies and vice versa since one definitions of entrepreneurship may exclude the another. Despite this initial disagreement, some common ground exists. Ownership and innovation approaches to entrepreneurship can be combined, but not integrated, by focusing on the creation of innovative ventures. An innovative venture is one exhibiting some degree of novelty besides the fact that it is a new legal entity. It requires some significant innovation in how value is created or delivered.

**Figure 2.2: Common ground in entrepreneurship research**

<b>Opportunity to start a business</b>	<b>Common ground</b>		<b>Opportunity to innovate</b>
<p><b>Focus on: Ownership</b> - legal act of founding or owning the firm. (<i>Global Entrepreneurship Monitor; Panel Study of Entrepreneurial Dynamics</i>)</p> <p><b>Sample:</b> Owners, founders, and potential founders</p> <p><b>Process of interest:</b> Business founding or operation</p>	<p><b>Focus on: New venture with innovation as the special case</b> (e.g. Aldrich &amp; Martinez, 2001; Samuelsson &amp; Davidsson, 2009)</p> <p><b>Sample:</b> Innovators and reproducers</p> <p><b>Process of interest:</b> Business founding or operation</p>	<p><b>Focus on: Innovative ventures or innovative entrepreneurship</b> (e.g. Drucker 1985; Baumol, 2010)</p> <p><b>Sample:</b> Innovators</p> <p><b>Process of interest:</b> Process of creating a business based on an innovation</p>	<p><b>Focus on: Innovation</b> – studies concerned with the generation and dissemination of something new. (e.g. Rogers, 2003)</p> <p><b>Sample:</b> Inventors, innovators, customers etc.</p> <p><b>Process of interest:</b> Innovation process</p>
<p><b>Ownership: Central</b> <b>Innovation: Irrelevant</b></p>	<p><b>Ownership: Central</b> <b>Innovation: Relevant</b></p>	<p><b>Ownership: Relevant</b> <b>Innovation: Central</b></p>	<p><b>Ownership: Irrelevant</b> <b>Innovation: Central</b></p>
<b>Neo Schumpeterian</b>			

Davidsson (2004) pointed out that no new venture is a perfect clone of an existing one; there is always some degree of innovation associated with a new venture. However, what Davidsson (2004) misses is that some ventures are formed with the intention of being different, whilst others are not. In other words, some new businesses will become different by accident rather than by design. Focusing on innovative ventures in the Schumpeterian tradition, on the other hand, means to increase and to explain the variance between new and existing business. Depending on the theoretical inclination of researchers, this can take place

in two forms; researchers can either compare innovative ventures to replicators, or focus on one of the extremes at the expense of ignoring the other.

Clearly, if being innovative is what the entrepreneur does, the focus instantly changes from the creation of businesses to the introduction of innovation. However, innovation has proven to be much more challenging to conceptualise, primarily because of a lack of definitional standardisation (Baumol, 2002b). New and heterogeneous products frequently pose several challenges to researchers. In particular, the question of what is new, and to whom, is difficult to answer. Two important points can be found in the innovation literature. First, even though an innovation may not be absolutely new to the world, it can still be novel to the researched unit of adoption (Zaltman, Duncan, & Holbek, 1973). It is, therefore, vital to evaluate an innovation relative to the context of its occurrence (King & Anderson, 2002). Second, the context dependence of innovation indicates that there are various degrees of innovation. Indeed, innovation literature suggests that some products or procedures will be more different from the conventional than others (Gatignon, Tushman, Smith, & Anderson, 2002). Different degrees of novelty imply that there may also be different types of entrepreneurship in the Schumpeterian tradition.

The fact that these different degrees of novelty are usually not controlled for in studies about business-founding activities, has further implications for this study. Given the lack of differentiation between innovative and non-innovative start-ups, two arguments can be made. First, conceptual models developed to study start-up and growth activities in general can, at least in theory, capture the activities of innovative ventures as well. However, these models have not been designed to highlight the peculiarities of innovative venture and thus need to be treated with caution. Second, entrepreneurship studies in the ownership tradition may contain information about innovative ventures as well. It is, therefore, not possible to rule out conceptual developments produced beforehand.

To sum up, researching innovative ventures in the Schumpeterian tradition requires acknowledging that there are indeed differences between them. Given these differences, a typology of innovative ventures will be developed in chapter 4. This typology will allow innovative ventures to be compared and contrasted with each other rather than against non-innovative ventures, as suggested by Aldrich and Martinez (2001). Finally, focusing on innovative ventures does not mean dismissing the concepts used in explaining start-up

activities in general prior to engaging with a research project. Instead, it means focusing on the innovative venture as a special case of venture development.

### **2.2.2 Individual-opportunity nexus**

Another disagreement exists in how to address entrepreneurship conceptually. Over the years, entrepreneurship research has developed a very strong tradition in person-centric approaches. Inspired by psychology, researchers have expended much effort towards establishing differences between entrepreneurs and non-entrepreneurs, or more recently between expert and non-expert entrepreneurs. These differences are investigated in a number of ways. Early research focused on differences in personality traits, an approach that frequently re-emerges despite strong arguments and empirical evidence refusing it. Later the focus shifted towards efforts to discover and explain differences of cognitive process, which to an extent seem constantly in danger of reverting to a personality traits argument (Sarasvathy & Dew, 2008a). Finally, other research focuses more on the actual behaviour of the individual in becoming entrepreneurial. Yet, at its heart, entrepreneurship remains mostly conceptualised and explained as individual level phenomena.

This focus on the individual has not always been so popular. In the field of economic sociology, Weber (2008) insisted that the study of entrepreneurship should be concerned with the process of establishing exchange relationships intended to make profit (Swedberg, 2005). For Weber (2008), entrepreneurship was more than an individual level phenomenon, it was also a social phenomenon leading to the emergence of market exchange. Similar accounts about the importance of markets for the study of entrepreneurship can also be found in Schumpeter's work on the entrepreneur (Schumpeter, 1939, 1947a). Like Weber (2008), Schumpeter was interested in the market level consequences of entrepreneurship. In particular, he highlighted the role of the entrepreneur in establishing trade for innovation. In other words, whilst Weber was interested in market exchange, Schumpeter focused on the individuals that created opportunities to produce and sell previously untraded products or services (Schumpeter, 1939).

An opportunity is a condition in which a new combination of resources originates an economic value that can, at least partly, be captured (Barney, 1986a). Lepak, Smith and Taylor (2007) argue that there is a considerable difference between the created value and the value appropriated or captured through an organisation. They further argue that the analysis

of both, value creation and capturing, is at the heart of strategic management. Creating and capturing value from innovation provides deeper insight into the core questions of strategic management around competitiveness and profitability of firms, most of which can be achieved through validation in a consumer market (Priem, 2007).

In the entrepreneurship literature, the concept of opportunity has been re-invigorated by Shane and Venkataraman (2000). In their seminal article on the promise of entrepreneurship as a field research, the authors argued that entrepreneurship resides at the nexus between the individual and objectively available market opportunities. They encouraged researchers to shift the focus in entrepreneurship research towards the following research questions related to this nexus:

“(1) why, when, and how opportunities for the creation of goods and services come into existence; (2) why, when, and how some people and not others discover and exploit these opportunities; and (3) why, when, and how different modes of action are used to exploit entrepreneurial opportunities” (Shane & Venkataraman, 2000, p. 218).

Through their work, Shane and Venkataraman (2000) build the foundation for the conceptual framework of the individual-opportunity nexus which rests on two main ideas. First, entrepreneurship is neither a solely subjective phenomenon nor an exclusively objective phenomenon and, second, the link between the objective and the subjective phenomena matters (Plummer, Haynie, & Godesiabo, 2007). Shane (2003) points out that the subjective part of the nexus, on the one hand, can commonly be explained by an entrepreneur’s human or social capital and other factors explaining individual action. The opportunity, on the other hand, often manifests itself through some sort of technological, political, social change, or change in customer behaviour.

The conceptual development of the individual-opportunity nexus encourages researcher to combine individual and opportunity level concepts with the aim to focus on the interplay between the two. As a result, the study the study of entrepreneurship becomes the study of how individuals perceive their environment, how and why they embark on pursuing opportunities, and how they shape these opportunities through their pursuit. To date, the concept of opportunity as the objective part of the nexus remains elusive and ill-conceptualised (Davidsson, 2004). There are a number of unanswered questions about what opportunities should be considered entrepreneurial opportunities, where these opportunities come from, and how they should be studied. The following sections investigate these questions in order to provide a basis to conceptualise the concept of opportunity.

### **2.2.3 Innovative ventures and subjectivism**

The study of innovation, and that of the entrepreneur as a person are inexplicably interwoven from the Schumpeterian perspective (Drucker, 1985). For Schumpeter, there is no innovation without an innovator, making his work strongly actor-focused. The reason for this intentional actor focus lies in the nature of innovation itself. Innovation is not the result of calculation based on existing information. Rather, it is a creative act requiring initiative that originates from a person (Schumpeter, 1939) or a small group of people (Dimov, 2007). Besides creativity, innovation requires some form of action and risk taking, which made Schumpeter portray the entrepreneur as a heroic figure who almost single-handedly changes an entire industry. Some individuals are also capable of carrying out a range of innovation over their lifetime (Dodgson, 2011), which further highlights the importance to better understand them.

The centrality of entrepreneurs as individuals who make the key decisions in the innovation process is further underscored by the work of Baumol (2002b). In his critique of models that focus on higher levels of aggregation he argues: “In my view, like that of Schumpeter, this leaves these very valuable contributions as performances of Shakespeare’s Hamlet that include the King, Ophelia, Gertrude, and many other of the crucial characters, but omit the prince of Denmark” (Baumol, 2002b, p. 3). In line with Schumpeter, Baumol (2010) argues for methodological subjectivism in entrepreneurship research. Subjectivism was frequently employed by early theorists in the field, in particular amongst economists in the Austrian tradition. The core idea of subjectivism is that individuals possess different preferences, and knowledge, as well as different expectations about the future. Individual action is best explained by accounting for such differences (Roberts & Eisenhardt, 2003).

Kirzner (1979) focuses on the role of individual knowledge. Entrepreneurs have different knowledge about the environment, making them more alert to existing possibilities in the market. For Kirzner (1973) the market process is driven by individual differences in knowledge. Lachmann (1986), on the other hand, argues that the market process is driven not merely by the subjective knowledge of the entrepreneur, but more importantly by individual imagination. This latter is necessary because knowledge is a constantly changing variable in any plans about future outcomes of current actions (Lachmann, 1956). Entrepreneurs need to formulate subjective expectations about the future on the basis of interpretations of the past (Lachmann, 1971).

Human agents interpret their surroundings and base actions on their understanding of the reality created by this interpretation (Berger & Luckmann, 1966). Entrepreneurial plans and actions are, therefore, constantly reviewed and altered based on new information that the market process itself brings about. In this setting, entrepreneurial opportunities originate from human imagination, leaving considerable room for creativity in the process of the emergence of an entrepreneurial business (Chiles, Bluedorn, & Gupta, 2007). Given the centrality of the individual in the process of venture creation, adopting methodological individualism for the study of entrepreneurship is justifiable. Endres and Woods (2007), for instance, argue that such a focus on the individual entrepreneur yields insights into how individuals create opportunities.

Foss, Klein, Kor and Mahoney (2008) encourage researchers in entrepreneurship and strategic management alike to take subjectivism seriously. Referring back to the work of Penrose (1959) on the growth of the firm, the authors argue that the thinking of economists in the Austrian tradition has already made influential inroads into management research, providing deeper insights into how valuable resources are created. In fact, highlighting individuals as the major driver behind heterogeneity and competitive advantage can enable researchers to explain the emergence rather than the effects of competitive advantage. Here, Foss et al. (2008) make a central point encouraging subjectivism enquiry.

At the same time, Sarasvathy and Dew (2008b) provide a note of caution regarding subjectivism. Overemphasising the individual can easily lead to theorising that assigns all outcomes to individual level processes which are to a large degree inherently unobservable. Knowledge, resources and business are created through the interaction between individuals and their environment. Hence, even an individualist position needs to give due consideration to social interaction. Highlighting the individual in entrepreneurial analysis is to see the environment (or the opportunity) as restrictive or enabling, but most importantly as malleable (Chiles et al., 2007; Chiles, Gupta, & Bluedorn, 2008; Sarasvathy & Dew, 2008b).

#### **2.2.4 Origins of opportunities, entrepreneurship, and market dynamism**

The centrality of the concept of opportunity to the study of entrepreneurship, and that of the individual-opportunity nexus in particular, gives rise to the question about the origins of opportunities as a central ingredient. In the literature, there is some disagreement about whether entrepreneurial activity is driven by exogenously or endogenously created

opportunities. In other words, are opportunities exogenous to the entrepreneurial process, or are they a result of it, meaning that they emerge endogenously?

In the exogenous view of opportunities, which largely traces back to Austrian economics, entrepreneurial opportunities are caused exclusively by competitive imperfections. Those imperfections are assumed to be the result of exogenous disruptions of the market equilibrium such as technological shocks or regulatory changes (Endres & Woods, 2006). Opportunities are assumed to exist *ex ante* to entrepreneurial activity and exogenous shocks make information about these opportunities either available (Schumpeter, 1934) or more accessible (Kirzner, 1979, 1997) to the audience of economic actors. Consequently, opportunities emerge independently from the entrepreneur who responds to this objective phenomenon by exploiting it. Enticed by potential profit, induced by market disequilibrium, market participants lead the market back to the equilibrium state by engaging with exogenous opportunities (Kirzner, 1979).

Two concepts became central to the study of the exploitation of exogenous opportunities, those of alertness and judgmental decisions. Alertness refers to the individual's ability to see an opportunity where others do not. Based on the work of Kirzner (1979), the entrepreneurial function is therefore to recognise an opportunity in the market due to different cognitive abilities. Entrepreneurs can reduce information necessary to arrive at a decision by relying on heuristics-based logic. Heuristics are mental shortcuts that allow the entrepreneur to make sense of an uncertain situation where tools to reduce risk do not apply (Burmeister & Schade, 2007; Busenitz & Arthurs, 2007). Several assumptions about the origins of superior cognitive abilities of entrepreneurs have been made (Mitchell et al., 2007). Studies examining the influence of overconfidence (Hayward, Shepherd, & Griffin, 2006), over-trust (Goel & Karri, 2006), the avoidance of sunk costs (Baron, 2004) and representativeness bias (Busenitz & Barney, 1997) regularly find positive correlations between cognitive bias and discovery of opportunities.

Endogenous explanations of the emergence of opportunities are more in line with the work of Schumpeter, who saw the entrepreneur as a change-creating innovator. The basic assumption in endogenous models is that opportunities do not exist in the market waiting to be discovered, but that they are created through human action. Opportunities lie in the (for all actors unforeseeable) future. All possible outcomes of entrepreneurial actions are not only not known, but essentially unknowable at the time a decision is made (Dew, Velamuri, &

Venkataraman, 2004). Entrepreneurs face a decision under fundamental uncertainty that is persistent over time (Dequech, 2006). The fundamental uncertainty in this model applies not, as in the equilibrium approach, to the value of an opportunity, but to whether or not the entrepreneurial activity will ever lead to the creation of an opportunity.

Hence, endogenous explanations of opportunities highlight individual action over time rather than the discovery or ‘eureka’ moment normally featured in research in the exogenous tradition (Monllor & Attaran, 2008). This discovery moment rarely exists in endogenous models. Moreover, Shane and Venkataraman (2000) rightly pointed out that this uncertainty about opportunities has the capacity to prevent entrepreneurial action. Researching the individual reasons for action in the absence of clear incentives is therefore central to studies in the endogenous tradition.

The endogenous approach differs from the exogenous profoundly in terms of assumptions about the agency of the entrepreneur. Whereas the former highlights the importance of human actions for the generation of a goal worthwhile achieving, the latter reduces agency to the achievement itself. Thus, while studies assuming exogenous change portray the entrepreneurship as a linear, mostly causal consequence of existing market conditions, studies in the endogenous tradition highlight the dynamic, nonlinear, and unpredictable nature of entrepreneurship.

Loasby (1982) stressed that the two concepts of entrepreneurial opportunity refer to different concepts of profit. Whilst ‘Austrian’ entrepreneurs discover and act upon exogenous opportunities, to exploit an incongruence in the economic system, and receive normal profits (or quasi-rents), Schumpeterian entrepreneurs endogenously create opportunities and receive monopolistic rents. Alvarez (2007) added that differences in profit originate from differences in the type of investment. Quasi-rents result from risky investments, meaning that the outcome of the investment can be anticipated given currently available knowledge. For the monopolistic rents obtained by the Schumpeterian entrepreneur, on the other hand, this is not the case.

As a result, the two opposing views of opportunity can co-exist, but they are far from being integrated. Opportunities, and the individuals pursuing them, might fall into the two theoretical categories, but the middle ground remains unpopulated despite the fact that most opportunities will display elements of discovery and creation. To advance this discussion and to gain better insights about how opportunities come about, these categories need to be

dissolved. Exogenous and endogenous opportunities need to be understood as extreme scenarios of a continuum with the large majority of opportunities positioned somewhere between the two extremes (Sarasvathy, Dew, Velamuri, & Venkataraman, 2003). The two polar types of opportunities would then become theoretical conceptualisations apart from the empirical reality of markets and entrepreneurship. In the real world, some elements of an opportunity might need to be created whilst others are discovered.

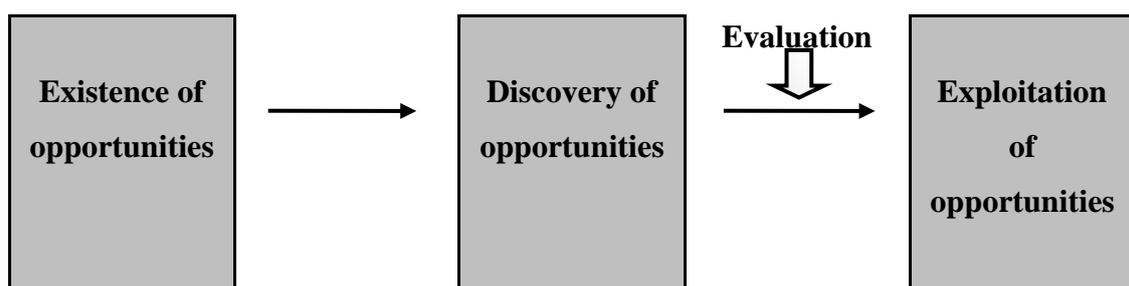
Allowing for the possibility that an opportunity is partly made and partly found requires an understanding of the processes capable of explaining discovery and creation. These processes have received increasing attention in the literature, but this attention has increased the division between the two views on opportunities rather than attempted their integration. The following section takes on the challenge of providing the conceptual foundations to study entrepreneurial opportunities without pre-determining those as discovered or created. The processes leading to opportunity discovery and creation are introduced and it is argued that focus on the key events in the process of opportunity emergence can resolve this issue.

## **2.3 Narrowing down the phenomenon – process studies of entrepreneurship**

### **2.3.1 Causal processes**

In the case of exogenously created change, opportunities find their way into the entrepreneurial process model primarily as an independent variable: they pre-exist. Building on the already outlined work of the Austrian economists, Shane and Venkataraman (2000) developed a process of entrepreneurial opportunity exploitation. This process proceeds through three stages, those of opportunity discovery, evaluation and subsequent opportunity exploitation.

*Figure 2.3: The individual-opportunity nexus and the entrepreneurial process*



*Adapted from: (Eckhardt & Shane, 2010, p. 49).*

In this conceptualisation, the individual-opportunity nexus starts with an individual's discovery of an independently existing opportunity. Opportunity discovery refers to the activities that develop a vague idea into a business concept (Bhave, 1994). These activities include, for instance, developing the value creation idea (Alvarez & Barney, 2004), contemplating strategies of value appropriation (Amit & Zott, 2001) and making initial contacts (Klofsten, 1994). Opportunity discovery encompasses the cognitive processes as well as activities that make the entrepreneur aware of a possible market opportunity, such as initial ideas about the product, its market, and the business model. This stage may also include formal planning or resource seeking.

Tightly connected to the discovery stage is the evaluation stage which includes activities of the entrepreneur to gain an understanding about the attractiveness of the opportunity. The discovery and the evaluation stages are often highlighted in research featuring individual level decision-making processes such as research around cognitive biases. Evaluation, however, does not imply that sufficient information about the value of the opportunity exists on the level of the individual. Instead, discovery only refers to a stage where one perceives an opportunity to create wealth; whether or not this opportunity exists depends upon market validation.

Moving on, the exploitation stage typically involves efforts of the entrepreneur to draw resources together and to establish the business as a formal entity, as well as creating actual demand that the newly established business can satisfy. The process of exploitation includes all activities that are intended to realise the business concept, including the acquisition of resources, legitimising the venture, marketing and so forth (Delmar & Shane, 2004). It is arguable that while the first two stages - discovery and evaluation - are individual level sub-processes, exploitation must involve other actors such as customers, suppliers, and competitors. In other words, discovery and evaluation are predominantly subjective to the entrepreneur whilst exploitation refers more to the objective parts of the phenomenon.

The majority of work in entrepreneurship has either explicitly or implicitly followed the process of opportunity discovery, evaluation and exploitation. Eckhardt and Shane (2010) point out that the notion of discovery and exploitation of existing opportunities does not discount entrepreneurial creativity since exploitation requires the creation of new products, services, and often new organisations. But it also appears that creativity remains restricted to

opportunity exploitation. Discovery, on the other hand, is a non-creative act. Entrepreneurs are assumed to be experts in their ability to structure and process information relevant to the discovery problem (Mitchell, Smith, Seawright, & Morse, 2000), and research in this tradition highlights the importance of the cognitive abilities of the individual entrepreneurs (Mitchell et al., 2002).

The micro environment influences the abilities to discover and evaluate opportunities. In a comparative longitudinal case study of six biotechnology start-ups, Maurer and Ebers (2006) found that individual networks influence entrepreneurial cognition. Scientists started to include contemplations about the commercial value of their research after they worked together with entrepreneurs. Walker (1985) showed that the cognition of network members is profoundly influenced by their position. The author found that the development of individual cognition is better explained by network ties than by the task one is pursuing. This empirical evidence indicates a relationship between social structure and social cognition that, in turn, influences individual behaviour. In this sense, cognition is not simply reducible to the processes that take place inside the human mind as it includes all interactions by which cognitive processes are shaped.

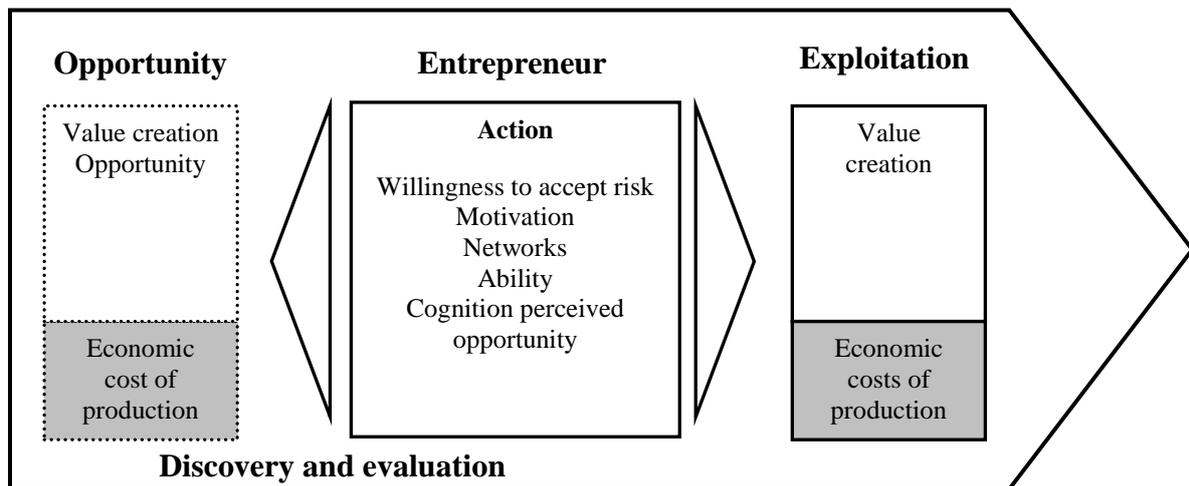
Taken together, networks and prior experience build the knowledge base for the discovery of opportunities. Hayek (1945) pointed out that this base knowledge tends to determine corridors in the pursuit of opportunities. Knowledge corridors decide the direction of entrepreneurial action since discovering opportunities is essentially a competitive process. Individuals possessing more relevant knowledge for particular opportunity will, therefore, always out-compete those who have less relevant knowledge. By highlighting previous start-up experience, Ronstadt (1988) further developed the rationale of the corridor principle. He argued that previous experience sets individuals on specific paths that make them more likely to discover opportunities than if they had not been travelling the corridor.

During the exploitation stage, entrepreneurs commit resources and time towards creating the means of enabling the creation of new customer value. Entrepreneurship requires ability and motivation. Expressed differently, action is always the result of a combination/integration of motivation and cognition (Locke, 2000). Cognition without motivation does not result in any action, and motivation without cognition leads to meaningless action (Locke & Baum, 2007).

McMullen and Shepherd (2006) argue that besides less perceived risk in opportunity perception, a willingness to accept risk is crucial for the exploitation of the perceived opportunity. Hence, the issue of risk, either perceived or accepted, seems to be relevant for both discovery and exploitation. McMullen and Shepherd (2006) raised an additional issue, whether successful opportunity discovery requires a different set of skills from opportunity exploitation. Here, opinions deviate. Michelacci (2003) argues that most empirical work in the field of entrepreneurship interprets the ability to discover endogenous opportunity and the ability to exploit it as implicitly linked. Eckhardt and Shane (2010) argue on a conceptual level that this should not be taken for granted. Instead, research into the entrepreneurial process needs to clearly assess what skills become crucial at various stages of the entrepreneurial process.

Looking at the concepts highlighting exogenous explanations of entrepreneurship used in the literature so far, it becomes apparent that entrepreneurs are examined primarily with reference to their potential to complete a task for the market, that of discovering and exploiting existing opportunities. The potential of the entrepreneur is based on a number of factors such as individual ability, motivation, networks or cognitive abilities to act upon ex ante existing opportunities (Figure 2.4).

*Figure 2.4: The entrepreneurial process in exogenous change models*



To sum up, the entrepreneurial process under the assumption of exogenous change focuses on the interaction between the objective characteristics of pre-existing opportunity and the subjective characteristics of the entrepreneur who exploits it (Casson, 2005). The study of entrepreneurship in this context highlights the importance of exploitation (Shane, 2003) and often assumes discovery as a given. Nevertheless, every stage in this process, from discovery

onwards, appears to be rationally approachable. The environment needs to be analysed, the appropriate strategy formulated and implemented (Grinder & Hagel, 2004).

The underlying assumptions of this type of causal rationality have already been challenged in various contexts and are associated with at least two major shortcomings. First, causal reasoning occurs in accordance with established knowledge, and does not leave space for a creative factor or dynamic environments (March, 2006). Second, even when the environment remains constant, there is no empirical evidence that causal procedures constantly produce desirable outcomes, particularly in complex situations characterised by vague preferences (Greve, 2003), multiple optima, and uncertainty (Knight, 1921). These complex situations pose a high degree of causal ambiguity, meaning that there is no clear causal relationship between present action and future results; a condition that usually exceeds either the capabilities of analysing tools or the analyser (Albin, 1998), which poses unsolvable problems for causality in decision making.

In the exogenous view, the outcome of each stage of the entrepreneurial process, and therefore the success or failure of the whole process, depends upon the individual capabilities of the individual analyser to ignore or deal with these difficulties (March, 1978). These individual capabilities are bounds to the rationality of the decision maker who strives to achieve the objectives limited by these constraints rather than the best possible objectives in a more objective sense (Eisenhardt, 1997). In this model, success or failure are inseparably interwoven with entrepreneurial analysing capabilities. Successful entrepreneurs are successful analysers while unsuccessful entrepreneurs lack this quality. Instead of being a creative activity that generates economic value, entrepreneurship has been degraded into an instrument to ensure, and even extend, the predictive power of existing economic models of value distribution. In other words, in the discovery process it is not doubtful whether or not value will get created, rather it is simply questionable who is going to create it, as well as when creation will occur.

### **2.3.2 Effectuation as entrepreneurial expertise**

In endogenous models of the entrepreneurial process, the emergence of an opportunity needs to be explained. Given that opportunity is the outcome rather than a pre-condition of the entrepreneurial process, endogenous explanations highlight that individuals not only perceive their surroundings differently, but that they can influence their environment through action

(Weick, 1979). In his seminal work on sensemaking in organisations, Weick (1979) highlighted how individuals partly shape their environments. Sensemaking processes begin with plausibility-based enactment (Weick, Sutcliffe, & Obstfeld, 2005). Individuals engage in particular actions because it seems plausible to them that they can achieve certain ends. Enactment is the test of the plausibility hypothesis against a broader audience, but enactment itself also changes the environment it sets out to test.

For the entrepreneurial process, this train of thought encourages researchers to see entrepreneurial agency as going beyond the choice between predetermined opportunities, to give rise to the possibility of genuine opportunity design. In particular, one theory has emerged that looks at how expert entrepreneurs create opportunities – effectuation theory (Sarasvathy, 2001a). Mirroring elements of Simon’s (1993) argument against classical decision theory, Sarasvathy (2003) criticises entrepreneurship theory as overly focused on situations where alternatives are finite, and tending to ignore the design of additional alternatives. She further argues that design is neither context- nor actor-independent, as it considers both to be equally important. Sarasvathy (2001a) develops a process of entrepreneurial design in which expert entrepreneurs create new markets, new products, and new opportunities through the process of ‘effectuation’. Building on Weick’s enactment (Weick, 1979) and March’s rationality of foolishness (March, 1976), effectual processes provide a counterpart to causal understandings of entrepreneurial process.

Effectual reasoning is driven by the logic of control of the future under conditions of Knightian uncertainty. Read, Dew, Sarasvathy, Song, and Wiltbank (2009a) argue: “Effectuation rests on a logic of non-predictive control – that is, to the extent that people can control the future, they do not need to predict it” (p. 2). In this statement, the authors outline the fundamental element of effectual process, that is based on current means. Decision making focuses on the resources (means) currently controlled (Sarasvathy, 2001a). Entrepreneurs strive not, as in causal reasoning, to predict the outcome of action; rather they use the means at their disposal to achieve certain effects (ends) (Sarasvathy, 2003).

The outcome of the decision is, in the short run, known, and the decision maker obtains temporary control about the (in the long run) yet-to-be-made future (Read & Sarasvathy, 2005). Once the knowledge of the entrepreneur extends, the repertoire of resources and also the effects that can be caused increase (Dew & Sarasvathy, 2002). In effectual reasoning, control is achieved through four core principles:

- To limit possible damage in an uncertain future, the entrepreneur focuses on the affordable loss associated with an action rather than on the expected return. Uncertainty makes it complicated, and in most cases even impossible, to estimate the opportunity costs of an action, as suggested by Casson (1982). The application of such decision-making tools for risky/ambiguous conditions will only by accident lead to favourable results because the required information is simply unobtainable under conditions of uncertainty. The entrepreneur can either abandon himself to the illusion that he possesses information that is by definition unobtainable (Weick, 1979) or focus on the downside risk of an action (Sarasvathy, 2001a). However, unlike the concept of opportunity cost, the concept of affordable loss is just emerging and needs further clarification (Alvarez & Barney, 2007).
- The entrepreneur focuses on key stakeholders rather than on main competitors. The entrepreneur can expand the resource base by convincing stakeholders to contribute to an undertaking. Forming a network with other economic actors enables resource access below market rates (Witt, 2004). A number of studies have examined the relationship between entrepreneurial networks and venture success. Brüderl and Preisendörfer (1998) labelled this path of research the “network success hypothesis”. Aldrich, Rosen and Woodward (1987) as well as some subsequent studies (Birley, Cromie, & Myers, 1991; Dodd & Patra, 2002; Johannisson & Nilsson, 1989) found a significant relationship between networking activities and venture success. However, these networks are rather different from the view of networks in effectuation theory. Whilst traditional network research in entrepreneurship highlights the individual position within a network, or the type of information exchanged in a network, effectuation theory highlights the importance of building strong key relationships with stakeholders who might commit to the venture.
- The entrepreneur uses contingency-based knowledge that undergoes changes between sub-decisions. The focus on contingencies serves two major purposes. First, the entrepreneur can be sensitive to feedback from customers. Second, the fact that the course of action is not predetermined allows adequate responses to this feedback. Moreover, the entrepreneur does not simply test logically derived hypotheses. In the process of design, entrepreneurs also build hypotheses that are based on their imagination and not only their rational thought (Liedtka, 2000). In this way, entrepreneurs leverage emerging contingencies rather than try to avoid the uncertainty presented by their environment (Dew, Read, Sarasvathy, & Wiltbank, 2009).

- The entrepreneur rejects attempts to predict the uncertain future. Instead, effectual logic focuses on the extent to which one can influence the future. Entrepreneurs focus on what they can control and not what might be theoretically predictable, and derive confidence from knowing that one cannot know all contingencies.

In effectuation theory, the future is contingent upon the actions of the entrepreneur, which leads to a distinct interpretation of the entrepreneurial process. The effectual process starts with the means that are available to the entrepreneur at a certain point in time rather than an opportunity. On the individual level, these means can be categorised into: (1) Who I am, (2) What do I know, and (3) Who do I know. These categories describe the resources available to the entrepreneur. Based on these resources, knowledge, and contacts the entrepreneur then starts to imagine possible action (“Given what I have, what can I do?”). However, the outcome of this process remains a priori unknowable, and effectuation constantly produces new goals and means.

But does this new understanding of the entrepreneurial process give rise to an entirely new set of variables? So far, research on effectuation research indicates that a familiar set of variables will be critical with regard to the means of the entrepreneur. According to Read, Song and Smit’s (2009b) meta-analysis, ‘Who I am’ contains a number of technological and financial resources as well as R&D activities. Moreover, the authors exclude a number of traditional items pertaining to individual personality traits such as the risk taking, personality type, or need for achievement. This said, ‘Who I am’ will certainly have some general components about individual attitudes and motivation as these will limit the plausible alternatives. The second element ‘What do I know’ also has some common ground with the existing literature. In particular, work on human capital regarding the industry or past entrepreneurial endeavours can provide further insights. Finally, the ‘Who do I know’ question has also received previous coverage by studies investigating business networks and the social capital of the founder. Given this evidence, the key contribution of effectuation theory to entrepreneurship is a different understanding of the entrepreneurial process on the individual level rather than a new set of variables.

Empirical evidence on the use of effectual logic is only now emerging. In a study comparing expert entrepreneurs with MBA students, Dew et al. (2009) provided empirical evidence that expert entrepreneurs are more likely to engage in effectual reasoning. Effectual reasoning fosters a contingency-based strategy, leading to the allocation of resources which

enable the entrepreneur to create an opportunity (Sarasvathy, 2001b). In this sense, entrepreneurial expertise is not based exclusively on current skills or cognitions; rather it is also defined by the ability to control resources and adapt to changing conditions. Empirical evidence about the effects of a focus on effectual principles on new venture performance already exists. In a meta-analysis summarising data on 9,897 start-ups, Read et al. (2009b) found that venture performance was positively correlated to the focus on currently controlled means, building partnerships, and leveraging contingencies. Only the principle of affordable loss could not be associated with venture success on the basis of the presented data. Efforts to develop more statistically reliable measures for the effectuation construct remain in its infancy (e.g. Brettel, Mauer, Engelen, & Kupper, in press; Chandler, DeTienne, McKelvie, & Mumford, 2009).

Wiltbank, Read, Dew and Sarasvathy (2009) investigated the outcome of 1,038 angel investments into new ventures. Some angel investors also prefer a non-predictive control strategy over the more traditional predictive investment strategy based on business plans. In their study, investors focusing on control achieve their immediate goals and tends to reduce the number of failures as well as the amount lost. At the same time, these non-predictive investors prefer many small investments over a few big ones as favoured by predictive investors. There is also evidence that the effectual process produces superior results in the pursuit of more radical innovation. Brettel et al. (in press) compared the effectiveness of the respective strategies for 400 R&D projects. The empirical evidence supports the earlier hypothesis by Sarasvathy (2001a) that effectual logic has its advantages for highly innovative projects, whilst predictive strategies seem preferable for R&D projects with lower levels of innovativeness.

### **2.3.3 Co-existence of causal and effectual processes**

Given mounting evidence that effectual reasoning is (1) more associated with individuals experienced in entrepreneurial tasks and (2) more beneficial in the pursuit of radical innovation, effectual thinking is important for this thesis. In order to highlight the implications of effectual reasoning, Sarasvathy and colleagues have often contrasted effectual and causal reasoning. Amongst these comparisons, one seems particularly interesting for this study, that of how expert entrepreneurs approach markets. Sarasvathy (2001b) describes the main differences in the marketing process between the classic causation and the

entrepreneurial effectuation model. In effectuation everything depends upon the individual and the interplay with the environment. The entrepreneur identifies customer based on a combination of a vague idea about the environment as well as the certain knowledge about who (s)he is, what and whom (s)he knows and what (s)he can afford to lose. In contrast, the causal marketing model employs the logic of complexity reduction. The environment is analysed to the extent that particular actions seem to establish a certain position within this setting. The entrepreneurs try to generate certain knowledge about the environment but they hold only a vague idea how they could fit into it.

Sarasvathy (2001b) contrasts the effectual and causal view of reaching the customer. The classic, textbook, model assumes that all ‘stages’ of finding a customer can be rationally approached. According to the causal model, the entrepreneur starts out with a clearly defined market in which the venture is placed through a series of deliberate strategic decisions informed by careful research. The individual customer is identified top-down. In the effectual approach, on the other hand, the entrepreneur does not start with a market. Instead, expert entrepreneurs focus on the means currently controlled, and reach a customer through commitment to a market. Hence, the entrepreneur reaches the customer bottom-up through a series of decisions based on the contingencies that arise in the process of product creation.

Read et al. (2009a) compared 27 expert entrepreneurs with 37 managers using an experimental research design. In their experiment, the authors found that expert entrepreneurs are very sceptical of market data for an innovation generated through traditional market research and tend to think more holistically about possible markets for the new product as well as about the consequences of engaging with a particular market. Consequently, expert entrepreneurs have a stronger tendency towards pursuing markets not mentioned in the initial scenario. Finally, expert entrepreneurs are generally more concerned about the financial feasibility of the project than managers.

Sarasvathy (2001a) pointed out that causal and effectual logic can co-exist. Given the evidence presented, the understanding of the entrepreneurial process must allow for the possibility that opportunities are exploited in an effectual rather than a causal manner. Hence, perceived opportunity cannot necessarily be the driver of entrepreneurial action. By the same token, this does not mean that the perception of ‘an opportunity’ is absent as individuals may very well enact their environment because of a perceived opportunity.

Contrasting the two views on entrepreneurial opportunities and the corresponding views on the entrepreneurial process, it becomes apparent that both creation and discovery theory assume that opportunities are subjective. This is why opportunities persist. If everybody knew about opportunities, their value would subside. The difference between discovery and creation theory thus lies primarily in the assumption about whether the individual pursuing the opportunity possesses superior information or not. In the discovery view, entrepreneurs pursue opportunities since they see value where others do not. Consequently, discovery theory favours causal processes driven by superior information on the individual level. An assumption rightfully challenged by creation theory since entrepreneurs may also enact their environment without any knowledge advantage. However, this does not mean that causal process, or the idea of perceived opportunity, needs to be refuted outright. Instead, creation theory rejects the pre-existence of entrepreneurial opportunities and treats causation with caution. Hence, taking creation theory seriously requires in the first instance that research should start without any assumption about the nature of opportunity.

#### **2.3.4 Focusing on key events**

One way to address the before-mentioned problems conceptually is to study the process directly. Process studies have been widely used to study phenomena characterised by high context dependence and causal ambiguity. These studies are particularly well equipped to deal with phenomena in which important variables are difficult to determine in advance. For the study of entrepreneurship, van de Ven and Engleman (2004) pointed out that emphasising key events yields important insights into how the entrepreneurial process unfolds. The authors argue that much research on the entrepreneurial process quickly reverts to a variable-driven view rather than maintaining a focus on explaining the key events.

Key events are important because they are linked to action. Weick (1988), for instance, argues that enactment of the environment always has a triggering event. People act for reasons in the process of trying to make sense of their surroundings. Often, these reasons are known only after the fact since enacting involves shaping the context of enactment itself. Enactment represents a bet, a bet that action will be received favourably by an unfolding environment (Weick, 2006).

These key events in the entrepreneurial process are best viewed as a project. From this perspective, entrepreneurs do not directly pursue opportunities since this would imply a discovery perspective on opportunity. Instead, they engage in projects which over time, lead to the discovery, or creation, of an opportunity. In this way, the study of entrepreneurial projects is closely related to the study of opportunities. At the same time, studying entrepreneurship as projects has important advantages since it does not require assumptions about the origins of opportunities; or whether their pursuit is driven by causal or effectual reasoning, as both logics may occur in the pursuit of projects.

Highlighting processes by focusing on projects also comes at a cost. What are the key events fostering enactment? Having outlined the importance of an increased process focus for the study of entrepreneurship in the tradition of the individual-opportunity nexus, it becomes necessary to develop a conceptual framework suitable to research the entrepreneurial process. Arriving at this framework requires decisions about (a) how the process unfolds, and (b) what themes to focus on within the process. Whilst the former question is discussed in the following, the second issue will become the focal point of the subsequent chapter, to allow for further elaboration.

Regarding the stages, Eckhardt and Shane (2010) suggest that studies investigating the individual-opportunity nexus should focus on a three-stage process: discovery, evaluation, and subsequent exploitation. However, including exploitation into the entrepreneurial process raises the question about the endpoint of the entrepreneurial process. As Shaver, Gartner, Crosby, Bakalarova and Gatewood (2001) pointed out, endpoints of the entrepreneurial process are usually chosen arbitrarily. More recent developments have pointed towards two possible roads. Entrepreneurship researchers interested in the exploitation stage of the individual-opportunity nexus can either include exit strategies (DeTienne, 2010) of entrepreneurs in their research about the entrepreneurial process, or alternatively, study business growth as part of the entrepreneurial process.

Empirical evidence suggests that including business growth in the entrepreneurial process has its merits. For example, Whittaker et al. (2009) outline important differences in opportunity development between UK and Japanese entrepreneurs. Whilst UK entrepreneurs focus on building a market position, Japanese entrepreneurs are more concerned with building a lasting business. These important differences between the entrepreneurs in the two countries derive from the attitudes of the founders towards their businesses as well as the

markets that the businesses serve. Without including growth and development, these differences would have remained undiscovered. The findings of Whittaker et al. (2009) suggest that the entrepreneurial process as used in the individual-opportunity nexus, namely opportunity discovery and opportunity exploitation, needs to be supplemented by opportunity development.

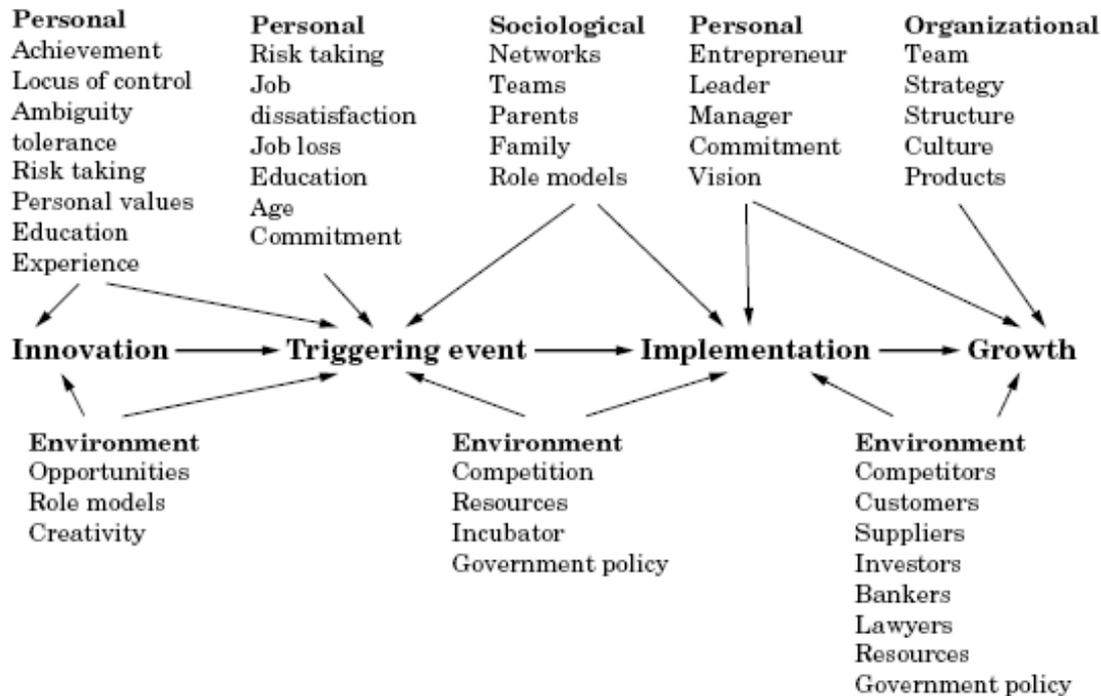
The work of Bygrave (1989) (see Figure 2.5) is particularly interesting. Building on the work of Moore (1986), the author suggests a model of the entrepreneurial process that spans from the original discovery of an innovation, through the triggering event to start a business, and the market implementation of the innovation, to the actual growth of the business – the Bygrave-Moore model. The first stage, or the innovation stage, summarises the individual level processes that lead to the generation of a new idea to create wealth. This stage is usually concerned with the founder's personal characteristics and the personal environment.

The second stage describes the triggering event, which encourages individuals to pursue a new idea. Carland and Carland (2001) note that the Bygrave-Moore model highlights a triggering event, in particular the sociological foundations of the trigger. The authors further argue that this focus downplays the role of personality traits and cognitive processes. Downplaying the role of personality traits is certainly not necessarily bad considering more recent developments in the field of entrepreneurship. Sarasvathy and Venkataraman (2011) point out that many efforts supposedly aiming at cognitive biases are trait research in disguise. Much of this research still tries to establish a correlation between personality traits and the tendency to perceive and exploit opportunities.

The Bygrave-Moore model offers a suitable alternative. Park (2005) uses it as a guideline to study product innovation amongst entrepreneurial high-tech start-ups. Like Carland and Carland (2001), Park points out that the model encourages researchers to raise questions about the triggering event, in particular the entrepreneurial motivation and alertness. The model also emphasises the interaction between the individual entrepreneur and the environment, which is strengthened by looking at the final two stages, implementation and growth. These stages describe the interaction between the emerging venture and its environment. Implementation refers to the efforts of the founder to establish the previously conceived idea as a business concept. In other words, it is the stage at which the entrepreneur

realises whether an innovative idea can be validated in a market. Finally, the growth stage is that in which a business emerges around the innovative idea.

**Figure 2.5: Bygrave-Moore Model**



Source: Bygrave (1989).

The Bygrave-Moore model resembles a causal model, which has been criticised by the effectuation literature. However, this is not overly problematic since the main purpose of the model for this thesis is to outline a sequence of events rather than to establish causal relationships between the variables. It also summarises a large number of factors relevant to the entrepreneurial process, many of which have been used by studies inspired by both causal and effectual models alike, giving the Bygrave-Moore model a number of advantages.

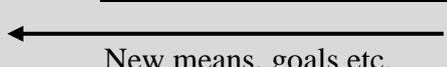
First, unlike models that focus on the cognitive elements of the entrepreneurial process, the Bygrave-Moore model highlights “the personal, sociological, and environmental factors that give birth to a new enterprise” (Bygrave & Zacharakis, 2010, p. 3). The model outlines the existence of stages whilst making few assumptions about how the stages are reached. Thus, all stages may very well be achieved through a combination of causal and effectual activities, making the model compatible with the research reviewed in this chapter. Irrespective of how the stages of the process are reached, however, the sequence of events remains the same. Products cannot be brought to the marketplace before they have been

thought of, and a business cannot grow before it has been founded. Expert entrepreneurs may follow a different process, but the development of their business will still essentially follow the same stages. However, given the focus on innovative ventures in this thesis, the use of effectual logic can be expected.

By focusing on the stages of this interplay, opportunity is not treated as an independent variable. Unfortunately, the terminology used to describe the stages in the original Bygrave-Moore model is slightly misleading as the process starts with an innovation. In this thesis, innovation has so far been linked to the interaction between the individual and the market environment. In the Bygrave-Moore model, by contrast, this interaction occurs only after a triggering event. Hence, the first stage of the model needs to be revised from ‘innovation’ to ‘emergence of new idea’.

Figure 2.6 illustrates the perspective on the entrepreneurial process as used in this study. It shows that the interpretation of the entrepreneurial process is closely related to both the process model suggested by research on the individual-opportunity nexus and the Bygrave-Moore model. At the same time, it does not assume the pre-existence of opportunity, or ‘goals’ more generally. As a result, it is at the very least not at odds with the effectual process.

**Figure 2.6: Entrepreneurial process**

Causal process (Eckhardt & Shane, 2010)	Opportunity discovery	Evaluation	Exploitation	Development
Bygrave-Moore model (Bygrave, 1989)	Innovation	Triggering event	Implementation	Growth
<b>Stages used in this study</b>	<b>Emergence of idea</b>	<b>Triggering event</b>	<b>Implementation</b>	<b>Growth</b>
Effectual process (Sarasvathy, 2001a)	<i>“Who I am?”</i> <i>“What do I know?”</i> <i>“Who do I know?”</i> <i>Lead to: “What can I do?”</i>	Manage affordable loss Leverage off contingencies Focus on building key relationships Focus on control over prediction		

As van de Ven and Engleman (2004) argue, it is impossible in process studies to separate the variables from the process itself. Combining the four-stage entrepreneurial process with a multi-level research approach as proposed by Bygrave (1989) makes the phenomenon almost non-researchable, calling for a decision about which parts of this rather complex model should be focused on, and which should be ignored. This narrowing down of the conceptual lens, which also informed the research questions, will be the subject of the next chapter.

## **2.4 Concluding comments**

This chapter has developed a working definition of entrepreneurship for the purpose of this thesis. Based on the current literature, a decision was made to view entrepreneurship as occurring at the nexus between the individual entrepreneurs and the opportunities they pursue, advocated by Shane and colleagues. In the first part of the chapter, preference was given to a Schumpeterian perspective on the entrepreneur as the innovator rather than that of the notion of the entrepreneur as a business founder. Following this tradition, entrepreneurs build innovative ventures, and thus Schumpeterian entrepreneurship is a special case of entrepreneurship. Building on the work of Shane and Venkataraman (2000) it was further argued that the role opportunities play in the entrepreneurial process cannot be overlooked. Because of this centrality, opportunity cannot be an explanatory variable in entrepreneurship research, but a variable that ought to be explained.

The two dominant perspectives on entrepreneurial opportunities were reviewed and their implications for the entrepreneurial process were outlined. Based on this analysis, two conceptual refinements were developed for the purpose of this study. First, the notion of the entrepreneurial project was developed as a preliminary stage for conceptualising the entrepreneurial process from the perspective of the individual-opportunity nexus. Second, the notion of the entrepreneurial project was further refined using the existing entrepreneurial process literature. In particular, the work of Davidsson and Bygrave provided anchor points to develop a conceptual lens that is focused on the individual.

However, from the perspective of the individual-opportunity nexus, this lens remains incomplete since it still highlights the individual over the opportunity. To address this shortcoming, opportunity exploitation is further conceptualised in the following chapter.

## **CHAPTER 3: CONCEPTUALISING THE ENTREPRENEURIAL PROCESS**

### **3.1 Introduction**

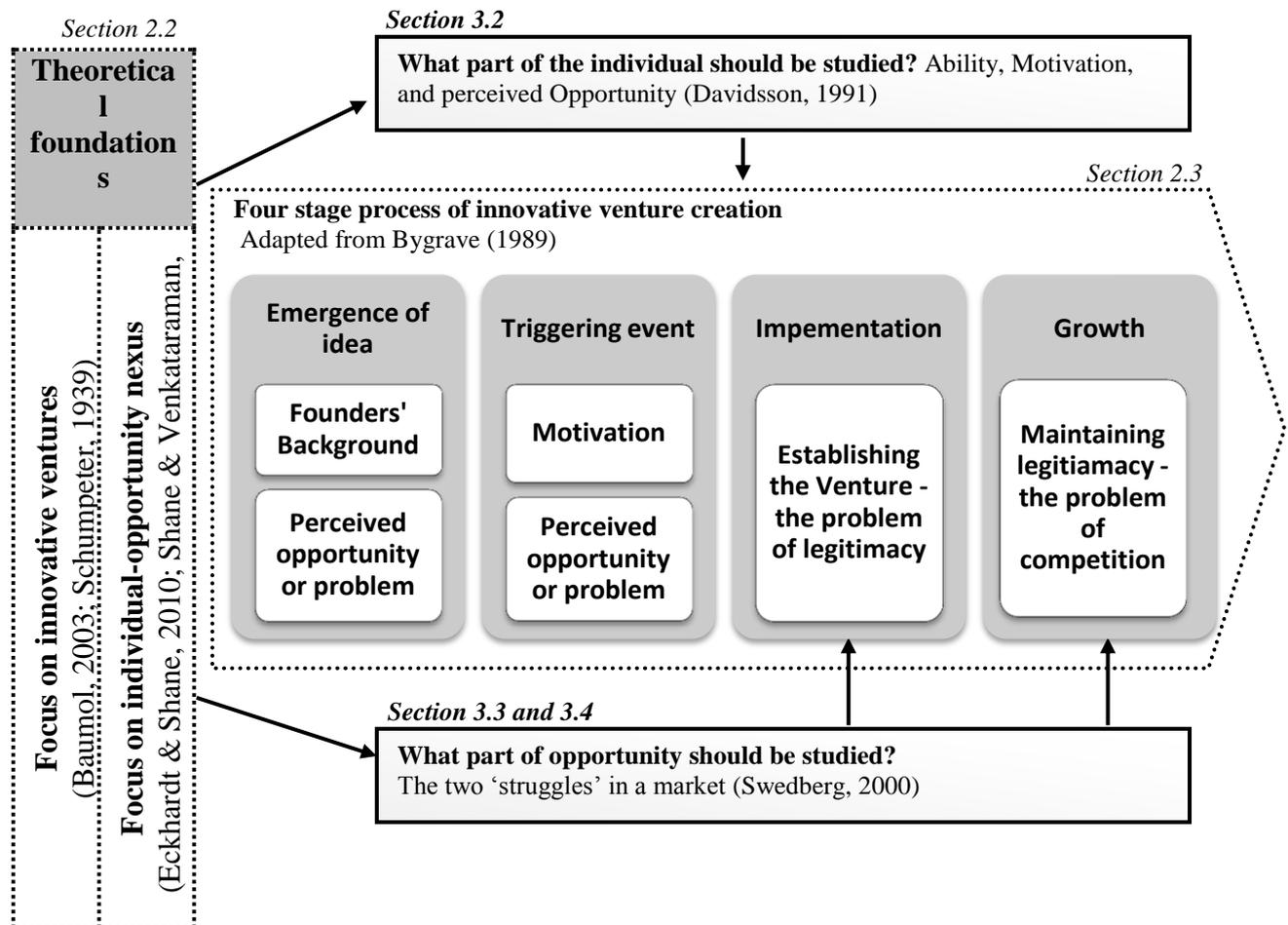
The previous chapter introduced the notion of the entrepreneurial project as the temporal boundary of entrepreneurial action for the purpose of this thesis. The Bygrave-Moore model provided the key events leading to the creation and the growth of an innovative venture. However, to explain these projects requires specifying both the events and the concepts capable of describing the events (van de Ven, 1992; van de Ven & Engleman 2004). McMullen, Plummer and Acs (2007) point out that empirical studies using the individual-opportunity nexus often lack a clear conceptualisation of the concepts. This chapter conceptualises both parts of the nexus. It argues that the individual level concepts are best derived from the entrepreneurship literature and that the opportunity level concepts are best derived from the sociology of markets and related fields. The solid framed boxes in Figure 3.1. (on the next page) indicate the focus of this chapter.

Section 3.2 argues that the ability-motivation-opportunity framework presents a suitable conceptualisation of the individual part of the phenomenon. In this line of research, the ability of the individual has taken centre stage in explaining why people pursue opportunities. Individuals need not only ability but also the motivation to use it. Often this motivation is simply summarised as a perceived opportunity, which may very well be the case. However, in light of the discussion of the previous chapter, a pre-existing opportunity cannot necessarily be assumed. The framework developed here allows for the possibility that individuals clearly perceive an opportunity when they become entrepreneurial whilst acknowledging that this perceived opportunity may differ from the actually realised business opportunity.

The second aim of this chapter is to conceptualise the opportunity to establish an innovative venture in the marketplace in sections 3.3. and 3.4. This conceptualisation is rooted in the entrepreneurial process literature as well as the sociology of markets. Whilst the former directs the focus towards events in the entrepreneurial process more generally, the latter helps in identifying, and ultimately describing the events in the process of the creation of an innovative venture. Building on the work of Weber (see Swedberg, 2000) on the two struggles in a market faced by individual market participants, it will be argued that the first necessary step in this process is to legitimise the innovative venture in the marketplace. Once

this initial legitimacy is achieved, the innovative venture will need to retain that legitimacy in the face of emerging rivalry. During this phase, the venture needs to build some form of competitive advantage.

*Figure 3.1: Overview of research issue*



By outlining the events in the entrepreneurial process as well as the theoretical underpinnings of the concepts used in explaining these events, this chapter provides the conceptual foundations of the thesis. It also develops the research questions that guide the empirical part of this thesis. Finally, this chapter links the framework developed to recent developments in the field of entrepreneurship, strategic management and the sociology of markets.

## **3.2 Explaining entrepreneurial action**

### **3.2.1 Elements of the ability-motivation-opportunity framework**

Discussion has so far revolved around the value and nature of market opportunities, the information potentially available about these opportunities, and the individuals pursuing these opportunities. Chapter 2 demonstrated that there is only limited knowledge about why individuals engage in innovative ventures, given the difficulties faced by them (Aldrich & Fiol, 1994). The following section will examine more generally the individual level antecedents commonly used in explaining the individual decision to engage in entrepreneurship. It will build on Davidsson (1991)<sup>2</sup>, who proposed a model that considers the perspective of the individual decision maker. Based on earlier work in psychology, he suggests that the decision of the entrepreneurs is influenced by their individual ability, motivation, and opportunity (AMO). He further argues that business growth is the result of the interplay between these three constructs.

Individual ability, opportunity and motivation have both subjective and objective dimensions. Whilst the subjective dimension of these constructs determines entrepreneurial action, the objective dimension determines the results. Since it can accommodate both the objective as well as the subjective elements of the individual-opportunity nexus, the (AMO) framework has become widely accepted to in the field of entrepreneurship (Davidsson, 1991; Stevenson & Jarillo, 1990; Whittaker et al., 2009). The basic thesis of the AMO framework is that entrepreneurship occurs at the intersection of ability of the entrepreneurs (initially their human and social capital), their motivation, and opportunities in the external environment.

Variations of the AMO framework have been used in a range of research, from marketing (MacInnis, Moorman, & Jaworski, 1991) through knowledge sharing (Siemsen, Roth, & Balasubramanian, 2008) to comparative entrepreneurship (Whittaker et al., 2009). The constructs outlined by Davidsson (1991) have been individually investigated for quite some time, strengthening their relevance for the study of entrepreneurship. These individual-level constructs have indeed been at the heart of entrepreneurship research and will therefore receive more detailed attention in the following discussion.

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<sup>2</sup> Davidsson argues that ability, opportunity, and need influence individual motivation. However, only ability, opportunity, and motivation directly influence action.

So far, the AMO framework has not been applied to innovative ventures, and doing so would certainly enhance our understanding about why entrepreneurs engage and grow ventures around innovative products. In other words, why do some entrepreneurs pursue innovative ventures given that imitative ventures are less likely to encounter challenges from their environment? In this context, relating the AMO framework to the creation and the growth of innovative ventures will certainly generate new insights into why some entrepreneurs start innovative ventures and others do not. This interest in the individuals behind innovative ventures leads to the first research question:

Q1: How and why do entrepreneurs start innovative ventures?

The following sections will discuss the three constructs used in the AMO framework in more detail. This discussion serves two purposes with regard to the first research question. First, it sets the foundation for the ensuing fieldwork, and second, it provides the context for discussion of the results of this thesis.

### **3.2.2 Entrepreneurial ability**

Research in the field of entrepreneurship has demonstrated that individual-level factors matter, with knowledge taking centre stage. Knowledge provides the basis for opportunity recognition, as it is unlikely that entrepreneurs will recognise opportunities in areas of which they have no prior knowledge (Venkataraman, 1997). Also, prior knowledge influences opportunity exploitation. Shane (2000) argues that prior knowledge plays a crucial role in the human capital of the founder, and individual human capital leads to the discovery of entrepreneurial opportunities. Rosenbusch, Brinckmann and Bausch (2011) find a positive relationship between the founders' human capital and venture success in their meta-analysis spanning over 70 articles published in the field of entrepreneurship.

Prior knowledge of entrepreneurs is comprised of a number of factors. Rosenbusch et al. (2011) find that education, start-up experience, industry-specific experience, management experience, and work experience were the most commonly used measures of entrepreneurial human capital. Marvel and Lumpkin (2007) similarly distinguish between general human capital – education and experience – and specific human capital – problem-solving capabilities – as well as prior knowledge about problems, markets and technology. Shane (2000) distinguishes three types of specific prior knowledge necessary for venture creation and growth: prior knowledge of markets, prior knowledge of customer problems, and prior

knowledge of ways to serve markets. The prior knowledge the entrepreneur possesses tends to form a knowledge corridor leading to opportunity identification and further development. In other words, the type of knowledge influences the types of opportunities that are identified as well as the direction in which the venture is developed.

Research on the role of general human capital most commonly uses the level of formal education as a proxy to measure prior knowledge. However, a direct link between education and start-up activities is yet to be established, with some studies reporting a positive relationship between education and start-up activities (Bates, 1990), while others point out that this relationship frequently does not hold true (Storey, 1994). Also, Davidsson and Honig (2003) find no significant relationship between general education or management experience and opportunity exploitation measured through initial sales and subsequent sales growth. Instead, more specific business education, as well as previous start-up experience, drive opportunity exploitation.

There is also evidence indicating that the level of formal education is positively related to individual returns (Parker, 2006). Baum, Locke, and Smith (2001) find that founders holding a post-graduate degree achieved faster employment and revenue growth than entrepreneurs without such qualification, within the Canadian biotechnology industry. Parker and van Praag (2006), moreover, discovered that highly educated individuals receive greater financial returns from pursuing an entrepreneurial career than from a corporate career.

Given this evidence, it appears that education does not influence the rate of opportunity identification, but the value of the opportunities identified, and that general education plays an inferior role in opportunity exploitation. What is required for successful exploitation is often specific knowledge about a market, a technology, or a way of delivering value to customers (Johanson & Vahlne, 1977, 2003). Ucbasaran, Westhead and Wright (2008) measured education, prior work experience as well as prior start-up experience, and found that specific capabilities such as ownership experience as well as managerial, technical, and entrepreneurial start-up capabilities positively influence opportunity identification and pursuit. General education and lower level work experience, on the other hand, have only very limited influence according to the authors (Ucbasaran et al., 2008).

Evidence of the influence of specific knowledge on new ventures is mixed and in disarray. Measures are rather blunt and used inconsistently because of different definitions of knowledge (Dimov, 2010). Despite this critique, some studies provide evidence for the

existence of causal linkages between entrepreneurial human capital and start-up efforts, as well as the outcome of these efforts. Ucbasaran, Westhead, and Wright (2009) find that individuals with prior business ownership experience discover more business opportunities, and in particular more opportunities to innovate. However, the data from 630 entrepreneurs also indicate that this positive relationship tends to diminish once entrepreneurs have been involved in more than ‘four and a half’ businesses.

More recently, Dimov (2010) provided further evidence of a positive relationship between industry experience and start-up efforts. In line with existing theory, the author argues that previous industry experience supports opportunity perception and also provides skills necessary to start a business. In other words, individuals with previous industry experience are better positioned to become aware of concrete opportunities within their industries and act upon them. Samuelsson and Davidsson (2009), on the other hand, find no positive effect of previous industry experience on start-up behaviour. Based on their results, the authors highlight the importance of focusing on differences in venture ideas (opportunities) and point out that most samples in studies of entrepreneurial human capital consist of entrepreneurs pursuing imitative rather than innovative venture ideas. This bias is regrettable. Fiet (2002) contends that the innovativeness of a new venture idea is deeply rooted in the prior knowledge of the entrepreneur. Highlighting this prior knowledge is essential for explaining the source of the innovative idea.

Neglecting differences between business ideas flattens possible differences between the human capital of innovative or imitative business founders, as well as between different types of innovative entrepreneurs. Cliff, Jennings and Greenwood (2006), for instance, discovered that differences in industry experience might explain the pursuit of imitative and innovative venture ideas. Their study of sixty Canadian start-ups in the law profession shows that founders with previous industry experience gained in large corporations tend to form more imitative ventures, whereas founders of innovative ventures tend to gain their industry experience in smaller firms.

Once the business is founded, it needs to be sustained. Again, past research has demonstrated a strong link between the founder’s human capital and the ability to exploit an opportunity as well as to grow a business. Gimmon and Levie (2010) found that entrepreneurial human capital was crucial for attracting external funding amongst the 193 high-tech start-ups they investigated. Human capital also influences strategy. In a study of

198 high-tech entrepreneurs, Shrader and Siegel (2007) found that those with prior industry experience are more likely to pursue a low cost strategy and tend to be more aggressive about growth and internationalisation than entrepreneurs without such prior experience. Aggressive internationalisation was also related to prior start-up experience, a finding very much in tune with the literature on international new ventures (Rialp, Rialp, & Knight, 2005; Sapienza, Autio, George, & Zahra, 2006).

Haber and Reichel (2007) investigated the influence of education, previous entrepreneurial experience and a defined business skill index on venture success amongst 305 small tourism ventures. The skill index was strongly related to venture performance. Managerial skill was the strongest indicator of small business performance, with education having no effect at all, and prior start-up being negatively correlated to venture success. However, as for identification and start-up activities, these results relating to success are probably biased by the industry investigated as well as the idea pursued. Haber and Reichel (2007) acknowledged that many of the businesses would fit the description of life-style businesses, which are focused primarily on survival rather than growth.

To summarise, there is a considerable amount of empirical work on the individual ability of the entrepreneur to discover and subsequently exploit market opportunities. In particular, the role of prior knowledge has attracted much research effort, demonstrating that abilities gained through previous experience do matter.

### **3.2.3 Individual motivation**

Although central to the field of sociology, motivational factors have received, and still receive, far less attention than individual ability in the field of entrepreneurship. In general, motivation is seen as a mediator that influences how much energy one allocates to a task, and therefore determines the direction, intensity and persistence of human action (Latham & Pinder, 2005). People become entrepreneurs because of situation-specific motivation (Shane, Locke, & Collins, 2003). According to Locke and Baum (2007), situation-specific motivation can be derived from at least three motivators. The first is self-efficacy, which is the belief in one's own ability to achieve a certain goal (Bandura, 1997). Hao, Seibert and Hills (2005), for instance, found a high level of self-efficacy amongst the entrepreneurs they studied. Second, goal-setting theory suggests that task-specific motivation is influenced by the envisaged goal (Locke & Latham, 1990, 2002, 2004). The third factor influencing

entrepreneurial motivation is the individual vision about what they want to achieve through their engagement in the venture (Baum & Locke, 2004).

Another model to investigate entrepreneurial motivation has been proposed by Gatewood, Shaver, Powers and Gartner (2002). Drawing on the expectancy literature (Vroom, 1964) they did not find a significant relationship between expectancies and entrepreneurial motivation, providing evidence that individuals are more likely to embark on entrepreneurial efforts if they believe that they can achieve positive results. The authors also found evidence that feedback on past entrepreneurial efforts has the capacity to positively influence future expectancy and hence motivation.

Entrepreneurial goals themselves have also been subject to investigation in the research featuring motivational factors. Following Carter, Gartner, Shaver and Gatewood (2003), Edelman and Yli-Renko (2010) name six factors that motivate entrepreneurs: self-realisation, financial success, recognition, role, innovation, and independence. The results show that entrepreneurs are neither driven by financial success nor by the desire to create a business of a certain size. These recent findings essentially support an earlier study by Wiklund, Davidsson, and Delmar (2003), who distinguished eight factors: workload, work tasks, employee well-being, personal income, control, independence, survival of crisis, and product/service quality. The authors also found that the importance of financial success has been overstated. Instead, the well-being of employees was found to be the most important goal influencing growth motivations. Hessels, van Gelderen and Thurik (2008), on the other hand, found evidence that entrepreneurs who have wealth creation as a primary goal do, in fact, create more jobs and are more export orientated.

Reviewing the above studies on entrepreneurial motivation reveals two insights. First, it shows the importance of financial as well as non-financial motivators in entrepreneurship. Second, it shows a disagreement on the key factors constituting entrepreneurial motivation. For instance, despite an extensive review of the literature, Wiklund et al. (2003) were able to explain only 25% of the variance of their model, suggesting that important factors may either still be missing from the construct, or that existing factors are insufficiently operationalised. Stewart and Roth (2007) conducted a meta-analysis of the difference between entrepreneurs and managers pertaining to achievement motivation and discovered that 20 different instruments had been used, which underscores this observation.

Finally, it can be expected that situational factors directly motivate individuals to become entrepreneurs. Most notably, entrepreneurs can either be ‘pushed’ into entrepreneurship out of necessity or they can be ‘pulled’ by an opportunity. This distinction is often employed by researchers conducting cross-national comparisons. In developed countries, pull motives allegedly dominate. Individuals usually become entrepreneurial in order to gain autonomy, status, personal wealth, or to rise to a challenge. Amongst these motives, the autonomy motive has taken central stage with several studies reporting a positive effect of the autonomy motive on venture creation for developed countries (van Gelderen & Jansen, 2006). In developing countries, on the other hand, mere necessity may often pull individuals into entrepreneurship as a result of lacking social security and attractive employment opportunities (Thurik, Carree, van Stel, & Audretsch, 2008). Consequently, it is assumed that necessity entrepreneurs are more risk averse and strive to avoid failure rather than to maximise return.

Taking the role of the entrepreneur seriously requires looking at individual motivation. As the reviewed research has indicated, there are profound differences in the individual reasons for becoming involved in a new venture. There is also some initial evidence for asserting that individual motivation matters for the ‘type’ of opportunities pursued.

### **3.2.4 Perceived opportunity as a driver of entrepreneurship**

The role of perceived opportunity in the individual decision-making process needs to be discussed. Opportunity perception has been a key theme in entrepreneurship research for a long time. In fact, early writings in entrepreneurship tended to revolve around the notion of the entrepreneur as an individual who can perceive opportunities that others cannot (Hayek, 1945; von Mises, 1949). This notion seems to have not gone of fashion, gaining particular popularity amongst economists in the Austrian tradition such as, for instance, Kirzner (1979), Lachmann (1982), and Loasby (1982; 2005).

Edelman and Yli-Renko (2010) found that opportunity perception is a key driver for entrepreneurial activity. Using the *Panel Study of Entrepreneurial Dynamics* (PSED) data set, the authors found that opportunity perception drives individual efforts to assemble resources necessary to form a venture. This finding is in keeping with much of the research on the cognitive processes of entrepreneurs, which provides evidence that they are experts in their

ability to structure and process information about potential opportunities (Mitchell et al., 2000).

Entrepreneurial action occurs because the entrepreneur can somehow simplify the decision-making problems at the individual-level (McMullen & Shepherd, 2006). The ability of the entrepreneur is based on the use of information. In a review of the literature, Alvarez and Barney (2007) argue that research efforts aimed at uncovering the factors influencing entrepreneurial decision making assume either psychological or non-psychological differences between those who embark on entrepreneurial opportunities and those who do not. Psychological differences are further subcategorised into personality and cognitive traits of an individual. Studies featuring personality traits such as locus of control (Rotter, 1966), need for achievement (Collins, Hanges, & Locke, 2004) and risk taking (Brockhaus, 1980; Chell, Haworth, & Brearley, 1991), to name only a few, have been shown to produce mixed results at best. Evaluations about these contributions range from a waste of time (Shaver & Scott, 1991) to a generally unsatisfactory predictor of an individual act (Epstein & O'Brien, 1985) to apparently ineradicable (Mitchell et al., 2002; Sarasvathy & Venkataraman, 2011). Of equal importance, research in this area often aims at establishing that entrepreneurs are born rather than made, educated, or drawn into entrepreneurship (Rauch & Frese, 2007) - a notion very much at odds with Gartner's (1988) critique of research seeking to establish the existence of innate differences between entrepreneurs and non-entrepreneurs.

The second group of psychological traits - cognitive characteristics - is assumed to coincide with entrepreneurial human capital (Alvarez & Busenitz, 2001). Here, cognition may embody a substitute for information (Cooper, Woo, & Dunkelberg, 1988; Zacharakis & Shepherd, 2001) and entrepreneurial decision-making is assumed to be based on an overestimation of the reliability of certain information (De Carolis & Saporito, 2006). Some of these biases are the illusion of control, overconfidence and representativeness bias. The overconfidence bias describes the overestimation of the accuracy of one's assumption (Oskamp, 1965). Busenitz (1999), for instance, found that overconfidence has a positive influence on the decision to become an entrepreneur.

Those results are remarkable considering that overconfidence is a phenomenon usually associated with familiar tasks rather than unfamiliar ones (Griffin & Tversky, 1992). The illusion of control bias is more specific and derives from an overestimation of one's influence on the outcome of an action (Langer, 1975). Research about the influence of the

illusion of control found evidence for a positive correlation with venture creation (Boyd & Vozikis, 1994; Keh, Foo, & Lim, 2002; Shapero, 1985). The representativeness bias refers to an overestimation of the prognostic power of small samples (Tversky & Kahneman, 1982). Another stream of cognition research has found that entrepreneurial activity can be the consequence of an individual willingness to accept uncertainty. Again, some researchers examining special individual characteristics assume that entrepreneurs are members of a homogeneous group that is heterogeneous to other groups of the society. Subjects of investigation are, consequently, the usual suspects such as need for achievement, risk taking (Wu & Knott, 2006), extroversion and so forth.

Entrepreneurs economise on the decision process by making decisions based upon small, non-random samples (Simon, Houghton, & Aquino, 2000). However, those mental shortcuts are not peculiar to the entrepreneur, as non-entrepreneurs also tend to use them (Busenitz & Barney, 1997). Baron (1998) suggests that it is only the degree to which entrepreneurs use specific heuristics that is different from non-entrepreneurs. Even though Cooper et al. (1988) point out that the retrospective study of entrepreneurial decisions might have an undesirable bias towards a over-accentuation of cognitive factors, some noteworthy differences between entrepreneurs and non-entrepreneurs might exist. However, these differences can be expected to be the result of, and not the reason for the entrepreneurial action (Hayward et al., 2006).

Summarising the research on the individual-opportunity nexus using the AMO framework, it becomes apparent that it focuses on the interplay between individual knowledge, motivation, and profit opportunities. Amongst these, individual knowledge became a core topic. Individual motivation, as the second concept used in the AMO framework, has received less attention. Moreover, the concept of opportunity has rarely been explored despite being frequently mentioned. It is usually assumed to be the main pre-existing motivator. In fact, there is an interesting relationship between the common use of the concept of opportunity and individual motivation. Opportunity, or better, perceived opportunity, is often assumed to pull individuals into entrepreneurship, making opportunity the core motivating factor in entrepreneurship. This comes at a cost as it renders other motivational factors implicitly less important.

Besides being a key motivator in the entrepreneurial process, opportunity validates the business idea, and the language of opportunity has rightly become the central concept to the study of entrepreneurship, creating the diversity needed in a comparatively young field of scholarly inquiry (Davidsson, 2004). On the other hand, Gartner, Carter and Hills (2003) argue that the terminology of opportunity and the resulting methodological diversity have begun to hinder the academic discussion in the field. Hansen, Shrader and Monllor (2011), for instance, found eight different working definitions of opportunity, producing a diversity that tends to obstruct the advancement of the field. From the point of view of a researcher it is, therefore, necessary to establish a clear research agenda in researching opportunities.

The following section develops the foundations for the empirical part of this thesis with regard to the above by outlining the process of opportunity emergence from an economic sociology perspective. First, the literature on the sociology of markets is reviewed. The section argues that this stream of literature provides some initial anchor points to advance our understanding of opportunity, despite having developed an affinity for homogenous rather than innovative products. Second, the section highlights a more actor-orientated view of the market to derive individual, or entrepreneurial, struggles in establishing an innovative venture in the marketplace. In the first instance these struggles are those of market legitimacy, and the section, therefore, also discusses how legitimacy can be gained.

### **3.3 Sociology of markets and legitimacy**

#### **3.3.1 Structure of markets**

Economic sociology has a strong tradition in examining market exchange. The study of this exchange usually focuses on institutions that govern market exchange as well as the actors operating within this framework (Fligstein & Dauter, 2007). The work of Callon and colleagues has been instrumental in the study of markets from an economic sociology perspective. Callon (1998) sets out a research agenda that focuses on the formalised framework enabling market exchange. For Callon and colleagues, economic actors are calculative within these frameworks and use a defined set of calculating tools – so-called ‘market devices’ – to conduct market exchange. Market devices facilitate the transformation of a product into a marketable good. The argument goes as follows: in order to be marketable, a product needs to be disentangled from its context of origin and re-entangled into the market

through the process of framing (Callon & Muniesa, 2005). Market devices such as pricing models, analytical techniques and marketing facilitate framing as they make products more comparable and reduce asymmetric information (Muniesa, Millo, & Callon, 2007).

In doing so, framing brings the conditions of real markets closer to the axioms of mainstream economics regarding the distribution of information and the homogeneity of goods. Framed information makes it feasible for market participants to calculate preferred choices. Calculation is particularly efficient in cases where the devices themselves have been developed in the field of economics (Faulhaber & Baumol, 1988). Empirical research in this tradition has focused on well organised and highly standardised markets such as the stock exchanges (Beunza & Garud, 2007; Beunza & Stark, 2004), the cotton market (Caliskan, 2007), and the derivatives market (MacKenzie & Millo, 2003), to name only a few. To various extents, the academic field of economics has profoundly influenced the development of these markets. Over time, economists' tools and concepts have made inroads into market practice, where *homo economicus* has in some ways become almost a socially constructed reality. Hence economics is performative, creating the economy it sets out to describe – a self fulfilling prophecy.

Performativity entails some shortcomings that need to be addressed. Its discussion has an inherent tendency to gravitate towards markets that resemble economic models. Obviously, these markets become more efficient in the sense of economics because calculating tools frame products according to the assumptions of economics. This culminates in an interest in arbitrage as the space of maximum penetration of economics into real markets. Evidence for this tendency is scattered across the sociology of markets, particularly the study of the financial system (e.g. Beunza, Hardie, & MacKenzie, 2006; Knorr Cetina & Bruegger, 2002). The focus of these studies often lies in how exchange is conducted, the fact that something is exchangeable or marketable, and is taken for granted. Market participants are facing a situation where the future value of a financial instrument is uncertain, but, there is very little misunderstanding about what those financial instruments essentially are. The uncertainty of the market participants is limited to the price.

A good example of this is Caliskan's (2007) analysis of the cotton market in Izmir. In this market, cotton is traded in different quality classes. Within each class, cotton is homogeneous and the market participants are very much aware of that. Like the financial market, buyers and sellers have already agreed on what will be traded, leaving uncertainty

confined to the conditions of trade. It is reasonable to assume that in both cases individuals participate in these markets in order to trade predefined, mostly homogeneous, items. All aspects of trading on these markets are institutionalised and price remains the unknown determinant.

The affinity of the sociology of markets to markets resembling economic models has implications for entrepreneurship research. Baumol (2003) pointed out that economics has a tendency to create models that leave no room for the entrepreneur or entrepreneurial function. The discussion above shows that the sociology of markets has perhaps borrowed too heavily from these models, and as a result focuses on the macro-level structure of markets rather than the actors who build and reproduce this structure. Highlighting this role of actors requires taking a step back and examining the role of actors in economic sociology more generally, by asking the question of how organised market exchange emerges.

### **3.3.2 Innovative ventures and legitimacy**

Introducing innovative ventures into the logic of market institutions gives rise to an interesting problem. On the one hand, institutions reward compliance, making innovative ventures inherently more risky. Established market institutions thus set some disincentives to innovate. On the other hand, innovation may change the institutional framework, in which case innovation rather than compliance may become rewarded (Aldrich & Kenworthy, 1999). Schumpeter (1939) referred to the process by which entrepreneurs benefit from replacing current products and production processes through innovation as creative destruction. Focusing on the outcome of creative destruction, Schumpeter (1939) portrays the individual entrepreneur as a 'hero' who strives to be different, and who may be generously rewarded for challenging the 'institutionalised' status quo.

On the road to these rewards, entrepreneurs first face the negative consequences of non-compliance. Battilana (2006) pointed out that generating legitimacy for innovation does not occur in an institutional vacuum. Innovation frequently needs to comply with some existing arrangements in order to become adopted. Failure to do so often leads to the rejection of innovation since other actors tend to interpret innovation on the basis of existing understandings (Friedland & Alford, 1991). Changes to these understandings occur out of a paradox. Whilst current institutions set disincentives to pursue change and heterogeneity, future institutions may reward it.

The innovative venture thus represents a gamble. Entrepreneurs engaging in these ventures must assume that heterogeneity might eventually become rewarded. They must assume a change in the market. But how are the institutional changes that reward heterogeneity accomplished? The current sociology of markets (see section 3.3.1) offers little guidance to resolve this question. In fact, quite the opposite is the case. As a result of the pronounced interest in the institutional structure of markets (Fligstein & Dauter, 2007), the field developed an affinity towards institutions that govern the exchange of homogenous goods. The exchange of heterogeneous goods, on the other hand, has largely been ignored.

To allow for heterogeneous products, it becomes necessary to take a step back from the currently prevailing focus on exchange in existing markets and to look at the emergence of new markets. It also requires highlighting the role of the actor, as the ‘source of heterogeneity’, over the role of institutions, as a ‘source of homogeneity’. Earlier writings in the economic sociology tradition and entrepreneurship provide solid anchor-points to advance this discussion. Weber (2008) provides an actor-oriented view of the market. For him, markets are social arenas for the impersonal struggle between potential buyers and potential sellers of objects. Swedberg (2007) argues that the idea of struggle amongst actors is central to Weber’s understanding of markets. In some of this earlier work, Swedberg (2000) cited the following definition of the market from Max Weber’s *Economy and Society* which also highlights the importance of struggle in Weber’s work on the market:

“A market may be said to exist wherever there is competition, even if only unilateral, for opportunities of exchange among a plurality of potential parties. Their physical assemblage in one place, as in the local market square, the fair (the ‘long distance market’), or the exchange (the merchants’ market), only constitutes the most consistent kind of market formation. It is, however, only this physical assemblage which allows the full emergence of the market’s most distinctive feature, viz., dickering<sup>3</sup>.” (Swedberg, 2000, p. 378)

Weber argued that the individual struggle in a market can be subdivided into two smaller struggles, namely the struggle about who to sell to (struggle to find a customer) and the struggle about whom to outbid (competitive struggle) (Swedberg, 2007). Whilst Weber identified these struggles, he did not elaborate further on them. This is regrettable given that the innovative venture will need to overcome both of these struggles in becoming established in a market.

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<sup>3</sup> Meaning bargaining.

One way to advance Weber's argument from the perspective of the sociology of markets is to link it to the concept of legitimacy. For the innovative venture, both the struggle to find a customer and the competitive struggle allude to the question of market legitimacy. Finding customers means to legitimise the innovative venture in the marketplace. Ventures that lack market legitimacy will be unable to articulate a clear value proposition to customers, and hence will not survive. The struggle that results from competitive forces, on the other hand, is one for retaining market legitimacy. Rivals try to outcompete one other, striving to become the most legitimate participant in a market. From this view, retaining market legitimacy over rivals becomes a matter of survival for the entrepreneurial business. Because of this centrality of legitimacy to this actor-centred understanding of the market, the discussion turns now to the sources of market legitimacy.

### **3.3.3 Legitimacy through compliance or change**

Legitimacy has been a core issue in strategic management (Aldrich & Ruef, 2006), in particular the question of how organisations gain and maintain legitimacy given a set of existing environmental conditions. Suchman (1995) defines legitimacy as “a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions” (p. 574). Clearly, a venture cannot participate in a market in the absence of some form of legitimacy.

Questions of legitimacy have been studied from economic, sociological as well as historical perspectives. What separates these strong traditions is the fact that they rely upon different, often conflicting, assumptions about the sources of legitimacy (Hall & Taylor, 1996; Koelble, 1995; Schmidt, 2006). The common ground between these approaches is limited to the belief that legitimacy derives from institutions, which describe some form of shared meanings and understandings that influence actors (Berger & Luckmann, 1966; Campbell, 2004; DiMaggio & Powell, 1991; Meyer & Rowan, 1977; North, 2005).

Institutions set incentives or disincentives respectively, on some level of aggregation, for actors to behave according to them (North, 2005). They are mostly seen as constraints to human action that are difficult to overcome (Meyer & Rowan, 1977; Scott, 1995). Actions that are in accordance with the institutional incentives are believed to be more legitimate than those that are not. Because of legitimacy, actions are likely to resemble one another, despite the different intentions of acting individuals (DiMaggio & Powell, 1983). Whether

institutional pressure occurs through the logic of efficiency (North, 1990; Scharpf, 1997), the logic of appropriateness (March & Olsen, 1989) or path dependency (Thelen, 1999), the equilibrating characteristics of institutions are the explicit or implicit focus of most theoretical and empirical work (Bates, De Figueiredo, & Weingast, 1998; Hay, 2006; Krasner, 1984). As a result, the primary ‘function’ of institutions is to reduce uncertainty by providing a source of stability for otherwise uncoordinated actions (Garud, Hardy, & Maguire, 2007).

Sadly, this assumed stability comes at a cost. Action is rendered predictable within its context of occurrence and changes in actors’ behaviour are triggered by changes in the underlying institutions (Gorges, 2001). Individual failure to comply with institutional arrangements is often associated with the actors’ inability to do so, owing to incomplete information or bounds to rationality rather than deliberate choice. The reasons for individuals to diverge from institutional conformity, and with it the influence of institutions on key decision makers in their quest for legitimacy have only rarely been examined (George, Chattopadhyay, Sitkin, & Barden, 2006).

The micro-orientated perspective of institutions suggests that individual decisions cannot entirely be explained by using higher level institutions (Hwang & Powell, 2005). From this perspective action occurs not only because it is legitimate to the broader environment, but because it seems plausible to the individual (Weick et al., 2005). The reasons for action are not objectively given since they remain an individual construct (Berger & Luckmann, 1966). For constructivist institutionalists, reasons for actions are situational and arise through dialogue (Phillips, Lawrence, & Hardy, 2004), interaction (Gergen, 1999), and personal relations (Granovetter, 1985, 1992) on the individual level. In order to understand individual action, therefore, it is crucial to understand how the context of, and the reasons for, action were constructed in the first place.

Nonaka and Toyama (2005) noted that action might be intended to be different as a result of different interpretations of reality. Entrepreneurs who aim at founding an innovative venture certainly are a good example of this. Entrepreneurs create businesses with the intention of being different. The implication that arises from a focus on strategy within institutional logic is that strategy might not aim directly for institutional change but for legitimacy. Unlike the power perspective, strategic action does not necessarily imply that institutional changes are the intentional and direct consequence of human action (Barley &

Tolbert, 1997). Instead, strategy might aim to generate legitimacy that has previously not existed, as entrepreneurs are motivated toward new means to make profits (Beckert, 2009).

Institutional change may also be the unintended consequence of action (Lawrence, 1999). From this perspective, actors' interests are ambiguous and actors are constantly engaged in the pursuit of multiple, sometimes contradicting goals. Clearly, power facilitates the achievement of these goals. However, besides power, strategy is an important factor (Dorado, 2005; Fligstein, 1997). Since in reality institutional pressure is omnipresent, only limited options for actors remain to achieve their goals (Oliver, 1991). Therefore, actors must make wise judgements as to how they deal with existing arrangements (Emirbayer & Mische, 1998). Whilst action remains constrained by institutional arrangements actors are free to choose strategies that serve their goals – a contradiction frequently referred to as the paradox of embedded agency (Neca & Naccache, 2006). Given the complexity of this paradox, actors are not capable of calculating a single best strategy which can explain diversity even within the logic of institutional compliance (Nelson, 1991).

The inherent bias towards explaining homogeneity defines a major shortcoming of the compliance logic for the study of entrepreneurship and strategy. From a strategic management perspective, it has frequently been argued that firms try to be different in order to build and sustain a competitive advantage. In this line of thought, profits arise not from compliance but from differentiation (Dosi, Marengo, & Pasquali, 2006; Teece, 2009). Firms have incentives to challenge or even break institutional boundaries through innovation as it may put them at an advantage against their rivals.

### **3.3.4 Legitimation processes**

Some researchers have a direct interest in processes that lead to legitimation. In other words, this line of research investigates the other side of the coin, namely how legitimacy is gained rather than what gives legitimacy. Processes of gaining legitimacy may include elements of both compliance and institutional change. Sources of legitimacy are not mutually exclusive and certain things or procedures in everyday life rest on various sources of legitimacy.

Suchman (1995) demonstrates that there is more than one road to legitimacy. First, actors can aim to achieve pragmatic legitimacy from their audience. This type of legitimacy is granted for actions that serve the interests of the parties involved and often results in an exchange relationship between actor and audience. In other words, the audience grants legitimacy to action because it serves their interests. Second, action can also achieve legitimacy when it confirms the moral attitude of the audience. In essence, moral legitimacy is given to action that is rendered 'the right thing to do', and unlike pragmatic legitimacy, it is not based on self-interest alone. Finally, action can gain cognitive legitimacy. Cognitive legitimacy is the result of incorporation of an activity in the social construction of reality. As a result, action becomes part of the belief system of the audience, which makes it difficult to challenge as alternatives are often not even considered and action becomes taken for granted.

Greenwood, Suddaby and Hinings (2002), argue that achieving cognitive legitimacy, or taken-for-grantedness, follows a six-stage process. The first stage, 'precipitating jolts', describes events with the potential to challenge the status quo such as the arrival of a new technology or a proposed social or regulatory change. The second stage, 'deinstitutionalisation', describes processes by which the status quo comes into disarray. This stage requires that actors actively try to change established institutional norms. It requires some form of institutional entrepreneurship. The third stage, 'pre-institutionalisation', represents the stage in which multiple actors innovate independently and essentially pursue their interpretation of how institutional order should be re-installed. The fourth stage, 'theorisation', describes the development of larger categories of concepts to simplify causal relationships, which facilitates diffusion of the new institutional logic. The fifth stage, 'diffusion', refers to the adoption of innovation in the wider environment and indicates that it has gained legitimacy. However, at this stage, institutions may not necessarily change, at least not as long as they are not at odds with the newly diffused innovation. The sixth stage, 're-institutionalisation', describes how the institutional environment adapts to the new reality.

Johnson, Dowd and Ridgeway (2006), on the other hand, suggest that legitimisation of new social objects proceeds in four stages: innovation, local validation, diffusion, and finally, general validation. Innovation is the response to needs of actors who favour change over the status quo. From this perspective, innovation is based on assumptions of actors about what is desirable, valuable, or appropriate. These assumptions need then to be tested against the expectations of the local environment in order to achieve some initial validation. Once local validation is secured, change can gain momentum. Over time, more actors accept the

innovation – innovation diffuses. This process of diffusion continues until general acceptance, or validation, is reached and the innovation has become taken for granted.

In both models, strategies aiming at the legitimisation of new social practices or objects have a number of critical components. Legitimisation efforts always start within the existing institutional framework. Within this framework, the new activity or object needs to gain some form validation before it can diffuse; and, in the longer term, diffusion may lead to change of the institutional structure. However, little is said about the challenges individual entrepreneurs encounter whilst trying to legitimise innovative ventures.

### **3.4 Gaining and retaining market legitimacy**

#### **3.4.1 Legitimising innovation**

Let us now focus on issues surrounding innovation legitimisation. Innovation may place existing products and processes at a disadvantage not only because it is preferable but also because it may change the preferences (Beckert, 1999). Before these advantages materialise, however, the innovation has to be legitimised. Beckert (2009) called this need to gain legitimacy the “value problem” – the innovation must prove that it has additional value. Customers have predefined, or institutionalised, frameworks which help to evaluate a product within an existing product category. These product categories determine what can be brought to a market and what is considered valuable. For new innovative products, these product categories are often absent or ambiguous, creating a problem for assessing the legitimacy, and hence, the value of innovation.

Work in the sociology of markets on the legitimacy of innovation from the perspective of the entrepreneur is absent. One way to approach this lack of existing theory is to use earlier work in the field inspired by sociology. Max Weber (1997) pointed out that items exchanged in a market have a different degree of marketability. Marketability “is the degree of regularity with which an object tends to be an object of exchange on the market.” (Weber, 1997, p. 182). Whilst items with a high degree of marketability are frequently exchanged, those with a low degree are not. Weber (1997) was convinced that this difference impacts on the social order of exchange (the structure of the market) as well as the behaviour of individuals acting within these markets. Here, the literature on the sociology of markets reviewed so far provides little insight since it favours products with a high degree of marketability over those with a lower marketability such as innovation.

Using the example of the electric light bulb, Hargadon and Yellowlees (2001) show that building on existing institutions rather than superior technical features is crucial for the dissemination of products with a low initial marketability. In order to gain legitimacy from customers, regulators and investors, Thomas Edison had to imitate almost every aspect of the existing gas-lighting technology. This example clearly illustrates insights from the marketing literature about the challenges of product innovation (Moreau, Markman, & Lehmann, 2001). Similarly, Rindova and Petkova (2007) demonstrate that there is an optimum of institutional compliance for evoking analogies. Using the concept of radical versus incremental innovation, they show that the former are designed in a way that intends to increase the similarities with existing products or product categories. The latter kind of innovation, on the other hand, is often accompanied by strategies to increase the perceived dissimilarities (Rindova & Petkova, 2007). Further, innovation may struggle to gain legitimacy because its recipients perceive it as driven by the self-interest of the innovator (Hargrave & van de Ven, 2006). As a result of these challenges, new meanings and understanding seem to be negotiated, not imposed, and emerge through the consensus of various actors (Dougherty, 1990; Lounsbury & Crumley, 2007).

Finding initial customers is clearly an important step for every new business. Mohr and Sarin (2009) argue that the role of the customer has also been central to the work of Drucker. Satisfying a customer need defines the purpose of business (Drucker, 1954). In fact, Drucker repeatedly argued that the core function of businesses is to create and to maintain customers (Drucker, 1973). Webb, Ireland, Hitt, Kistruck and Tihanyi (2011) linked the existence of initial customers to the individual-opportunity nexus, arguing that there is no opportunity without a customer. Moreover, the authors point out that much of the current literature simply assumes pre-existing customer interest. However, especially for innovative products, this assumption may be mistaken. For innovative ventures, products may be neither known nor understood, and therefore finding customers may remain a crucial challenge, a challenge of particular interest to sociologically inclined research on entrepreneurship (Ruef & Lounsbury, 2007).

More legitimacy will be given to innovation that reaffirms dominant beliefs (Oliver, 1991). Innovation that contradicts the dominant world-view, on the other hand, is more likely to be contested, regardless of the degree of newness. Hence, entrepreneurs can legitimise innovation by complying with the existing beliefs of their customers (Seabrooke, 2007).

Achieving legitimacy through compliance is the norm in institutional logic. However, there are alternative ways for an innovation to become accepted.

Achieving legitimacy for innovation may require institutions to be changed in a favourable way. Empirical work on institutional change has focused on the role of the actor in the change process (Lawrence, Hardy, & Phillips, 2002), the influence of complexity or contradictions (Greenwood & Hinings, 1996) and the actor's interests (Dacin, Goodstein, & Scott, 2002). The following two processes of institutional change seem to be conceivable. First, institutions may change through the action of skilled or powerful actors. This change process assumes that not all actors are equally capable of altering institutions. Some actors, such as governments, large organisations, trade unions, etc. are equipped with strategic resources necessary to reproduce or change institutional arrangements (DiMaggio, 1988). Munir and Phillips (2005) analysed how the management of Kodak transformed photography through the introduction of the portable roll-film camera. The authors found that the success of the new technology could not be explained by its superior technical features and the increased convenience for the customer. Instead, Kodak had to mobilise resources to launch extensive marketing campaigns in order to change the way in which people used cameras in their everyday life.

The second way to change institutions is through discourse. Innovation may also diffuse because customers increasingly learn to understand its benefits. Over time, innovation requires a critical mass, making changes to market and wider social environment inevitable (Rogers, 2003). In this process preferences, customs and social norms change not because they are desired by a powerful or resourceful actor, but because people spontaneously behave in a certain way (Easterly, 2008). Behaviour changes bottom-up and in doing so manifests the institutions necessary to legitimise innovation.

### **3.4.2 Legitimising start-ups**

From the perspective of the individual trying to establish an innovative venture, the question of legitimacy adds an additional dimension to the legitimacy of innovation as such. New ventures commonly face a number of difficulties in establishing market exchange. Stinchcombe (1965) summarises these disadvantages as the “liability of newness” faced by new organisations. He argues that new organisations frequently face a number of disadvantages, hindering their legitimisation. First, in contrast to well established

organisations, new ventures need to gain legitimacy in order to be a trustworthy business partner to the stakeholders involved. Brown and Butler (1995), for instance, found that small and young firms in the US wine industry face a disadvantage in negotiating contracts with their suppliers, complicating market entry. Second, new ventures lack resources which require that third parties commit to the venture in order to establish productive routines (Schumpeter 1934). These resources usually need to be obtained to market conditions since newly established organisations lack relationships that would enable them to engage in non-market exchange.

Reliance on market exchange makes the newly established firm vulnerable to opportunistic behaviour. Particularly in the case of innovation, contracts and property rights tend to be incomplete, which will intensify disadvantages derived from a lack of existing business contacts. Since young firms face more difficulties in building partnerships than older firms, the ability of new firms to compete based on innovation might be impaired. Morse, Fowler and Lawrence (2007) summarise the disadvantages of new and young firms in the processes of their emergence, namely the need of the new firm to establish a new internal organisation, the lack of reputation, and a relative shortage of social and economic capital. They further argue that the increased use of modern communication technologies can help to ‘virtually’ embed the new venture in its environment through a focus on highly specialised but physically separated relationships with key contributors to the venture. In other words, new firms can aim to build social and economic capital by focusing on relationships with certain beneficial characteristics irrespective of physical proximity of the potential partner.

Whilst legitimacy can be strategically pursued by the new venture, however, it is granted by the external environment (Singh, Tucker, & House, 1986). Moreover, room for strategic manoeuvring is limited. Due to a lack of legitimacy capital, a well trained workforce often remains unattainable for a young organisation, exacerbating the above-mentioned disadvantages and creating a vicious cycle (Brüderle & Schüssler, 1990). One way of breaking this cycle is the use of external directors. Kor and Misangyi (2008) found that start-ups in the technology-intensive medical industry often rely on external directors during the initial phases of the venture growth. These external directors often provide important industry and business experience which lessens the liability of newness of the venture. Stuart, Hoang, and Hybels, (1999) investigated the effects of external endorsement on the ability of new ventures to obtain external resources. Using a sample of 301 biotechnology start-ups, the authors found that the affiliation with reputable alliance partners, equity investors, and

investment banks facilitates resource access for young firms. These affiliations are a primary consideration in the evaluations of young companies that have not yet built a reputation of their own.

Developing a positive reputation reduces uncertainty about the new venture, giving reputable companies an advantage in acquiring resources and attracting new customers. With increased reputation, other stakeholders tend to believe in the value creating ability of the reputable business, a quality frequently doubted for new businesses. Customers of reputable businesses are therefore willing to pay a price premium (Rindova, Williamson, Petkova, & Sever, 2005). Given the positive effects of reputation, small firms should strategically engage in reputation building in order to increase their chances of survival. However, empirical evidence on the exact strategies entrepreneurs use to built reputation remains inconclusive (Rindova, Petkova, & Kotha, 2007).

Reuber and Fischer (2005), for instance, pointed out that the positive effects of reputation building depend upon the competitive environment faced by the new venture. Even though reputation is always beneficial, effects on performance vary. Through their work the authors draw attention to the issue of environment fit in which reputation building occurs. Goldberg, Cohen, and Fiegenbaum (2003), on the other hand, looked at the formation of strategies aimed at building reputation. They found that many small business owner-managers fail to establish clear strategies, suggesting that the reputation-building process remains fuzzy. Thus, even though building a positive reputation might help a new venture to gain legitimacy, it is not a given that this will actually happen. In fact, empirical evidence on the role of reputation building in the legitimisation process remains scarce.

There are also strategies that aim more directly at creating legitimacy for a new venture. Delmar and Shane (2004) set out to uncover how entrepreneurs address the liability of newness of their ventures more generally. In their study investigating the life histories of 223 Swedish start-ups, the authors found that the survival of new ventures is positively associated with efforts aimed at establishing regulatory legitimacy. New ventures in which entrepreneurs focused on creating a legal entity were far more likely to survive.

Shepherd and Zaracias (2005) argue that new ventures have to gain cognitive legitimacy by their customers in order to survive. Using an experimental design, the authors tested for the influence of three distinct categories of customer knowledge about the new venture: knowledge about the product, organisation, and management. The results

demonstrated that more knowledge in any of these categories positively influences the buying decision. By further analysing the buying decision of customers, however the authors discovered that entrepreneurs need to give priority to increasing customer knowledge of the product over building customer knowledge about the organisation or the management, which are less important knowledge categories.

Zimmerman and Zeitz (2002) highlight the importance of cognitive legitimacy for business results more broadly. Survival of new firms, they argue, is primarily determined by the fit between the new venture and its environment. This fit can be achieved by four distinct strategies. First, the new firm can pursue a strategy of conformity, which supposes that the new venture follows the existing rules and norms very closely. Second, young firms can survive as a result of selection, a process by which the management of the new venture deliberately chooses a favourable environment. Third, the survival strategy can aim at manipulation of the environment, a process by which the management of the new venture deliberately intends to manipulate the environment in a favourable way. Finally, the firm can pursue the strategy of creation, a process by which the management of the new venture tries to create a new environment in which to place the venture. What strategy is the most effective under what conditions is open to empirical testing.

Despite the existence of these strategies, emerging young firms remain highly vulnerable to competition. Research has demonstrated that the survival chances of young organisations remain slim, new entries frequently being driven out of the market by competition. In particular, high rates of new entries have been shown to make the survival of young firms in an industry even more difficult (Geroski, Mata, & Portugal, 2010). Initial resource endowments are very transient, indicating that success is not a function of initial resource endowments. In the case of new ventures, information is often incomplete.

Shepherd and Shanley (1998) found that market novelty of the venture can entail significant negative repercussions for the chances of venture survival. Innovative ventures may encounter customer ignorance as a major barrier to legitimacy. This strengthens the suspicion that the survival of firms is determined not only by internal constraints, but from the match between these constraints and the demands of the respective environment which will be difficult to uncover using country level data. The authors also speculate that there are considerable differences between industries depending on the technological complexity of the industry in which the new venture is founded (Shepherd, Douglas, & Shanley, 2000). At the

same time, research comparing firm and industry level effects on firm survival indicates that firm level variables and not industry level variables are more apt to explain which firms grow and which do not, and ultimately which firms survive (Short, McKelvie, Ketchen Jr, & Chandler, 2009).

Aldrich and Fiol (1994) argue that organisations with novel offerings that have little or no precedents within their industries are particularly vulnerable to the challenge posed by the liability of newness. Given this distinctiveness, these ventures will need to employ strategies that differ from those of imitative ventures. This is particularly the case if an entire industry is still in its emergence, like some high-technology industries. Businesses in already established industries, on the other hand, already have some anchor-points to gain legitimacy.

These anchor points encourage different types of founding activities. Sine, Haverman and Tolbert (2005) found that emerging industry level institutions can reduce the risk of new entries by providing guidance to the actors involved. Using data from the emerging independent power sector in the United States, the authors demonstrated that the development of regulative and cognitive institutions increased the founding rate and the diversity of business started within the industry. Moreover, the establishment of regulative and cognitive institutions was of particular support to the emergence of businesses based on new technologies. The creation of a normative institutional framework, by contrast, encouraged entrepreneurs to found more businesses that were more alike. This evidence indicates that some types of institutional arrangement may encourage the formation of innovative business whilst other do not.

Aldrich and Martinez (2001) further developed this point from the individual firm perspective, arguing that the legitimisation strategies of innovators (new firms and products that differ significantly from established firms) will be different from those faced by reproducers (new firms that are indistinguishable from existing firms). At the same time, novelty can be a source of competitive advantage, mitigating the challenges of legitimisation. In other words, being different presents a paradox to the innovative venture. On the one hand, novelty is a source of competitive advantage, albeit to various degrees. On the other hand, the innovative venture will need to work hard to gain legitimacy because of the novelty of the ventures as well as that of the products. This leads to the second research question.

Q2: “How do entrepreneurs legitimise innovative ventures in the marketplace?”

Emphasising the individual struggle taking place in a market rather than in the institutional framework as such (as done by much of the sociology of markets literature) provides solid ground to viewing markets from a Schumpeterian perspective on entrepreneurship, as it allows accounting for challenges that arise out of the legitimisation process of innovative ventures as well as the ensuing competitive struggle. The framework developed in this section will be further refined emphasising these two struggles. Pertaining to the first question, it is crucial to see how the action of entrepreneurs is perceived by their environment – how entrepreneurial action is legitimised. The discussion now turns to the second question, that of emerging competition.

### **3.4.3 Remaining legitimate – the problem of competition**

Let us now return to Weber's second struggle in a market, the competitive struggle. Despite its centrality in the early writings in entrepreneurship (Hayek, 1978; Kirzner, 1973; Schumpeter, 1939), the concept of competition has more recently received only scant attention. In particular, work on competition inspired by sociology has never fully developed in the field of entrepreneurship. On the one hand, this avoidance of the topic of competition coincides with a strong focus on networks. Building on Granovetter's (1973) work on the importance of weak ties in finding a job, sociologists have been preoccupied with uncovering the social micro-structure surrounding the entrepreneur (see Hoang & Antoncic, 2003 for a review).

Questions about price and competition, on the other hand, have remained the domain of economists. Following the economics tradition, the focus of these studies is mostly on how entrepreneurship affects market competition. However, the influence of competition on individual entrepreneurs often remains unexplored. In fact, for economists entrepreneurship is a consequence of a lack of competition in the first place. For Kirzner (1973), for instance, unexploited opportunities for profit drive the market process, whereas for Schumpeter it is the lack of innovation which drives the entrepreneur to innovate. Tang (2006), on the other hand, found supporting evidence that the constant arrival of competition is positively associated with innovation efforts in his study of 5,455 manufacturing firms. As result of competition, firms tend to invest more heavily in research and development in order to stay ahead.

Given the centrality of the idea of struggle amongst individuals in much sociological writing (Marx, 1967[1848]; Weber, 1930 [1904]), the underutilisation of the concept of competition is something of a surprise. The large majority of research on competition in the field of strategic management has focused on either the relationship between competition or industry structure and the returns to firms, or the relationship between firm capabilities and competitive position as promoted by Chamberlin (1950).

Much work has been done since Chamberlin's contribution. In strategic management, firms are often seen as competing bundles of resources (Barney, 1991), or capabilities. Consequently the competitiveness, and the results, of firms depend upon the characteristics of a firm's resources and capabilities as well as the ability for strategic reconfiguration of resources and capabilities to create value (Barreto, 2010; Teece, Pisano, & Shuen, 1997). Realignment is often necessitated by the competitive landscape. Innovation brings established industry structures into disarray, presenting a test to the firm's ability to adjust to its new environment. Dodgson (1993) points out that the uncertainty about future technological and market circumstances in itself provides an incentive to innovate and to improve competitiveness. This means that reconfiguration can be the result of a firm's strategy to a perceived future market or industry structure rather than actual changes.

This also shows the existing link between industry level competition and firm level innovation. Nooteboom (1999) argues that firms strive to be different through innovation in order to compete effectively. This gives rise to the question about what efforts need to be dedicated towards innovation. March (1991) argues that one of the core questions for competitive strategy is to resolve the paradox between the exploration of future opportunities (innovation) and the exploitation of current opportunities. Whilst exploitation results from the use of existing technologies and competencies, exploration requires new knowledge to build competitive advantage (Kwee, Van Den Bosch, & Volberda, 2011).

To summarise, competition is driven by and drives innovation. Studies in the economic tradition primarily focus on analysing the effects of different intensities of an existing competitive landscape and entrepreneurship on the prosperity of countries. Studies in the strategic tradition, on the other hand, investigate the relationship between industry level competition and firm level resources, capabilities, the abilities for reconfiguration, and in particular the fit between activities aimed at reconfiguration to those aimed at exploiting current opportunities. It can be argued that neither economic models nor theories developed

in the strategic management tradition adequately capture the competitive environment of the innovative venture, which is characterised by a lack of pre-existing competition, products, customers and so forth. Moreover, in new ventures a few key individuals make strategic decisions with very limited resources (Zahra, Sapienza, & Davidsson, 2006). This makes traditional theories of competitive advantage, derived from investigating more developed markets and larger firms, difficult to apply to this setting.

A more actor-orientated perspective on competition originates from Schumpeter's work on the business cycle since it directly considers the impact of competition on the innovating firm. Barney (1986b) argues that a Schumpeterian view of competition has also made its way into evolutionary economics. For the evolutionary economist, as for Schumpeter, competition is a selection process that uncovers dominant product designs as well as eliminates inefficient and ineffective ventures. Spulber (2009) argued that competition starts to drive new ventures out of the market as soon as the supply of innovative products outweighs the demand. With competition, customers have a choice between alternatives, which increases pressure on prices, making the arrival of new competitors a critical event for innovative ventures. The effects of additional alternatives will be largely positive for the economy and economic process, but largely negative for the innovative venture, because of increased price competition.

Competitive advantage is temporary and ventures need to remain flexible to compete effectively (D'Aveni, Dagnino, & Smith, 2010). In the entrepreneurship literature, Sarasvathy (2001a) made reference to competition with regard to the individual decision maker. She argues that expert entrepreneurs focus on possible collaborators rather than competitors whilst thinking about future opportunities. As effectual processes are driven by control rather than causal prediction, competitive analysis is not pursued (Sarasvathy, Dew, Read, & Wiltbank, 2008). However, once the business is established and competitors start threatening the existence or the profitability of the venture, competition will impact on the decision maker. In other words, once the distinctive feature of Weber's view of the market – the competitive struggle – emerges, entrepreneurs will have to recognise and respond to competition.

Work on the competitive struggle of the entrepreneur, on the other hand, remains rare. The problem of competition is usually considered in terms of the effects of entrepreneurial activity on the environment rather than vice versa. Little is known about the emerging

competitive struggle entrepreneurs face whilst growing an innovative venture. This leads to the following research question:

Q3: How does emerging competition impact on innovative ventures, and how do entrepreneurs pursue competitive advantage?

### **3.5 Related developments – the micro-foundations of strategy**

The concepts of legitimisation and the pursuit of competition have recently received increasing interest in related fields of inquiry. In particular, developments in the field of strategic entrepreneurship and in the dynamic capabilities perspective in strategic management stand out. As this section will show, these developments not only mirror many aspects of the argument outlined in this thesis, but they also indicate a shift in the field of strategy towards individual actors who strategise in the pursuit of legitimacy for new products or of competitive advantage for existing ones.

Let us begin with strategic entrepreneurship, a rather new development in the field of entrepreneurship situated at the intersection of entrepreneurship and strategic management. In an effort to populate this intersection, researchers started to draw attention to the opportunity- and advantage-seeking behaviour of existing businesses (e.g. Hitt, 2002). Whilst opportunity-seeking is the search for new markets and customers, advantage-seeking aims at gaining and using advantages over rivals (Ireland, Hitt, & Sirmon, 2003). Both activities are important for value creation. Opportunity-seeking aims at establishing a niche. However, due the increasing dynamism of international product markets, niches have become very transient. To ensure continued wealth creation, companies have to ensure that they can defend a niche after they have occupied it. In other words, they have to implement a strategy which allows them to keep ahead of competition. Ketchen Jr., Ireland and Snow (2007) point out that continuous wealth creation through advantage seeking is the only way to ensure the long term profitability of the business. “Without being able to successfully use a chosen strategy—one that creates a competitive advantage—a firm will soon face copycat competitors whose offerings will erode its profits.” (Ketchen Jr. et al., 2007, p. 373).

Integrating a strategic entrepreneurship perspective is vital for explaining the formation of competitive advantages of firms (Ireland & Webb, 2007). In this regard, investigating opportunity-seeking and advantage-seeking behaviour, as well as the conflict between the two, presents a conceptual development in the field of corporate

entrepreneurship (Kuratko & Audretsch, 2009). However, to date, most contributions in strategic entrepreneurship remain conceptual. It is of interest to note that strategic entrepreneurship has arrived at a very similar vantage point to Weber's in his early writings about the market. Arguably, opportunity seeking has considerable overlap with Weber's first struggle in a market, that of finding a customer. Advantage-seeking behaviour is closely related to Weber's competitive struggle. The main point of difference between the strategic entrepreneurship literature and the perspective developed in this thesis is that the former sees the first and second struggle occurring simultaneously, focusing on the right balance. Given that strategic entrepreneurship follows the corporate entrepreneurship tradition, this focus is understandable. For the study of innovative ventures, on the other hand, the two struggles are likely to occur sequentially as competition will only emerge over time.

Another stream of literature that has arrived at a similar understanding about how market opportunities are exploited and competitive advantage is formed is the dynamic capabilities perspective. Building on the work of Penrose (1959), Teece (2009) highlights the importance of subjectivism in decision making in the context of the existing organisation – the micro-foundations of dynamic capabilities. For Teece (2009), the micro-foundations that build the dynamic capabilities of organisations can be viewed through a three-stage process, namely through seeing, seizing and transforming. Seeing summarises the activities and capabilities of scanning the environment, noticing change and contextualising occurring change. Seizing, on the other hand, refers to the capabilities and activities directed towards evaluating and utilising this information to build strategic plans about what opportunities to pursue as well as how to pursue them. Finally, transforming describes actions taken to act upon seen and seized opportunities (Teece, 2009).

When applied to a small and young firm, the process model proposed by Teece (2009) has considerable overlap with the entrepreneurial processes of opportunity discovery, evaluation, and exploitation. It is also very similar to the process of opportunity seeking and advantage seeking as proposed by the strategic entrepreneurship literature. Taken together, all these developments in strategic entrepreneurship, and the micro-foundations of the dynamic capabilities literature, underscore the relevance of three main research questions. Both the strategic entrepreneurship research agenda as well as the new micro-foundations of the dynamic capabilities perspective in strategic management fit well with these questions.

### 3.6 Overview and primary research questions

After presenting the components of the conceptual model used in this thesis, the remaining task is to map out the parts in a cohesive model as well as to relate the model to the research questions. Integrating the literature reviewed and linking it to the research questions results in (Figure 3.2). The top row shows the terminology used by research related to the individual-opportunity nexus. This typology was used to organise the reviewed literature. The highlighted area indicates how the process model adapted from Bygrave (2007) fits with the other reviewed typologies used in the field of entrepreneurship. As outlined in the previous section, the field of strategic entrepreneurship and the dynamic capabilities perspective have arrived at a point similar to Max Weber’s struggles in a market. Finally, the identified process is linked to the three primary research questions developed within this chapter.

*Figure 3.2: Overview of literature review and primary research questions*

Literature	Terminology in the ‘entrepreneurial’ process			
Individual-opportunity nexus	Opportunity discovery and evaluation	Opportunity exploitation	Opportunity development	
Model used for this study	Emergence of idea Background Initial product development Entrepreneurial orientation	Triggering event Unemployment Customer request Resources	Implementation Start-up innovative business n Find initial customer Setting up supply chain	Growth Emerging competition Seeking an advantage over competitors Further innovation Building firm capabilities
Max Weber		First Struggle Opportunity seeking	Second struggle Advantage seeking	
Strategic entrepreneurship		The value problem	The problem of competition	
Sociology of Markets				
Micro foundations of dynamic capabilities	Seeing	Seizing	Transforming	
AMO framework	Ability, motivation (aspiration), and perceived opportunity			
Effectuation	Effectuation: Who I am, What do I know, Who do I know			
Primary research questions	Q1: How and why do entrepreneurs start innovative ventures?	Q2: How do entrepreneurs legitimize innovative ventures in the marketplace?	Q3: How does emerging competition impact on innovative ventures, and how do entrepreneurs pursue competitive advantage?	

Figure 3.2 indicates how existing theory was used to derive specific research questions about the entrepreneurial process. Conversely, it also illustrates how the primary research questions relate to the entrepreneurial process and the existing literature.

### **3.7 Concluding comments**

This chapter set out to further narrow down the contextual, market level elements of the entrepreneurial process that are of particular interest to the study of innovative ventures. Largely building on Max Weber's suggestion about the individual struggle within a market, two research areas were identified. The first struggle that of the individual to establish the innovative venture within its environment, or the problem of legitimacy. Given the reviewed literature, a variety of challenges to innovative ventures can be expected. However, neither the type of challenges to the legitimacy of the new venture in different environments nor the strategies entrepreneurs use to overcome these challenges can be anticipated based on the existing literature.

The second struggle that Weber saw in a market was the struggle about whom to outbid – the competitive struggle. Almost by definition this struggle should be less pronounced for innovative ventures, as innovation usually yields temporary monopolistic rents (Burton, 1999). Schumpeter (1939) argues that these rents are the fair return for the uncertainty of the investment in innovation. In the absence of these rents, entrepreneurship of this kind could not exist. Over time, however, this temporary monopoly becomes eroded through new market entries (Baumol, Panzar, & Willing, 1982). This process by which the monopolistic rents of the innovative venture are competed away by non-innovative ventures, or reproducers (Aldrich & Martinez, 2001), is essentially synonymous with the competitive struggle in Weber's view of the market.

It is interesting to see that other streams of literature are starting to ask similar questions. The sociology of markets, the micro foundations of dynamic capabilities, and the strategic entrepreneurship literature have only begun to wrestle with the questions developed in this section. Proceeding from this point will therefore lead to insights that, although they are generated by a study in the entrepreneurship tradition, will have relevance for these lines of research as well.

## CHAPTER 4: METHODOLOGY AND METHODS

### 4.1 Introduction

This thesis adds to our understanding of the legitimisation and the pursuit of competitive advantage of innovative ventures from the perspective of the entrepreneur. It does so by synthesising multiple streams of literature – in particular, the literature on entrepreneurial processes, innovation and competition, as well as the sociology of markets. The thesis presents an entrepreneur-focused interpretation of these streams of literature. The preceding literature review resulted in the following inter-related research questions:

Q1: How and why do entrepreneurs start innovative ventures?

Q2: How do entrepreneurs legitimise innovative ventures in the marketplace?

Q3: How does emerging competition impact on innovative ventures, and how do entrepreneurs pursue competitive advantage?

The aim of this chapter is to introduce and justify the employed research design. Given the nature of the research questions and the identified lack of process-orientated research in entrepreneurship, I decided to study entrepreneurship using a multiple case study approach. This decision will be justified on philosophical, methodological as well as conceptual grounds. Whilst general justification of the research approach still seems to be common practice amongst qualitative researchers, very little attention is paid to a justification grounded in the literature of the particular field (Leitch et al., 2010). In order to address this shortcoming, I synthesise three perspectives in this chapter: (1) the general literature on philosophy and research design, (2) the relevant entrepreneurship literature, and (3) the research activities and how these relate to (1) and (2).

This chapter is organised as follows. The first part provides a transition from the conceptual framework developed in the previous chapters to the justification of the chosen methodology. It also introduces the philosophical foundations of critical realism and argues that critical realism is an adequate philosophy to address the individual-opportunity nexus from a process-oriented perspective. Moreover it argues that critical realism is particularly apt in cases where research aims at practical impact as well. This chapter also clarifies the critical realist position on the individual-opportunity nexus. The second part of the chapter describes the research strategy as well as the data collection procedures. Data on seventeen innovative ventures were collected to investigate the process capable of explaining their emergence. To further triangulate the interview and on-site observations, publically available

documents such as newspaper articles, company reports and the company websites were studied.

The unit of analysis is the entrepreneurial project: the process of commencing and growing an innovative venture from the perspective of the entrepreneur. At first, seven entrepreneurial projects were selected based on initial theoretical propositions and an initial theoretical sampling frame. Based on the insights from these projects, the initial sampling frame was refined. Data collection continued until literal and theoretical replication on the basis of the refined sampling frame was reached. In total, data on seventeen entrepreneurial projects were collected in order to adequately populate the revised sampling frame. Finally, the chapter turns towards describing the analysis procedures.

## **4.2 Philosophical foundations – the individual-opportunity nexus as dualism**

All scientific inquiry is based on assumptions about the nature of reality, even if researchers themselves are not aware of this (Crotty, 1998; Easton, 2002). These assumptions reflect the ontology of the research project. Research ontologies have range from a strong belief in an objective reality (focus on structure) at one extreme, to a belief of reality as a subjective construct (focus on agency) at the other. Sarason, Dean and Dillard (2006) argue that the individual-opportunity nexus does not fit well into either of these camps, as it is precisely this division between the individual (agent) and the opportunity (structural condition) that Shane and Venkataraman (2000) intended to overcome. Neither of the two ontologies can simultaneously account for the more objective causes of opportunity such as changes in technology, customer behaviour, or regulation, as well as the subjective – or entrepreneur-specific causes. Consequently, researchers have started advocating ontologies that highlight the interaction between the individual and the opportunity (Sarason, Dillard, & Dean, 2010; Mole & Mole, 2010).

Here critical realism and structuration theory arguably provide suitable alternatives.<sup>4</sup> Both philosophical stances render the distinction between objective and subjective ontologism as artificial. However, each offers a distinct approach to investigate the individual-opportunity nexus. Structuration assumes duality between structure and agency, which means that they are mutually constituting. Agents produce structure, and structure has

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<sup>4</sup> This discussion is just emerging in the field of entrepreneurship and has therefore received some attention in this thesis.

causal power only through agents. Consequently, structuration tries to understand how agents produce structure, which is essentially a cognitive process. Following this reasoning, priority is given to an understanding of how the entrepreneur produces an opportunity as a form of social structure (e.g. Sarason et al., 2006). Giddens's (1979, 1984, 1990) theory emphasises the role of the agent who is supposed to be well informed and knowledgeable from the outset. In doing this, structuration theory leans heavily towards radical constructivism and an interpretivist epistemology and does not provide adequate opportunities to go beyond 'understanding' of the emergence of entrepreneurial opportunity (Mole & Mole, 2010). Moreover, there is no room for an independent reality against which differing interpretations and constructions of reality can be judged.

Because of these limitations of the structuration perspective, this thesis builds on a critical realist perspective. Critical realism maintains the ontological differentiation between agent and structure through the notion of dualism. Dualism stands for a co-existence of the structure and agency in which both have causal power (Lawson, 1997; Reed, 2005). In other words, both have the capacity to have an impact. This understanding is central to the critical realist ontology, as Fleetwood argues: "Something is real if it has an effect or makes a difference" (Fleetwood, 2004, p. 29). Structure is a precondition resulting from the actions of past agents that is endowed with the capacity to enable and restrict current agents. Structure cannot simply be reduced to the action of current agents as structuration theory appears to suggest (Kwan & Tsang, 2001). Instead, structure gains some degree of independence from current as well as past actors. Agents have the ability to learn and to uncover the properties of structure or objects (Archer, 2000).

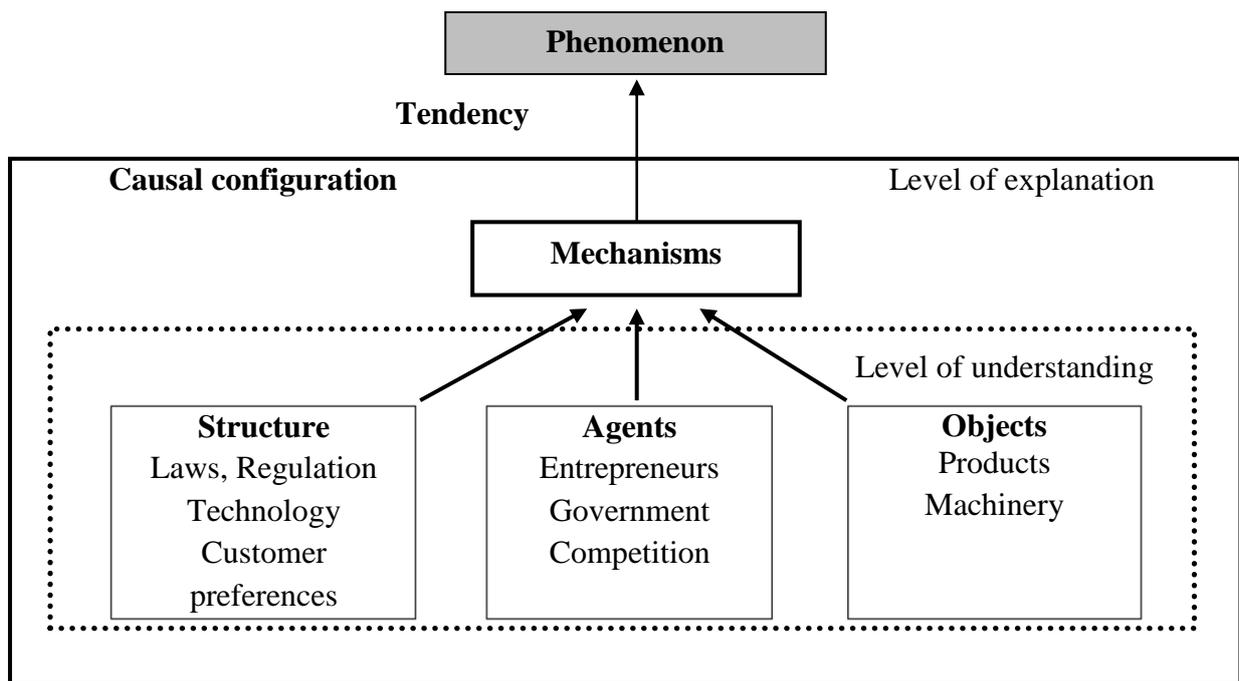
Two features of structure clarify the critical realist understanding of this part of the social world. First, critical realism generally acknowledges that structure (and with it its causal powers) can exist independently of our knowledge of it. For the social sciences, critical realists often see an inverse relationship between meaning and reality because social reality depends upon human activity. Here, critical realists agree with the constructivist position on the importance of meaning. In the social realm, meaning determines impact and it is impossible to understand the social world independent of human constructs thereof. Human constructs are part of reality. Sayer (2000) argues that critical realism therefore always includes interpretive elements. Second, structure and agency are not fixed. They are the constantly emerging result of interaction between structure and agents. This evolution of structure may be initiated by the actions of an actor (the entrepreneur), but change inevitably

requires the actions of other agents as well. Hence, agents may succeed or fail with very little contribution from themselves (Bundel, 2007).

The idea of emergence is central to critical realism. Since structure is constantly emerging, so is reality and with it the phenomena critical realists seek to explain. Emergence is driven by mechanisms which essentially describe the way in which causal powers act or interact (Tsoukas, 1989). Mechanisms are the underlying processes that produce a phenomenon. For instance, describing the causal powers of structure, actors and objects does not explain outcomes. An agent may have the potential to create and grow an innovative venture (combination of causal powers), but whether an agent actually creates one depends on more than just potential. It requires processes – or mechanisms – to create a venture in which causal powers need to be exercised. This centrality of emergence puts mechanisms at the top of the critical realist's research agenda. There is no causal explanation of a phenomenon independent of the underlying mechanisms which are capable of producing it (Sayer, 1992).

Figure 4.1 on the next page summarises the critical realist position. Structure, agents and objects have causal powers. Whether exercised or not, they have the capacity to act in certain ways or to hinder or facilitate certain developments (Lawson, 2003). Causal powers are potentials and do not produce phenomena as such. What gives rise to a phenomenon is a mechanism, a particular way in which causal powers interact. Together, causal powers and mechanisms form a causal configuration. Fleetwood (2004) convincingly argues that the properties of causal configurations cannot be reduced to the properties of their components such as structure, agents, or objects. It is, therefore, the causal configuration rather than one individual component that generates a tendency to cause a particular phenomenon. But again, this link does not imply that one causal configuration always leads to the same outcome. Instead, given a set of causal powers of structure, agents, objects and mechanisms, a particular phenomenon may be expected. In other words, producing a phenomenon is the typical way of acting of a causal configuration. However, saying that a causal configuration has a tendency to produce a phenomenon does not mean that it will, since reality is emerging.

*Figure 4.1: Elements of critical realism*



As a result, the critical realist provides a distinct perspective on the individual-opportunity nexus. Opportunity is not represented by structure nor is it the exclusive result of agency. Instead, opportunity is an outcome of the interplay of structure, objects, agency, and the often not directly observable mechanisms at work. It puts special emphasis on the mechanisms capable of producing a phenomenon (opportunity) irrespective of whether these mechanisms are individual (leveraging prior knowledge or learning), contextual (change in technology and customer behaviour) or a combination of the two. Hence, it does not prioritise opportunity or individual a priori. Moreover and perhaps equally importantly, critical realists do not stop at the level of understanding; for them, understanding a phenomenon is only the preliminary step to explaining it. In the following, the research strategy will be elaborated. It will be argued that a multiple case study approach is appropriate for achieving explanations in the study of entrepreneurship.

## **4.3 Research strategy**

### **4.3.1 Justification of the research strategy**

Given the research problem and the lack of process research, I decided to research entrepreneurial processes using a multiple case study approach. This methodological choice is justifiable on philosophical, conceptual, and methodological grounds. From a philosophical perspective, critical realists have a strong tradition in using the case study method as it enables them to draw on multiple sources of data such as interviews, company documents, and articles (Harrison & Easton, 2004). Moreover and as pointed out earlier, Sayer (2000) argues that critical realist enquiry in social science always contains interpretivist elements and therefore needs to rely on some form of qualitative data.

For the study of entrepreneurship in particular, Bundel (2007) points out that studying multiple cases provides a very powerful method for critical realists because these enable researchers to uncover causal explanations. He further argues that the use of case studies has the potential to uncover hidden, often unobservable, contextual conditions which are necessary for explaining 'why' a phenomenon occurs. Mole and Mole (2010) also highlight the appropriateness of case studies for the study of entrepreneurship from a critical realist perspective. They argue that case studies provide an opportunity to include circumstances beyond the control of the entrepreneur in explanations of entrepreneurship. In doing this, case studies provide a more holistic view of the phenomenon, and hence have the potential to produce more powerful explanations.

These claims are well supported by much of the case study literature. Case studies are widely believed to be the appropriate choice to study a phenomenon within its context (Yin, 2008). Also, the case study method is suitable to answer 'how' and 'why' questions (Benbasat, Goldstein, & Mead, 1987). The major advantage of a case study strategy is that it allows the researcher to build on a variety of data sources as well as different levels of analysis which facilitates both understanding of the case as well as explaining it (Bonoma, 1985).

Of equal importance is that the case study approach can be justified on conceptual grounds. The use of case studies has a long tradition in closely related fields of social science such as strategy and innovation-process research. In particular the work of Pettigrew (1997), Mintzberg and Waters (1985), and van de Ven and Poole (1995) has demonstrated the appropriateness of case studies for investigating highly contextualised processes. However,

this focus on context and processes has not fully penetrated entrepreneurship research yet. Despite Gartner's (2001) call for the use of case studies to study the complex phenomenon of entrepreneurship, qualitative work on entrepreneurial processes remains the exception. Hindle (2004), for instance, noted that there has been an explosion in the use of qualitative methods in almost every domain of social science except entrepreneurship. The reason for this may be partly attributed to the scant use of process models in the first place. Bygrave (1989) argues that entrepreneurship requires a specific process-orientated conceptualisation in order to account for the "disjointed, discontinuous, non-linear (and usually unique)" (p. 7) nature of entrepreneurial processes.

This relates to the justification of methodological grounds. Over two decades after Gardner's (1988) call for more process-orientated research in entrepreneurship, there is still a lack of process orientated theory. Following Bygrave's model of the entrepreneurial process, which includes not only opportunity identification but also growth of the businesses, many questions remained unanswered. These have been addressed by focusing on the struggles around legitimacy and competition that prevail in a market. More recently, entrepreneurship scholars choosing a strategy perspective have started raising these questions (Ireland et al., 2003; Kuratko & Audretsch, 2009; Leiblein, 2007). However, to date, very little is known about how these struggles are overcome.

Stake (2000) argues that a lack of existing theory should be addressed using a multiple case study design. Multiple case studies enable the researcher to learn more about a specific phenomenon without getting too involved in a particular case. Cases are used instrumentally. They provide insight into a phenomenon, but the case as such is of secondary importance. By using multiple cases, researchers have an opportunity to better understand the phenomenon, and perhaps to develop better theories (Stake, 2000). More recently, Eisenhart and Graeber (2007) reinforced the appropriateness of multiple case studies in areas where theory seems to be absent or flawed.

Taken together, multiple case studies are appropriate to provide a better insight into the entrepreneurial process. The approach makes it possible to focus on the emergence of an organisation by incorporating opportunity-seeking (struggle for legitimacy) as well as advantage-seeking (competitive struggle) activities of entrepreneurs.

### 4.3.2 Capturing entrepreneurial processes

To gain insights into how entrepreneurs create and grow innovative ventures, I selected innovative businesses with an identifiable key decision-maker: an entrepreneur. The selection of the business and the entrepreneurs respectively proved to be challenging, even though New Zealand is renowned for both a very high business start-up rate as well as a very large small-business sector. I was not satisfied by the fact that a business was young and small. Above all, it needed to be innovative; it needed to be entrepreneurial in the Schumpeterian tradition (Bygrave, 2007).

In some way, I needed to sample for firms but I did not study firms primarily. I studied people. On the other hand, I did not want to study an entrepreneur's life in general as often implied in 'narratives' or 'life stories' (Gartner, 2007). I wanted to study how and why they created and grew the businesses I was interested in. Mole and Mole (2010) argue that entrepreneurship is the most actor-focused of all management disciplines. In fact, the actor-focus is part of the distinctiveness of entrepreneurship as a field of research. Short, Ketchen, Combs Jr., and Ireland (2010a) found that emphasizing the individual has generated great insights, especially in qualitative studies of entrepreneurship. Despite these achievements, even the field of entrepreneurship is constantly in danger of losing this focus (Davidsson, 2005b). Sampling for firms and focusing on the individuals who created them is a response to this danger and in line with some more recent efforts to "bring the entrepreneur back in" to the study of entrepreneurship (Whittaker et al., 2009).<sup>5</sup>

This thesis relies on stories of entrepreneurs, but individual stories are not of intrinsic value. Instead, stories are used to contrast and compare the causal powers and mechanisms involved in creating and growing an innovative venture. The focus of the analysis is not on the individual entrepreneur but on how entrepreneurs interact with their environments as a form of social structure. Hence, this thesis tries to mitigate the danger highlighted by Steyaert (2007), that stories of entrepreneurship are constantly at risk of becoming stories of the entrepreneur. Gartner, Shaver and Liao (2008) argue that the traditional design of entrepreneurship studies frequently underestimates, or even ignores, factors beyond the control of individual actors.

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<sup>5</sup> Entrepreneurship has a people, not a firm focus. Eroding this focus may come at high cost for the field as entrepreneurship could become increasingly similar to mainstream management and SME literature.

To mitigate these risks, I followed the critical realist tradition and studied multiple independent cases. The focus lies not on the story of one entrepreneur, but on commonalities and differences between multiple stories. For this reason, I aimed at theoretical replication of clusters of stories. Initially, clusters (or categories, respectively) were built based on existing theory in order to identify cases which I could later use for a cross-case analysis.

The unit of analysis was the entrepreneurial project to create and grow an innovative venture. Patton (2002) points out that projects as a unit of analysis are particularly appropriate to study differences between situations instead of differences between individuals. Projects are basically the boundary conditions of the case (Miles & Huberman, 1994), or the limits to what the study wants to say something about (Merriam, 1998). Even though the decision to focus on entrepreneurial projects was theoretically informed, it was also driven by pragmatic considerations. Case studies in entrepreneurship can have a tendency to highlight either the life story of the entrepreneur or that of the business. But both of these types of cases studies have a focus that does not efficiently match the research questions, since both types of case studies often require collecting data beyond the growth of the current venture the entrepreneur is involved in.

Narrowing this focus provides an opportunity to consider the context of the entrepreneurial endeavour. More particularly, the focus on projects provides an opportunity to incorporate the environment as perceived by the entrepreneur. Penrose (1959) points out that strategies are based on individual perception and interpretations of environmental facts rather than on the facts themselves. Similarly, Davidsson (2004) argues that entrepreneurial decisions depend on facts as perceived, and results on the other hand are determined by facts as they are. Hence, in order to theorise about the individual-opportunity nexus, the sample needed to consist of entrepreneurs who have faced a variety of environmental conditions. The categorisation of different environmental conditions will constitute the next section.

#### **4.3.3 Case selection – developing a typology of opportunities**

Purposive sampling was used for this research (Yin, 2008). Cases were selected on the basis of theoretical reasons in order to understand the growth processes of innovative businesses using the individual-opportunity nexus. Davidsson (2004) argued that sampling poses a true challenge to the study of entrepreneurship and that sampling strategies should not be driven by a desire to achieve statistical representativeness. Instead, he suggests sampling for venture

ideas. Similarly, Bygrave (2007) criticises the preoccupation with achieving a representative sample of entrepreneurs as this may even prevent us from researching the true phenomenon of entrepreneurship. He admits with some regret that studies like the Global Entrepreneurship Monitor clearly fit into this category, for a number of reasons. Most importantly, only a small fraction of entrepreneurs in the sample have true growth ambitions and capabilities, or a capacity to innovate, important elements of the phenomenon of entrepreneurship, which as a result, becomes an outlier in the study of entrepreneurs.

In essence, I followed the suggestion made by Davidsson (2004), Bygrave (2007) and Sarasvathy and Venkataraman (2011), and sampled for new ideas. I followed the OECD Oslo Manual and identified companies that had innovated on the industry level (OECD, 2005). I focused on New Zealand businesses that had received national and often international recognition for innovation. To identify these businesses, I analysed secondary data on innovation awards and newspaper articles. These insights provided a lead for further investigation of the individual companies. Following this, companies had to satisfy additional criteria. First, they needed to fit into the sampling frame developed in this chapter, and second, a key decision maker who could provide information on the past development of the company needed to be identifiable.

The focus on genuinely innovative companies ensured that cases would inform the first research question. Cases also needed to be able to inform the second and third research questions. For this reason, I focused on businesses that had demonstrated that they were sustainable over a period of time. The focus was on companies that had been doing business for at least five years based on a new idea and that had been externally recognised by independent media or industry awards. This way, I ensured that the entrepreneurs had had sufficient time to develop the business and its market, as well as that competitors had had opportunity to become aware of the venture. However, I later relaxed the age criterion to include one two-year-old, fast-growing company.

Since I suspected that the growth of the business was influenced not only by the entrepreneur, but also by the environment in which the entrepreneur was innovating, I decided to apply the following theoretical sampling criteria based on a typology of opportunities. Typologies of opportunities have been proposed in the entrepreneurship and strategic management literature (Ardichvili, Cardozo, & Ray, 2003; Eckhardt & Shane, 2003; Garcia & Calantone, 2002). However, empirical work comparing different types of opportunities remains rare (Davidsson & Gordon, 2010). Hansen et al. (2011) find that the

majority of work on the individual-opportunity nexus has a tendency to focus on the cognitive processes of the entrepreneur in the discovery and evaluation stage of opportunities, a tendency conceptually justified by the belief that opportunities always require the subjective judgments of the entrepreneur (Klein, 2008). Here, opportunities are first imagined by the individual, which pulls research into explaining the individual phenomenon of the nexus without shedding light on the objective matching part: the opportunity.

However, work that explicitly considers and explains the emergence of different types of opportunities exists in related fields. For instance, following the Schumpeterian tradition, Abernathy and Clark (1985) distinguished four types of opportunities pursued through innovation, namely regular, revolutionary, niche creation and architectural innovation, by contrasting the different degrees of technological innovativeness and customer linkages in the car industry. They found that the type of innovation profoundly influences management decisions. Given this empirical evidence and the methodological aptness of sampling for the type of opportunity, an additional, but closely related, research question may be proposed:

Q4: Does the type of opportunity make a difference with regard to the three primary research questions?

The initial sampling frame shown in Figure 4.2 contains four distinct types of entrepreneurial opportunities employed in this thesis. On the vertical dimension, the typology is based on Slater and Narver (1998) of customer-led vs. market-led businesses. Whilst customer-led businesses innovated to suit expressed customer needs, market-led businesses innovated to satisfy needs the customers themselves were not aware of. In other words, this dimension captures the degree of pre-existing demand for innovation. In cases where demand already exists, innovation should be better received by the market.

The horizontal categorisation is based on research showing that the wider environmental conditions matter for the study of entrepreneurship (e.g. Baum et al., 2001; Shane & Kolvereid, 1995). Low and Abrahamson (1997), for instance, demonstrated that the outcome of entrepreneurial processes depends largely upon environmental fit. However, studies in entrepreneurship often show a tendency to keep the industry constant, which obfuscates the discovery of processes that lead to environmental fit in different contexts.

In particular, the study of entrepreneurship and innovation often has an explicit focus on high technology industries. However, the high technology focus does not stop at entrepreneurship studies from an innovation perspective e.g. (Park, 2005). It has also found its way into entrepreneurship literature from an internationalisation (Bloodgood, Sapienza, & Almeida, 1996), economics (Spencer et al., 2008) as well as a competitiveness and growth (Danneels, 2002) perspective. To a degree, this focus is understandable. Thornhill (2006) found that high technology industries are an excellent area for entrepreneurship scholars interested in these issues. High technology firms are, for instance, twice as likely to innovate as low technology firms. Also, Zahra (2008) found that certain technological contexts are more likely to bring about radical innovation, making an explicit high technology focus partly justifiable for the study of entrepreneurship. However, the author also notes that high technology industries attract much of the entrepreneurial talent, which may skew innovative efforts. Hence, an explicit focus on high-tech might bias the study of entrepreneurship by the types of entrepreneurs attracted to the innovative high-tech environment.

At the same time, there is evidence questioning the high-tech focus prevalent in the entrepreneurship and innovation literature. Hughes (2007) points out that many advanced economies engaged in a 'cargo cult', pursuing innovation by imitating perceived U.S. innovation policies. These policies tend to over-emphasise the role of the high-tech sector for economic development and thus fail to attain the anticipated results. Research indicates that a large number of innovations still originate in the other sectors of the economy. Cosh, Fu and Hughes (2010) show that many small and young businesses in the conventional sector innovate successfully. They also found that a decentralised formal organisational structure supports innovativeness for most businesses except for young high-tech businesses, pointing towards sector specific challenges to innovative businesses. Past research also shows an exclusive high-tech focus cannot take into account these differences (von Tunzelmann & Acha, 2005). Covin, Slevin and Covin (1990) found that there are pronounced differences between entrepreneurial firms in high-tech and conventional sectors. The authors found that in particular businesses in the conventional sector try to grow through building a competitive advantage based on price. High-tech businesses on the other hand, put more emphasis on formal planning, marketing, customer support and external finance.

Bases on these insights I developed a 2x2 matrix as an initial sampling frame (Figure 4.2). The horizontal axis represents the industry context in terms of technological sophistication, and the vertical axis shows the differences in the underlying customer demand. The resulting four cells describe four different types of opportunities.

*Figure 4.2: Initial sampling frame*

<b>Customer orientation</b>	<b>Unexpressed customer need</b>	Addressing a latent customer need in low-technology-industry	Addressing a latent customer need in a high-technology-industry
	<b>Expressed Customer need</b>	Addressing an expressed customer need in low-technology-industry	Addressing an expressed customer need in high-technology-industry
		<b>Conventional</b>	<b>High-technology</b>
		<b>Industry context</b>	

The dimension of customer orientation proved to be unproblematic. Initial classification of the business occurred on the basis of publically available information. This initial classification was then reviewed based on the collected interview data. During the interviews, entrepreneurs were asked to talk about the source of the idea to start the business, their initial market perception, and the initial customer reactions to the innovation. The interview data mostly confirmed the initial categories and migration between categories was rare.

In order to populate the sampling frame, I sampled high technology as well as low technology firms. The initial categorisation was straight forward as I was able to categorise firms based on the OECD (1999) Science and Technology Scorecard. After completion of the first few interviews, however, the stories of the entrepreneurs seemed not to add up. Using industry categories as a proxy for the newness of the knowledge necessary to innovate, with high technology representing new knowledge and low technology representing old knowledge respectively necessary to produce the innovation, was useful, but it did not fairly represent the context entrepreneurs were operating in. I unexpectedly found myself with a number of high technology entrepreneurs who had used existing knowledge as well as a number of low technology entrepreneurs who clearly had to come up with true inventions to make innovation work. It was the degree to which new knowledge was necessary to produce the innovation, irrespective of the industry, that separated the entrepreneurs from each other.

In other words, the newness of knowledge needs to be evaluated within the industry context and the industry itself is an imperfect proxy. Not all high technology companies employ new knowledge and not all low technology companies use existing knowledge to innovate. Since the industry classification provided a weak proxy for the newness of the knowledge used, the initial sampling frame needed some revision. The vertical axis remained unchanged, but the horizontal axis was adjusted to show whether newness of technological competencies was used to innovate. Figure 4.3 illustrates the revised sampling frame.

*Figure 4.3: Revised sampling frame*

<b>Customer needs</b>	<b>Unexpressed customer need</b>	<b>Market-seeking projects</b> Latent customer need using existing knowledge	<b>Pioneering projects</b> Latent customer need using new knowledge
	<b>Expressed Customer need</b>	<b>Pragmatic projects</b> Expressed customer need using existing knowledge	<b>Invention projects</b> Expressed customer need using new knowledge
		<b>Existing</b>	<b>New</b>
		<b>Competencies</b>	

Revisions of the sampling frame are consistent with the case study methodology. Eisenhardt and Graebner (2007) argue that the sampling strategy poses a distinct challenge in a multiple case study design. In a single case study, problems around the sampling strategy are usually less prevalent given that researchers are interested in the case for intrinsic reasons. A tension between the case and existing theory capable of explaining it is often rather obvious. For multiple case studies this is far from the truth. Whilst all cases represent the phenomena, they may challenge, or confirm, existing theory in different ways. Eisenhardt and Graebner (2007) suggest focusing on ‘polar’ cases – cases that populate opposing poles on a chosen scale – in order to allow for both replication and comparison for building theory from cases.

Sampling frames should be guided, but not determined by existing theory. Siggelkow (2007) argues that creating new ideas and perspectives is generally one strength of case study-based research. More specifically, Strauss and Corbin (1998) argue that revisions of the sampling frame are often unavoidable to account for new insights as one strives to generate new theory based on empirical observations. New insights and categories emerge throughout data collection and the researcher needs to be able to adjust for these changes. Indeed the ability to make adjustments in the data collection procedures is one major advantage of

qualitative work (Maxwell, 2005; Sayer, 1992). As a result, the sampling strategy of this thesis was grounded in existing as well as emergent theory. Interestingly, Ardichvili et al. (2003) derived a similar typology by building on the creativity literature. They propose a typology of opportunity that considers the origin of opportunities in terms of ‘market needs’ and ‘value creation capability’. Each of these can be either known or unknown by the entrepreneur. In light of this contribution and the experience gained from the initial interviews, revising the sampling frame became inevitable.

Revising the sampling frame had further benefits, particularly with regard to theory development. The revision aligned the sampling frame more towards the environment ‘as experienced by the entrepreneur’ rather than how it was categorised by me using existing literature. In other words, the modification allowed movement from a purely theoretical sampling frame to a theoretically, as well as empirically informed, strategy. This change realigned this research closer to the objectives of this research, which was to develop theory from the perspective of the entrepreneur. Accounting for their perception of the environment allows for ‘bottom-up’ theorising by starting at the actor level and linking their perceptions with the action taken. The more actor centred approach also helped to link the categorised cases (shown as cells in Figure 4.3) to the individual struggles in a market.

Following this revision, each entrepreneurial project was categorised largely in the same way as the initial sample. Based on the interviews, I prepared case vignettes to ensure a more robust categorisation of the cases given the large amount of secondary data that complemented the stories of the entrepreneurs. Moreover, the vignettes helped me to organise the data and facilitated the thematic analysis in later stages as suggested by Miles and Huberman (1994). Table 4.1 provides an overview of the cases investigated in this study.

Case	Idea	Number of informants	Number of interviews	Description of informant(s)	Size band
Pragmatic project #1	Internet based business directory	1	2	Co-Founder/CEO	10-49
Pragmatic project #2	High end, durable outdoor clothing for the rural sector	1	1	Founder/CEO	50+
Pragmatic project #3	Two rear shock absorber mountain bike	1	1	Managing Director	1-9*
Pragmatic project #4	Innovative Java based Web-pages	1	1	Managing Director	10-49
Invention project #1	A fast solution for fixing roads	1	1	Managing Director	10-49
Invention project #2	Full Network surveillance	1	1	Co-Founder/Former CEO, now Chairman	10-49
Invention project #3	Integration of patient data from several sources	2	2	Founder and CEO; Chief Operating Officer	50+
Invention project #4	DJ Software	1	1	International market seeker joined soon after founding, official role General Manager	10-49
Invention project #5	New system to accessorise boats	1	1	Founder/CEO and Inventor	1-9*
Market-seeking project #1	A portable land yacht	1	1	Son of Inventor/owner, now General manager	10-49
Market-seeking project #2	Free range eggs from rural New Zealand to the US	1	2	Founder/CEO/Managing Director	10-49
Market-seeking project #3	A new system for international telephone cards	1	1	Founder/CEO	10-49
Market-seeking project #4	A Bottle with built-in water filter	1	1	Founder/CEO	1-9*
Pioneering project #1	Amphibious boat	2	2	Co-Founder/CEO; Co-Founder/Inventor	10-49
Pioneering project #2	True multi-touch technology	1	1	CEO	10-49

Pioneering project #3	Ergonomic school chair	1	1	CEO	50+
Pioneering project #4	Limiting internet procrastination for SME staff with a new firewall	1	2	CEO	10-49

**Note:**\*production fully outsourced

*Table 4.1: Overview of the cases*

#### **4.4 Conducting the fieldwork**

The fieldwork consisted of multiple case studies of entrepreneurial projects, and involved the collection of retrospective longitudinal, cross-sectional, and comparative data. The multiple growth stories provided an opportunity to study the dynamics of historical patterns in context. Moreover, multiple cases were used to uncover the underlying causal relationships and to provide a basis for generalisation. Cases were sampled on a theoretical basis, which was first theoretically and later empirically derived, to achieve replication and to facilitate generalisation across social settings (Barley, 1990).

The number of cases was not predetermined (Glaser & Strauss, 1967), but initially I aimed for at least two cases for every cell of the sampling. In total, I collected data on seventeen businesses until saturation was reached. This number of cases ensured that the sampling frame was well populated. Each cell holds at least four cases, providing a solid basis for the emergence of patterns allowing for later comparisons between the categories. Moreover, the number of cases is comparable to other entrepreneurship studies employing a similar methodology and pursuing similar research objectives. Glancey, Greig, and Pettigrew (1998) for instance, studied the motives and strategies of twenty entrepreneurs in order to uncover processes that lead to business growth.

In order to gain an understanding of the process of how entrepreneurs create and grow innovative businesses, this research draws on multiple sources of data. First and foremost, data collection focused on the individual entrepreneurs, who were identified and contacted based on publically available information, usually retrieved from the company homepage or other online sources. The identification of the cases required a preliminary analysis of a substantial amount of secondary data such as product reviews, business awards, and secondary data about competition. This way, I ensured that the cases represented the phenomenon of innovative ventures. Davidsson (2004) pointed out that including innovation in the definition of entrepreneurship creates problems in the operationalisation because of lack or disagreement of measurement. Clearly, this problem is not as serious for qualitative work since it aims at better understanding rather than better measurement.

Contact was usually made via email or physical mail. After the initial contact, I arranged a meeting. Each entrepreneur was asked to participate in a semi-structured interview of about 75 minutes in duration. Bryman (2004) pointed out that semi-structured interviews are particularly appropriate to gain an understanding of processes based on the experience of

the participants. McKenzie (2007) argues that the richness of the data gained from interviews about processes entrepreneurs have been involved in can surprise researchers. Events that coincide or influence decisions might be known beforehand, but the researcher cannot assign a relative importance or better ‘meaning’ to them without knowing the interpretation of the entrepreneur. Moreover, the account of each entrepreneur provides a window through which a picture of the reality they experienced can be observed. Taken together, these pictures provide the foundation for theorising in a critical realism tradition (Clark & Blundel, 2007; Healy & Perry, 2000).

In total I conducted 22 face-to-face interviews, which consisted of a series of open-ended questions. I conducted the interviews using a predesigned interview schedule to achieve standardisation across cases, to create a basis for comparisons. The interview guideline was based on current entrepreneurship as well as strategic management literature and was chronologically organised. Entrepreneurs were asked to talk about the origin of the business and the product as well as their initial perception of the market. In addition, they were asked to recall critical events that had facilitated or hampered the growth of the firm (van de Ven & Engleman, 2004). Chell and Pittaway (1998) argue that this focus on critical incidents and their perceived effects is a powerful tool for understanding entrepreneurial processes. Kain (2004) agrees and argues that researchers should focus on critical incidents as they can answer questions about why and how outcomes come about.

In line with Chandy and Tellis (2000), participants were asked to share their interpretation of the initial conditions and the later developments of their projects. McKenzie (2007) points out that this retrospectiveness is actually a strength and not a weakness of this method for entrepreneurship. The time delay gives entrepreneurs an opportunity to reflect on events as well as the relationship between them. In addition to past events, participants were asked to talk about the current situation as well as future development of the business and the market.

There were three stages to each interview. In the first stage, I briefly introduced myself and my research project. During this conversation, participants had the opportunity to ask questions which helped to clarify the purpose of the research as well as their role as participants. I also informed the participants about the interview process, deliberately prolonging this part of the interview in order to gain their trust. I then started directing the informal conversation towards my first interview questions, which seemed natural because

they emerged from the ongoing conversation. Providing this link between the informal and formal part of the interview was very effective since the actual interview appeared to be a continuation, rather than a disruption, of the previous conversation.

Before I turned on the audio recorder, I asked the entrepreneurs to carefully read and sign the Consent Form (Ethics approval Ref. 2007/434). Following this, I conducted the actual interview based on a brief, two-page version of the interview schedule (see Appendix). This way, I could ensure that all the topic areas were covered, even though I did not conduct a structured interview. Focusing on the topic areas, rather than predescribed questions, allowed me to listen to the account of the entrepreneur and to adjust my questions in a way that kept the conversation going. Cope (2005) argues that designing interviews to encourage dialogue with participants enables researchers to find a balance between the theoretically derived questions and the curiosity in the individual's account. It also requires the researcher to relate to the participant's interpretation of events. Moreover, the two-page note enabled participants to visually follow the progress of the interview while I was taking notes. In doing this, I engaged in an active, listening, interview style (Silverman, 2006).

After official part of the interview was completed, I stopped the audio tape and expressed my gratitude to the participants. This triggered an informal conversation about what was said in the interview, which to my surprise started with: "I hope this was useful" or a "was this useful?" comment from the entrepreneur. The conversation that followed the official part of the interview provided valuable additional information which I noted down directly afterwards.

With one exception, all interviews were conducted on company premises, providing a number of advantages. First, I was able to complement the interview data with field notes based on observation and non-recorded conversations before and after the interview. I developed a habit of arriving early to the interviews as this provided me with an excellent opportunity to observe parts of the day-to-day business of the company. Additionally, I had the opportunity to see, and often to try, the products first hand, which provided valuable observational data. Interviews were usually followed by a company tour; these helped to complete the picture of the companies. Not only did I see the current production, but most importantly the entrepreneurs often showed me what they would like do next with regard to the product or the company.

All interviews were audio taped and transcribed. I collected a wide range of secondary data about the companies as well as products such as company documents, newspaper articles, industry reports and product reviews. In this regard, the focus on innovative firms was an advantage. Press coverage of the companies was extensive, especially since many of them have continued to grow rapidly, some appearing in the New Zealand Fast 50 or the Asia Pacific Fast 500 reports published by Deloitte. Similarly, most products received considerable press coverage. I also collected additional documents and observational data about the products as well as the companies by attending trade fairs and public talks given by the entrepreneurs. Finally, I registered for online newsletters of the companies in cases where this was offered.

#### **4.5 Ensuring the trustworthiness of the research**

Questions traditionally associated with ensuring reliability and validity were addressed in various stages of this research. In the design stage I used existing theory to derive an interview schedule for the semi-structured interviews. This way, I ensured that I collected matching data from all participants, and that the collected data informed the research question (Silverman, 2006). I also made sure that the collected data was process oriented to fit the conceptual model, and that the research approach was justifiable on an ontological basis. Leitch et al. (2010) argue that entrepreneurship researchers need to be more ontology – and epistemology – aware to enhance the quality of their research. In this thesis I have done both. I have engaged with the current discussion about the philosophical assumptions of entrepreneurship research, and I have linked this discussion to my research activities.

Throughout the data collection, I chose informants who were critically involved in the growth of innovative businesses – the key decision makers (Casson, 1982; Endres & Woods, 2007). As a result, while the sample is clearly not representative of entrepreneurship in a broader sense, it represents accounts of Schumpeterian entrepreneurship since it was clearly directed towards innovators amongst entrepreneurs (Bygrave, 2007). The benefits of this strategy are twofold. First, I ensured sample equivalence by focusing on the entrepreneur. This way, it was reasonable to assume that the participants had similar roles. Second, and as Siggelkow (2007) argues, the explicit focus on rather rare phenomena enhances the quality and credibility of qualitative research.

I ensured that the theoretical sampling frame was well populated with at least four cases in each cell. By following this replication logic, I had an opportunity to rely on multiple accounts depending on the environmental conditions entrepreneurs faced. Healy and Perry (2000) argue that this reliance on multiple accounts is one defining criteria of critical realist research.

The focus on a larger number of cases entails a number of challenges to the quality of research. First, each entrepreneurial account is a story in itself and has intrinsic value. Hence the evidential reliability of each entrepreneurial account is crucially important. For this reason, I checked all interviews for internal consistency. During the interviews, I was attentive to contradictions in the account and asked the entrepreneur to clarify if the account appeared to defy logic. After the interview I triangulated the account with publically available information to eliminate contradictions (McKenzie, 2007). The second challenge resulting from the larger number of cases is the huge amount of secondary data available. To mitigate this challenge and to develop a systematic case database, data were stored, prepared and analysed using NVivo (see Section 4.6). Data were analysed and presented thematically. First, each case was analysed individually to extract critical events as well as the causal powers at work. To achieve this, I prepared vignettes of the cases. These descriptive accounts were then used for a cross-case analysis with the aim of developing new theory through the process of retrodution. Retrodution is a specific form of scientific reasoning used by critical realists and will be discussed in the analysis section.

The philosophical perspective of the critical realist poses additional demands on theories to sound procedures in theory development. Theories need to have the capacity to make a difference. In this, critical realists sympathise with the pragmatist tradition which focuses heavily on the constructive power of new theories rather than on the degree to which they describe reality (e.g. Gergen, 1992). Yet critical realism maintains elements of both perspectives. On the one hand, the use of sound methods is important so that it does not appear that critical realists have completely dropped their tools (Weick, 1996). On the other hand, the tools should not impede the creativity of the researcher in developing useful theory. In order to accommodate both, I engaged in a systematic search in areas that offer high potential for useful theory. Fostering and growing innovative businesses has a very high priority amongst policy makers and entrepreneurs alike, but theoretical knowledge is still fragmented. I am, therefore, confident that the theory developed is useful as well as being grounded in reality.

## 4.6 Data analysis

### 4.6.1 Data analysis in critical realism: Opening comments

Critical realism is not new, especially to the field of management. In the field of entrepreneurship, however, the critical realism perspective has been used implicitly rather than explicitly. Recent discussion in the field of entrepreneurship has shown that there is still a need to clarify the implications of critical realism. Hence before turning to the actual analysis procedures, it is sensible to provide a brief introduction to critical realist analysis to complement the philosophical perspective that provides the foundation for this research.

Critical realists acknowledge that the mechanism and causal powers which are at the centre of their enquiry are often not directly observable. One can observe results, but often not what caused them. Causation requires uncovering the deeper, hidden structures that caused a phenomenon. This hidden nature of the subject matter limits the explanatory power of exclusively inductive or deductive reasoning. For instance, Sayer (1992) argues that inductive and much deductive inference relies heavily on regularities amongst events. In both cases, causation is based on the existence of regularities. In contrast, critical realism does not assume a direct link between patterns and causality. Regularities and distributions are seen as a useful starting point because they may indicate a causal relationship, but they do not necessarily equate to it.<sup>6</sup> Or, to borrow from Sayer (2004, p. 11) directly: “What makes things happen has nothing to do with whether social scientists have plenty of regular instances to observe and quantify.”

In order to uncover the basic structures, causal powers and mechanisms that produce a phenomenon, critical realist analysis involves a specific process of inferring called ‘retroduction’. This requires firstly working closely with a phenomenon in to understand it. Here, researchers aim to deconstruct, reconstruct and re-interpret the phenomenon and the meanings humans assign to it. This process is very close to abductive reasoning, which is well accepted for case studies in management research (Easton, 2010). However, understanding is only a preliminary step to explaining. Based on understanding, critical realists work backwards to uncover the hidden processes at work by asking: “what, if it existed, would account for this phenomenon?” (Reed, 2005, p. 1631).

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<sup>6</sup> Frequencies do have a place in critical realist research. However, frequencies need to be treated with caution. The only thing frequencies can indicate with certainty is how extensive phenomena are, but not what causes them.

Consequently, the argumentation is transcendental as the researcher moves beyond the empirical knowledge of something to knowledge its cause (Danermark et al., 2002). The researcher is constantly drawn between understanding concrete phenomena and more abstract explanations of its (often not directly observable) origins (Tsoukas, 1989). Bundel (2007) provides an excellent example to illustrate the difference between retroduction, induction and deduction:

“Consider, for example, a research project investigating the growth of entrepreneurial firms: inductive inference might move from a series of similar observations to an empirical generalization such as ‘rapid growth’ is associated with variables X, Y and Z’; deductive inference might move from a set of premises, such as the existence of certain variables, to a conclusion about their implications for growth in a particular case; while retroductive inference would move from the description and abstract analysis of the growth process as a concrete phenomenon to a reconstruction of the basic conditions that made it possible” (p. 55).<sup>7</sup>

Moreover, retroduction does not have a strict inference logic that moves in one direction from premise to conclusion, like deduction or induction. Arguably it resembles operations of inductive and deductive inferences, but it is plausibility rather than process driven.<sup>8</sup> Easton (2010) argues that the underlying logic of retroductive interference reaches back to the pragmatist tradition in that researchers need to make sense of the world surrounding them in order to extract useful explanations of causal relationships. This remains essentially a creative process which stems from the choice of the phenomena over the choice of method in the interpretation of data. Lawson (1997) argues that retroduction will therefore always reflect the researcher’s perspective, beliefs and prior experiences.

#### **4.6.2 Use of existing theory**

Building on the critical realist tradition, this thesis has been written bearing existing theory in mind. The use of theory has been twofold. In the initial stage of this research, existing theory provided ideas to develop a research framework. This research framework was useful for understanding the subject area before embarking on the fieldwork. Sayer (1992) stressed that there is no theory-unmediated access to the empirical world. Theory is omnipresent. Phenomena must be theoretically conceptualised as it is not desirable to try to derive research questions without any prior understanding of what the research is about. Moreover, without

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<sup>7</sup> In the pragmatic tradition, this process of theorising is often referred to as ‘abduction’.

<sup>8</sup> This is in stark contrast to the positivist position where the research process always limits the reliability (or plausibility) of results.

concepts even perception might be problematic and researchers might not know what to look out for and what to ignore. Theory is important to make systematic observations and to derive results (Fleetwood, 2004).

However, observations have the capacity to diverge considerably from the concepts that guided the data collection. For critical realists, empirical data have an existence independent of the concepts that assisted in collecting and interpreting them (Bhaskar, 1989). This independence requires a critical use of existing theory. Theoretical concepts can guide investigations but they should not determine the interpretation of the data. On the contrary, empirical data can often challenge the theoretical concepts that were used to generate them (Eisenhardt, 1989, 1991). For this thesis existing theory was used in this critical manner. Empirical observations were always critically compared to theoretically-derived expectations.

This relates to the use of theory throughout the analysis of this research. Critical realists stress that the generation of new knowledge is always mediated by existing knowledge and theories. Conversely, it is always the responsibility of the researcher to ground theory development in existing knowledge (Suddaby, 2006; Sutton & Staw, 1995). Researchers must be both theory aware and theory critical. Following these arguments, this thesis uses empirical data to confirm, refine or contradict existing theory, but above all, empirical data is used to build new theory.

The critical use of existing theory has many advocates in case study research. Eisenhardt (1989) argues that researchers should use extant literature to formulate a research problem and to identify potentially important variables. However, theorising about the relationship between, and the relative importance of, variables should be avoided as it may bias research findings. Similarly, Maxwell (2005) points out that theory is indispensable for the research process. In essence, the author agrees with Suddaby (2006) and many others in arguing that the process of theory development requires an informed but cautious treatment of existing theory.

#### **4.6.3 Coding and data preparation**

The analysis of the collected primary and secondary data went through a number of stages. Yin (2011) describes these stages as compiling, disassembling, reassembling, interpreting and concluding. Compiling refers to transferring the raw data in a database; disassembling specifies how the raw data are broken up into smaller categories; reassembling describes how

the data are regrouped into larger categories; and interpreting and concluding refers to how conclusions are drawn from the rearranged data. Moreover, Yin (2011) agrees with many others that this process of making sense of qualitative data is not as linear as this quick introduction might suggest. Instead, the process is reiterative, meaning that insights gained at one stage should encourage the researcher to go back to a previous stage in the search of deeper meaning.

In the following, I will loosely follow the five stages by Yin (2011); however, this should not indicate that the actual analysis proceeded in such a linear fashion. This sub-section focuses on the first three stages of the analysis process, which are arguably more technical. The following sub-section on the analysis procedures will outline the final two stages, interpreting and concluding, and elaborate on the theoretical underpinnings of the analysis process.

To analyse the data in order to build new theory, I followed Yin (2008) as well as Miles and Hubermann (1994). During the coding phase, I used two categories of codes as well as two types of coding to organise the data. The two categories of codes resulted from the fact that the initial codes were created on a theoretical basis and that additional codes derived from the comparison of the case vignettes as well as during the later data analysis. In other words, some categories of codes (or Level 2 codes [Hahn, 2008]) were theoretically driven and others were empirically derived, facilitating the development of new theory (Maxwell, 2005). I used both of these types of codes to disassemble the interview data. However, since the codes were still descriptive rather than analytic codes I decided to code them primarily as free notes in NVivo (Miles & Hubermann, 1994).

I kept hand-written memos to organise my thinking as opposed to using the memo function in NVivo, out of personal preference. I had the feeling that typing the memos would limit my ability to draw up models and to point out relationships freely especially across memos. Also, at this point of the analysis, I had already started to write down my thoughts during the data collection and continued this form of now-intuitive memo writing. Finally, I had no intention of coding the memos at a later stage of the research which would have been a strong argument for using this NVivo for this function.

I used NVivo in the process of reassembling the data according to emerging patterns which would inform the primary research questions. In this phase it became apparent that my use of NVivo was more to organise than analyse the data. The analysis itself remained my

responsibility (Suddaby, 2006; Yin, 2011). Undoubtedly, the use of NVivo assisted with this task for the interview data. However, I did not code exclusively in NVivo. The second type of coding included manual, handwritten, codes that I made on my field notes and the other secondary data. I refrained from using these data in NVivo because the software still had difficulties in importing some of the documents I wanted to analyse at the time. Moreover, and perhaps even more importantly, I wanted to use my primary data standing alone as there would have been the danger that the secondary data, which is a third party account, might distort the representation of the individual entrepreneurs in my NVivo database.

Let me elaborate on this point further. Initially, I set out to conduct an entrepreneurship study in the Schumpeterian tradition, which I have argued entails some form of subjectivism. Now, if I had allowed secondary data to directly break into the analysis of the individuals, the resulting NVivo analysis could not have provided this subjectivist account. Even more, as I mentioned earlier, cases had received different levels of press coverage which was primarily a result of different industry affiliations. High-tech firms, for instance, tended to be well covered, whilst low-tech firms had received far less media attention. Hence, even though both types of data are relevant for these study, they had to be treated separately. The NVivo function to treat these documents as ‘externals’ did not improve the quality of the database.

I revised the coding based on the interpretations of the data gained from comparing the NVivo database, the coded secondary data, and the memos. I organised the higher level concepts in ‘tree nodes’ which allowed me to view the created codes in a hierarchical structure which (a) triggered the generation of additional codes and (b) helped me to check whether each node contained sufficient evidence. Arriving at the final tree structure was an iterative process in which I constantly went back and forth between my interpretations of the observed patterns and the actual data. Hahn (2008) describes this process as reworking the original coding so that the coding structure evolves with the individual thinking, which ultimately leads to the formulation of the conclusions.

Maxwell (2005) argues that qualitative analysis is more than coding, or categorising, and rearranging of data. It is the act of actually making sense of the data. The following subsection describes this process. However, the fact that the sections are organised sequentially does not mean that the thinking evolved this way. In fact, coding and organising the data was a large part of the sensemaking process. Hence, there exists some overlap between this

section and the following, since they describe the same process although from a different angle.

#### **4.6.4 Analysis procedures**

The analysis started during the data collection. First, I prepared case profiles based on the secondary data in order to ensure that the case would fit the sampling frame, and to prepare for the interview. These profiles also provided a useful summary of the secondary data for the later analysis. After the interview, in which I also collected field notes, I was left with four types of information for each case - the case profile, the interview transcript, my field notes and the collected secondary data for all seventeen cases. I compiled all this data by creating an NVivo database for the interviews (details in the following section) and by collating the secondary data and the field notes in folders. At this stage, I was confronted with the often “messy” nature of the theory building process as described by Locke (2001). The author points out that the amount of data collected in a qualitative study can easily overwhelm the researcher.

To manage the data, I decided to familiarise myself with the individual interviews, with the intention of further data reduction. I did this before I started the coding of the data, since I intended to build the codes from the original interviews. Miles and Huberman (1994) recommended pursuing three activities to make sense out of qualitative data, namely data reduction, display and generating conclusions. I decided to prepare case vignettes which represented a shortened version of the process of innovative venture creation from the perspective of the entrepreneurs. This process of reduction helped me to better understand the collected interview data (Creswell, 2009). Langley (1999) points out that making sense of process data can be challenging and that a variety of analysis techniques can be combined to facilitate this process. Producing the case vignettes based on the interview data was a narrative strategy that helped to reduce the interview data for further comparison. As Langley (1999) argues: “In fact, almost all process reach involves recourse to this strategy [the narrative strategy] at some point.” In this stage of the analysis, I followed Yin (2008) and compared the information gathered from each case to check for internal consistency and to develop new themes for the ensuing cross-case analysis.

After I had gained a good understanding about the individual cases, I grouped them according to the sampling frame. This enabled me to compare the vignettes within their respective groups as well as to form initial ideas about themes for the coding. Hence, writing the vignettes was an analytical process (Colyar, 2009), which helped me to understand the stories of the entrepreneurs, but also to generate additional codes for the ensuing analysis. Yin (2008) pointed out that the within-case analysis, in a design that aims to analyse multiple cases, primarily serves these two purposes.

Building on Yin (2008), I compared and contrasted the cases according to the classification developed in Section 4.3.3. During this process I constantly compared my personal sensemaking of the empirical data of a case against others within that cell to look for common themes; I compared the cells against each other, to arrive at themes that would also allow for cross-case – or better – cross-cell findings. The use of a 2x2 matrix as a sampling strategy had clear benefits. Through using this matrix, I had an opportunity to compare the accounts of entrepreneurs who faced very similar environments. In addition, reassembling the data in clusters and matrices prepared the data for interpretation.

Easton (2010) argues that retroduction requires that the researcher constantly seek explanation in comparing data against initial derived explanations and existing theory in order to uncover underlying mechanisms. I satisfied this condition by what Miles and Huberman (1994) called a “clustering strategy”. This is a sensemaking strategy that aims at introducing order to achieve a higher level of abstraction – that is to describe a number of cases through a cluster. Moreover, the 2x2 sampling provided an opportunity to increase the validity of the findings for the clusters by comparing the results of different settings (Maxwell, 2009). Building on the refined sampling frame represents a matrix form of analysis which provided plenty of opportunities to explore, explain, and to finally draw conclusions from the data.

#### **4.7 Concluding comments**

Weick (2007) encouraged qualitative researchers not to be wooed by simple explanations while they are conducting data analysis. He highlights that “richness” of a study results from the use of a wide range of theories and constant comparison between conclusions, evidence and literature. The methodology presented has ensured this in a number of ways as it allowed for all of these activities. Similarly, Suddaby (2006) argues that the core of qualitative work

lies in non-random sampling and constant comparisons. He admits that this is a technical process that can at times be aided by computer software. The software remains a tool that helps in the sensemaking process of the researcher, but it cannot replace sensemaking, which remains a cognitive process.

In the first instance, theory building is not about clear procedures since these are sometimes at odds with the sensemaking process. Theory building should aim at finding the interesting reality on a higher level of abstraction than the data (Davis, 1971). This research was embarked upon with the intention of accomplishing this through a genuine inquiry into rather under-researched phenomena. However, whilst preparing this thesis represented my interpretation of the data, I had no agenda regarding its conclusions (Kilbourn, 2006). In the following chapters, I will share my findings.

## CHAPTER 5: INTRODUCING THE CASES

### 5.1 Introduction

Based on the theoretical discussion, a 2x2 matrix describing four distinct types of opportunities was developed, providing an initial sampling frame for this research. During the fieldwork this matrix needed to be refined, to reflect the nature of the perceived customer need by the entrepreneur (vertical axis), and the competencies chosen to fulfil this demand (horizontal axis). Regarding the nature of the customer need, two types of entrepreneurial projects can be distinguished, addressing an expressed, or an unexpressed, customer need. Entrepreneurial projects can also be distinguished based on the technological competencies required to innovate: existing or new competencies.

The first cell in the resulting matrix is populated by the Pragmatist, pursuing ‘pragmatic’ projects. In a pragmatic fashion, entrepreneurs did not want to reinvent the wheel. They addressed an expressed customer need using existing competencies. Knowledge about the opportunities pursued by the Pragmatist was arguably pre-existing, and hence potentially available to everyone. The second cell is home to the Inventors who pursued ‘invention’ projects. Entrepreneurs in this cell also addressed an expressed customer need, but they did so by using new competencies. These entrepreneurs invented new knowledge which was not even potentially available at the time they started out. The third cell consists of the Market-seekers and their ‘market-seeking’ projects. Entrepreneurs in this cell addressed unexpressed customer needs using existing competencies. Whilst knowledge about the technology was potentially available, these entrepreneurs anticipated an opportunity based on change on the demand side. Finally, entrepreneurs in the fourth cell are Pioneers pursuing ‘pioneering’ projects. These projects required both new competencies as well as changes on the demand side. Figure 5.1 illustrates the four types of entrepreneurial ventures.

*Figure 5.1: Types of entrepreneurial projects by opportunity pursued*

<b>Customer orientation</b>	<b>Unexpressed customer need</b>	<b>The disbelieved opportunity</b> <b>Project: Market-seeking</b> (Entrepreneur wants to develop a need, but does not want to reinvent the wheel)	<b>The implausible opportunity</b> <b>Project: Pioneering</b> (Entrepreneur wants to change the world)
	<b>Expressed Customer need</b>	<b>The concrete opportunity</b> <b>Project: Pragmatic</b> (Entrepreneur sees an existing need and does not want to reinvent the wheel)	<b>The latent opportunity</b> <b>Project: Invention</b> (Entrepreneur sees an existing need [even if only personal], and wants to invent solution)
		<b>Existing competencies</b>	<b>New competencies</b>
<b>Means used</b>			

In the following, the cases in each cell will be briefly introduced in order to demonstrate differences between the four types of projects. One case from each cell will be sketched out more fully to provide a more detailed illustration of opportunities as well as the entrepreneurs pursuing them. This will provide the foundation for further analysis.

## **5.2 Pragmatic projects – pursuing concrete opportunities**

### **5.2.1 Overview of pragmatic projects**

Entrepreneurs pursuing pragmatic projects relied on existing knowledge to fill a perceived need, serving customers who clearly required new solutions to widely recognised customer problems. Unsatisfied with the status quo, customers often actively demanded innovation and change, making it unproblematic for them to evaluate the benefits of innovation. Innovation either addressed their existing needs or it did not. Moreover, the entrepreneurs used existing knowledge to innovate and did not need to carry out genuine invention. They often used knowledge used in other industries to radically re-design existing products or newly design those that better addressed the needs of the customers. Table 5.1 gives a short overview of the four pragmatic projects.

*Table 5.1: Overview of pragmatic projects*

<b>Case</b>	<b>Idea</b>	<b>Perceived Need</b>	<b>Customer demand</b>	<b>Means used</b>
<b>Pragmatic project #1</b>	Durable outdoor clothing	Lack of durable outdoor clothing for hunters and the rural sector	High-end outdoor clothing	Newly designed apparel made from existing garments
<b>Pragmatic project #2</b>	An internet-based business directory	Lack of affordable online marketing for small businesses	Affordable online advertising	Online directory coupled with online advertising
<b>Pragmatic project #3</b>	Two rear shock bike	Reduced bouncing (pedal bob) for downhill mountain bikes	Rear suspension with less bouncing (pedal bob)	Redesigned rear shock absorber system
<b>Pragmatic project #4</b>	Interactive Java-based web-page	Interactive web-page	Innovative web page designs	First Java web-page design in New Zealand

In pragmatic projects, opportunities are rather concrete. Both the needs of the customers and the means to meet those needs are, at least potentially, available to most people. In the following, the pursuit of one of these concrete market opportunities will be outlined.

## **5.2.2 High-end outdoor apparel for the rural market**

### *Emergence of idea and initial sales*

Pragmatist #1 is a well-travelled outdoors person. After returning from his extended travels, he made a living as a possum hunter, but after a few years, a crash in the possum market made him unemployed. So he left the bush to go back to the city, where he met his wife. While he was looking for other things to do to make a living, he realised that outdoor apparel companies had largely focused on high-end customers such as travellers, mountaineers, and trampers. Those customers were willing to pay a high premium for good garments while at the same time rarely using these garments under extreme conditions. Outdoor clothing was primarily a fashion item and its durability was of secondary concern. For customers like himself who worked outdoors, on the other hand, there was no product made from technologically sophisticated materials. There was little obtainable clothing for hunters and farmers that was functional as well as durable.

“But I just thought, you know for possum trappers, deer hunters, there’s really nothing out there which is durable, which is, you know relatively obtainable, you know because the other products, you know had a high price premium for those products” (Pragmatist #1).

The initial sales were all exports. Pragmatist #1 took the first production to a trade show in Australia, where he tried unsuccessfully to find a distributor for his apparel. The problem was that his company appeared unprofessional, making it impossible to find a reputable business partner without first building the reputation of the business in the market. However, customers loved his products. Pragmatist #1 remembered that he sold all his products within a matter of a few hours on the day the trade fair was opened to the public. Apparently, customers did not care too much about reputation, but they did care about the product. Asked if these initial customers had any difficulty understanding the benefits of the product, he recalled:

“No they didn't. Because it was new, it was innovative, they got it. They’re practical people. You know they were hunters and fishermen to start off with. They could see wow this really helps me in what I want to do. So yeah, they got it” (Pragmatist #1).

Pragmatist #1’s product was innovative for two reasons. Based on his knowledge gained as a possum hunter, he started using high-tech garments for a market segment where those garments were unheard of, and he introduced designs to cater for the needs of the rural sector. As a result he solved an existing problem in a new way and his customers appreciated his efforts. After the initial success in Australia, Pragmatist #1 was ready to tackle his home market. One of the outcomes of the experience in Australia was the realisation that the company would have to punch above its weight in order to overcome its lack of an established reputation. To address this lack of reputation, Pragmatist #1 decided to prepare a nice looking catalogue and samples of his clothing in order to start selling the product directly.

The growth of the company resulted from researching and subsequently tackling the rural market. Despite being a large market in the New Zealand context, this market was not well served. Sales increased, and the company grew by an annualised rate of 35%. Pragmatist #1 focused on keeping his customers well informed about his product and its benefits, as this would translate into further sales. His apparel solved a well-recognised problem for hunters and the rural sector, so there was no need to try to educate his customers; they wanted to

educate themselves. Pragmatist #1 only had to facilitate their efforts by providing the relevant information.

“And so we really made sure our customers were informed of what it was that we built our garments out of and what they should look for in a durable practical garment. And they were. All of a sudden they were more informed than the retail staff were. And so in the end the retailers were saying your gear just sells itself. People know exactly what they’re looking at” (Pragmatist #1).

### ***Strategy and competitive reaction***

Competition emerged very quickly. Mostly, competitors were simply copying Pragmatist #1’s designs using cheaper fabrics, with production and development costs reduced to a minimum. As a result, Pragmatist #1’s competitors managed to undercut his price by half. Many of his innovations thus resulted in large successes for his competitors. Due to the lack of a technological advantage, Pragmatist #1’s products were reasonably easy to copy. He was caught in a rat race, in which he kept innovating but competitors seemingly benefited from his innovation.

”You know there are some people who think well I’d like to buy one of those coats out of [brand], but Jesus they’re 800 bucks. And here’s one that looks exactly the same, and I could look as if I was a [brand] person for \$260, so yeah it’s an issue. And the design features that we incorporate in some of our innovative products, they’re just being replicated” (Pragmatist #1).

Pragmatist #1 realised that he needed to establish some sort of differentiation that could not be replicated. Based on his experience Pragmatist #1 knew that differentiation based on the product itself was unsustainable. In a response to this situation, he orientated the business even more towards the customer. This required a radical change in his approach to business. Initially, Pragmatist #1 was convinced that he was the expert in the industry and that customers would follow his lead. However, he remembered that he had to radically change this attitude and accepted that his customers were the experts.

“I needed to lose my arrogance and realise that it’s my customer who is more bloody expert than I am” (Pragmatist #1).

Over time, customers became paramount in everything that Pragmatist #1 did. Most business decisions and every new product was judged against their expectations. The business had to hold true to their values and preferences. Pragmatist #1 communicated this to his customers via stories. These stories around the Company built a brand, which became the source of

competitive advantage. The competitors' story was usually that they were cheaper. Pragmatist #1 on the other hand, focused on representing the values of his customers. He created a clan of enthusiastic followers who bought his clothing not only for its physical qualities, but more importantly for what the company and the clothing stood for. Buying the product increasingly became a value statement for his customers.

“So if we have this clan then, we have to make sure that, you know we hold true to the values, and the principles that our customers have as well. So, and it's very simple. People that don't get us, don't buy our clothing, and that's cool, they go and buy someone else's. ... But 80 to 90 percent of them get what we do, and I think for them we've become that aspirational brand as well. That sure, you know shit the gear's expensive, but you know when I buy it I'm a part of that clan” (Pragmatist #1).

Creating a clan had some side effects. Pragmatist #1 had to realise that he did not own the brand anymore – the customer did. And Pragmatist #1 wanted to keep it this way. He would much rather have a small, controllable market than a large market with plenty of competitors. The following quote clearly indicates that Pragmatist #1 was enthusiastic about having a small but committed followership.

“But I don't think that there are many clothing companies around that people want to get buried in, or want to get married in. I think it's pretty cool what we've got going here. It doesn't have to be big. It doesn't have to be big, but it has to be real, it has to be authentic” (Pragmatist #1).

As a result of control, competition became largely irrelevant for pricing. Asked after the influence of competition on his pricing Pragmatist #1 responded:

“But they [the customers] realised that when they did buy it they were getting something that was truly innovative. And they were paying for that innovation. They were paying for R&D. And they were also paying to wear the logo on the side of their chest. And we still do it today. You know we're always aware of what our competition is charging for something, but we don't let that govern what we should charge for something” (Pragmatist #1).

The business grew steadily during the first decade. Pragmatist #1 recalled that the company could have grown much faster if he had focused on exports (currently 7-8% of turnover). But he and his family decided that they want to maintain control over the company. He now employs about 90 people in production and in retail outlets, and his products are available in about 600 stores New Zealand wide. Very recently, he has taken his clan online so that he can more easily communicate with clan members. This strategy is aimed at increasing direct online sales.

### *Case summary*

Pragmatist #1 built more than a business, he built a clan. He started out by solving a well known problem by designing durable outdoor clothing specifically for the rural market. This market segment had been largely ignored by traditional clothing companies, that focused on the supposedly more attractive recreational market. Pragmatist #1's customers were actively searching for better clothing and appreciated the new product offerings that were tailored to their needs.

Pragmatist #1 used fabrics based on existing knowledge in the industry for his outdoor clothing. These fabrics were provided by a third party and therefore potentially available to all clothing companies. Hence, Pragmatist #1 could not differentiate the business from its competition based on the technology in the fabrics. The clothing was expensive and often copied by lower priced competitors, but Pragmatist #1 created a strong followership of customers by staying true to their values. Since his company, and the stories surrounding his company, represented the values of the customers so well, Pragmatist #1's market became sheltered from low-cost competition. Table 5.2 provides a quick summary of the project of Pragmatist #1.

*Table 5.2: Summary Pragmatist #1*

<b>Key theme</b>	<b>Comment</b>
<b>Opportunity recognition</b>	Response to a clearly defined need. Hunters and farmers needed specific outdoor apparel.
<b>Means to address opportunity</b>	Combined existing fabrics used in different markets with innovative designs that specifically catered for the needs of his customers.
<b>Competitive reaction</b>	Competitors emerged frequently and tried to undercut his price. Competition was a real threat to Pragmatist #1 and it largely influenced his strategy.
<b>Relation to customer</b>	Pragmatist #1 is very involved with his customers. They are considered to be part of a clan and 'own' the brand. Pragmatist #1 sees his customers as the expert.
<b>Strategy</b>	To keep the market small and controllable.

## 5.3 Invention projects – pursuing latent opportunities

### 5.3.1 Overview of invention projects

The second cell is populated with entrepreneurial projects based on an invention. Here, entrepreneurs perceived an expressed customer need and addressed it using new means. Hence, Inventors share the focus on well recognised needs with the Pragmatists. However, they used previously unavailable means to address a well recognised problem in a new, innovative way. Their customers were usually actively searching for solutions, but nobody had not figured out a way to solve this particular problem. Inventors had to create new means to address the perceived opportunity. Table 5.3 gives a short overview of the projects based on an invention.

*Table 5.3: Overview of invention projects*

<b>Case</b>	<b>Idea</b>	<b>Perceived Need</b>	<b>Customer Demand</b>	<b>Means used</b>
<b>Invention project #1</b>	A better solution for fixing roads	Reducing the man-hours required to fix potholes in roads	Machines that make road maintenance more efficient	New technology to pump gravel without wear
<b>Invention project #2</b>	Full network surveillance	Network traffic measurement	Safer networks	New measurement software and hardware developed at a university
<b>Invention project #3</b>	Integration of patient data	Integration of patient data from different sources	Government tender to solve this problem	Newly develop integration software
<b>Invention project #4</b>	DJ Software for mp3	Product that enables DJ's to use mp3s in the same way as vinyl records	Clear need for DJ's to switch to digital records	New acoustics algorithm to synchronise mp3 audio files
<b>Invention project #5</b>	New system to accessorise boats	Fitting to accessorise a boat without a need to drill holes	Customers where actively looking for better solutions to accessorise boats	A new fitting allowing for different attachment without the need to drill holes

Opportunities in invention projects are less concrete than in pragmatic projects. Whilst a customer need is widely agreed on, the means to meet this need are absent. It is a latent

market opportunity that materialises as soon as the means become available. In the following, one invention project is outlined to illustrate the pursuit of such a latent market opportunity.

### **5.3.2 Gravel pump to fix potholes**

#### *Emergence of idea and initial sales*

Inventor #1 was originally a farmer, but since he had always had an interest in the engineering side of farming, he ended up building fertiliser spreaders for other farmers. After he left the farming industry, he went into commercial yachting for ten years. At this time, he had an opportunity to travel and to meet new people. He spent some time in the US, where he discussed his idea to build an easy to use road maintenance system which was essentially based on his experience of fertilizer-spreading machines. However, the industry supplying equipment for road maintenance focused on designing machines for the construction of new roads rather than machines that fix existing ones. Hence, Inventor #1's partners in the United States were not overly interested and he had to carry on by himself.

“And in that time I met various people, and I met somebody who I discussed with better way of fixing potholes, and broken road edges and things. And I worked with them; they were some people from Detroit who, after a period of time, gave up because we couldn't get things to work. But I carried on for a further 2 years and got a system to work, to do road maintenance” (Inventor #1).

Inventor #1 clearly perceived an opportunity for a more efficient way to fix roads, a process that used to be very labour intensive. However, the system he envisaged was not technologically feasible at the time. The main technological difficulty resulted from the need to pump gravel and other substances that normally produce excessive wear and tear. He had a breakthrough when he developed a system without any moving parts, which effectively eliminated excessive wear.

“We're pumping gravel with no moving parts, so the wear is minimal. And that's a critical thing because it's a very abrasive product to pump, gravel, aggregate, sand or whatever. The machines will pump anything. Sand or cement, great big stones. And that was a breakthrough for us. The low maintenance on these machines. You'll have more maintenance with the truck than you will with the machine” (Inventor #1).

Inventor #1 developed the machine for his own use as he intended to make money by subcontracting road maintenance services to local council. At first, he did not sell the machine, but the contracting work attracted some initial interest in the machine. Fixing roads used to be a very timely and work-intensive process. Consequently, local councils responsible

for road maintenance had to employ permanent staff. For these councils or other subcontractors the machine had a clear value since it could save valuable time in the road maintenance process. Asked whether he could remember his initial sales, Inventor #1 made the following statement.

“Oh I can. For six months I contracted on my own, with my wife driving the truck, and me working the machine. And after that, it was in the Bay of Islands, the council were quite happy with what we were doing. And we thought we’d go and give some demonstrations. ... And went back home and after a day a guy from Auckland rang me and said if your machine works, right I’ll hire it for a week, and if it works alright for me I’ll buy one. And the next day I got a call from the Hamilton City Council saying we want one of those” (Inventor #1).

The decision makers at the local councils saw the machine, understood what it could do for them, and were interested in buying one. Because of this expressed demand, Inventor #1 shifted from being a subcontractor working in road maintenance to being a manufacturer of road maintenance machinery. This process was driven largely by initial customers who actively approached him about a possible purchase.

### ***Strategy and competitive reaction***

The company significantly developed from these modest beginnings. Inventor #1 sold over 400 machines within the last 20 years. While the initial sales were in the domestic market, today almost the entire annual sales of NZ\$ 4 million are made overseas. Sales in New Zealand are very rare – the business has no solid domestic customer base. Over the years Inventor #1 has managed to establish an outstanding reputation within a very specialised market. Even the process of fixing roads with his machine is named after his company. Much of this growth was customer driven as the following quote indicates.

“They see the machines working. These machines, once you sell one, and they work very, very well, it’s fairly easy to get people interested. Because people can see that they can make money, contractors, they can make money out of these things” (Inventor #1).

Customers understood what the product could do for them. There were no barriers to understanding and evaluating the benefits of the product over the traditional method of fixing roads. The machine sells itself. With some regret, Inventor #1 sees one reason for the success of the machine in his approach to pricing. From the beginning, he priced on cost rather than value, cost being the only measure that he was able to control in the beginning. Value-based pricing, on the other hand, seemed impossible since a market structure for the machine was

nonexistent. Inventor #1 pointed out that, as a result of his pricing, the people who operated the machines made more money than he did. In this process, he created a small, profitable business, but he was convinced that he had left money on the table.

Value-based pricing would certainly have enabled more aggressive growth of the company. However, during the interview it also became evident that Inventor #1 slowed the growth of the company down on multiple occasions because he wanted to maintain control. The company had to remain manageable and it had to stay within the family. He remembered that he turned down large orders in order to prevent the company from growing too quickly.

“The tender was written around our machine, written straight out of our brochure, and we would have been the only one that could comply. And they were very uptight when we said we didn't want to participate. But it was too big for us, and I could have done it, organising, you know expanded here and expanded in Europe and got them there. But it didn't really fit” (Inventor #1).

Competitors emerged along the way, but their presence was mostly short-lived, most disappearing because they did not understand the machine or its market. Inventor #1 repeatedly stressed how important it was that he still works on the machine occasionally. This way, he can ensure that the people who use the machine remain satisfied.

“But if we keep the operators happy, the boss man in the background's happy, that's the way we work. A few years ago we went all digital and fancy with readouts and automatic stuff. And by the time the guys had sprayed it with kerosene at the end of the day, and you couldn't read the numbers and things, we went back to the basics of foolproof engineering. You can't make a mistake with the machine” (Inventor #1).

Inventor #1's competitors failed to understand this relationship since they tried to sell the machine to the people who paid for them rather than those who actually used the machine. As a result, competitors innovated in the wrong direction by trying to introduce unnecessary innovation so that their machines appeared more technologically advanced. This often compromised functionality. From the perspective of competitors, the machine had to look good in the showroom. However, the environment in which the machine operated demanded, above all, that it was very easy to use and to maintain. This was where Inventor #1's product shone. He realised that his customers did not value the machine as such, but the work it did for them. Customers bought the machine so that it fixed roads, and they did not want it to create any new problems. As a result of this realisation, Inventor #1 focused on simplicity in all aspects of the business relationship and not just the machine itself. He explained how important taking the hassle out of fixing potholes was for building competitive advantage of the business.

“We won't sell a machine, a first machine anywhere without sending somebody for a week or 2 weeks, we just won't do it, and they need that. Because besides selling machines, we're selling technology, we're selling how to do it, materials to use, how to use the machine. Some manufacturers who mainly have copied us are, well get in, sell a machine and disappear. And that just doesn't work. You have to hold people's hands” (Inventor #1).

This commitment to service and quality made the product simple from the perspective of the user. He also remembers that the technological know-how of the company has been sought to maintain or repair machines of competitors.

“And we've got two machines in Mexico right now that are competitors machines that they've asked us to fix. And one's a year old and it's never worked. And they want it fixed. And they can't find the people who sold it to them. And that doesn't go down too well. And that's happened in Ireland. It's happened in Italy” (Inventor #1).

By catering to the need of his customers, Inventor #1 built a very high degree of customer loyalty as well as an excellent reputation in a very specialised industry. From the perspective of his customers, Inventor #1's machine became the most advanced product in the market because of its reliability. About 50% of sales are now repeat orders and the company is well ahead of its international competition.

### *Case summary*

Inventor #1 created a small, specialised business that is recognised more internationally than in its home country. The origins of the company were modest. Initially, Inventor #1 envisaged building a machine that he could use to do road maintenance for the local council. While he was doing subcontracting, he was approached by several people who wanted to buy one of the machines so that they could become subcontractors themselves.

The machine represented a breakthrough in road maintenance. Previously, it was impossible to pump the materials needed to fix potholes without considerable wear. Inventor #1 solved this very obvious problem and his customers had no difficulty understanding the value of his solution. They wanted the solution to the problem solved, they understood the value of the solution, and they actively approached Inventor #1 to sell the machine. Inventor #1 has built his business solving a difficult problem in a simple way. First, the machine itself was very simple to operate and to maintain. Inventor #1 actually held back innovation in order to keep the machine simple. Second, he provided extensive training and

after sales service. By taking care of his customers, Inventor #1 made the entire ownership experience hassle-free for his customers. Table 5.4 summarises this project.

*Table 5.4: Summary Inventor #1*

<b>Key theme</b>	<b>Comment</b>
<b>Opportunity recognition</b>	Opportunity was recognized ‘accidentally’. Inventor #1 innovated to fulfil a personal need and the opportunity came to him.
<b>Means to address opportunity</b>	Invention of a system that allows to pump gravel with very little tear.
<b>Competitive reaction</b>	Competition emerged, but the challenges remained poor performed. Competitors misunderstood the basis of competition and innovated for the showroom rather than to increase the practical utility of the machine.
<b>Relation to customer</b>	Inventor #1 has become an industry expert
<b>Strategy</b>	Follow developments in the market and slowly, but continuously innovate

## **5.4 Market-seeking projects – pursuing disbelieved opportunities**

### **5.4.1 Overview of market-seeking projects**

The third cell is populated with market-seeking projects. In this cell, entrepreneurs perceived an opportunity based on unexpressed customer needs. These four entrepreneurs have in common that they all recognised an opportunity that was not the result of an existing customer demand. Accepting the status quo, customers did not actively demand innovation that challenges commonly held beliefs about needs and ways to fulfil those needs. Potential customers were not generally opposed to change; what they favoured was change that reinforced their existing values and preferences. In this cell, the entrepreneurs are the experts. They have knowledge about undisclosed customer needs not expressed on the market. In fact, Market-seekers often challenge the existing needs of their customers.

The similarities between these four entrepreneurial projects are not limited to how they perceived opportunities. All four entrepreneurs used means based on existing knowledge in order to address the perceived opportunity. Products were largely re-designs or new combinations of existing technologies or competencies rather than genuine inventions. In other words, these entrepreneurs found new applications for existing competencies. The projects are summarised in Table 5.5.

*Table 5.5: Overview of market-seeking projects*

<b>Case</b>	<b>Idea</b>	<b>Perceived Need</b>	<b>Customer demand</b>	<b>Means used</b>
<b>Market-seeking project #1</b>	A portable land yacht	An easy to use land yacht – there was no customer demanding a recreational land yacht	Faster land yachts	Re-designed land yacht – the concept of land yachting is over 100 years old
<b>Market-seeking project #2</b>	Free range eggs from rural New Zealand into the US	Lack of delicious eggs in the US – customers in the US were satisfied with battery farmed eggs	Cheaper eggs	Free-range farmed eggs – traditional farming methods
<b>Market-seeking project #3</b>	A new system for international telephone cards	Eliminating retailer as the middleman – customers were satisfied with existing system and saw no need for change	Cheaper rates	Network of new eftpos terminals – technology was very well known internationally
<b>Market-seeking project #4</b>	A Bottle with built-in water filter	Inconvenience of large stationary water filters – customers trusted existing systems; they saw no need for a change	More sophisticated filter systems	Conventional water bottle with coal filter

In market-seeking projects, opportunities are rather vague. Whilst the means to meet a customer need are more or less available, it is unclear whether the customer need actually exists. As a result, there is much suspicion about the existence of the opportunity, making this type of opportunity the disbelieved market opportunity. In the following, one project pursuing such an opportunity will be discussed.

#### **5.4.2 Portable land yacht**

##### *Emergence of idea and initial sales*

The idea of a portable land yacht (referred to as the ‘Windcruiser’ here) originated from Market-seeker #1 and his father, who were both enthusiastic about surfing and beach sports. At the same time, they were also disappointed with one of these sports, that of traditional land sailing. Land sailing was fun, but the equipment was extremely expensive to buy and cumbersome to use. Moreover, land yachts needed to fit the driver, which often necessitated complicated adjustments. As a result, the sport was limited to a small number of enthusiastic racers who focused on speed, rather than a family sport. Market-seeker #1 and his father set

out to change this by re-designing the land yacht to make it more user friendly, by creating a prototype called the 'Windcruiser'.

Given that the Windcruiser was a redesign of an existing concept, rather than an invention, Market-seeker #1 could obtain only trademark protection. Moreover, and as the following quote indicates, the Windcruiser did not address the needs of land sailors who were familiar with the concept of land sailing. Instead, it addressed the opportunity he saw in making land sailing more accessible to others.

“And trying to be the fastest guy on the beach at all costs, kind of thing, rather than just getting out there and having a good time. So the concept of three wheels and a sail is there but everything else has been stripped away and just made it fun and accessible. That’s basically the concept behind the Windcruiser. Something anyone can do and enjoy themselves” (Market-seeker #1).

Market-seeker #1 did not have a clear concept of what the market for the Windcruiser was going to be. Traditional users would certainly not be overly impressed by his interpretation of land sailing since they were interested in buying land yachts that allowed them to go faster. Potential recreational users, on the other hand, were unaware of land sailing as a concept. He doubted that they could be sold in large quantities. Despite the uncertainty regarding the target customer, he and his father decided to produce a few Windcruisers and to take them to a local boat show to get some feedback. After launching the product, they sold the annual production within a matter of a few days, showing that the Windcruiser sparked interest amongst retailers. This unexpected interest was also fuelled by the reasonable price. Initially, Market-seeker #1 had calculated the prices on a cost plus basis, which turned out to be a mistake that was very hard to correct.

“I would try, I would work [the price] back from consumer end, from the consumer end back, rather than from our end forward. I think New Zealand probably could have stood a higher retail price if we hadn’t started so low and got so much publicity. But to push it up there is kind of insult to injury for people, when the price for everything else is coming down” (Market-seeker #1).

The initial sales reinforced the fact that the Windcruiser did not address the needs of the traditional land yacht buyers, and Market-seeker #1 still faced the challenge of finding customers for his innovation. Difficulties arose out of the foreignness of the concept of land sailing to recreational users who were used to more popular recreational sports. In other words Market-seeker #1 did not want to convince traditional land sailors to buy the Windcruiser, but people who would normally buy other recreational sports gear. However,

these customers needed an opportunity to experience the Windcruiser in order to appreciate its benefits.

“We know for a fact that in New Zealand the three places where people can actually rent and use a Windcruiser before they buy make up probably 80% of the national sales between those three venues. In Europe where it’s our biggest export market, they have a number of event companies, with probably 30% of our sales in Europe going to event companies. Then what’s left over, half of those sales would be from people who’ve had a go at event companies and even bought through them. And then the rest of them are people that have figured it out for themselves” (Market-seeker #1).

The educational process did not stop with creating awareness for the Windcruiser. Market-seeker #1 still needed to convert interest into sales. Here, the introduction of an inexpensive basic Windcruiser was crucial. Customers were attracted by the low price, and further explored the possibility of buying a Windcruiser. However, the basic model accounted for only about 10% of the total sales, and these sales of the basic model are normally to rental companies. The interest of private customers in the basic model was usually short-lived. They tended to upgrade to a more refined and much more expensive model once they got used to the idea of owning a Windcruiser.

### ***Strategy and competitive reaction***

Market-seeker #1 realised very early on that they would need to build a sport around the product as it would otherwise probably become just a fad. To support the development of the Windcruiser sport, Market-seeker #1 pursued two activities. First, he started to nurture a windcruising club from within the company. Once the first club became larger, it started to generate publicity, leading to the founding of additional clubs. In 2009, there were 8 official clubs nationwide and about 75% of the publicity and 30% of sales came through them. The second activity he pursued was to support fun races. Participants had to race a Windcruiser. No other land yachts were allowed to participate.

“We have a lot of very loyal existing customers and once the new model came out they all wanted to have the new models. So that’s a big kind of kick in sales which covers all the development costs that have gone into it and it leaves us with the product that we’re happy to continue” (Market-seeker #1).

Competitors largely misinterpreted why and how customers buy the Windcruiser. The product was copied and its price has been cut in half – which was not the most difficult thing to do as Market-seeker #1 pointed out. He recalled, for instance, that one company even copied his entire marketing campaign. But what has not been accomplished is to replicate the

club environment that provides an opportunity to use the Windcruiser in fun races. In other words, what the competition has not replicated is that owning a Windcruiser made the individual customer part of a larger group of people who enjoyed using the product in public events.

“So we push a point to make a point about the owning of the trademark. But in terms of the design, anyone can put three wheels and a sail together. ... But if you want to be involved in our events, fine, have a Windcruiser. If you’ve got something else, sorry you can’t join in” (Market-seeker #1).

Because Market-seeker #1 started to create a sport around the Windcruiser, he welcomed everything that raised the awareness of land sailing as a recreational sport. Even the emergence of new competitors had a positive impact on his business, as the following quote indicates.

“Almost once a week we’re learning of new people trying to have a go at the land yacht market. Which I’m not too fazed about. I think it would actually be good for stimulating the awareness in land sailing” (Market-seeker #1).

Market-seeker #1 pointed out that competitors extended the market for land yachting. This increase in the customer base translated into sales for his business simply because of the club culture surrounding the Windcruiser. The Windcruiser was not just a product. It was a product with a supporting infrastructure. Whilst competitors were able to copy the product, they could not replicate the supporting infrastructure, making many competitive challenges ineffective.

“So there’s lots and lots of new little ones come out. But they’ve missed the point on what has made [product name] successful I think... Okay we are cheaper than this, we’re cheaper than that, you can do this for \$1500. But they’ve got no facility in there for the events and support that needs to follow the new product. Because no one knows what it is still. So there’s a lot of education that frankly costs lots of time and money to educate people what it is that you’re doing” (Market-seeker #1).

### *Case Summary*

The re-design of the land yacht clearly did not address any expressed need of traditional land sailors. Instead, Market-seeker #1 focused on what would make land sailing accessible for recreational users, just like him. However, the concept of land sailing was foreign to these recreational users. Neither traditional land sailors nor recreational users were demanding a product like the Windcruiser. It had no defined customer. Since land sailing as a sport had

been around for many years, the portable land yacht was not patentable. Once the Windcruiser was released, however, it was very susceptible to emerging competition.

Market-seeker #1 realised very early on that design features were not very difficult to replicate or to innovate around them. As a result, Market-seeker #1 foresaw that he would face increasing price competition in the future. Given that competing on price would not be sustainable for a small New Zealand-based manufacturer, Market-seeker #1 started to create sport around the product – Windcrusing. Creating a sport resulted in a loyal customer base, sheltering the business from competition. Table 5.6 gives a brief overview of Market-seeker #1’s project.

**Table 5.6: Summary Market-seeker #1**

<b>Key themes</b>	<b>Comments</b>
<b>Opportunity recognition</b>	Not in response to a clearly defined need; in fact Market-seeker #1 focused on elements that made the sport fun for him
<b>Means to address opportunity</b>	Concept of land sailing over 100 years old; the Windcruiser was a radical new design of an existing concept
<b>Competitive reaction</b>	Competitors emerged frequently and aggressively tried to undercut prices. However, Market-seeker #1 did not see competition as a threat.
<b>Relation to customer</b>	Market-seeker #1 needed to educate his customers. In this process, he became the expert on land sailing and the customers followed, and continue to follow, his advice
<b>Strategy</b>	Market-seeker #1 created a sport around the product to prevent customers from migrating to the low cost competition

## **5.5 Pioneering projects – pursuing implausible opportunities**

### **5.5.1 Overview of pioneering projects**

The final cell is populated with pioneering projects. As with the Market-seekers, Pioneers did not perceive an opportunity based on what the customers wanted. Instead, these entrepreneurs were experts in a field and believed that customers deserve better. Unlike market-seeking entrepreneurs, however, these entrepreneurs used new means to innovate. Table 5.7 provides a brief overview of the fourth cell.

*Table 5.7: Overview of the pioneering projects*

<b>Case</b>	<b>Idea</b>	<b>Perceived Need</b>	<b>Actual customer demand</b>	<b>Means used</b>
<b>Pioneering project #1</b>	Amphibious boat	A trouble-free way of launching a boat off the beach	Better on water performance	An amphibious boat with retractable wheels
<b>Pioneering project #2</b>	True multi-touch technology	A true multi-touch monitor for PC	Cheaper touch enabled monitors	New, optical multi-touch technology
<b>Pioneering project #3</b>	Ergonomic school chair	Better chairs for school children	Cheaper chairs	Newly designed chair based on extensive research in collaboration with a local university
<b>Pioneering project #4</b>	Limiting internet procrastination for SME staff with a new firewall system	Reducing procrastination of employees	Increased security	Newly developed hardware and software – inverting the way in which the firewall communicates with central software

Pioneering projects pursue implausible market opportunities. Both customer needs and the means to meet those needs are not clearly defined, making it highly doubtful whether an opportunity like this will ever exist, and if it will, whether it can be served. The following section outlines the pursuit of such an implausible opportunity.

### **5.5.2 The amphibious boat**

#### *Emergence of idea and initial sales*

Pioneer #1.1 and Pioneer #1.2 are serial entrepreneurs who had worked together on a number of successful technology businesses. After selling their previous business, both decided to take some time off. Pioneer #1.1 started his time off by spending some time with his family at their beach-front family home. During that time, he became annoyed by the fact that he always had to take his small boat to a nearby boat ramp instead of simply launching it directly off the beach. So he started working on an amphibious boat. He described how his

disappointment with handling a conventional boat encouraged him to design an amphibious boat.

“Basically I live on the beach, and I just wanted an easier way to get the boat in and out of the water. I wanted to be able to launch the boat by myself, take the kids out, that sort of thing. ... so I started thinking about how to get the boat in and out of the water, you know, easily. And really came up with the concept in my mind, I filed a provisional patent before I started. And then basically built the first one in my garage at home” (Pioneer #1.1).

Pioneer #1.1 and Pioneer #1.2 pioneered the idea of amphibious boats. Initially, the market consisted only of Pioneer #1.1. The product first needed to fix his problem. Amphibious vehicles had been around before, but these vehicles were primarily designed to perform well on land. They are about 80% vehicle and only 20% boat. While this combination arguably has a clear application in the military, police, or in rescue services, it does not appeal to the recreational user. Amphibious vehicles do not perform well enough on water to be a suitable alternative to a small boat. Here, the amphibious boat provides a new compromise. It is a 100% boat with retractable wheels, enabling short distance land travel.

The amphibious boat of Pioneer #1.1 and Pioneer #1.2 was an entirely new concept. Traditional boat builders tried to make their boats better on the water, while builders of amphibious vehicles tried to make their vehicles better on land; they were able to obtain extensive intellectual property protection for the core idea of retractable wheels on a boat. However, the market for the amphibious boat was difficult to define. On the one hand, customers who were traditionally buying amphibious vehicles were interested in on-land performance. For them, the amphibious boat did not meet their requirements. Owners of beach-front properties who should have encountered the same problem as Pioneer #1.1, on the other hand, were buying boats primarily because of their on-water performance. Pioneer #1.1 remembered how he initially tried to get a feeling of the market.

“And we built a sort of a show boat, a bit like a concept car kind of thing, that we could then take to some international boat shows and get some market feedback to see. Because it’s a little bit of an unusual product, you know there is no existing competitor, there’s no existing market. So we couldn’t be directly compared against any other product. So we had to figure out, you know, is there a market, what price would people pay, you know what sort of boat size, and style, and all that kind of thing” (Pioneer #1.1).

He realised that customers view the retractable wheels with some suspicion. Of course, the amphibious boat is solving a problem, but the logistics around launching a boat were widely accepted. From the perspective the customer, the amphibious boat was a gimmick solving a

non-existent problem. Pioneer #1.1 pointed out how important it was that these customers had an opportunity to see the technology in operation and that selling the amphibious boat was primarily an educational task.

“So it’s very unconvincing when they see the picture, because they think oh the wheels will break off, and it’s a gimmick, and maybe when they bring the wheels up it won’t be so fast and that. So they really need to see it, so when we, so yeah that’s the sale” (Pioneer #1.1).

“We have working demos at the boat shows so people can see it, and everybody has a play with things like that” (Pioneer #1.2).

### ***Strategy and competitive reaction***

The need to educate the customer was also apparent by looking at the growth of the market for the amphibious boat. Not only did customers need to see the boat in operation, they needed to see the system operating in a real-life context. Pioneer #1.1 remembered that selling the first boat into a region is often the most difficult one. Once one boat was sold in one region, other orders followed.

“Once they start seeing it, you know and they’re sitting in their house and the neighbour’s going up and down so easy. They don’t have to use their tractor and trailer, and get wet, then they can see. Year after year if they keep seeing it, they’ll want one” (Pioneer #1.1).

“The concept of amphibious is brand new, and boats aren’t cheap. So you have to appeal to high net wealth individuals who are early adopters, not afraid to try something different. So, you know it’s a very personal sale in a lot of cases, but once you’ve sold 1 or 2, the rest of the market starts to feel secure around the fact that you’ve got reference lights and, you know, someone to talk to, fellow owners, if you like. And it starts to build its own momentum” (Pioneer #1.2).

Closely related to the need to educate the customer is the need to build up a reputation for reliability. Although educating customers about the technical capabilities of the amphibious boat makes them interested, customers still have negative preconceptions about the reliability of the product and the company behind it. But this is changing. Pioneer #1.1 and Pioneer #1.2 increasingly use their existing customers as reference points. For many new customers, what existing customers have to say about the amphibious boat was crucial. The technology needs to be reliable. In order to ensure the reliability of the boats, Pioneer #1.1 and Pioneer #1.2 relied on simple engineering and they largely oppose modern, electronic devices. In addition,

Pioneer #1.1 and Pioneer #1.2 sponsored a number of world record-breaking events with the amphibious boat, that demonstrated its reliability.

Sales doubled every year since the company was started in 2000. About 300 boats were sold in total and the annual revenue increased to about NZ\$10 million by 2009. Growth was driven primarily by two factors. First, Pioneer #1.1 and Pioneer #1.2 succeeded in convincing customers that there was a problem that they needed to do something about and that the amphibious boat presented a reliable solution from a reliable company to this problem. Second, they expanded into what they called the red boat market, which consists of institutional buyers such as the army or the coastguard, who were the traditional users of amphibious vehicles. The amphibious boat represented an additional alternative for these customers. Pioneer #1.2 remembered that they always anticipated this market, but that they made very little attempt to target it directly. Initially, this market seemed far too price sensitive.

“It was a strategic play by us. We pick up, it’s easier to pick up what I call the low hanging fruit of the high net wealth, beachfront residents with a recreational boat, than it is to secure a government order. So we started off in what I call the white boat sector, and market seeding with the recreational boats. And the concept then developed into the government/corporate sector, which was the area we’re going into now. And so whereas the recreational sector buys 1 boat at a time, the corporate world, or government sector will buy 10, or 100” (Pioneer #1.2).

Pioneer #1.1 added that the development of the red boat market was largely customer-driven. These customers had used amphibious vehicles before and the amphibious boat roughly fitted this category.

“Yeah it was market pull really. We were very comfortable building boats for the recreational market and potential customers in the rescue market came to us, and wanted to deploy their boats amphibiously” (Pioneer #1.1).

Competitors did not emerge. Pioneer #1.1. and Pioneer #1.2 did a very good job in defending their intellectual property, and ensuring a unique position in the market. Asked after the initial competitive reaction, Pioneer #1.2 made the following statement:

“We put a lot of effort into our patents, and protecting our intellectual property. And we actually badged the boat on the very front of it, it has our patent numbers on the back of it. It has the patent numbers when you get the boat, it says patent protected. Our tagline is painted into the amphibious, so we really brag about the fact that it’s patented to scare people off the idea of copying it” (Pioneer #1.2).

However, the absence of competition was a mixed blessing, as it made it difficult for customers to evaluate the value of the product. This was an additional barrier in the purchasing decision. First, customers had to understand how the product worked and trust that it would be sturdy enough to handle regular use. After that, customers needed to agree on the price. This remained problematic since they could not compare the product with anything else on the market. There was no reference point for pricing, which often confused the customer. Pioneer #1.1 pointed out that the absence of competition, or in other words, the absence of a market, complicated pricing.

“We tried lots of prices, we just, yeah, because as I said there’s no direct competition. It isn’t easy, it’s a hard product to sell, because there’s no existing market, there’s no market information. There’s no competition. ... the customer has no idea of this sort of product because it, they haven’t seen it before. So it’s quite a, it’s difficult but, you know quite an interesting problem ” (Pioneer #1.1).

Moreover, Pioneer #1.2 added that it would have been ideal for the company if other boat builders started to pick up the concept of the amphibious boat. He did not see this as a threat. Instead, he believed that their technological advantage would set incentives to licence the technology. This way, there would be competition in the market for amphibious boats but not in the market for amphibious technology. Asked after whether he would welcome competition in the market for amphibious boats, Pioneer #1.1 replied:

“Ideally, I mean the concept ideally is we just want to license them, we don't want to build the boats. We really just want to license the technology and the system to other boat builders” (Pioneer #1.1).

### *Case summary*

The amphibious boat was the result of Pioneer #1.1’s disappointment with the demands of launching a conventional boat. Available amphibious vehicles were no alternative to a recreational boat since these were designed to perform well on land, but not on the water. At first, the amphibious boat had no defined customer. In the first instance, it had to solve Pioneer #1.1’s problem. Other people faced exactly the same problem as Pioneer #1.1, but, even though they were inhibited by the status quo, they accepted it. These customers were more focused on how a boat handles once it is on the water rather than on how difficult it is to get the boat into the water. The amphibious boat was seen as a gimmick.

The amphibious boat was an entirely new concept. Amphibious vehicles had been around for some years; but given the focus on ‘on water’ performance, these were hardly an alternative. Pioneer #1.1 and Pioneer #1.2 obtained a full patent for the concept of retractable wheels on a boat. Table 5.8 provides a short overview of the project.

*Table 5.8: Summary Pioneer #1*

<b>Key themes</b>	<b>Comments</b>
<b>Opportunity recognition</b>	Invention was driven by a personal need, but commercial opportunity clearly anticipated from the outset
<b>Means to address opportunity</b>	New concept of an amphibious vehicle focused on-water performance rather than the traditional road use
<b>Competitive reaction</b>	None. Patents were very effective in shielding the market from competition
<b>Relation to customer</b>	Difficulties in convincing customers of the product. Only a few ‘early’ adopters were willing to buy
<b>Strategy</b>	Enhance exposure. Since competition was not a threat, the problem was to convince customers to use the amphibious boat in order to publicise the technology

## 5.6 Concluding comments

This chapter built on the revised sampling frame of the previous chapter and introduced one case from each cell to argue that there were four types of opportunities. Depending on the type of customer need and the means used to meet those needs entrepreneurs pursued either a concrete market opportunity (pragmatic projects), a latent market opportunity (invention projects), a disbelieved market opportunity (market-seeking projects), or an implausible opportunity (pioneering projects).

The chapter also showed that there were distinct processes leading to the pursuit of these opportunities. However, the analysis was driven so far by rather general cross-case similarities and differences to establish that the represented case provides a fair representation of the cases within one cell (or, the type of opportunity pursued), and that there were differences between the cells. This analysis needs to be deepened in the following chapters, bearing the primary research questions in mind.

There has already been some indication that there are differences between the cells. For instance, there were differences between the prior work experience and knowledge between the four cells, and entrepreneurs also tend to become involved for different reasons. It also became obvious that there are further important differences between the cases in regard to the source of the innovative idea, the challenges associated with finding customers, as well as the competitive reaction. However, these differences remain unexposed unless they are explored systematically using all cases. The three following empirical chapters investigate these differences.

## **CHAPTER 6: BECOMING AND STAYING INVOLVED**

### **6.1 Introduction**

This chapter investigates the research question: How and why do entrepreneurs start innovative ventures? This research question was derived directly from the individual-opportunity nexus and highlights the interplay between opportunities and the individuals pursuing them. The chapter focuses on the similarities and differences between entrepreneurs pursuing different types of opportunities, aiming to build new theory that helps to better understand the creation of innovative ventures.

Building on the four types of opportunities outlined in the previous chapter, this chapter will argue that there are four types of individual-opportunity nexuses. The individuals exploiting, or creating, the identified opportunities differ greatly regarding their prior knowledge, their views on opportunities, as well as their motivation to start and to stay involved in the business. Together, these differences give rise to the four individual-opportunity nexuses: the Pragmatist nexus, the Inventor nexus, the Market-seeker nexus, and the Pioneer nexus. The analysis shows that there are distinct mechanisms for each.

The chapter outlines the four nexuses. For each type, the processes that led to the creation of innovative ventures are described, followed by a discussion of how the entrepreneurs pursued business growth. Finally, this chapter summarises the four nexuses and the mechanisms explaining them in order to create a foundation for the analysis in the ensuing chapters.

### **6.2 The four individual-opportunity nexuses**

#### **6.2.1 Pragmatist nexus**

##### ***Starting the venture***

Let us begin with entrepreneurs who pursued pragmatic projects. As Pragmatist #1's story in chapter 5 already indicated, pragmatic entrepreneurship was often a response. It was most often triggered by a crisis in the professional life of the entrepreneur such as unemployment, deteriorating profitability of a current business, or a lack of career opportunities. This is not to say that engagement was always triggered by a severe crisis, but most Pragmatists experienced a fundamental change to their professional lives before they became involved in the current business. However, even though pragmatic entrepreneurship was frequently

prompted by changes in profitability of a previous business or unemployment, it was not ‘necessity entrepreneurship’ in the traditional sense – which would imply a clear ‘push’ into starting a business solely for the purpose of making a living. This clear push entrepreneurship could not be identified. Entrepreneurs had other job opportunities, but these were considered less attractive. Many of them considered the employment opportunities available at the time mundane or inappropriate given their past working experience, and starting a venture by selling innovative products an exciting thing to do.

While starting these businesses often seemed like a radical change in the professional life of these entrepreneurs to the outsider, this was not the case. Pragmatic entrepreneurship was usually a continuation of a previous activity, or it was at least closely related to some former practical experience. Customer preferences and technologies were largely given – and Pragmatists usually possessed prior knowledge that helped them to understand and act upon these pre-existing structural conditions including market knowledge. Moreover, they pursued opportunities with very little outside funding. The ventures were mostly ‘bootstrapped’, relying on the founder’s personal wealth or that of family and friends. Aggressive acquisition of external funding was not actively pursued. In other words, Pragmatists focused on opportunities that were clearly situated within their financial and capabilities constraints at the time.

“I didn’t know what to do with myself after I’d resigned, so my wife at the time, had a really good job. So, I thought oh well, I’d potter around and just do some really cool websites. I’d been talking to [company name] and [company name] about taking the 3D Weather that I’d built for television, and doing it online. So, we built a thing for the [company name], and it was interesting” (Pragmatist #4).

“But when the [New Zealand] dollar went to 80 cents [to the US dollar] there was no way in the widest world you could sell that boat for \$800,000. And yet that was only caused by the exchange rate. So that actually made us as a company re-look into other directions because we didn’t know how long that was going to go on for” (Pragmatist #3).

In crisis often rested opportunity. While experiencing a crisis was common amongst Pragmatists, some pointed out that the crisis itself indicated an opportunity for an innovative venture. For instance, Pragmatist #2 became aware of the opportunity he pursued by understanding the crisis in the business in which he was involved. At the time, he was selling advertising space for print media and realised that more and more customers started to spend money on digital advertising, making the market for traditional marketing methods more competitive. While this was a threat to his income, it also presented an opportunity.

“We would more often get the objection ‘oh, I’ve put all my money into something. I’m going to try this online thing’. We started hearing this six or seven years ago; people building websites. So, we were thinking of doing online magazines, so continued doing the same thing we were, only online” (Pragmatist #2).

The nexus of the Pragmatists required two crucial individual-level components, namely pre-existing knowledge about a specific market and the motivation to overcome some sort of crisis. This crisis was ‘pragmatically’ overcome by utilising specific market knowledge gained in the previous professional life. The opportunities pursued by the Pragmatists were, therefore, closely linked to their past experience, and becoming involved in the innovative venture was a progression in their professional lives.

### ***Managing growth***

The role of the entrepreneur in the ventures often resembled a middle management job; working in their own business became the best job they ever had. Once the size of the business reached a point where entrepreneurs felt that they would start to lose control over the business, growth often slowed down. This slowdown was not the result of limited opportunities for growth. In fact quite the opposite was true; the businesses of the Pragmatists enjoyed continued growth and there was no perceived shortage of opportunities. However, they often made a conscious decision against growing the business further, a decision driven by a need to maintain control over the business, as the following quotes indicate.

“We grew this up to 45 people and it was just too hard to manage. So, we scaled it down to 30, and then with the crunch last year I dropped it in October, down to 19 or 20 people, which is actually the most successful period that we had in Wellington in the early part of this century. Auckland has dropped from 65 to 40” (Pragmatist #4).

“Sydney today, London tomorrow. And then we just had an epiphany and said, you know what, it’ll kill you. It’s just, you know chewing up far too much of our time... And perhaps then, you know we sat down and we had a big discussion. We said, you know maybe we need a new CEO and a new marketing guy. And, you know someone else who can take it to that level” (Pragmatist #1).

“I want a nice, small, very profitable business. I don’t want a hundred million dollars a year business” (Pragmatist #3).

What were the underlying reasons why these entrepreneurs wanted small, controllable businesses? Again, Pragmatist #1 gave an excellent account about the forces that constrained growth in these businesses. For these entrepreneurs, the business was often a means to achieve personal happiness and to help them to build their careers.

“And, you know to measure your success, to measure the company’s success, to measure the success of the country, I think sometimes you need to sit down and think what is it that I would like to see here, and then set out to achieve it, you know? If you think it, then make it happen. So how do I measure my success, you know? I measure it in happiness” (Pragmatist #1).

Pragmatists had to ensure that they remained in the driver’s seat to exert control over the ‘happiness’ derived from involvement in the business. After all, being in control of the business was their career, and business decisions were often subordinated to personal decisions which determined business development. Another example of the pursuit of personal happiness through the business was Pragmatist #4’s considerations whilst he was talking about future internationalisation of the company. The quote indicates that this decision was based around not what was best for the company, but on what he considered to be best for him.

“So, I have a new partner. We both want to travel extensively, always put it off because we’re working, and so my logic is to go and live somewhere, anywhere, and interestingly enough it’s probably going to be Barcelona to start with, or Madrid. I really like going to Spain. Madrid or Barcelona, I have already two major clients. I just set up a little subsidiary offshore. Easy!” (Pragmatist #4).

Pragmatists constrained the growth of the business to maintain control. It is difficult to establish whether their businesses were constrained only by subjective factors or objective factors as well. What can be said, however, is that the plateau of growth occurred in an equilibrium between the external environment on the one hand, and the personal preferences of the decision maker on the other hand. Even though business growth was neither probable nor actively pursued, the business was still a joyful place to work in as none of the entrepreneurs seemed to be dissatisfied with the current size of the business. In other words, Pragmatists created a good fit between their personal objectives and the environment their businesses operated in. Exploiting the opportunity did not necessarily require aggressive growth, which suited these entrepreneurs rather well.

## 6.2.2 Inventor nexus

### *Starting the venture*

Inventors differed regarding opportunity recognition and their motivation to pursue opportunities. First, opportunity recognition often occurred accidentally. Inventors started with a problem that needed addressing, rather than an opportunity. It was usually a problem they themselves were confronted with, something they believed needed to be concentrated on for their own sake.

Most of these entrepreneurs had previously worked in the industry where the problem occurred, or in a closely related area. Their experience within the industry enabled them to understand the problem the innovation needed to solve as well as how to approach a possible solution. For most of these entrepreneurs, personal involvement in finding a solution to the problem was high, and the recognised problem became the focus of their innovative efforts. Commercial considerations were often of little importance, and the problem defined the need. As a result of their personal involvement with the problem, entrepreneurs were inclined to impose their personal point of view on a solution, creating solutions that suited their needs.

“[The company] came about just through personal need. I just decided, I bought a new boat, I needed some product on it, I looked at what was available worldwide and quite honestly I imported everything I could find that was going to suit the needs of what I wanted. Couldn’t find anything to do the job” (Inventor #5).

“Technically it was quite difficult to satisfactorily pump gravel, which is what we’re doing, without considerable wear, because it’s very abrasive material. But my background in fertiliser spreading helped out there” (Inventor #1).

The commercialisation of their inventions unfolded spontaneously for many Inventors. Quite often, they were very cautious about commercialisation and it was more their initial customers than their own motivation that fostered the creation of the innovative venture. Inventors were usually approached by potential customers who had the same problem, as the example of Inventor #1 in chapter 5 already indicated. In other words, in the market of Inventors, customers were actively searching for new products that satisfied their needs.<sup>9</sup> This customer interest was very flattering, and establishing a business around the invention became an appealing idea. Now that the solution to the problem was found and some initial customer interest was validated, starting a business seemed a ‘fun’ thing to do.

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<sup>9</sup> This point will be further elaborated on in Chapter 7 which deals with how entrepreneurs established their businesses in the marketplace.

“Oh you don't have any perception, any visibility, any idea really, you just sort of say oh wouldn't that be cool to do one of those...You just sort of charge into it, and you think that looks pretty cool, let's give that a whirl, and it happens” (Inventor #3.1).

“I realised that it would be really, really cool to be able to control digital audio with a vinyl turntable. Because a vinyl turntable has a certain feel that you can't really get from anywhere else. And the cool thing about it is not that the music's on there, it's that you can touch it, and control it, and do things to manipulate the sound by touching a physical interface” (Inventor #4).

The nexus of the Inventor started with a problem rather than an opportunity. Once a solution for the problem was found, customers often actively demanded the commercialisation of the invention. In other words, the opportunity often came to the Inventors rather than that it was actively pursued, at least initially.

### ***Managing growth***

Unlike the cases of the Pragmatists, a clear fit between individual growth preferences and growth opportunities was often absent for the Inventors. There was evidence that the limited ambitions of the entrepreneurs sometimes restricted the exploitation of the opportunity pursued, hampering the growth of the business despite obvious opportunities for growth. The nexus of the Inventors had allowed for substantially more growth than some of the entrepreneurs were comfortable with, or than the business could endure. Potential customers tended to approach the business with orders which remained unfulfilled because of a lack of ambition on behalf of the decision maker. Entrepreneurs often responded to what they perceived to be excessive customer demand by scaling down marketing efforts or even turning down orders.

“We could increase our output substantially if we did a little more marketing, but we're pretty comfortable the way we are. And if we increased a lot I think we'd probably have to shift out of New Zealand ... We've turned down a 25 unit order from Iran, because it was too big for us” (Inventor #1).

However, unlike the Pragmatists, this restriction of growth was mostly not aimed at maintaining control over the business in its current state. It was directed at achieving 'controlled' growth. The business of the Inventors often had an excess of opportunities and entrepreneurs had to strategically retain control over the growth process of the business. Like the businesses of the Pragmatist, the growth of the businesses of the Inventors was mostly internally constrained, although for different reasons. Whilst Pragmatists aimed at the optimal

size of the business that they could manage, Inventors aimed at achieving a growth rate that they and their businesses could sustain.

In fact, many Inventors had a growth focus. They started out because they wanted to change the way in which expressed needs were satisfied. However, they did not anticipate the extent of the problem. Once change occurred and their products became widely recognised, it gave these entrepreneurs a great sense of achievement and it revealed the size of the opportunity.

“I don’t need another job. This whole thing was a challenge for me. Motivation for me to do something is to make a difference. It is to change something. I look back now at the industry. I look back and just smile. I know how that happened” (Inventor #5).

In a similar fashion, Inventor #2 pointed out that the growth of the business was in hindsight probably protracted, and that he could have achieved more if he had set different priorities.

“I’d probably bring in more money quicker than we did. We lived off our profits, which was great. It seemed good at the time. In hindsight the company would probably be twice as big... although we grew at a compound annual growth rate of probably 60-65%, it could have grown faster if it had more capital” (Inventor #2).

Given the existence of a growth focus amongst Inventors, where did the observed internal constraints to the business growth rate originate from? The evidence collected for this study showed that Inventors tended to continue to build a product in the first instance and to develop the business through the product. This product focus of the Inventor derived from how they initially became involved in the business. The product came first, and then they started to build the business around the product. Once the business started growing, Inventors continued to focus on building strong products.

“I see myself running a company that has evolved the products it currently makes, but also has got into some other areas. Looking for kind of things that fit well with what we do, but are a little bit different too, so we have a bit more diversity” (Inventor #4).

“They don't want last year’s product, they want next year’s product. And so we end up with constantly chasing the market. The customers who deal with us are the ones who expect innovative solutions. They come to us because no one else can solve their problem” (Inventor #2).

Moreover, when these entrepreneurs reflected on what they would have done differently, many pointed out that they would have like to developed their products further. The reasons for this were twofold. Inventors liked building their products because of their personal involvement with the product, and because they had built their markets through building their

products in the past. Therefore, focusing on ‘productising’ their capabilities remained a great concern for them:

“So if you have a very productised product that’s easy to understand, easy to install, and just beautiful and elegant, and then suddenly people then want to sell it for you, channels open up... So what would we do differently? Oh probably focus on this whole productisation much, much earlier... In terms of setting up distribution, you know I talked about, you know just being a little less aggressive. Going into some of these overseas markets. The primary thing I’d do differently is just the way we productised our products” (Inventor #3.1).

“So in the very early days I when I was doing 1 and 2 million dollars a year, it’s when if we had been strategic back then, we would have productised our capability, instead of doing bespoke engineering all the time. In the long-term it would have saved us a lot of money” (Inventor #2).

Inventors tended to build products rather than businesses. By focusing on building the product, Inventors hoped to ensure a market position where products continued to literally sell themselves. In this process, these entrepreneurs controlled the growth rate of the business so that they could focus on developing the product.

### **6.2.3 Market-seekers nexus**

#### ***Starting the venture***

When turning our attention towards the individual-opportunity nexus of the Market-seekers, it becomes obvious that there were differences in prior knowledge and motivation compared to the entrepreneurs engaged in the other types of nexuses. Unlike the previous types of nexuses, Market-seekers were motivated by the prospect of making a profit when they started out. In fact, making money was a passion of these entrepreneurs.

“I started the business as a purely money making venture” (Market-seeker #4).

“But we’re not passionate, not even passionate about land yachting. We’re passionate about design and creating cool products that people love. It’s not the fact that we make them over again. It’s the fact that we had the idea and could show a way to produce the Windcruiser and market it so that it is making the money” (Market-seeker #1).

Market-seekers often had a sales background. Given the absence of clearly defined customer needs, this background served these entrepreneurs rather well. Their previous experience helped in identifying as yet unexpressed customer needs. All of these entrepreneurs had previously learned to see the world from a customer’s perspective, and thus also perceived needs customers themselves were unaware of. The discovery of an opportunity for Market-

seekers was, therefore, indirectly linked to their prior knowledge. Not having the specific market knowledge of the previous types of entrepreneurs, they relied instead on knowledge about opportunities more generally. These entrepreneurs had gained general knowledge about the sales process through their previous professional life, knowledge that clearly helped in selling a product with unfamiliar benefits.

“I was pretty good at selling” (Market-seeker #4).

“And over a short period of time I managed to make [the sales subsidiary] larger than the head office of the business that I worked for, and built it up to be extremely successful, and then moved off and did another sales based business somewhere else. And moved from salesman to sales manager, to those types of roles, and really stayed in the sales arena for a long time” (Market-seeker #3).

Market-seekers were experienced in perceiving gaps in the market. These entrepreneurs actively searched for customer needs that were not yet recognised in order to make a profit. For some of them, this search for opportunities created a dilemma because they typically saw far more opportunities than they could pursue.

“So I have to use a huge amount of self control to not start something else, because I actually know how much work is involved in getting something off the ground. And unless you've got the time it's not going to get anywhere, yeah” (Market-seeker #4).

Market-seekers started with a clear image of a market and usually had a good understanding of the context in which the innovation needed to be placed. They understood the latent concerns of their customers. Based on general knowledge about markets and sales processes, these entrepreneurs knew the requirements customers would have for innovation and they leveraged this knowledge to create value in customer terms. Here, Market-seekers demonstrate what Priem (2007) called a “customer perspective” on value creation in strategic management, a perspective which according to the author has been widely overlooked in theoretical strategic management concepts such as the resource-based view, Porter's positioning or transaction-cost analysis. For Market-seekers, the customer perspective on value creation was essential in starting their businesses, indicating that a customer perspective on value creation has the capacity to create opportunities.

To sum up, the nexus of the Market-seekers was characterised by entrepreneurs who were specialised in anticipating latent customer needs as well as in selling products that addressed these not-yet recognised needs. They acquired this skill through previous sales experiences and were motivated to use their skills largely by the prospect of making a profit.

### ***Managing growth***

Market-seekers were also more directly growth-oriented than the previous two types of entrepreneurs, often focusing aggressively on building a market for their businesses to achieve their goal of financial gain. Market-seekers often had very ambitious growth objectives for their businesses.

“We said we want to grow the company. We’ve made a modest estimate of growing it up to 3 times over the next 5 years. We’d like to grow it 5 times, but we’ve put plans forward, strategic plans to say that we want to grow the company to that point” (Market-seeker #2).

“In five years time I would like to think that, well I worked out over the next five years we want to get 150 [race tracks]<sup>10</sup> around the world” (Market-seeker #1).

Extracting value from the original business idea was a key ambition of Market-seekers. Many were more excited about growth than about having their own business, which was perhaps the most pronounced difference from the previous two types of entrepreneurs, who were less growth-focused. Once their businesses started growing, Market-seekers decided to embrace growth rather than focus on control of the business, and often considered multiple options to grow the market and the business. These entrepreneurs favoured growth since it allowed them to benefit from their investment. To do so, even a complete sale of the business was considered to be an option. Market-seeker #4 actively pursued the possibility of a sale as an exit strategy to cash out of the growing business.

“I enjoy [the business], well I might stay in it, you know, I’ll keep an open mind about it. But I’d like to be bought out. I’m doing everything, everything’s targeted towards creating a brand, and a business model where somebody can buy the company and extract quite good value out of it” (Market-seeker #4).

Profitability of the business was a common concern in the pursuit of the financial objectives of the Market-seekers, and many continued to pursue value creation through building additional customer value. Activities that did not create much value were often considered redundant, and consequently outsourced. Instead of economising on these activities by driving down cost, Market-seekers prefer to pursue additional value creation.

“We won’t be involved with any manufacturing. We will be basically a distribution and marketing customer support office for the Windcruiser product. Because the money, the money is not in making the same thing over and over again. The fact that we can do the same thing a thousand times a year isn’t what is making the money. It’s the idea in the first place” (Market-seeker #1).

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<sup>10</sup> Currently the company has less than 10 race tracks, primarily in New Zealand.

However, portraying Market-seekers as only financially-driven would be unfair. Turnover and profit growth were very important to them, but so was the excitement of being in a growing market. Market-seeker #3, for instance, pointed out that there is a clear incentive in expanding the idea into new markets in order to extract more value from it.

“I enjoy growth and expansion, and doing anything else requires learning some new things. So, we can all try and do that, but if I can find new markets in what I’m doing, then, or while I’ve got a maturing business, I’ll still be growing and expanding. So, we have a fantastic platform here by way of a dispersed network nationwide, or a tool shed the covers the country. To me that means you can sort of re-invent it all the time” (Market-seeker #3).

The sales background as well as the strong financial motivation of the Market-seekers led to a growth focus. Unlike the previous types of entrepreneurs, Market-seekers would happily sacrifice control of the business if it would result in business growth and, of course, financial reward. Market-seekers were constantly trying to develop further business opportunities, and to develop a market in order to grow the business. Hence, the businesses of the Market-seekers were primarily constrained by a lack of external opportunities, indicating a misfit between individual growth intentions and the environment.

#### **6.2.4 Pioneer nexus**

##### ***Starting the venture***

Investigating the individual-opportunity nexus of the Pioneer revealed an entirely different picture. For Pioneers, viable knowledge about both preferences and technologies was often absent. It was also uncertain what preference or technologies would develop in the future, and more importantly which would prevail. Given this uncertainty, individual prior knowledge about markets, or the means to serve them was of very limited use. Unlike for all other types of nexuses, these types of prior knowledge were often irrelevant, or even a hindrance, in the highly dynamic markets of the Pioneer. However, Pioneers could still leverage off some prior knowledge whilst evaluating the opportunity to create a business. Often they used more general business knowledge rather than specific market knowledge in order to evaluate business opportunities in this uncertain environment.

Many Pioneers had a background of working with large international companies, or knowledge gained from previous successful start-ups that had grown considerably. All Pioneers had gained international business experience before they engaged in their innovative

venture. However, with the exception of one entrepreneur, this experience was not in the same industry as the innovative venture, indicating, that Pioneers did not become involved because of their industry or market-specific knowledge. They became involved because of expertise about how to run a business.

“We’ve had, I don’t know how many companies in total, maybe, maybe twenty five to thirty companies that we, that my wife and I have actually been involved in. We’ve had three companies that have been particularly successful” (Pioneer #4).

“I have an entrepreneurial background. I’ve set up, or co-founded some technology companies in the past that have been grown from start-ups to sort of 100 million dollar multi-national companies, mainly in computers and the software, e-commerce, dot com” (Pioneer #1.1).

This is in contrast to Penrose (1959), who argued that market-specific knowledge is more important than general business knowledge for evaluating business opportunities. She argued that most of the knowledge necessary in this process is tacit, processed by individuals who previously worked on the pursuit of similar opportunities. In the case of the Pioneer, this type of specific or experimental market knowledge simply did not exist at the time they started out. Nonetheless, prior knowledge on how to run a company was an important anchor-point in this uncertain environment, mediating the absence of reliable knowledge about demand or supply.

Regarding their motivation, the Pioneers showed some similarities to the Market-seekers, because they were motivated by a clear opportunity to make a profit when they became involved. To ensure that the business could turn a profit, many of them put considerable effort into finding out whether they believed in an opportunity to make money. This was a condition of their involvement given a very uncertain environment.

“I went in there and for about four months part-time had a look at this, had a look at the competition, had a look at the marketplace, looked at the technology itself and said there is something here” (Pioneer #2).

“So through that process we did step backwards and said let’s go and find out about our market. Let’s understand students, let’s understand what teachers do... and out of all that came the real obvious reality that they were seriously uncomfortable, that we made a lot of crap basically” (Pioneer #3).

Pioneers were often less financially driven than Market-seekers. Of course, financial performance was important, but it was more evidence of the business viability than the reason for being in business. Instead, Pioneers were more motivated by making a difference. In the first instance, they wanted their companies to grow big and to become well recognised. Out

of the four types of nexuses, Pioneers were the only ones who actively pursued creating a large, distinctive company.

“And then I wanted to create what I perceived to be the next generation of school chair” (Pioneer #3).

“It’s not even the amount of profit, you know that comes all by itself. It’s very nice that everyone gets paid and, you know, gets paid handsomely, and the company makes good money. But it’s more important that we’ve actually gone and built something which is world beating, and secondly taken it to the world” (Pioneer #4).

The reasons to focus on making a difference were mostly personal. Pioneers usually had successful entrepreneurial or management experience, and they were interested in pursuing an opportunity that would allow for a continuation of this success. In fact, many of them strove to build an identity as an entrepreneur and wanted to be recognised for their involvement in the business. To achieve this, Pioneers made sure that the opportunity would allow for the creation of a serious business that would be recognised within the industry and the wider community.

“I had always thought, even when I was in [Multinational] it would be great to take the skills learnt at [Multinational] and apply it to a New Zealand technology, and that’s exactly what I’m doing” (Pioneer #2).

“I was always, I mean when [Company name] was first formed we called it [Company name] International, because, you know New Zealand wouldn’t be big enough to sustain the company and the vision that we had for it” (Pioneer #1.1).

In sum, the nexus of the Pioneers was characterised by individuals who became involved because of their knowledge about how to manage businesses. They were usually motivated not by financial profit but by creating a large, recognised business. Financial profit, they believed, was a consequence of being good at what they did, rather than a goal in itself.

### ***Managing growth***

Like the Market-seekers, Pioneers focused on the growth of the business rather than on control. Pioneers were passionate about growth, and aggressive growth was what was required to exploit the opportunity they envisaged. This led to a fit between individual growth intention and the external environment. As seen in the previous section, growth possibilities were amongst the reasons why Pioneers became involved in the first place. Pioneers wanted to build a large business. Once the business evolved, this interest in growth remains, even if the growth erodes the control and ownership of the entrepreneur.

Pioneers believed that they would not run their respective businesses indefinitely. Rather, as will be further elaborated in chapter 8 on emerging rivalry, the transfer of control and ownership was fully anticipated and often even actively pursued. Pioneers were aware that growth was necessary to exploit the opportunity pursued and that their control of business was transient. Consequently, they were happy to give up control of the company if it would accelerate growth. Like the Market-seekers, many Pioneers anticipated that the company might be sold eventually. However, they did so for different reasons. While the Market-seekers intended to sell the business for financial profit, the Pioneers anticipated that the business needed to be sold so that it could continue to thrive. All but one Pioneer believed that their business would grow significantly after they had left, and that leaving the business would become a necessary future step to enable continued growth.

“I’ll probably still be involved with the company, yeah mainly on a design development sort of a leadership role. Probably not so actively involved, but still just strategically on the product design development side, yeah” (Pioneer #1.1).

“Well for me, this is most probably the last decent sized company that I’ll go and build up, and then we’ll sell it one day, that’s sort of about it. For me it’s sort of like, my strength is in the growth phase and everything like that. At one point in time it’ll go into the corporate phase; I have no interest in that at all” (Pioneer #4).

In other words, building a large business was generally more important than their personal involvement. The one entrepreneur who did not envisage a control or ownership transfer of the company in the foreseeable future had already made plans to collaborate with other businesses in order to foster international growth. In this case, relying on alternative governance as opposed to growing the company was triggered by the fact that the product had a global market but did not travel very well, which restricted internationalisation options.

Pioneers had a clear tendency to see a much bigger picture and did not focus on the business they were currently involved in when talking about success. For them, success was often about change on a larger scale and not merely about building a large business. Instead, building a large business was only part of what they wanted to accomplish and their long-term objectives were often socially oriented rather than business focused. They wanted to create a legacy.

“And our attitude, we haven’t finished this, we are not nearly half way there. We know that we make a difference and so we enjoy what we do. And how many children are there in the world” (Pioneer #3).

“I would like to think that we had a international brand that was driven from New Zealand. All of our shareholders wanted the international brand to be the same as the McLaren badge on the front of a [Formula 1] car. There’s no New Zealand [Formula 1] team but the McLaren badge is going to be there forever. And that’s, you know for us, that’s most probably the most important thing out of the whole lot” (Pioneer #4).<sup>11</sup>

Unlike the previous three types of entrepreneurs, Pioneers saw their personal career largely independently from the business they were currently involved in. They were more prepared to move on. It seemed that many wanted to have the creation of the business as one part of their professional identity or work experience, but they wanted to move on and pursue different goals. Many of these entrepreneurs pointed out that they would like to pass on some of the experiences they made from building their companies to younger managers and entrepreneurs.

“So I’d see myself, I’m very, very, very keen to see some growth in New Zealand business. And actually helping, helping New Zealanders understand that there is a world out there that can go and make their own business playground. That they just don’t have to have a bach and a BMW because it’s not all that important” (Pioneer #4).

“I’d love to do it again. You know, take another New Zealand technology and try to globalise it” (Pioneer #2).

### **6.3 Overview of the four individual-opportunity nexuses**

Studies on entrepreneurial ability are plentiful, and usually evolve around the question of how the knowledge necessary to discover and exploit entrepreneurial opportunities was acquired. These studies investigate how the human capital of entrepreneurs was built. Measures explaining the development of human capital in entrepreneurship typically include the founder’s age, and educational, managerial or previous start-up background (Davidsson & Honig, 2003). In a meta-analysis of the effects of human capital on entrepreneurship, Unger, Rauch, Frese and Rosenbusch (2011) found that the most frequently used measures of human capital are education, start-up experience, industry-specific experience, as well as management and other work experience. Researching the growth of 506 Italian high-technology firms, Colombo and Grilli (2005) found that the ability of the founder or the founding team positively influences business growth. Ucbasaran et al. (2008) investigated the composition of knowledge. Their results indicate that educational levels are positively related

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<sup>11</sup> This reference is to New Zealand race-diver and car constructor Bruce McLaren whose name is still carried by a very successful British formal 1 team.

to opportunity identification but not to exploitation. For opportunity exploitation, on the other hand, technical knowledge was found to be critical.

All entrepreneurs in this research project leveraged off their previous experience to innovate. However, there were pronounced differences between the types of knowledge entrepreneurs could leverage off depending on the type of opportunity pursued. As the following argument will demonstrate, the types of knowledge used to conceive and commercialise a new business idea also affect the initial perception of the market. Shane (2000) argues that prior knowledge about the market is crucial for discovering and exploiting opportunities. In his analysis, three dimensions of prior knowledge are central for entrepreneurial discovery, namely the knowledge of customer problems, knowledge of markets as well as ways to serve these markets. Table 6.1 shows the role of these types of prior knowledge in the seventeen projects.

The table also introduces the motivation of the entrepreneurs to become involved in the project. Motivation is generally a critical component in the AMO framework. Shane et al. (2003) had warned not to underestimate these motivational factors in entrepreneurship. Locke and Baum (2007) also argued that individual motivation can provide valuable insights as to why some people act entrepreneurially and other do not. Individuals may be “pushed” into entrepreneurship by a threat of loss of income such as unemployment (Acs, 2006; Thurik et al., 2008), whilst others may be “pulled” into entrepreneurship by an opportunity to create self-autonomy, personal wealth, as well as recognition and status (Carter et al., 2003). Differences in the motivation to start businesses have also been found in the stories of the entrepreneurs in this study and are summarised in Table 6.1.

In line with Shane (2000), Table 6.1 distinguishes the different types of knowledge that were crucial for the discovery of the four types of entrepreneurial opportunities: prior knowledge of the market, prior knowledge about customer problems and knowledge about the means to serve the market. It also summarises the motivation of the individuals pursuing the discovered opportunities. Table 6.1 reveals both similarities within the groups of entrepreneurs as well as differences between the groups with regard to the prior knowledge used and the motivation to pursue the opportunity.

*Table 6.1: Prior knowledge, motivation, and growth intentions of the entrepreneurs*

Case	Specific knowledge of market	Knowledge of customer problems	Knowledge of means to serve the market	Initial motivation	Growth intention
<b>Pragmatist #1</b>	<b>Yes</b> , work experience in this industry.	<b>Yes</b> , customers actively expressed their preferences for more online based solutions.	<b>Limited</b> , but knowledge was widely available.	Increased competition in the previous business.	Company was still young. Growth pursued to make business sustainable.
<b>Pragmatist #2</b>	<b>Yes</b> , very specific. Was a potential customer himself so he understood their needs.	<b>Yes</b> , the product fitted a personal need – initially, he was the expert.	<b>Limited</b> , but international garment manufacturers easy to approach.	Unemployment	Growth was retarded, in particular international growth.
<b>Pragmatist #3</b>	<b>Limited</b> , but knowledge was easily available.	<b>No</b> , but customers were keen to articulate problems.	<b>Limited</b> , but international bike manufacturers easy to approach.	Decreased profitability of previous business.	Extreme niche focus with no intention to substantially grow the business.
<b>Pragmatist #4</b>	<b>Yes</b> , previously worked in the industry, had existing customers from consulting projects.	<b>Yes</b> , customers expressed their problems and preferences.	<b>Yes</b> , gained through previous work experience.	More attractive employment.	Focus on local market or markets where the founder wants to live.
<b>Inventor #1</b>	<b>No</b> , customers drove the commercialisation.	<b>No</b> , the product fitted a personal need.	<b>Yes</b> , he had previously built a machine for personal use.	Customers actively fostered commercialisation.	Growth is customer driven. Entrepreneur turned down orders to retard growth rate.
<b>Inventor #2</b>	<b>No</b> , previously worked for an international company.	<b>No</b> , customers pointed him very quickly to the problem the technology solved.	<b>Yes</b> , product was based on university research.	Identified growth opportunity.	Growth actively pursued. Company was listed recently.
<b>Inventor #3</b>	<b>Limited</b> , previously worked as a consultant in the industry.	<b>No</b> , customers expressed their problems and preferences.	<b>Yes</b> , developed a new solution based on some previous industry experience.	Wanted to work for himself.	Controlled growth.
<b>Inventor #4</b>	<b>No</b> .	<b>Limited</b> , was a user himself.	<b>Yes</b> , product was based on university research	Identified growth opportunity.	Controlled growth. Aim is to further build the niche
<b>Inventor #5</b>	<b>Limited</b> , he was a potential customer himself.	<b>Limited</b> , product fitted a personal need.	<b>Limited</b> , he only started with an idea of a product.	Wanted to change something.	Controlled growth. The business has excess opportunities.

*Table 6.1: Continued*

Case	Specific knowledge of market	Knowledge of customer problems	Knowledge of means to serve the market	Initial motivation	Growth intention
<b>Market-seeker #1</b>	<b>Limited</b> , father had a business in the industry.	<b>Limited</b> , customers were happy with status quo	<b>Limited</b> , but found a way.	Seemed like a fun thing to do.	Wants to grow profits rather than the business.
<b>Market-seeker #2</b>	<b>Limited</b> , had some general knowledge about market, but not industry specific.	<b>Limited</b> , customers did see any problems with existing solutions.	<b>No.</b>	Identified growth opportunity.	Growth is actively pursued, but not at the expense of profitability.
<b>Market-seeker #3</b>	<b>Limited</b> , had some general knowledge about market, but not industry specific.	<b>No</b> , focus on increasing profitability current business	<b>Yes</b> , the technology was available overseas.	Identified growth opportunity.	Growth actively pursued.
<b>Market-seeker #4</b>	<b>No</b> , worked in retail before.	<b>Limited.</b>	<b>Limited</b> , but figured it out.	Identified growth opportunity.	Wants to grow business to be able of selling-out.
<b>Pioneer #1</b>	<b>No</b> , but knew a lot about markets in general from previous venture.	<b>Limited</b> , was a potential user himself.	<b>Yes.</b>	Passionate about the product and long term business potential.	Growth actively pursued.
<b>Pioneer #2</b>	<b>No</b> , worked for an International Corporate in a related industry.	<b>No</b> , the industry was still in its infancy and customers did not articulate any problems with existing solutions.	<b>Yes</b> , technology was already developed by the original inventor. Entrepreneur knew how to scale product based on his previous training	Saw the impact the technology could have.	Growth actively pursued. Business has already attracted risk capital. Sell is anticipated.
<b>Pioneer #3</b>	<b>No</b> , but had a marketing background.	<b>Limited</b> , their main problem was the price of what they considered a commodity.	<b>Yes</b> , product was based on university research.	Saw long term growth opportunities and considered the business an honourable thing to be involved in.	Growth actively pursued. Entrepreneur wants to change the industry.
<b>Pioneer #4</b>	<b>No</b> , but had skills to research the market for previous businesses.	<b>Limited</b> , but customers pointed him very quickly to the problem the technology solved.	<b>Yes</b> , knew how to run an international business.	Saw long term growth opportunities.	Growth actively pursued. Entrepreneur wants to be recognised for the business.

There are some patterns between the entrepreneurs in each cell regarding prior knowledge and motivational factors. This difference between the entrepreneurs pursuing the four types of opportunities also persisted into how they approach the growth of the business.

In the Pragmatist nexus, individual knowledge was deeply grounded in their past professional experience. They became entrepreneurs because of a change in their professional lives. They faced unemployment or a deteriorating profitability of another business in which they were involved at the time. For these entrepreneurs, innovation is a response to these changes in their financial or professional situation; there is a degree of necessity as well as opportunity in pragmatic entrepreneurship.

Once the business of the Pragmatist starts growing, it provides new career opportunities. For many, managing this particular business becomes their career path, providing them with opportunities that a corporate career denies. To ensure that this career continues, Pragmatists are very concerned about keeping control of their business, and are willing to retard business growth if control is threatened. There is arguably a link between the initial motivation which was driven by career considerations and favouring control over growth which, again, is motivated by advancing or maintaining the newly found career. The business needed to suit their personal career preferences, and individuals in this nexus tend to build businesses they enjoy working in.

In the Inventor nexus, individuals want to figure out how to solve a well-known problem in a better way. Most existing solutions for the problem are inadequate and the Inventor uses new technological knowledge to mitigate this inadequacy. However, Inventors are usually unaware of the extent of the problem and have no clear market in mind. When these entrepreneurs start out they are usually very product-focused, and do not hold a clear view of a market opportunity, even though the existence of a commercial opportunity to solve the particular problem would be widely accepted. The opportunity is often not the main incentive. Instead, they are motivated by building a unique product. The commercial success of this product often follows these endeavours, sometimes even unintentionally. The businesses of the Inventors grow in a similar way in that current and prospective customers actively drive growth, rather than the entrepreneurs. Inventors concentrate on building a product rather than a business, and the business growth occurs through the demand for the product. Often, business growth is not so much pursued as it is imposed by the growing customer demand.

The nexus of the Market-seekers differs markedly. Individuals engaging in this nexus are driven by the growth opportunities an emerging market has to offer, and they often become involved to gain financially. The background of these entrepreneurs being mostly in sales, they have a good understanding of how to identify and satisfy a customer. These entrepreneurs know how to develop a market. The technological feasibility of the product is mostly not an issue, but there is no market for this kind of product, yet.

Market-seekers set out to exploit a subjectively perceived market opportunity which may develop in the future, but whether the opportunity ever materialises is highly uncertain. Given this lack of ‘objectivability’ of the opportunity, Market-seekers hold future expectations that differ from most people in the industry. For the opportunity to materialise, these entrepreneurs have to develop a new market in the sense that they need to convince other people to perceive a need of which they were previously unaware. They need to develop a need. Market-seekers’ strong sales background drives them to recognise opportunities to develop these new customer needs. Also rooted in their sales background is the drive to create value for customers, and to extract profit from doing so. Both of these premises are central to being a successful sales person, and this is how they approach their business. They want their businesses to become a financial success, and in order to achieve it Market-seekers continue to create new opportunities for the business and actively pursue business growth. However, due to the nascent nature of the markets they operate in, their businesses are often constrained by a lack of opportunities.

Finally, in the Pioneer nexus, the ability of individuals to recognise an opportunity as well as the motivation to exploit the recognised opportunity is also rooted in their past professional experience. Pioneers often had an entrepreneurial background or have worked in senior management roles in large corporations. In other words, they have management experience that makes them excited about business growth. Moreover, Pioneers had international working experience either by working abroad or by working in internationalised businesses. They knew how to run larger companies and, as a result, they saw opportunities that allow them to create such a company. They often aim to become true Pioneers by building companies that are recognised as being an industry leader. Pioneers do not want to retain control over their companies, often seeing their engagement as temporary, and being prepared to move on to other things. Their future aspiration is to build a reputation as successful entrepreneurs who have been recognised for their contribution.

This chapter has demonstrated that each of the four groups of entrepreneurs followed a distinct path of becoming involved in their business. Figure 6.1 summarises the four types of individual-opportunity nexuses that were developed in this study by linking the backgrounds and motivations of the entrepreneurs to the type of opportunity pursued. A closer look at Figure 6.1 also shows a fit between their experience and the capabilities of the individuals and the market environment in which they engage. It also shows their current business aims. Here, the differences between the individuals persist. Whilst Pragmatists want to build a great place to work, the other three types of entrepreneurs have more growth-orientated business objectives: Inventors focus on refining their products, Market-seekers on their markets and Pioneers on their businesses.

Figure 6.1: Overview of the individual-opportunity nexuses

<b>Unexpressed customer need</b>	<p style="text-align: center;"><b>Market-seeker nexus</b></p> <p><b>Opportunity: The disbelieved market opportunity</b>  <i>Degree of objectifiability:</i> Low to moderate  The existence of a potential demand for the innovation is difficult to objectify other than by actually doing something about the opportunity. In other words, this type of opportunity is a subjective one, its existence is only objectively recognised after the entrepreneur has made some progress in the market.</p> <p><b>Individual: The Market-seeker</b>  <i>Background:</i> Usually in sales  <i>Motivation:</i> Wants to develop a need in order to make ‘sales’ and a profit. Quite often, these entrepreneurs are financially driven. Also, they may end up being an idealist if the market does not develop.</p> <p><i>Aim:</i> To build a market.</p>	<p style="text-align: center;"><b>Pioneer nexus</b></p> <p><b>Opportunity: The implausible market opportunity</b>  <i>Degree of objectifiability:</i> Very low  The demand and supply side for this type of innovation are highly uncertain. Market research cannot erase this uncertainty. Instead, the innovation needs to be proven in the market.</p> <p><b>Individual: The Pioneer</b>  <i>Background:</i> Either an entrepreneurial background or senior management in a large corporation  <i>Motivation:</i> These entrepreneurs are driven by an opportunity for change. They desire impact. Financial gain is not much of a concern as long as the business grows profitably.</p> <p><i>Aim:</i> To build a great business.</p>
<b>Expressed customer need</b>	<p style="text-align: center;"><b>Pragmatist nexus</b></p> <p><b>Opportunity: The concrete market opportunity</b>  <i>Degree of objectifiability:</i> Very high  The existence of a potential demand for the innovation is relatively easy to objectify. Since there is also very little uncertainty as to whether innovation is technologically feasible, the opportunity exists objectively.</p> <p><b>Individual: The Pragmatist</b>  <i>Background:</i> Very diverse, but the background is always relevant for the involvement in the current business.  <i>Motivation:</i> These entrepreneurs are also financially motivated, but they are not interested in growth per se. Instead, their financial interest is limited to maintaining a good standard of living. The business should not interfere with their quality of life.</p>	<p style="text-align: center;"><b>Inventor nexus</b></p> <p><b>Opportunity: The latent market opportunity</b>  <i>Degree of objectifiability:</i> High  The existence of a potential demand for the innovation relatively easy to objectify. In other words, the innovation would have a market if it were technologically feasible and economically viable.</p> <p><b>Individual: The Inventor</b>  <i>Background:</i> Very diverse, but mostly they encounter the problem which they intend to solve because of their background.  <i>Motivation:</i> These entrepreneurs are not very financially motivated. Initially, it is all about solving a problem rather than financial rewards. Hence these entrepreneurs have often no desire to quantify a market opportunity. The opportunity exists objectively, but it is often not perceived by the entrepreneur.</p>

	<i>Aim:</i> To build a place where they enjoy to work.	<i>Aim:</i> To build a great product.
	<b>Existing competencies</b>	<b>New competencies</b>

## 6.4 Concluding comments

This chapter has shown that there are pronounced differences between the individuals pursuing the four types of entrepreneurial projects introduced in the previous chapter. These differences give rise to four distinct individual-opportunity nexuses, namely those of the Pragmatist, the Inventor, the Market-seeker, and the Pioneer. It has also shown that differences between these four types persist. Once the business starts growing, Pragmatist and Inventors focused on controlling the business whilst Market-seekers and Pioneers aggressively pursued growth. This shows the existence of a dilemma between growth and control in the growing innovative venture, and the resolution of this dilemma depends upon the original reasons why entrepreneurs became involved.

The original reason for becoming involved in the businesses also explains differences in growth preferences. Pragmatists retard growth once the business reaches a size that they can manage comfortably. Once this limit is reached, their focus shifts to profitability, and the venture essentially becomes a place they enjoy working in. Inventors also retard the growth rate. They are not overly concerned with the absolute size of the business, but since growth is often customer-driven it is constantly in danger of spinning out of control. Inventors refuse to compromise product quality or development for growth. Market-seekers and Pioneers, on the other hand, willing compromise control for growth. Whilst in the former case the growth focus is mostly for financial reasons, in the latter case, the aim is to build a large business.

Given different growth and control preferences, the nexus between individuals and the opportunities they pursue is not always balanced. In fact, there can be either a fit or a misfit between individual preferences and growth opportunities presented by the environment. Let us begin with the situation of fit, which exists in the cases of the Pragmatists and the Pioneers. Both of these operate in an environment that suits their personal growth preferences, with the Pragmatist working within a finite, mostly predefined market and the Pioneer in an infinite, yet to be created market.

This fit is absent in the Market-seeker and Inventor nexuses. Market-seeker entrepreneurs often have more ambitious growth aspirations than the opportunities pursued can warrant. They usually think big, but are limited by their environments. The opposite is the case in the Inventor nexus, many preferring to control the growth of their businesses even though they operate in environments that are very conducive to growth. Hence, while the businesses of the Market-seekers are mostly externally constrained, these constraints tend to arise internally for the businesses of the Inventors.

Moving on from this point, the following chapters turn towards the environments in which the four types of entrepreneurs operated. These chapters will explore the questions of how the outlined differences between the individuals and the opportunities they pursued influenced how the innovative venture became established in the marketplace. In doing so, these chapters will discuss the strategies used to exploit, or create, the four types of opportunities.

## **CHAPTER 7: GAINING LEGITIMACY**

### **7.1 Introduction**

This chapter investigates the four individual-opportunity nexuses further by addressing the second research question: “How do entrepreneurs legitimise innovative ventures in the marketplace?” It will be argued that entrepreneurs face different degrees of two distinct, but not mutually exclusive, challenges in legitimising the new product and/or the new business in the marketplace. Legitimising marks a vital link between the individual and the validation of an opportunity. While legitimacy is easily reached in the nexuses of the Pragmatist, other entrepreneurs have to work hard to gain it.

The chapter begins by discussing the legitimacy challenges experienced by entrepreneurs engaged in the four types of nexuses. It shows that there were in fact two distinct challenges, the product and business legitimacy challenge, which entrepreneurs experienced to different degrees. The chapter turns towards the strategies used to overcome these two challenges. There were a number of similarities between the nexuses which help in explaining the reasons why specific strategies were chosen. The chapter concludes with an overview of the main challenges and respective strategies for the four individual-opportunity nexuses.

### **7.2 Legitimacy challenges in the four nexuses**

#### **7.2.1 Fast track to legitimacy – the Pragmatist nexus**

Legitimacy in the marketplace was often quickly achieved in the Pragmatist nexus. When these entrepreneurs started out they encountered low barriers in establishing their ventures in the marketplace compared to other nexuses. Customers of the Pragmatists were generally well aware of the problem the entrepreneurial venture addressed and saw that the product had obvious benefits. In most cases, customers had very little difficulty in assessing the benefits of innovation. As already indicated in chapter 5, initial customers usually saw the product, understood its utility, and purchased it. These low barriers were commonly perceived.

“I don’t think there’s been any kind of barriers to educating our customers, because well, what do they need to know, really? The thing does not work? Well, we’ll take care of the rest. Don’t worry about it” (Pragmatist #2).

Customers of the Pragmatists had few reservations regarding the technological feasibility of the product. Not only did they understand the benefits of the products, but also how these benefits were achieved. Innovation was simple regarding the need it addressed and the means used to address this need. Given this simplicity of the product, the newness of the business became largely irrelevant to these customers. What was important to them, on the other hand, was the relative advantage of the innovation compared to existing alternatives.

### **7.2.2 Business legitimacy challenges – the Inventor nexus**

The fact that customers understood the value of innovation also holds true in the Inventor nexus. Often pointing out that their customers were already waiting for this kind of innovation, these entrepreneurs did not experience much difficulty in finding customers. For these customers, innovation solved a very pressing problem, enabling them to evaluate the relative benefits of the innovative products. Inventors' products created customer interest and appeared to be an easy sell.

“And because the world had already been exposed to this problem for a long time in a really half baked solution, when they did come out there was a market ready and waiting. Because there were so many people who were, like, finally now we can actually do this properly” (Inventor #4).

“They [the customers] have picked it up, they've understood it. They get the benefit out of it. They know actually what it's going to do” (Inventor #5).

Most Inventors, however, discovered that having a relative advantage over existing products was a necessary but not sufficient condition. Unlike the customers of the Pragmatists, those of the Inventors frequently questioned the origin of the innovative product. Inventors faced the problem that customers did not feel comfortable buying an innovation based on new competencies from a business with no track record. The unknowns for the customers arose from the characteristics of the business rather than from the innovation.

“The boat builder is a funny, funny animal. Whether he cannot change or whether he doesn't want to. Some of them are probably a bit pissed off they didn't think of it themselves” (Inventor #5).

“The customers appreciated the technology; they didn't appreciate where it came from. They didn't want to buy it from New Zealand; they didn't want to buy it from a business with no track record. They didn't want to buy from a business with no capital behind them” (Inventor #2).

Customers were very sceptical about the new business in the Inventor nexus, and it was the distinct challenge of the Inventors to establish their businesses as a trustworthy business partner.

### **7.2.3 Product legitimacy challenges – the Market-seeker nexus**

Legitimacy challenges in the Market-seekers nexus differ markedly from the previous two nexuses. Although the innovations of the Market-seekers had benefits, their customers usually reacted with great suspicion. Innovation departed from the ordinary, which had its benefits but also came with some unknowns for customers. Market-seekers pointed out that their prospective customers encountered difficulties in appreciating and evaluating the benefits of innovation. Customers were mostly satisfied with the solutions offered at the time and tended to see no need for innovation. The innovation itself lacked legitimacy.

Because the innovative product did not address well understood needs, it was not feasible to assign the product to an existing product category. Customers did not know, or did not appreciate, what the innovation of the Market-seeker intended to accomplish, which often left them confused, compromising the legitimacy of innovation. Market-seekers pointed out that their initial customers did not appreciate innovation because of a lack of an established product category.

“Yeah I mean certainly prior to purchase absolutely. It’s an incredibly difficult product to understand, as simple as it is, it’s actually really hard to sell. Because in this sort of no man’s land between people’s perception of a sport bottle, and how much that costs. And people’s perception of a water filter and how much that costs, and a lot of people don’t know what a water filter costs. ... They don’t know what that is. It’s a category all on its own. It’s really, really difficult to get that across” (Market-seeker #4).

“We’ve approached people and discussed it at times. Like windsurfing companies and distribution and sailing distribution in different places. But the problem is we’re not a windsurfer or not a yacht as such. We’ve really had to create our own category to fit into which has been difficult” (Market-seeker #1).

The absence of a product category appeared to be the major obstacle to initial sales. Because customers had difficulty understanding the benefits of the innovative product, they could not establish its relative advantage.

#### **7.2.4 Two legitimacy challenges – the Pioneer nexus**

Whilst in the previous nexuses, entrepreneurs faced either a product or a business legitimacy challenge, in the nexus of the Pioneer, both the product and the business legitimacy challenges tended to co-exist. On the one hand, Pioneers had to convince customers that innovation had benefits. For instance, Pioneer #3 remembered that his customers had difficulty in understanding the benefits of the product because innovation did not cater to existing preferences. When asked about whether his customers understood the benefits of innovation, he responded: “They [the customers] had no idea.”

Besides this initial barrier to legitimising the product, Pioneers perceived a legitimacy challenge deriving from the newness of the business. Pioneers typically faced a challenge to convince the customer that the business had the capability to deliver the promised technology. For instance, Pioneer #4 remembered that lack of reputation was the major obstacle to finding initial customers. With one customer, a big telecommunication company, Pioneer #4 got lucky. This customer did not really question the size of the Pioneer #4’s business and the sale went through as he remembers:

“You know, and to be fair, for a customer to move, like a Telco to move and embrace and adopt our solution it’s a big move for them. I mean our office isn’t exactly as big as [major international company]... But for that particular business it’s probably worth ten million a year to us. And they were sufficiently impressed that you know, they didn’t know how big we were” (Pioneer #4).

This deal was unusual, given that Pioneer #4’s business was still small and without an established customer base. Coupled with the fact that Pioneer #4 used new competencies in order to innovate, the lack of existing customers was a challenge. He acknowledged that it was beneficial that this customer did not know how small the business really was. But this oversight on the part of the customers was an exception rather than the norm. Pioneers faced both challenges simultaneously. Pioneer #1.1, for instance, pointed out that achieving initial sales required convincing prospective customers about both the product and the business.

“We also say come in, even to Australia, or even a European customer, or American, we say if you come to us we’ll pay your airfares... So we try and get people to come, even to see the factory helps us to sell the boat, because they can see it’s not a small business. It’s not going to disappear tomorrow, they can see there’s a lot of engineering and expertise. So trying to get people to see the business and the product” (Pioneer #1.1).

Pioneer #2 elaborated on this point. He remembered that his initial customer actually faced difficulties in justifying buying from his business. Managers at the customer organisation who decided to do business with Pioneer #2 were at first criticised by their superiors as neither the business nor the product were known in the industry.

“Now that’s a hell of a leap of faith for [large PC manufacturer]. You know to make a decision for an untried technology that had never been manufactured from a business in New Zealand that wasn’t making any money, ten thousand kilometres away who had never, you know, had never made the stuff before. So the people who made the decision for [large PC manufacturer] got into a lot of trouble for making it. Now, fortunately we delivered” (Pioneer #2).

To sum up, Pioneers clearly perceived legitimising the product as well as the business as an initial challenge. Given the lack of predefined preferences and competencies, it seems to be particularly challenging to establish a clear value proposition for the new product and the trustworthiness of the new company. Combining the two legitimacy challenges gives rise to an interesting problem in the nexus of the Pioneer. Entrepreneurs had to create a need in the perception of the consumer in order to establish that their products had a relative advantage, whilst simultaneously convincing them that the new business had the capabilities to deliver on its promises.

### **7.2.5 Product and business legitimacy challenges – an overview**

To summarise, entrepreneurs perceived two types of legitimacy challenges depending on the type of individual-opportunity nexus. Entrepreneurs pursuing opportunities addressing unexpressed customer needs differed from those addressing an expressed customer need. The former clearly perceived an intense legitimacy challenge for their product, since the benefits of their respective products were not widely understood. In order for Market-seekers and Pioneers to succeed, they actively needed to change customer preferences, as at first customers frequently questioned whether the product was worth having. In contrast, entrepreneurs perceiving an opportunity based on an expressed customer need experienced few legitimacy challenges. Customers were already waiting for their innovative products. Pragmatists and Inventors address current preferences of their customers and no change in this respect is required.

The second challenge to legitimacy, that of business legitimacy, depends on the type of competencies entrepreneurs used to innovate. In particular, Inventors and Pioneers struggled to establish their businesses in the marketplace as a trustworthy partner because they relied on new competencies. Most of these entrepreneurs acknowledged that their business faced a legitimacy crisis, since customers remained reluctant to buy new technology from businesses without prior history. Figure 7.1 summarises the relationship between the opportunity pursued and the intensity of the legitimacy challenges.

Linking these challenges to the four types of nexuses results in four distinct situations faced by entrepreneurs trying to legitimise innovative ventures. Pragmatists faced a low product and a low business legitimacy challenge. Inventors faced a high business legitimacy challenge and Market-seekers a high product legitimacy challenge. Pioneers were confronted with both challenges.

**Figure 7.1: Two challenges to the market-legitimacy of innovative ventures**

		Business legitimacy challenge		High	Product legitimacy challenge
		Low	High		
Customer orientation	Unexpressed customer need	<b>Market-seekers nexus</b> Product legitimacy challenge	<b>Pioneers nexus</b> Both product and business legitimacy challenge		
	Expressed Customer need	<b>Pragmatists nexus</b> Fast track to legitimacy	<b>Inventors nexus</b> Business legitimacy challenge	Low	
		Existing competencies	New competencies		
<b>Means used</b>					

In short, whilst in the case of unexpressed customer needs the benefits of the product were unknown and thus remained the main source of uncertainty, in the case of new competencies it was the business about which customers were in doubt. In the following, this chapter explores the reasons that gave rise to the challenges and the strategies used to overcome them. Given that the challenges existed in more than one nexus (cf. Figure 7.1), this discussion is organised according to the challenges rather than the nexuses, as the insights

from all entrepreneurs that experienced a particular challenge can aid our understanding about how innovative ventures gain legitimacy in the marketplace.

### **7.3 Legitimising innovative products in the marketplace**

#### **7.3.1 Low intensity product legitimacy challenge**

##### *Communicating new ideas*

Legitimacy challenges to the new product were a matter of degree depending on the type of individual-opportunity nexus. As discussed above, Pragmatists and Inventors faced few challenges in legitimising their innovative products since those fitted well into existing product categories. These categories summarise a range of products solving a particular need. If a product fits within an existing product category, customers understand its utility immediately and grant it legitimacy. Existing product categories provide reference points to the initial customers in these nexuses. As a result, Pragmatists and Inventors recalled that there was very little difficulty in convincing customers of the value of their innovative products.

“They see the machines working. These machines, once you sell one, and they work very, very well, it’s fairly easy to get people interested. Because people can see that they can make money, contractors, they can make money out of these things” (Inventor #1).

“Let the product speak for itself. And we did very little conventional advertising... A lot of our sales have happened through word of mouth” (Inventor #4).

Products sold themselves provided customers had sufficient information about them. In this process, entrepreneurs could not actively influence how their customers perceived their products since they addressed a given set of existing preferences. What entrepreneurs could influence, however, was the access to information about the innovative product and its advantages.

“We realised that an informed customer was a pretty dangerous beast, and so that when they went into the retailer and they said, you know I want a day bag, or a pack, or I want a jacket” (Pragmatist #1).

Information needed to be concise. Whilst customers were willing to buy the products once they had become aware of them, they did not want to be bombarded with unnecessary details. This gave rise to an interesting dilemma in the nexuses of the Pragmatists and Inventors between providing sufficient information so that the customer could make an informed buying decision and repulsing them by overwhelming them with unessential information. It

seemed that customers not only had predefined preferences regarding products, but also regarding the information they wanted to receive.

“We don’t call people and dazzle them with useless information. We could talk to them about traffic and hits, and patent missions, and UV’s and all these other different things. But really I think you detract from the real message, which is if you need more clients, we’re a vehicle for you to do that” (Pragmatist #2).

Pragmatists and Inventors also indicated that their customers were often actively searching for information about products that would satisfy their needs. Customers in the Inventor nexus wanted to be informed, making the legitimisation of innovation partly customer-driven. Moreover, the willingness of customers to accept new products had the capacity to extend the market for innovation beyond the original target. In their search for solutions to their problems, customers often actively supported the uncovering of the full potential of newly developed competencies.

“I brought along a prototype structure, because it was prototyped at that stage. I said this is what it does. They went, oh. They came up with all the things it will do for them, not me” (Inventor #2).

In the nexuses of the Pragmatists and Inventors, customers often wanted to become involved. They generally understood the benefits of innovation and wanted to know more about the specific advantages of the particular product. Once entrepreneurs informed them about how their innovative products created additional value within a pre-defined product category, the products were accepted. In fact, customers often became quite vocal about what their preferences were, as the following sub-section shows.

### ***Importance of customer orientation***

Pragmatists and Inventors pointed out that pre-existing customer preferences were the key to their initial success. Because of such preferences, these initial customers were an excellent source of information to further improve the product or its positioning in these nexuses. In fact, many of these entrepreneurs remembered their customers openly discussing the benefits of the innovative product. Inventor #2, for instance, pointed out that his first customers explained to him what the true advantages of his new competencies were, and in doing so helped him to position the product.

“And within 3 customer meetings I decided that we weren’t a test and measurement business, we were a security business. Because our real value was to customers who

couldn't afford to drop a single packet. And that's where, it's really how you identify the need, if not one packet can be dropped, if that's an [company name] customer” (Inventor #2).

Clear customer preferences, coupled with the fact that customers tended to voice their preferences, was a plus in the nexuses of Pragmatist and Inventors in pursuing opportunities since their customers told them basically what they wanted. However, entrepreneurs in these nexuses still encountered specific challenges. Most importantly, customer preferences were not malleable. In fact, most entrepreneurs found that customers knew exactly what they were looking for, or what they considered valuable in a product. This created a situation in which it became almost impossible to pursue product differentiation. In many ways, the initial advantage of having clear customer preferences turned against these entrepreneurs as their customers continued to have strong views about the product.

Faced with this situation, entrepreneurs needed to closely align their products to the existing preferences of their customers. Many remembered that surrendering their own ideas about the value and the future development of the products to the preferences of their customers was a challenge. This was particularly the case when entrepreneurs intended to create additional value through product differentiation, which often caused conflict with customers. Pragmatists and Inventors had to learn to follow the opinion of their customers very closely in order to be successful.

“You know, you can't influence [the customers], because that's where they're at” (Pragmatist #4).

Understanding that customers had such concrete views was a difficult process for most of these entrepreneurs. After all, they were the ones who came up with the innovation in the first place, which provided them with a sense of ownership of the idea. This sense of personal ownership of the idea over the innovative product often hindered the alignment of the business to the preferences of the customers. Pragmatist #1 remembered that losing the ‘arrogance’ that he knew best how to design and market his products was a critical but difficult step.

“I was a little bit arrogant at first, and held strong beliefs that I was an expert at building good outdoor products because I just knew the outdoors so well. And then I kind of got that kicked out of me by customers that said no, you're meant to look at it from this angle... And now I listen, listen, listen” (Pragmatist #1).

Many entrepreneurs facing a low product legitimacy challenge shared this view that listening to their customers was paramount. However, there were clear differences between the nexus

of the Inventor and Pragmatist, indicating that the use of these new competencies matters in this process. Listening to their customers led to very different outcomes in these two types of nexuses.

### ***Two outcomes of customer orientation***

Entrepreneurs facing a low product legitimacy challenge directly attended to customer feedback in devising competitive strategies. This seemed intuitively right. Since customers were very aware of what they were looking for in products, listening to them provided reliable information for positioning the business in the market. However, there were clear differences between the nexuses of the Pragmatists and Inventors originating from differences in the type of competencies used.

Let us begin with the Pragmatists. A good example of the process by which Pragmatists continued to align their businesses to the preferences of their existing customers is the story of Pragmatist #3. His customers constantly complained about the extra weight that his innovative suspension system added to a traditional mountain bike. Asked about the initial customer feedback he received, Pragmatist #3 responded: “And (the customers) say ‘oh the bikes are too heavy’.” This feedback became very high priority for him. In fact, future innovation was often judged by whether it could address this issue. In order to accommodate their requests to reduce the weight of his mountain bikes, Pragmatist #3 had to look into using lighter materials and different production techniques. Later, he elaborated on the future of the bike. His focus was very much on obtaining production knowledge for addressing the issues raised by his early customers.

“Certainly [our] bike will go to carbon fibre. The only reason bikes have remained in the aluminium tubing, having gone from basically metal tubes to aluminium tubing, is the fact that the Chinese and the Japanese and everybody has built up using a system that’s been infallible” (Pragmatist #3).

Innovating for current customers was common in the Pragmatist nexus. Inventors, on the other hand, progressively leveraged their new competencies to innovate in different markets. This process was also driven by listening to their customers. Inventors were frequently approached by customers who wanted to use their products in an unintended way, indicating that the invention solved more problems than the Inventor originally anticipated. In other words, whilst Pragmatists were often forced to further focus on existing customer needs,

Inventors were encouraged to diversify into new markets. In the Inventor nexus, products had legitimacy beyond their initial markets.

“They ordered a machine and they said we’re going to build new roads with it. And I said no you can’t build new roads with that machine, they’re road maintenance... They’re using it [to build new roads]. It wasn’t intended for that, it was intended for, you know putting the chip seal on top of dig outs and things like that” (Inventor #1).

“I brought out this new product we had. I just had a prototype piece about that long with things on it. He [a customer] came to me and said how much is that. I said, we don’t sell that. He said, that’s what I want. That’s exactly what I want. I said, what are you going to do with it” (Inventor #5).

To sum up, feedback from initial customers was important in gaining legitimacy in nexuses where entrepreneurs pursued opportunities based on expressed customer needs. Customers usually demanded alignment to their needs, making a strong customer focus essential. The customer focus took entrepreneurs on different roads, depending on whether they used existing (Pragmatist) or new competencies (Inventor). Whilst Inventors often started diversifying into new markets, Pragmatists continued to solve problems for their existing customers or those with the same preferences. As the analysis in chapter 8 will further elaborate, this difference between the two types of nexuses has important implications for the pursuit of competitive advantage.

### **7.3.2 Meeting the product legitimacy challenge**

#### ***Communicating new ideas***

Let us now turn towards nexuses where entrepreneurs faced a strong product legitimacy challenge – those of the Market-seekers and the Pioneers. Given that the products of these entrepreneurs did not fit into an existing product category, customers did not understand how the product could create value for them. Customers had very few reference points, making the formulation for a clear value proposition almost impossible for these groups of entrepreneurs. Consequently, they often struggled to find initial customers. Their innovation was often seen as a gimmick.

In order to overcome this challenge, Market-seekers and Pioneers had to convince their customers about the benefits of their products, by educating them. Market-seekers and Pioneers pointed out that customers often had different preferences, which further complicated the sales process. Gaining product legitimacy in these nexuses was not about

fitting into existing preferences but about creating new ones. In this process, customers often had to discard past preferences. Many entrepreneurs who launched products that did not fit into existing product categories pointed out that their products in the first instance competed against customers' preconceptions about how things should be done. Changing these expectations often required that customers stopped thinking in old product categories and embraced new ones.

“They (the customers) had no idea. Because they never had to think, I think if you had asked a student what a comfortable chair was they would have said one that was upholstered. We had to educate them; we had to educate the user, the teacher, the principal and ourselves really” (Pioneer #3).

“I think there's a big educational curve going on to the end users of what they used to buy. The public used to buy a piece of cardboard with a dollar value on it, and a scratchy panel on the back, and now, they don't... So, some of the biggest barriers would be people getting it” (Market-seeker #3).

In the nexuses of the Market-seeker and the Pioneer, the innovation did not compete with another product that customers were used to, and the relative advantage of the product did not matter. What did matter was whether customers started to understand the benefits of the innovative product compared to existing alternatives, or compared to doing nothing at all. By and large, entrepreneurs did not experience that customers were actively opposed to changing their preferences. However, they frequently pointed out educating the customers was a very lengthy process.

“And so where we fit, in the internet productivity security space, there is little or no understanding about efficiencies of use. So we're back at 2001, and by the time you get us to 2010, which of course now, it's going to be pretty close to 2020, we should just be mainstream, you know, types of solutions. So it's an educational process, it's a general understanding, and there will be things that will happen in the marketplace that will trigger a greater awareness” (Pioneer #4).

Market-seekers and Pioneers had to educate their customers to appreciate the benefits of their innovative products to address the lack of customer knowledge about product utility. Entrepreneurs had to change customer preferences. The following sub-section will look at how Market-seekers and Pioneers found their initial customers in the absence of clearly defined product categories and how they leveraged off these initial customers to accelerate the necessary educational process.

### ***Breaking the ice***

In making their initial sales, Market-seekers and Pioneers focused on customers who were receptive to the new idea. Rogers (2005) pointed out that about 2.5% of customers are innovators, willing to take the risk of buying products that are out of the norm. In fact, for many of these innovative customers these products had a special appeal, since they were looking for products that were indeed out of the norm. Market-seekers and Pioneers typically went to great lengths to find these customers, often finding them amongst people who had prior industry experience. Because of this prior experience, these customers were more likely to appreciate what the entrepreneurs were trying to accomplish.

“The guy had hens himself. And he knew, and his father had a farm, so he knew about hens. He knew about eggs, and he knew the difference. So he was receptive to the idea. Whereas most didn’t. That was really important actually” (Market-seeker #2).

“If we find like-minded people then it is not that difficult to start a market. But then how do you find those people in other areas, and quite frankly we are busy” (Pioneer #3).

Relying exclusively on these initial customers, however, was unsustainable, and growing the business required widening the customer base beyond like-minded customers in these nexuses. To achieve this, entrepreneurs needed to get a chance to demonstrate the benefits of their innovative products to a wider audience. Only prospective customers who experienced the benefits themselves were prepared to suspend their disbeliefs about the value of the products.

“The big problem was trying to get a customer who appreciated the difference. Once you communicate with a customer about your product, and get him to accept the difference, you’re almost there, aren’t you” (Market-seeker #2).

Many entrepreneurs recalled that creating initial interest was very challenging. Often the only way was to provide free trials or samples of the product. For many customers this risk-free opportunity to try the product was often the first step towards learning to appreciate the difference. Particularly in the early stages of developing the business, however, entrepreneurs considered giving away free samples a very risky strategy. Given that their businesses were still small, investing in opening up a market presented a big gamble.

“It was a change of behaviour, complete change in behaviour for customers, which had benefits, but it also had some unknowns for them. So, the first steps for a customer was not having to fork out money for product; they were given product for free” (Market-seeker #3).

“We have working demos at the boat shows so people can see it, and everybody has a play with, things like that” (Pioneer #1.2).

In a similar vein, Market-seeker #1 took the idea of providing an opportunity to experience the product benefits a step further by setting up race courses and fan clubs for his product - a portable land yacht. This way, he could ensure that customers became familiarised with the benefits of the new product.

“We consider this almost like a vineyard where they make their wines. And you can come in and taste their wines in the environment that they want you to taste it in. And they think is best suited. ... People can come and have a go and experience the product. And understand what it is and what it does before they have to make any commitment to purchasing” (Market-seeker #1).

Market-Seekers and Pioneers were largely in agreement about how little control they could exert over whether their products became more mainstream or remained on the fringes. In these nexuses, entrepreneurs could only control the educational process to a limited extent since it required changes on the level of society to occur. These entrepreneurs needed the emergence of a new trend which changed customer preferences in order to succeed. Many of these entrepreneurs anticipated the emergence of a trend when they started out, and created businesses that would be well positioned if the change in customer preferences finally materialised.

“The actual size of the opportunity has come to us. You know as the waves have been coming to the shore we have been lucky to be on that wave. But we did plan to have the wave and we did have the board to be on it with. And that’s having the courage of your own convictions” (Pioneer #4).

“Trends have given the business quite a growth phase, because we’re sort of riding the trend; what’s the expression? Make the trend your friend” (Market-seeker #2).

Entrepreneurs often relied on innovative customers to overcome the product legitimacy challenge. At the same time, they were gambling on trends to make their products more mainstream and to create their own product category.

### ***Creating a new product category***

The majority of Market-Seekers and Pioneers shared the view that the emergence of a trend facilitated the development of the business. Customer education was driven by processes beyond the control of the individual entrepreneur. Many entrepreneurs remembered that an external event suddenly made the customers aware of the benefits the innovative products

had to offer. The information to make customers aware of these benefits was usually already available in these nexuses. What was missing, however, was sufficient publicity.

“People will realise that chlorine is bad for them and they shouldn't be drinking it. I'm really hoping they are going to work that out. And the key events for me will be a global awareness of that issue, would be a big awareness for me. A Time Magazine article on chlorine, that type of thing” (Market-seeker #4).

Public awareness of latent customer needs that the innovation addressed was the key in creating a new product category. The marketing efforts of individual entrepreneurs, on the other hand, did not yield the creation of such a category. There were many processes driving public awareness, and hence the creation of new product categories. Most importantly, the emergence of product categories was supported by the traditional media. Once the media raised an issue, it soon became mainstream. Resolving the newly raised issue provided entrepreneurs with a clear value proposition for their product in these nexuses. Besides the traditional media, there had been other important forces at work. The rise of new technologies often redefined what customers were concerned about, showing them the limitation of current solutions and redefined problems, which then gave rise to new product categories.

“But we were never conceived that it would be the consumer market, you know the home PC market, that would be where our first win was. And what brought that about? Windows Vista helped a lot and some other things that have happened that have really raised the public's awareness of touch technology” (Pioneer #2).

When Market-seekers and Pioneers started out they believed that change was inevitable. Legitimising innovative products was achieved through a two-stage process, however. Initially, entrepreneurs in these nexuses began selling to customers who were receptive to the new idea. To achieve growth, however, the benefits of the whole product category needed to be brought to the attention of customers. Most entrepreneurs pointed out that this could not be accomplished by their businesses, and that they had to rely on external support so that their message was taken to heart. In other words, the emergence of a new product category was, to a large degree, dependent upon external validation.

## 7.4 Legitimising the new business

### 7.4.1 Lack of business legitimacy challenge

Let us now turn to the question about the legitimacy of the new business. As discussed in section 7.2, the business legitimacy challenge was largely absent in the nexuses of the Pragmatist and the Market-seekers. Given that these entrepreneurs used widely known and accepted competencies to innovate, there was very little uncertainty for customers as to whether the product would be technologically feasible, and they did not question the legitimacy of the business.

“Everything else to the bike is common to a bike. Industry handlebars, brakes, wheels, tyres, saddles. Nothing unique in those. The shocks. There are more companies in the world that are building accessories for bikes in the way of pedals and handlebars than there are actually building bikes. By a long way” (Pragmatist #3).

“Our competitor is capable of it [the technology], but they have taken a different route to market, slightly, and their technologies are slightly more limited, and internationally they probably deliver the same technology” (Market-seeker #3).

Producing the product seemed plausible in both nexuses and customers were not overly concerned with the fact that the innovative product came from a business with no track record. Having seen similar technologies or competencies used previously, they neglected the source of the innovative product. However, there were still important differences between the nexuses of the Pragmatist and the Market-seeker in this regard. In the Pragmatist nexus, being a new business sometimes even constituted an advantage rather than a burden. Customers considered the new business and the new products as a refreshing change that provided them with an additional choice.

“We have a business that people are really passionate about. They want to be part of it. It’s a really exciting young vibrant business to be a part of, and we don’t have any of the stigmas attached to us like [major competitor]” (Pragmatist #2).

This held only partly true in the Market-seeker nexus. Entrepreneurs pursuing these types of opportunities did not feel disadvantaged because their businesses were new. Yet being a new business that was selling new products was not an advantage either, because the product legitimacy challenge overshadowed the business legitimacy challenge in legitimising these innovative ventures. In the first instance, the customers of the Market-seekers had to start appreciating the product.

Overall, the evidence that new businesses did not face significant legitimacy challenges is limited to Pragmatists and Market-seekers. In the nexuses of the Inventors and

the Pioneers, on the other hand, entrepreneurs faced an intense legitimacy challenge in establishing their businesses since customers were uncertain whether the new business could deliver on its claims. The following sub-section discusses how new ventures could overcome this type of legitimacy challenge.

#### **7.4.2 Meeting the business legitimacy challenge**

##### ***Securing initial customers***

Inventors and Pioneers faced challenges in legitimising their businesses. Many of these entrepreneurs pointed out that customers were reluctant to buy products based on new, unproven competencies from a business with no, or a very limited, track record. Since the competencies used lacked legitimacy, customers started questioning the legitimacy of the businesses themselves. The reasons for this were twofold. First, customers expected established businesses to develop and commercialise new competencies rather than new businesses. Established companies had already built a reputation for being innovative and consequently customers first looked at their solutions.

“I spoke to a guy that had been in the touch industry for a long time, he said [Name of entrepreneur] if you are half the price with twice the functionality you’ll probably still not win the business. Because people look at the big players in touch. You know those airport kiosks, they won’t have it [his product] on them but they are IBM kiosks, you know” (Pioneer #2).

Most business faced a second challenge besides this preconception about the origin of new competencies. Inventors and Pioneers also needed to prove to their customers that their businesses could deliver on their promises. Customers remained suspicious in the absence of any reference points and often refused buying a product based on unproven competencies from an unexpected and unproven source. To overcome these challenges, and to raise the credibility of the business, entrepreneurs focused on publicizing initial existing customers as references. Publicising these customers proved essential in signalling that the business was a trustworthy business partner. In some cases, providing references was all the marketing needed to find new customers.

“We used references, case studies on specific schools. We used a lot of consumer feedback in our marketing material. So yes we basically went to our customers and got all the marketing information from them” (Pioneer #3).

“So yeah at the time when we first started off were we embraced? Not really. And so you're gradually getting reference sites and customers. You build off those” (Inventor #3.1).

Building up references to build a business was a lengthy process. However, there were also shortcuts. Pioneer #2 highlighted that the reputation of his first international customer helped tremendously in creating credibility for the new business. After securing a deal with a global PC manufacture the business instantly gained industry-wide legitimacy. Leveraging of the legitimacy of this prestigious customer enabled him to grow the business and its reputation.

“[I]t gives you your first reference and you know, to get [large PC manufacturer] as your first one was just beyond our, beyond my wildest dreams. I mean you expect to get some tin pot little monitor manufacturer out of somewhere but at least you got into some manufacturing and you had somebody that you could reference” (Pioneer #2).

This process also sometimes worked against entrepreneurs. In some cases, leveraging of the reputation of existing customers was impossible. A good example of this was the case of Inventor #2, who pointed out that his initial customers did not want to be disclosed. As a result, the business struggled to gain legitimacy despite the fact that it was doing business with some reputable partners. Disclosing these activities was paramount and thus Inventor #2 had to find creative ways to get this knowledge into the public domain. He further pointed out that the listing of the business on the share market provided the much-needed platform for gaining business legitimacy.

“So when we listed the business in 2005 we would put out press releases saying a large Telco in the U.S., we've just closed a deal worth 3 million dollars. We still wouldn't name the customer. But it was because we were publicly listed, everyone knew this was validated information. That we would be nuts to make up a story like that. And so we just talked about security agencies, and Telco's, and financial institutions” (Inventor #2).

Hence, legitimising the businesses in the nexuses of the Inventors and the Pioneers was a combination of the number of referenced customers, the reputation of those customers, and the degree to which they could be disclosed. However, many entrepreneurs initially faced a vicious circle. Potential customers were suspicious about the capabilities of the company because of the lack of an existing customer base. This shortcoming was difficult to address. Most entrepreneurs had to seek direct customer interaction to convince them that the business could be trusted.

Personal sales were the key to breaking this vicious circle of lacking legitimacy. During personal sales, customers often took information at face value and did not overly

question the size or the track record of the business. Customers tended to trust the person who represented the business once they got to know them in person. Initial sales were mostly made by the entrepreneurs themselves, and their personal commitment to the business and its products was crucial.

“So, you know it’s a very personal sale in a lot of cases, but once you've sold one or two, the rest of the market starts to feel secure around the fact that you've got reference lights and, you know someone to talk to, fellow owners, if you like. And it starts to build its own momentum.” (Pioneer #1.2)

“And we were basically told that the opportunity was now narrowed down between us and [Large Multinational], a very major Chinese business. [Large Multinational], they turn over billions and the people were impressed. They said the CEO from [Large Multinational] hadn’t come to see us. The CEO from [Large Multinational], he wouldn’t have enough time in his day to go there. And they were sufficiently impressed” (Pioneer #4).

Personal sales also created a lack of transparency. Information about the business was often very difficult to obtain. Inventors and Pioneers remembered that customers often did not diligently check the credentials of the business during these personal sales meetings. Customers often missed this step when evaluating the offering after they became interested in the product. Many entrepreneurs used this to their advantage, not disclosing any information that would imply that the business, which they represented in that instance, would not be a serious business partner. In fact, sometimes they actively created that impression.

“They didn’t know how big we were” (Pioneer #4).

“If they'd known that at that stage we had 3 employees, I don't think we would have closed a million dollar deal. Anyway we fudged it” (Inventor #2).

### *Disseminating references*

Once initial customers were secured, the message that the business could deliver on its promises needed to be disseminated. Here, Inventors and Pioneers used a number of strategies to ensure that prospective customers received this message by publicising current projects and business deals on the company web-page or issuing press releases. Inventors and Pioneers pointed out that it is important to achieve a quick turnaround of customer projects in order to increase the legitimacy of the venture. Contracts needed to be completed quickly so that they could be used as reference sites. In other words, the completion time restricted the number of reference customers which in turn influenced the ability of the business to grow.

“You know why aren’t we selling enough? Well we can’t get enough reference sites. Why haven’t we got enough reference sites? Well the installations take too long. Why do the installations take too long? Too bloody slow to install them, rah, rah, rah. Where do you end up? Back at product land” (Inventor #3.1).

However, in this case the reputation of the business was still built through direct interaction with prospective customers. Inventors and Pioneers either had to make prospective customers aware of existing references, or prospective customers had to ask for them. Inventor #3.1 tried to accelerate the process of building up references, but this did not change the actual process by which prospective customers interacted with the new business. The focus on personal sales supported by existing references remained.

Some Pioneers and Inventors, however, used strategies that altered the process by which the innovative venture was legitimised, and did not rely primarily on direct interaction with prospective customers. Two strategies stand out. The first was partnering with other businesses. In some cases, having a reputable partner increased market legitimacy for new businesses. However, this strategy was very limited. Most larger companies that were already operating in the industry had very little incentive to collaborate with a new comer.

Another way to legitimise a venture quickly was to turn existing customers into an active sales force. As seen above, using existing customers as references can be very powerful, but is often also a lengthy process because existing customers remain passive. Even though it is possible to refer prospective customers to past successes, existing customers do not directly interact with prospective ones. Existing customers usually did not actively promote the product. Some entrepreneurs, faced with the challenge to legitimise their businesses, changed the involvement of existing customers in the legitimising process. They encouraged them to actively promote the innovative product and the new business. By providing continuous benefits to the existing customer base, these entrepreneurs turned their customers into an active sales force advocating the products.

“We encourage, if we sell the first boat into a new country, or a new area, we will try and use that customer as a referral. So we’ll say if, you know can we send people to have a look and do a demonstration, and if they’re successful then that original customer can get some money, or commission” (Pioneer #1.1).

“Our customers become part of our sales force. They are, by this stage, so loyal and such an advocate, because I think, especially in this day and age, you’re used to buying something that you expect will last not very long” (Inventor #4).

## 7.5 Addressing the two challenges simultaneously

Individually the two challenges faced by entrepreneurs in legitimising innovative ventures were difficult to overcome. But prospective customers often became actual customers once the respective challenges were overcome. In the Pioneer nexus, challenges to legitimacy were cumulative. These entrepreneurs simultaneously faced the challenge that the product as well as the business lacked legitimacy. Among the four types of nexuses, the Pioneer nexus undoubtedly represented the most challenging environment in the developed typology. Not only did entrepreneurs need to convince prospective customers that the product had benefits, but entrepreneurs also needed to make them feel confident that the business could deliver on its promises.

The most obvious solution would have been for Pioneers to start to combine the strategies of the Market-seekers and the Inventors and to try to educate their customers about the benefits of a product and to build the reputation of the business at the same time. However, faced with both challenges, Pioneers did not do much of either. On the contrary their main strategy was trying to minimise these challenges. When they started with their sales efforts, they soon discovered that lack of legitimacy of the product and the business mattered to customers only to varying degrees; for some customers, it did not matter much at all. In order to avoid having to overcome these challenges, Pioneers decided to identify the customers who were more easily convinced.

“So completing our sales cycles, and having active accounts, that for us was not one of our KPI’s. Because you can’t, knowing that it takes a long time to actually get to the end game [sales], if you’re out lighting fires, the more fires we’ve got lit [the better], for us was very much a measure of how well we’ve done” (Pioneer #4).

“It was, I mean we were spray-painting really, initially because we wanted to know what would stick” (Pioneer #2).

Initially, Pioneers were ‘lighting fires’ or ‘spray-painting’ in order to identify the customers who were less resistant to buying an untried product from an unknown company. Before lighting fires, Pioneers usually engaged in some initial market research in order to identify a type of customer who would appreciate the innovation. Once a type of customer could be classified, entrepreneurs quickly started contacting as many of these potential customers as possible (lighting fires) to validate initial interest in the innovation. Pioneers then tend to direct their efforts towards legitimising the new venture and the new product to customers who showed initial interest. In doing so, Pioneers did not strive for general legitimacy in the sense that the business and its products became widely accepted; they emphasised

legitimation vis-à-vis a customer. It seems that Pioneers aimed at avoiding rather than embracing legitimacy challenges posed by their environments.

## **7.6 Concluding comments**

This chapter has outlined two distinct challenges to market-legitimacy faced by entrepreneurs in the four nexuses, namely the product and the business legitimacy challenge. It has further argued that the extent of the two challenges as well as the strategies used in navigating them depended largely upon the type of individual-opportunity nexus entrepreneurs were engaged in.

The product legitimacy challenge derives from the uncertainty of the customer about the benefits of a new product. Such benefits are generally accepted in the nexuses of the Pragmatists and the Inventors; entrepreneurs only need to convince potential customers that the product has a relative advantage within an existing product category; in the nexuses of the Market-seekers and the Pioneers these product categories are absent, and customers often dispute the benefits of the innovative product. Since these products do not address commonly understood needs, entrepreneurs face a more intense challenge in legitimising these products.

The second challenge, that of business legitimacy, derives from the uncertainty of customers about the trustworthiness of the new business. Inventors and Pioneers introduced products based on new, unproven competencies. This made customers suspicious about the company and they required a track record indicating that the business was reliable. Legitimacy of the business thus provided an important vantage point for customers in evaluating products based on new competencies in these nexuses.

The Pragmatist nexus provides the lowest hurdles for establishing new products and new businesses in the marketplace. However, that does not mean that customers are easily satisfied. In fact, the customers of Pragmatists are demanding. They do not want to change their preferences and require that the entrepreneur becomes increasingly acquainted with, and committed to, existing customer preferences. Hence, Pragmatists need to inform their customers that their products do indeed meet their existing preferences. Once the road of the Pragmatist is chosen, entrepreneurs need to continue to follow their customers.

The Inventor nexus poses challenges to establishing the business in the marketplace. Even though the new products suit the existing preferences of customers, the new businesses do not. The best way to overcome this challenge is by means of personal sales, as it allows entrepreneurs to temporarily disguise the lack of an established reputation. Given that the lack of reputation is the major barrier for the Inventor, these entrepreneurs need to focus on publicising the existing customer base in order to demonstrate that the business is a reliable business partner. Ideally, these entrepreneurs turn their existing customers into an active sales force that promotes the company – but not necessarily the product, since the product sells itself.

In the Market-seeker nexus, innovative products are not valued by potential customers since the products do not fit into existing product categories. Hence, Market-seekers need to convince their customers that the innovative products have certain benefits. Creating this awareness of the benefit is usually accomplished by giving potential customers an opportunity to experience the benefits first-hand without cost. For the products of Market-seekers to become mainstream, however, customer preferences need to change. These changes are largely outside the direct control of the entrepreneur, who basically gambles that ‘the trend becomes a friend’.

Finally, in the Pioneer nexus both challenges exist simultaneously. Initial customers have difficulty in evaluating both the benefits of a new product and the trustworthiness of a new business. Nevertheless, some customers are receptive to the idea of the Pioneer, which often provides some early encouragement. Pioneers tend to light fires to locate customers who indicate a willingness to accept innovation, despite a lack of product and business legitimacy. These initial customers then provide reference points for further establishing the business in the marketplace.

Figure 7.2 summarises in the findings of this chapter. It shows the legitimacy challenges identified as well as the strategies chosen to overcome these challenges for each of the four types of nexuses.

Figure 7.2: Overcoming challenges to market-legitimacy and the four nexuses

Unexpressed customer need	<b>Market-seeker nexus</b>	<b>Pioneer nexus</b>
	<p><b>Challenge:</b> It is difficult to legitimise the innovative product in the marketplace. The business is accepted without difficulty.</p> <p><b>Change in customer behaviour required:</b> Customers need to change their behaviour and/or preferences in order to appreciate the value of innovation.</p> <p><b>Mode of customer communication:</b> Initially, the entrepreneur needs to focus on people who are receptive to the idea the innovation addresses and hence appreciate the innovation</p> <p><b>Strategy:</b> Make the trend your friend</p> <p><b>Main task:</b> Accurately anticipate trends and find supporters.</p> <p><b>Danger: External</b> - Entrepreneurs gamble on a larger change in society beyond their control. If change fails to materialise, innovation may be seen as a gimmick.</p>	<p><b>Challenge:</b> Both the innovative product and the business are difficult to establish in the marketplace.</p> <p><b>Change in customer behaviour required:</b> Customers need to drastically change their behaviour and/or value system in order to appreciate the value of innovation.</p> <p><b>Mode of customer communication:</b> Customers need to be educated. Entrepreneur needs to demonstrate the benefits of innovation and the trustworthiness of the business.</p> <p><b>Strategy:</b> Lighting fires</p> <p><b>Main task:</b> Promote benefits to as many potential customers as possible.</p> <p><b>Danger: External</b> - Very high risk that either the business or the innovation will not become accepted in the marketplace.</p>
Expressed customer need	<b>Pragmatist nexus</b>	<b>Inventor nexus</b>
	<p><b>Challenge:</b> Neither the innovative product, nor the business face intense challenges to their legitimacy.</p> <p><b>Change in customer behaviour required:</b> None</p> <p><b>Mode of customer communication:</b> Customers need to be informed – they will find it out themselves. Customers educate themselves, they are often actively searching for solutions, customers extend markets.</p> <p><b>Strategy:</b> Focus on customer and create a big buzz.</p> <p><b>Main task:</b> Simply follow the preferences of customers and inform them.</p> <p><b>Danger: Internal</b> - Misinterpreting, or not following, existing customer preferences.</p>	<p><b>Challenge:</b> The innovative product is easily legitimised in the marketplace, but the business is seen with much suspicion.</p> <p><b>Change in customer behaviour required:</b> Customers need to become confident about the company that offers the innovative product.</p> <p><b>Mode of customer communication:</b> Prospective customers need to see success stories of other customers. Customers need to be educated. Innovations fit into the preference system of the customers. Hence, the innovations sell themselves, but customers need to be educated about the business.</p> <p><b>Strategy:</b> Signal that the business is serious.</p> <p><b>Main task:</b> Develop the business, not the product.</p> <p><b>Danger: Internal</b> - Product focus of the original inventor.</p>
	<b>Existing competencies</b>	<b>New competencies</b>

## **CHAPTER 8: EMERGING RIVALRY**

### **8.1 Introduction**

Having looked at how entrepreneurs legitimised innovative ventures, the discussion now turns to how this legitimacy was retained in the face of emerging rivalry. Following the suggestion of Ireland et al. (2003) and Beckert (2009), this chapter explores the effects of rivalry as well as the strategies employed in seeking advantage over emerging rivals. In essence, this chapter shows how entrepreneurs continuously created and captured value once the uniqueness of their innovative product started to wear off.

This chapter argues that a number of interesting insights can be derived from the four nexuses featured in this study. First, the understandings of entrepreneurs about their competitive environment changed with their business experience and with their involvement in a particular market. Over time, entrepreneurs developed a focus on direct rivalry, rather than competition more generally, in seeking advantage. It further demonstrates that there are profound differences between the four types of nexuses in this regard to the emergence of rivalry, the effects of rivalry, and the strategies chosen to build advantages. This chapter explores these differences.

The chapter is organised as follows. First, changes in the perception of competition are discussed. These changes were universal and occurred independent of the type of nexus in which individuals were involved. Second, the function and consequences of emerging rivalry are discussed for each of the four nexuses. The chapter uncovers a paradox between positive and negative consequences of emerging rivalry for innovative ventures. This paradox is then further explored by discussing the strategies used in building competitive advantage. The chapter concludes with an overview of the issue of rivalry in the four nexuses.

### **8.2 Perceptions of competition and rivalry – initial comments**

The concept of competition is elusive. It is theoretically opaque and empirically often ignored. Analysing data for evidence of the effects of competition provides some insights why this might be the case. Perceptions of entrepreneurs about their competitive environment constantly evolved. Initially, they innovated because they perceived no direct competition. ‘When we started our business there was no competition, we had something unique’, was a common reflection. In fact, the lack of alternative products was often a motivating factor in

starting the business in the first place. Entrepreneurs often perceived an unaddressed problem or need, and decided to start an innovative venture capable of filling the identified gap.

Irrespective of the nexus they were involved in, many entrepreneurs pointed towards two distinct changes regarding their perceptions of competition. First, their understanding of competition changed on a conceptual level. Whilst initially many defined competition very narrowly by businesses that offered the same products, they soon started changing this view and increasingly adopted a more encompassing definition of who or what they were competing against. In essence, their perception of competition evolved from products that were identical, through products that satisfied the same needs, to alternative uses of time and money from the perspective of the customer.

“When we first started people were saying who’s your competition. We were like, hey no one, we’ve got no competition, we thought we were quite clever about that. But the more thought we put into it the more thought we put into, in terms of who’s our competition, after thinking, oh well we’re pretty clever, we’ve got no competition it’s anyone going for recreational spend. ... From thinking we’re the only ones, the only players here, we’ve quickly realised we’re probably the smallest players in a big market” (Market-seeker #1).

Developing a more encompassing definition of competition was a result of business experience. In most cases, the business experience had been with the current business, but this was not always the case. Some entrepreneurs had already developed this view of competition through previous management experience. Prior business or management experience changed the perspective on the competition for the current business. For example, Pioneer #4 pointed out that his view of competition was the result of *being in business* for a long time. Asked whether his view on the competitive environment of his business changed, Pioneer #4 responded.

“And we’ve had a number of different businesses in my past, so the younger guys are always saying we have no competition because none exists and no one has got the same thing. As you’re an older person you understand that there’s always competition, but it might not be the industry that you’re working in” (Pioneer #4).

Apart from the time entrepreneurs had spent managing business there was a second factor influencing the perception of competition. Over time, entrepreneurs also gained more specific knowledge about their direct rivals by *being in a particular market*. Most entrepreneurs pointed out that rivalry often remained unnoticed for quite some time. Over time, however,

rivals started breaking into the markets of the entrepreneurs or developing increasingly similar products.

“So it’s been, I was, when I first found out it wasn’t until 2 years later, cause competition flies under the radar” (Market-seeker #4).

The importance of gaining this sort of specific market knowledge as a driving force in the development of firms has been highlighted previously. Penrose (1959) pointed out that market-specific knowledge gained from experience in a market is crucial for the development of entrepreneurial opportunities. This type of knowledge about opportunities is, for the most part, tacit, and can only be acquired by individuals exposed to a market. For the entrepreneurs in this study this exposure had two important effects since entrepreneurs not only conceptualised competition differently depending on their *experience in business*, but also depending on their *experience in a market*.

Competition remained an abstract concept, and it became evident that the more encompassing understanding of competition was largely irrelevant for the decisions of entrepreneurs. Even though they were aware that competition could be anywhere, this did not overly influence decision making. When entrepreneurs gave accounts of how emerging competition influenced their strategy, they usually referred to direct rivalry – companies that directly competed for the same customers – rather than to competition in a broader sense. Emerging direct rivals actively impacted on the results of the entrepreneurial business, and consequently entrepreneurs focused their attention towards outwitting direct rivals, and not all possible competitors.

“In the area that we’re in the maximum worldwide is thirty and that basically takes out all the heavy hitters and the also-ran as well. And of the thirty there are most probably four which are strong contenders and effectively we work against those four in places” (Pioneer #4).

But what is the reason behind the focus on rivalry in decision making? Simon (1993) argued that actors generally only strive to achieve satisfactory solutions, rather than optimal ones when faced with overly complex situations as a result incomplete information, cognitive limitations, and time constraints. Considering all possible competition may be such a situation that provokes such bounds to perfect rationality. For the study of entrepreneurship, Sarasvathy (2001a) argued that expert entrepreneurs learn to neglect possible competitors, and instead focus on possible collaborators whilst thinking about commercialising new business ideas. The evidence presented in this chapter supports this notion of the missing

focus on competition. However, the reasons are different. Entrepreneurs not only neglect competition because of their focus on building relationships with collaborators, but also because of their focus on direct rivals. In the following, the changes of rivalry in the market for the innovation will be outlined for each nexus, and the strategies entrepreneurs used to stay ahead of these emerging rivals will be discussed.

### **8.3 Pragmatist nexus and the pursuit of competitive advantage**

#### **8.3.1 Encountering rivalry**

Having discussed changes in the perceptions of competition in general, attention now turns to the emergence of competition in each of the four nexuses. In all nexuses, the emergence of competition had been expected. Mantzavinos (2001) argues that the market process is driven by two distinct types of entrepreneurs; first, the Schumpeterian entrepreneur who opens the market for new products and temporarily creates monopolistic rents, and then the Kirznerian entrepreneur who starts his business in order to compete monopolistic rents away. Similarly, Baumol (2002a) argues that one major function of entrepreneurs is to compete abnormal profits away. Evidence of this mainstream economic view of the effects of rivalry was found in the Pragmatist nexus.

As economic theory would suggest, rivals emerge frequently in the Pragmatist nexus and undercut prices very quickly. As seen in the previous chapter, Pragmatists encountered very little difficulty in legitimising their ventures. Unfortunately, this also held true for their emerging rivals. Barriers to market entry for rivals tended to be low. Most Pragmatists complained about increasing cost pressure as a result of emerging rivals. Pragmatist #1, for instance, who started his business selling innovative outdoor clothing for the rural sector remembered how less expensive copies of his designs challenged the profitability of his business.

“And the design features that we incorporate in some of our innovative products, they’re just being replicated” (Pragmatist #1).

Developing the opportunity and remaining competitive was a distinct challenge in this nexus. Most Pragmatists needed to be very aware of the prices of their rivals, creating a price-focused competitive environment. Because of this pressure on prices, Pragmatists perceived rivalry as fierce and its effects as largely negative. For instance, most entrepreneurs pointed

out that their margins had been shrinking and that they had already lost business to early rivals.

“We don’t necessarily want to be the cheapest, but we don’t want to be anywhere near the dearest” (Pragmatist #3).

“We weren’t smart enough to be able to fight the ad agencies, who were trying to claw back that work, and we lost it eventually. ... You know, the market is sick. You don’t really want to work in it. So, trying to make a profit there is very hard“ (Pragmatist #4).

To develop the opportunity further, Pragmatists had to establish a point of differentiation. The problem was, however, that differentiation could not arise out of products in the Pragmatist nexus. The problem that Pragmatists solved was very well understood, leaving little room to redefine the value proposition. Moreover, competencies were potentially available to new entrants, making differentiating based on technology also unfeasible. This made it impossible to establish quality differences between the products of the Pragmatists and their emerging rivals. Many entrepreneurs repeatedly pointed out that their customers no longer appreciated quality differences.

“Well, our quality is higher, but they’re not interested. [Our customers] don’t understand quality” (Pragmatist #4).

### **8.3.2 Seeking advantage by focusing on relationships**

Since Pragmatists perceived that their customers did not fully appreciate quality differences, they started relying on building a strong relationship with their customers to create differentiation. There were two types of close relationships with customers in the Pragmatist nexus. First, there were direct personal relationships with key customers. The positive effects of existing relationships with key business partners have frequently been highlighted (e.g. Hoang & Antoncic, 2003). Also, existing networks have been found to support the discovery of new opportunities (Burt, 2004). Evidence that this type of direct personal relationship can be crucial for building an advantage over their rivals was common in the Pragmatist nexus.

“They are now having preferred suppliers that they can just call on, rather than treating it on per project basis, but still it’s a tough little market, but we have a good relationship with some companies” (Pragmatist #4).

For most Pragmatists, however, relying on personal relationships was not viable since they served a large number of locally dispersed customers. Once the number of customers increased, the advantages of the personal relationship model subsided. Maintaining a direct

relationship with many customers soon became unmanageable and entrepreneurs needed to find other ways to prevent customers from migrating to emerging rivals. Faced with this situation, Pragmatists often started to nurture the relationship between the customers and the business. They wanted customers to become passionate about the company or the company brand. Many of their efforts were directed towards creating ‘loved’ brands or companies, a phenomenon that has recently been described in the marketing literature (Albert, Merunka, & Valette-Florence, 2008). The following quotes illustrate this intention of the Pragmatists:

“The people are doing business with us because they like us, and they love the company” (Pragmatist #2).

“Companies like Apple, once people buy an Apple that’s it; you’re pretty much an Apple fan. And people love that brand. And it’s the same about [Company name]. I don’t think that there are many other clothing brands around that people want to get buried in, or want to get married in” (Pragmatist #1).

It was interesting to see how entrepreneurs built these relationships. As pointed out in the previous chapter, Pragmatists needed to understand the existing needs of their customers very well in order to legitimise their businesses. The key to legitimisation was the recognition of, and the alignment to, well defined customer preferences. The same logic held true for the source of advantage over emerging rivals in this nexus. The customers of the Pragmatists continued to prefer businesses that aligned better to their existing preferences, rather than businesses that tried to challenge or change their existing expectations. Many Pragmatists pointed out that understanding their customers provided the basis for developing a competitive advantage.

“[Customers] come back, because we know what their needs are, and they don’t have to go through re-teaching, and so you can’t actually isolate small jobs” (Pragmatist #4).

“We have to make sure that, you know, we hold true to the values, and the principles that our customers have as well. So, and it’s very simple” (Pragmatist #1).

Pragmatists further pointed out that it was crucial that their companies were perceived as local. In a way, Pragmatists leveraged off what has been described as consumer ethnocentrism – the tendency of customers to give preference to local brands (Sharma, Shimp, & Shin, 1995). Research on the subject has found that consumer ethnocentrism can dominate the importance of product quality in the buying decision (Supphellen & Rittenburg, 2001). Klein (2002) argued that the existence of consumer ethnocentrism directly influences results, and needs to be considered in management decisions.

For New Zealand, Watson and Wright (2000) found strong evidence of consumer ethnocentrism by comparing the acceptance of imports from culturally similar and dissimilar cultures. The authors found that imports from culturally similar countries have a clear advantage over those imported from culturally dissimilar countries in the New Zealand market. Moreover, all imported products were at a disadvantage when local alternatives were available, irrespective of their country of origin. Pragmatists used this ethnocentrism to their advantage and part of their competitive strategy was to become ‘the New Zealand company’ that stands for a particular innovative product.

“There are now other competitors out there who do the same thing as well. We’re New Zealand owned and New Zealand proud, is one [point of difference]. That’s probably our key differentiating factor” (Pragmatist #2).

“And here’s a very unique bike built in New Zealand. Designed in New Zealand by New Zealanders and being raced here by two New Zealanders. And we got wonderful coverage out of that because [professional rider 1] and [professional rider 2] are pretty well recognised guys” (Pragmatist #3).

By representing the values of their customers, Pragmatists created businesses that were not considered an anonymous business partner by their customers. Over time, the businesses became a ‘friend’ of their customers and this ‘friendship’ constituted a sustainable advantage over emerging rivals. Many Pragmatists created additional customer value in this way, which was very difficult to replicate. However, establishing this close relationship came at a cost. Pragmatists found themselves focusing on customers who were conveniently reached, and constantly worked on strengthening the relationship with an even smaller number of customers.

“Well we went direct [direct sales], we resigned, you know we had over 600 retail accounts, and we resigned them all except for 50 basically. ... And everything else was web based, direct mail, or our corporate arm” (Pragmatist #1).

“If we specialise in selling our bikes we can give a few people something special” (Pragmatist #3).

To summarise, Pragmatists focused on building relationships with customers since differentiation based on products or competencies was not sustainable. Over time, not only the products but also the businesses of the entrepreneurs became aligned to existing customer preferences in the Pragmatist nexus. In other words, the advantage of the business resulted from an extreme alignment to customer preferences and values. Through the process of alignment, the entrepreneurial business became more than a business, it became a ‘friend’.

### **8.3.3 Strategic outcomes – competitive advantage as a barrier to growth**

Becoming a friend created a niche for the entrepreneurial business in the Pragmatist nexus. However, this was a niche of a special kind. It was often self-limiting. Pragmatists built this niche by specialising in a certain type of customer, which at the same time created barriers to business growth. There were two main reasons for the existence of these barriers. First, the market of the Pragmatists was finite. Given their attention to well-recognised customer preferences, the number of customers with these preferences was largely predetermined. Second, the competitive strategy of the Pragmatists did not allow them to grow this market. On the contrary, their focus on building a strong relationship to their existing customers further narrowed their market niche.

This created a dilemma. The more Pragmatists succeeded in building a strong relationship to their customers through catering to their needs, the less attractive the offerings became for other customers. In this process, most Pragmatists created small, very loyal customer bases which happily paid premium prices. However, the competitive advantage of these businesses had very little value outside the niche, since entrepreneurs tended to continue the already chosen path.

“My real goal would be to continue developing, carrying on with the development team on the bike and to have a master person who we supply to in such numbers that keep it a little bit unique in a way, keep it a little bit of a cult and selling a few thousand bikes a year. Which would be a nice, small, very profitable business. I don’t want a hundred million dollars a year business” (Pragmatist #3).

“We have created a clan... I think it’s pretty cool what we’ve got going here. It doesn’t have to be big. It doesn’t have to be big, but it has to be real, it has to be authentic” (Pragmatist #1).

Whilst this specialisation towards a customer creates a barrier to competition, it also creates a barrier to business growth. Whether it is possible to outgrow this type of niche cannot be established based on the data at hand. What can be established, however, is that Pragmatists were satisfied in their small niches and had little intention of growing beyond the customers that appreciated their products or their approach to business. Outgrowing this niche, on the other hand, would almost certainly dilute the competitive advantage in the Pragmatist nexus.

## **8.4 Inventor nexus and the pursuit of competitive advantage**

### **8.4.1 Encountering rivalry**

Rivalry emerges quickly in the nexus of the Inventors, which often caused some disappointment. Before notable rivalry emerged, the offerings of the business were distinct. This gave the business and its products public recognition. Many Inventors remembered that the fact that the company was considered to be an innovator in the industry initially helped in building the market. Most of them pointed out that their invention provided them with bargaining power in customer negotiations. After all, the invention did solve a well defined customer need, and customers often had little or no alternative, making them largely price-takers. Inventors had created a temporary monopoly.

“We just went through the alternatives with the customer and just said okay well if you don't use us, how do you do this? ... The customer would say well there's a point, and then we'd say well” (Inventor #2).

Once rivalry emerged, bargaining power of this sort subsided. However, emerging rivalry did not lead to intense price competition in this nexus as it did in the Pragmatist nexus. Instead, Inventors perceived that rivalry often worked to their advantage. This was certainly one of the unexpected findings of this research, as a negative impact of increasing rivalry on entrepreneurial firms is widely accepted. Inventors, on the other hand, often saw emerging rivalry as beneficial since rivalry tended to extend their market. Rivals often just found new customers rather than competing for the existing customer base, and Inventors believed that their businesses had a good chance to grow with the market rather than to compete for a finite number of customers.

“I don't really mind that [increased rivalry]. Because at the end of the day the business wasn't a full cup becoming empty. It was a totally empty cup and anything that went in was filling it. It didn't matter because we still picked up market; we're still picking up market internationally. Everything's a plus for us, not a negative” (Inventor #5).

Emerging rivals expand the market for innovation in general, which in turn provided Inventors with an opportunity to grow their businesses. Most Inventors experienced the positive effect of emerging rivalry and welcomed it.

“And so, like the last trade show I went to there was, or maybe the one before that, there was quite a few new products coming out. But it's not quite as scary as it was, new competitors, when they're like the second, third and fourth came out. Because in a way they kind of helped. ... Their customers might eventually become our customers. It's okay having an intermediate, you know someone priced below you. It doesn't necessarily hurt, it expands the market. Their advertising helps us in a way, because they're expanding the market” (Inventor #4).

“And it’s the competition that publicised the market too. And when someone suddenly hears about this and looks – I can buy one from here, I can buy one from Jack, I can buy one from here. They’re going to do their homework on the market. So they [rivals] help. They help us. ... And it gives more credibility to the whole process, the fact that there are quite a few machines out there” (Inventor #1).

Emerging rivalry was thus an underlying mechanism to extend the market for innovative products. The entrepreneurs above argued that people who were initially attracted by emerging rivals eventually became their customers. However, this effect of gaining additional customers through emerging rivals seems to depend upon whether the business remained the preferred choice of both existing and new customers. For this effect to occur, Inventors had to build a competitive advantage. The following sub-section will discuss how Inventors tried to build this advantage.

#### **8.4.2 Staying ahead through simplicity and innovation**

Many Inventors tried to maintain the competitiveness of their businesses by making it a recognised industry expert. Technologies were still evolving in the Inventor nexus, making it difficult for their customers to evaluate and to use these technologies. Being an industry expert that customers trusted presented a competitive advantage in this uncertain environment.

Becoming an industry expert had two components for many Inventors: simplicity and innovation. Let us begin with the focus on simplicity. Most Inventors found that their emerging rivals tried to succeed by adding additional features to the original innovation. Rivals believed that they could lure customers away by showing technological competence through increasingly complex products. However, customers often did not appreciate the increased complexity or additional functionality since it made using the products more difficult. Inventors believed that the true preferences of the customers tended to lie with the products that had sufficient functionality – products that satisfied the expressed need – and that were simple to use. They pointed out that adding unnecessary features or increasing complexity beyond what was deemed essential resulted in driving customers away from the business rather than in building a competitive advantage.

“We set out early to build a product that was easy for people to use. So a lot of the competitor products involved essentially a programme language, so they’re more complicated and time-consuming” (Inventor #3.2).

“We went back to the basics of foolproof engineering. You can’t make a mistake with the machine. If you turn the wrong valve, or do the wrong thing, then you’re not going to blow it up, or block it up. And that’s the way it’s been designed” (Inventor #1).

“We watched, I think we had a few near misses, and lucky breaks, where it wasn’t so much that we were doing it right, as we felt our competitors were doing it wrong, you know. And that thing, adding that feature, or they’ve got this functionality that we don’t have, and we were like we’ll check it out” (Inventor #4).

Inventors also focused on incremental innovation to sustain an advantage over their emerging rivals. They frequently pointed out that the innovativeness of their products was crucial to the success of the business. Customers appreciated that the business had the capacity to consistently improve its products. Hence for Inventors, much of the competitive advantage resulted from the innovative competencies of the business.

“So this organisation here can innovate and deliver new products more quickly than anybody else” (Inventor #3.1).

“But for now our approach is just to make sure we stay on top of it and do the best we can. And try and keep a competitive advantage by innovating” (Inventor #4).

“To be honest we’ve just accelerated away. We’re a long, long, long way ahead of our nearest competitor. We are, we dominate this market globally. As I said it’s a tiny market, and, but we are the number 1. And every year we just get stronger. And it’s driven by the amount of R&D” (Inventor #2).

In this nexus, it was crucial to remain an Inventor to stay ahead of emerging rivals. Being innovative was what gave the products legitimacy at the time they started out, and later, and remaining innovative was a mechanism to defend their markets against emerging rivals. The process by which incremental innovation is used to stay ahead of competition has been frequently highlighted by scholars studying innovation (Varadarajan, 2009) as well as the growth of ventures (Ireland & Webb, 2007). This study shows that the usefulness of incremental innovation depended upon the context in which the business operates. In the Inventor nexus, incremental innovation was particularly apt in building a competitive advantage.

Inventors innovated in small steps to constantly keep their products ahead of their rivals without compromising on simplicity. They were very strategic about releasing innovation. Given that they had anticipated that innovation was crucial to build and maintain an advantage over rivals, these entrepreneurs did not release an innovation randomly. Most of them waited until their rivals forced them to do so. Holding back some innovation gave them the ability to react to rivalry if required.

“There are a lot of improvements which are not in the machine yet, that we’ll bring in if we have to, to keep ahead. We don’t want to produce the ultimate thing until we have to” (Inventor #1).

“If they [rivals] copy they’re not going to integrate with everything else we do. We just keep making it a little bit more complicated all the time” (Inventor #5).

These entrepreneurs created additional value through releasing innovation strategically once rivals had caught up. At the same time, incremental innovation satisfied the demand of their customers to keep products simple. In other words, cautiously releasing incremental innovation was a means for Inventors to control their markets. It simultaneously reduced uncertainty about direct rivalry and customers’ responses to innovation, and it was the dominant strategy for Inventors in achieving the balance between exploiting existing capabilities and building up new ones.

#### **8.4.3 Strategic outcomes**

Staying true to the principle of incremental innovation had further benefits for some business as they became a market leader. At first, the innovative product was the only product that addressed the need of the customers. Once rivals emerged, customers had a choice between different alternatives. In this situation, entrepreneurs had an opportunity to establish their products as the industry standard. Some entrepreneurs pointed out that their companies had already achieved this status.

“They, a lot of them are quite, the DJ side particularly is quite trend driven, you know they’re looking at what’s the kind of cool new thing, and what everyone else is using. And they kind of gravitate towards industry standards, which helps us, because we’ve managed to achieve that status of industry standard” (Inventor #4).

“There’s a list of companies who are just standardising our fittings. They just put a bunch of fittings, 1, 5, 6 whatever, on every boat they build. ... We’re standard” (Inventor #5).

In their pursuit of becoming an industry standard, entrepreneurs saw their business as competing globally, mostly against much larger firms. Competing against those firms required them to focus on small niches. However, unlike the niches in the Pragmatist nexus, these niches were highly specialised in particular competencies rather than a particular type of customer. To occupy this niche, Inventors focused heavily on building their competencies as well as on integrating these into their products, providing them with a strong competitive advantage.

“That’s characterised by a product of ours, an integration engine called [Product name], which is probably one of the top two integration engines in the health space globally” (Inventor #3.1).

“We dominate this market globally. As I said it’s a tiny market, and, but we are the number 1” (Inventor #2).

“We’ve maintained our lead as having a reputation of being the one that is the professional choice” (Inventor #4).

Competing in competency-based niches drove internationalisation of these businesses. By engaging in rivalry for the leadership in these niche markets, Inventors created businesses with a very small local customer base. One business did not have a local customer base at all. However, internationalisation was not conscious strategy decision, but the result of the competitive strategy directed at providing better products and being more innovative than their international rivals.

## **8.5 Market-seeker nexus and the pursuit of competitive advantage**

### **8.5.1 Encountering rivalry**

Moving to the Market-seeker nexus, it became apparent that there were some similarities in and differences to the nexuses of the Pragmatists as well as the Inventors. Rivalry also emerged in the Market-seeker nexus. Barriers to rivals copying the innovative products or designing very similar products tended to be low. The reasons for this were twofold. First, the competencies Market-seekers used were either commonly known or potentially knowable. Emerging rivals did not face major barriers in duplicating the products of the entrepreneurs, creating a very hostile environment for the entrepreneurial business, with rivals very frequently challenging their market. Second, the innovative venture of the Market-seeker provided visible market validation, which encouraged the market entry of rivals. Many Market-seekers pointed out that their initial sales reduced the uncertainty for rivals about whether a market for this type of product would exist.

“Then we ended the distribution relationship with him and he copied it. That’s a real, really long story cut really short” (Market-seeker #1).

Market-seekers pointed out that these challenges of rivals were, in most instances, poorly addressed. Enticed by the initial success of the entrepreneurs, emerging rivals considered the market an easy target. However, the low barriers to market entry were often deceptive. New market entrants usually started to challenge the innovative venture with low cost products.

Product quality, on the other hand, was only rarely a concern of rivals. Asked how they perceived their emerging rivals, Market-seekers responded:

“And it’s, frankly it’s a real poor remake of an old design and their marketing plan, they want to co-brand with the car company, like they sent a bloke out there with Volvo. They want to get rental places in like [the product] and organise a crossing of the Gobi Desert. It was just, it was quite hilarious to see that, if that’s the extent of them moving forward” (Market-seeker #1).

“I don't know how, because they [the rivals] didn't have [the product], but they were there. And that is the problem with the competition, it's that they see that you're making some progress, but they don't really have the real product” (Market-seeker #2).

Within these markets, emerging rivals intended to exploit the opportunity that the initial entrepreneurs created by undercutting the price. By assuming that the initial product had already defined the product category, rivals failed to understand quality in customer terms as well as the importance of product quality in an emerging market. Consequently, rivals failed to compete effectively. As elaborated in the previous chapter, the customers of Market-seekers were unaware of their real needs. Due to the absence of a pre-existing product category, customers often struggled to understand and evaluate the benefits of the product. The rivalry faced in the Market-seeker nexus resembled that of the Pragmatist nexus in that it exerted pressure on prices, and like the Pragmatists, Market-seekers were convinced that competing on price was ineffective.

“So, our desire was not to compete for that group of people because that’s just all too hard. You know, they’re a group who, instead of paying 30 cents a minute, pay 5 cents a minute or 3 cents a minute, and to win them, what do you do? Take another cent off? There’s no money to play with” (Market-seeker #3).

Customer preferences were not fully established in these markets, and pursuing a cost leadership strategy in this environment was risky since customers tended to prefer high quality products. Since their preferences were still developing, buying quality products provided some certainty in an otherwise still uncertain market to these customers. As a result, customers understood and appreciated quality differences, making price competition less effective.

“But they’re quickly showing that their short cuts in manufacturing don’t work with, to get the design so compact and so lightweight and be as tough as a the Windcruiser is you can’t cut the corners. And there’s a lot of corners that in copying they haven’t understood the design” (Market-seeker #1).

Rivalry provided an opportunity for customers to see the products of the Market-seekers relative to other products, and many Market-seekers used this situation to establish premium products. Once this position of a premium product was reached, they seemed not to be worried about emerging rivals and often welcomed rivalry since it had the capacity to extend the market. Like in the Inventor nexus, the market for the innovative products was not fully developed yet and emerging rivalry helped in publicising the market, creating additional demand. Because of this demand-creating capability of rivalry, some entrepreneurs were even disappointed with the level and the quality of rivalry. They would have welcomed a few more legitimate challenges.

“Once a week we’re learning of new people trying to have a go at the land yacht market, which I’m not too fazed about. I think it would actually be good for stimulating the awareness in land sailing. For us, even have a bit of legitimate competition out there” (Market-seeker #1).

“Unfortunately [the rivals] are doing a poor job, all they’re trying to do is cut in half the income from the same retail side we engage with. They’re not prone to building product” (Market-seeker #3).

### **8.5.2 Communicating quality to become an authority**

The emergence of low cost rivals coupled with malleable customer preferences provided an opportunity to create a market for a premium product. Market-seekers pointed out that their competitors mostly failed to see this opportunity and continued to focus on price. From the perspective of Market-seekers, this type of rivalry was misdirected since it was aimed at competing for current customers and not for future customers or future market position. Market-seekers tried to attain favourable market positions that would allow charging premium prices. This aim was supported, rather than contested, by lower priced competitors, as the quotes below indicate.

“His design is poor, and everything’s based around how cheap you can make it, rather than the user, so there are a couple of flaws with it. So it’s good to have opposition like that, competition like that, that isn’t really end result focussed, or customer focussed like me. ... The more people selling it and creating the category, the better it is for all of us” (Market-seeker #4).

“So, our challenge has been to go after a different set of people. Let everyone have what’s there if they want. Go and grow the market. Sure, everyone wins from it, but hopefully you’ll win the most, and you get good margin on the way” (Market-seeker #3).

Differentiation was difficult to achieve in the Market-seeker nexus, however. Having good quality products resulted in an advantage only if the customers also learned to appreciate the difference. Ensuring that customers learned about this difference was the main challenge for Market-seekers. It became paramount for Market-seekers to communicate product differences in order to justify a more ambitious price point. They needed to continue to educate their customers.

“So there’s a lot of education that frankly costs lots of time and money to educate people what it is that you’re doing” (Market-seeker #4).

“And so it’s a case of creating definitions in the consumer’s minds as to which is the real one, and which is not. That’s the whole marketing problem as you go further down the line, as people [rivals] climb on the bandwagon” (Market-seeker #2).

Market-seekers saw emerging rivals as a mixed blessing. On the one hand, emerging rivals helped in extending the market whilst at the same time providing an opportunity to differentiate in this growing market. On the other hand, there was evidence that entrepreneurs believed that rivalry complicated the education process necessary for building competitive advantage. Rivals diluted the message of the Market-seekers. By focusing on price, rivals created ‘noise’ which further complicated the buying decision. Consequently, this noise did not help rivals in gaining traction in the market, but only confused customers, making it more difficult to compete for all businesses.

“So if you go to the supermarket now you’ll see not just the free range eggs pack, you’ll see a whole lot of other packs. They’re all cheaper and not many of them are really free range. But they’re all out there to confuse the customer” (Market-seeker #2).

“Basically everyone is coming into the market is selling them on price. Okay we are cheaper than this, we’re cheaper than that, you can do this for \$1,500. But they’ve got no facility in there for the events and support that needs to follow the new product” (Market-seeker #1).

Clearly, Market-seekers and their rivals reacted differently to the not-yet-fully-defined preferences of customers. Market-seekers and their rivals started pulling customers in opposing directions, with the former focusing on quality and the latter on price. Most Market-seekers pointed out that insisting on quality worked to their advantage. In their markets, customers were still looking for guidance. They looked for an authority that would provide an anchor point in building new preferences, and many Market-seekers made it their strategy to provide these anchor points.

“We tend to take advantage of that [low cost rivalry], because no one will come out and say what they are. We, you know we actually have taken advantage of saying well we are definitely, we don't do the trimming, and we do this, and we don't do that. So we're able to paint some strong pictures against a very fuzzy background” (Market-seeker #2).

### **8.5.3 Strategic outcomes**

Market-seekers engaged in a very specific type of rivalry: rivalry to educate customers continuously about what their preferences ought to be. In essence, staying ahead of rivals was a marketing challenge. If the entrepreneurial business embraced this challenge, it could become an authority in the market, an authority for both existing and new customers to turn to for guidance when new product features were introduced. Given the limited potential for technological innovation of their respective businesses, Market-seekers created businesses that were experts in delivering additional value based on existing competencies.

The capacity of the business of the Market-seeker to compete effectively depended, to a large degree, on how well it could create, or change, customer preferences. However, changes in customer preferences were caused more by external trends than by the businesses, and Market-seekers became an authority in anticipating, communicating, and taking advantage of these external trends.

## **8.6 Pioneer nexus and the pursuit of competitive advantage**

### **8.6.1 Lacking rivalry**

The competitive environment in the Pioneer nexus offered an entirely different picture. In the preceding analysis, the barriers to entry for emerging rivals tended to be low and, as a result, rivalry emerged frequently in the nexuses of the Pragmatists, Inventors, and Market-seekers. Rivals tended to observe the activities of these entrepreneurs and started to compete with very similar products at a lower price. This was not the case in the Pioneer nexus, and direct rivalry remained absent. Asked whether rivals tried to either copy their products or to develop similar products, they pointed out that direct rivals had been unsuccessful so far, and often did not even try to directly compete with the entrepreneurial business.

“So, you know the world's our oyster, it's not a copycat product. We don't have competition, so it's really a matter of getting out into the world, and taking the product with us” (Pioneer #1.2).

Pioneers often relied on patents to protect their new competencies, presenting an effective tool to keep potential rivals at bay. This importance of patents was largely limited to Pioneers. Entrepreneurs pursuing other types of opportunity occasionally used patents, but they usually became sceptical about whether their patent constituted an advantage over rivals. Many Pioneers, on the other hand, highlighted the importance of existing patents to their business.

“We put a lot of effort into our patents, and protecting our intellectual property. And we actually badged the boat on the very front of it, it has our patent numbers on the back of it. It has the patent numbers when you get the boat, it says patent protected. Our tagline is painted into the amphibious, so we really brag about the fact that it’s patented to scare people off the idea of copying it” (Pioneer #1.2).

“Like I thought there might be patent challenges, for example, and there weren’t. We know there are things like, you know the technologies being copied in China, and you know some of our key component manufacturers have been approached about what we’re doing and things like that. You’d expect that” (Pioneer #2).

Entering the market remained costly for rivals for reasons besides the apparent effectiveness of patents in this nexus. As seen in the previous chapter, Pioneers faced major challenges in getting their product, as well as their business, legitimised. Unlike the nexuses of the Market-seekers or the Inventors, these challenges endured, creating an effective barrier to emerging rivalry. In other words, once the entrepreneurial business attained market legitimacy, it was at a clear advantage over potential rivals. Evidence for the existence of these advantages was plentiful. Pioneer #4 pointed out that the fact that his business became an established industry player created an effective barrier to emerging rivalry.

“So even just the longevity of staying in business is one of the barriers to actually entry and competition in its own right” (Pioneer #4).

Overcoming the initial challenges of legitimising the business and staying in business created a competitive advantage. The same was true for the legitimacy of the product. Once this initial challenge was overcome it created an advantage over emerging rivals. Most Pioneers pointed out that their products reached a status where it became difficult, sometimes even impossible, for rivals to compete. Existing customers played a vital role in this process. First, by using the products, existing customers publicised the product category. Growing interest meant that the business could grow with the market, as in the nexuses of the Inventors and the Market-seekers. However, in the case of the Pioneer, the existing customer base was more important for extending the market and for building competitive advantage than rivals, who, as already discussed, remained absent. Pioneers built on their existing customer base in order

to extend the market. Existing customers often became active advocates of the product, helping in creating a market. Customers became an active sales force.

“We have a product that students love so we now have advocates in the classroom. Whereas before I might have had the purchasing officer at a school, the bursar, the caretaker might have been my advocate. Because I delivered to the expectations they had and now in a class room I have 30 people who are my advocates” (Pioneer #3).

“Oh this [Technology], it’s great, you know they [our customers] are telling us, I’ve seen it, my friend’s got one. So initially it’s very sceptical, and then the more it stays around, and develops, and people see it, then they become, sort of they are supportive So it’s quite a dramatic change” (Pioneer #1.1).

Pioneers were aware that they already had an advantage over rivals. However, what was needed for the business to succeed was that the understanding of the customers about the benefits of their products turned to their favour. At first, these entrepreneurs did not need to seek an advantage. It was already there, resulting from having a legitimate product and a legitimate business, provided that customers become aware of the benefits of their products.

“So we are just seeing an explosive growth in the requirement for what we do. That is in some ways driven by, driven by an understanding of the area that we work in and the ability to create revenue from it” (Pioneer #4).

“But you know I think we’re having a good run but I think the planets haven’t even aligned yet” (Pioneer #2).

### **8.6.2 Emerging technologies and the future of the Pioneer**

Connell (2004) argues that start-ups can be positioned on a spectrum between ‘hard’ and ‘soft’ start-ups. Whilst hard start-ups are characterised by speculative product development intended to eventually serve a mass market or a specialised niche, soft start-ups develop around the demands of some initial customers. Pioneers started very close to the hard side of this spectrum, but overcoming the obstacles of a hard start established a competitive advantage. Robinson and Min (2002) found that technological Pioneers face high uncertainties at first, but that they are rewarded with a strong first mover advantage once the technology has become established. The evidence presented here confirms these findings as the hard start creates an effective barrier to market entry in the Pioneer nexus.

Some Pioneers pointed out that those advantages may also be transient. Because of the competitive advantage of having a legitimate business as well as a legitimate product, rivals were largely discouraged from competing directly. However, this did not mean that the

market of the Pioneers was entirely uncontested. Despite the absence of direct rivalry the advantage of the entrepreneurial business could still be eroded by future rivals. Most Pioneers prepared for rivals that may have emerged in the future. They were motivated to innovate by potential rather than actual rivalry.

Like many other entrepreneurs, Pioneers were not concerned that their products would be copied. Instead, they prepared for emerging rivals who would compete using different technologies. Once established, these new competencies could have the capacity to make irrelevant the competitive advantage of the entrepreneurial business. In other words, whilst entrepreneurs engaged in the other three nexuses had no difficulty in identifying their direct rivals, because these tended to compete in the same markets and with similar competencies, Pioneers tended to compete against emerging, and often unknown, technologies rather than direct rivals. These entrepreneurs innovated so that their products became industry standard before alternative technologies could emerge.

“We need to keep producing break through products for schools. ... And our attitude, we haven’t finished this, we are not nearly half way there. We know that we make a difference and so we enjoy what we do. And how many children are there in the world? And let’s stick to a niche and let’s be bloody world class in a niche” (Pioneer #3).

“We run the risk of competition overtaking us. Even the people who are now doing optical like we’re doing optical or similar ways are overtaking us” (Pioneer #2).

### **8.6.3 Strategic outcomes**

In the Pioneer nexus, entrepreneurs built a business around competencies and aspired to become industry leaders. Innovation could never occur fast enough since the strength of the business depends upon its capability to ‘accelerate away’. Pioneers needed to build a pioneering business by constantly pushing the boundaries of what was technologically possible. Whether or not customers actually needed all the features of innovation was often irrelevant. The primary function of innovation was to demonstrate the capabilities of the entrepreneurial business.

Unlike the other types of entrepreneurs, Pioneers built competencies in a response to potential and not actual rivalry. They did so because they believed that one technology would eventually end up being the industry standard. This was a different type of rivalry. Whilst all other entrepreneurs referred to a rivalry between companies, these entrepreneurs pointed out that they had to engage in technological rivalry. Staying ahead of potential rival technologies

was costly, and thus most Pioneers invested heavily in R&D. In order to recuperate this investment, the businesses needed to scale. Hence, Pioneers often considered selling the business in order to achieve continued business growth.

“In five years time someone else will own it. We would hope that someone else will own it, there will definitely be ongoing employment in New Zealand from a both a development prospective and a sales prospective” (Pioneer #1.1).

“Realistically, probably not going to be in New Zealand. Because we’re now private equity venture capital owned, they’ll be looking for an exit. The most likely exit is trade sale or listing overseas. Which is a tragedy I think but realistic” (Pioneer #2).

Indeed, since the completion of the fieldwork, both of these businesses were sold to large overseas investors, underscoring the initial suspicion that Pioneers often envisage a change in ownership in order to take full advantage of the competencies. Moreover, as seen in chapter 6, selling the business also suited their personal preferences. Hence, there often exists a good fit between the Pioneer as a person, the opportunity pursuit, and the competitive strategy necessary for building a competitive advantage.

## **8.7 Concluding comments**

This chapter set out to answer the question of how entrepreneurs respond to emerging competition in the four types of individual-opportunity nexuses. Based on the literature, both the emergence of competition, as well as its negative consequences, were expected. However, as intuitive as both of these expectations were, neither held true when considering all four nexuses. Direct rivalry was more noticeable in three, but not in the Pioneer nexus. As a result of the difficulties in establishing a business and the product in the marketplace, Pioneers were sheltered from direct rivalry. In the other three nexuses, direct rivalry commonly emerged.

Rivalry from imitators affected the four types of innovative ventures differently. In the Pragmatist nexus, emerging rivals caused price competition. Barriers to entry tended to be low and entrepreneurs saw rivalry as harmful. New entries were a threat that constantly exerted pressure on profits. In contrast, rivalry was less intense for Inventors and Market-seekers. Rivalry emerged far less forcefully, and the effects of rivalry were less detrimental to the business. Building on the findings of the previous chapter, this chapter has argued that although entrepreneurs opened up the market for new products, barriers to entry often remained intact. Despite the initial success of the entrepreneurs, it remained difficult for rivals to establish the product (Inventors) or the business (Market-seekers) in these nexuses.

Furthermore, Inventors and Market-seekers often perceived the market entry of rivals as helpful. As this chapter demonstrated, direct rivalry was not a direct challenge to the legitimacy of the business in these nexuses, but had two positive effects. At first, rivalry helped in extending, or better legitimising, the entire market. Here, the nexuses of the Inventors and the Market-seekers differed. Whilst rivalry extended the market of Market-seekers because rivals increased the legitimacy of the product category, rivals of the Inventors increased the awareness of new competencies. Second, emerging rivalry provided an opportunity to differentiate, and to build competitive advantage for both types of innovative ventures.

Direct rivalry remained rare in the Pioneer nexus. The absence of an existing product category and the use of new competencies made it difficult to establish the product as well as the business in the marketplace. Coupled with more effective patents, this had the capacity to shield the entrepreneurial business from direct rivals. However, the threat of potential competition remained. The businesses of the Pioneers had to consciously innovate to maintain the status of being at the forefront of cutting edge technology.

The respective strategies used by entrepreneurs engaged in the four nexuses to stay ahead of their rivals (Pragmatists), use rivalry to their advantage (Inventors and Market-seekers), or to prepare for potential rivalry in the future (Pioneers) have also been discussed. Let us begin with the Pragmatists. Since competencies as well as customer preferences were given, rivals tended to compete with very similar products; they were clearly reproducers in these nexuses. For them, market entry was not a challenge, and since the idea had been established in the market, reproducing it was not overly problematic. The environment of the Pragmatist thus came the closest to the neo-classical assumptions about perfect competition and homogeneous goods. Considering this similarity to the assumptions, it was unsurprising that the Pragmatist nexus was characterised by the fierce price competition described in these models.

In contrast to economic theory, Pragmatists did not engage in this sort of price competition but focused on differentiation. The problem was that differentiation would be sustainable only if it was not based on current competencies or understandings of customer problems since this could again be replicated. For this reason, Pragmatists started to differentiate on customer values rather than product features. They strived to create a cult or a clan around their businesses to shield it from lower-priced rivals.

Creating a clan required that these businesses become specialised towards a particular type of customer. The aim was to embed the transaction socially and to avoid the anonymous market. Granovetter (1985) argued that all economic activity is socially embedded. However, by social structure, he refers to pre-existing social structure influencing market transactions rather than vice versa. By taking a transaction from a more market-like domain into the social domain, Pragmatists accomplished the reverse. They strategically embedded the transaction into social structure. This was accomplished by constantly highlighting that the business was a friend that not only understood the needs of customers but that also appealed to deeper values. However, socially embedding transactions in this way also had a negative aspect. Since Pragmatists oriented the business radically towards a specific customer group, they started constraining its future potential. Being closely aligned with the values of customers created a competitive advantage whilst at the same time limiting the customer base. This gave rise to a dilemma. The more specialised the businesses of the Pragmatists became, the fewer customers they would appeal to.

In the Inventor nexus, rivalry provoked an entirely different dynamic. Once the initial monopoly eroded, Inventors invested in building up new competencies to stay ahead. However, rivalry was not merely competency based. From the perspective of the Inventors, emerging rivals often wrongly believed that innovation would yield a competitive advantage. They frequently pointed out that innovation needs to be simple or it is likely to be rejected. Simplicity demonstrated competencies in this market, and entrepreneurs were not overly worried about rivals who failed to understand this reality. Instead, many entrepreneurs pointed out that rivalry tended to promote their products, since customers of rivals eventually became their customers as they gravitated towards the technical expert in the market.

In the Market-seeker nexus, emerging rivals served a crucial function in that they helped to create a product category. From the perspective of Market-seekers, rivalry was needed to convince customers that the products within this yet-to-be-established market were worth having. However, since customer preferences were not defined, entrepreneurs had an opportunity to differentiate their products by consciously educating their customers about what their needs ought to be. Market-seekers pointed out that they could not educate customers singlehandedly. They often relied on the emergence of a major trend to make their products more appealing to the mainstream customer. Once the products had migrated to the mainstream market and obtained their own product category, Market-seekers maintained their competitive advantage by being an accepted authority on customer preferences.

Finally, Pioneers needed to keep innovating to stay ahead of potential competition. The absence of direct rivalry appeared to be a problem in that the Pioneers could not rely on this assistance in building the market as did the Inventors or the Market-seekers. Pioneers had to build the market themselves. Even though they were without direct rivals, they were not without competition. This emerged between alternative technologies. However, emerging technologies were difficult to foresee and Pioneers were very uncertain as to what the future competition was going to be. To mitigate this uncertainty, these entrepreneurs invested heavily in innovation. This investment in the future was necessary to ensure that the technologies became widely accepted.

In this process, Pioneers were in danger of new technologies eroding their advantage. To build an advantage, they continued to push the boundaries of what was technologically possible, creating the potential to become leaders in their markets. Table 8.1 summarises the findings of this chapter.

Figure 8.1: Overcoming legitimacy challenges and the four nexuses

<b>Unexpressed customer need</b>	<p style="text-align: center;"><b>Market-seeker nexus</b></p> <p><b>Preferences of customers:</b> Not defined  <b>Demands of customers on innovation:</b> Customers prefer products that define new quality standards  <b>Level of rivalry:</b> Modest  <b>Effects of rivalry:</b> Helps developing the market, the business can grow the market</p> <p><b>Pressure on business:</b> Become quality leader  <b>Competitive advantage:</b> Customer education – educating and re-educating customers about their preferences  <b>Specialisation:</b> Market  <b>Aim of the business:</b> To become an authority</p>	<p style="text-align: center;"><b>Pioneer nexus</b></p> <p><b>Preferences of customers:</b> Not defined  <b>Demands of customers on innovation:</b> Customer prefer products and companies that define technological standards  <b>Level of rivalry:</b> Very rare  <b>Effects of rivalry:</b> Helps to define the market, but there will only be room for very few businesses in the future  <b>Pressure on business:</b> Radical innovation  <b>Competitive advantage:</b> Innovate faster than everybody else</p> <p><b>Specialisation:</b> Technology  <b>Aim of the business:</b> To become a leader</p>
	<b>Expressed customer need</b>	<p style="text-align: center;"><b>Pragmatist nexus</b></p> <p><b>Preferences of customers:</b> Fully defined  <b>Demands of customers on innovation:</b> Innovation needs to suit customer preferences and values  <b>Level of rivalry:</b> Intense  <b>Effects of rivalry:</b> Price pressure – increased pressure on operational efficiency  <b>Pressure on business:</b> Reduce price and/ or to align with customer  <b>Competitive advantage:</b> Storytelling and building a strong fellowship – total adaption to customer needs and values  <b>Specialisation:</b> Customer  <b>Aim of the business:</b> To become a friend</p>
		<b>Existing competencies</b>

## **CHAPTER 9: DISCUSSION**

### **9.1 Introduction**

This chapter serves two purposes. First, it discusses the insights generated by the research with regard to the research questions, as well as how these new insights relate to existing knowledge. The second aim is to summarise the results of this study. To accomplish these aims, the chapter is organised as follows.

Section 9.2 argues that there are notable differences in prior knowledge and motivation between the individuals who discover and subsequently exploit the four distinct types of opportunities developed in the study. So far, categorisation of nexuses between individuals and opportunities has only very rarely been attempted (e.g. Fortunato & Alter, 2011). In this study, it was possible to identify four distinct types of these, namely those of the Pragmatist, the Inventor, the Market-seeker, and the Pioneer. Section 9.3 builds on this typology of individual-opportunity nexuses to examine how entrepreneurs interact with their environment. In particular, this section outlines different strategies used to legitimise innovative ventures in their respective environments. It also links the results to processes of institutionalisation. Section 9.4 takes further the interaction between the entrepreneur, the venture and the environment by discussing the individual attitudes towards emerging rivalry and the strategies used to build a competitive advantage.

### **9.2 Entrepreneurs and innovative ventures**

#### **9.2.1 Individuals and opportunities**

Relating the findings of chapter 6 to the existing literature reveals that a more differentiated view of the individual-opportunity nexus yields a number of valuable insights. It has been demonstrated that, depending on their backgrounds, individual entrepreneurs recognise, and subsequently exploit and develop, different market opportunities. There exists a fit between the individual knowledge, the motivation, and the opportunity one engages in. This study provides further insights into the nexus between individuals and opportunities by pointing out why certain types of opportunities were exploited by some individuals and not others.

Let us begin with prior knowledge. In one of the first studies to thoroughly examine the role of prior knowledge, Shane (2000) pointed out that, in particular, the knowledge of markets, customer problems, and ways to serve the market, lead to the discovery of

entrepreneurial opportunities. In addition, Ucbasaran et al. (2008) highlighted that practical start-up experience matters in the entrepreneurial process. This importance of prior start-up experience was also highlighted by research investigating elements of entrepreneurial expertise. The work of Sarasvathy and colleagues (Dew & Sarasvathy, 2002; Sarasvathy, 2004a) on effectuation provides further evidence that prior start-up experience improves not only practical skills but also the cognitive ability of entrepreneurs. As elaborated earlier, since previous entrepreneurial activity encourages effectual thinking, experienced entrepreneurs will differ from inexperienced ones.

Much of this previous research can be confirmed in this study. Many commonly used categories of prior knowledge influenced the discovery and exploitation of opportunities by the participants of this study. Entrepreneurs did not embark on opportunities they knew nothing about and different types of prior knowledge were important for the creation of innovative ventures. This study provides insights about the relative importance of different types of individual prior knowledge for the type of opportunity pursued for the nexuses identified. In establishing this link, the study provides a more balanced view on the relevance of prior knowledge for the pursuit of opportunities to create innovative ventures.

By explicitly considering the context of entrepreneurial activity as suggested by Gartner (2001), Fletcher (2007), and many others, this study identified four linkages leading to the creation of innovative ventures. First, knowledge about concrete customer problems gained through exposure to potential customers encourages individuals to pursue the path of the Pragmatist. Second, new technological knowledge, coupled with limited knowledge about a potential market for this technology brings individuals onto the path of the Inventor. Often, these entrepreneurs develop new technological knowledge to satisfy a personal need, or that of an initial customer, rather than a market. In contrast, individuals who possess and mobilise general knowledge about markets gained through previous sales experience tend to become Market-seekers. Because specific knowledge about the market is unavailable for entrepreneurs trying to satisfy an unexpressed need, they often rely on general knowledge about markets. Finally, Pioneers tend to deploy very limited market-specific or technological knowledge. What they do know, however, is how to run companies, since they were usually involved in managing a business previously. Table 9.1 summarises these findings.

**Table 9.1: Types of prior knowledge used in the four nexuses**

<b>Prior knowledge about</b>	<b>Customer problems</b>	<b>Means to serve the market</b>	<b>Markets</b>	<b>How to run a company</b>
<b>Pragmatists</b>	Most critical – Most of the entrepreneurs experienced problem themselves	Was publically available to a large degree	Knowledge about markets in general was often absent	Some knowledge.
<b>Inventors</b>	Often limited – They were themselves the customer and found out about customer preferences later	Most critical – Most of them started with a genuine invention	Very rarely	Very rarely. Mostly focused on product
<b>Market-seekers</b>	Anticipated problems customers should perceive rather than actual problems	Was publically available to a large degree	Most critical – Sales background made them aware of latent customer needs	Some knowledge
<b>Pioneer</b>	Knowledge rarely available	Knowledge rarely available. Some intellectual property existed, but it was often unclear how this should be utilised	Yes, but linked to knowledge about how to run a company	Most critical – Individuals became involved because they knew how to manage businesses

Dimov (2010) reported a positive effect of previous industry experience on entrepreneurship. He also pointed out that additional research would greatly benefit from gaining a deeper insight into what aspects of industry knowledge drive entrepreneurial endeavours, indicating that there are still some unanswered questions regarding the role of prior knowledge in entrepreneurship. This study provides new insights into this issue. The summary in Table 9.1 confirms that the concepts of prior knowledge currently used in the extended literature of the field play an important role in explaining why some people pursue entrepreneurial opportunities while others do not (Marvel & Lumpkin, 2007; Shane, 2000; Westhead, Ucbasaran, & Wright, 2005). However, what needs to be challenged, based on the data presented, is the frequent lack of connection between the type of knowledge used and the type of opportunity identified: in other words, the lack of an individual-opportunity nexus. This study has not only demonstrated that prior knowledge matters, but how it matters for different opportunities.

Samuelsson and Davidsson (2009) rightfully criticised the existing bias towards imitative entrepreneurship in studies examining the role of prior knowledge. Here, the study provides additional insights into the role of different types of prior knowledge in the process of innovative venture creation. Since the common bias towards imitative ventures in previous studies was effectively eliminated by focusing on innovative ventures, these findings have

some predictive power. Based on these findings, it would be plausible to predict what type of opportunities individuals are most likely to engage in given their previous experience. This study confirms existing theory for the case of innovative ventures arguing that, in particular, the prior knowledge of individuals represents a strong predictor for the type of opportunity pursued.

Entrepreneurs rely either on knowledge about markets (either specific knowledge about demand or supply or general market knowledge) or on knowledge about how to run companies. This reveals another interesting fact. In all nexuses, innovative entrepreneurs avoid the combination of two unknowns in their pursuit of opportunities. Except for Pioneers, entrepreneurs pursue opportunities using specific knowledge about a market, either its demand or its supply side. Given that this knowledge is unobtainable in the nexus of the Pioneers, they tend to compensate for the lack of market knowledge by using their business knowledge.

Previous research has shown that prior business experience influences business growth. Business knowledge drives growth and internationalisation. Individuals possessing business knowledge are frequently found to pursue growth more aggressively by building international markets for their ventures (Ruzzier, Hirsch, & Antoncic, 2006). This research has shown that entrepreneurs possessing prior business experience tend to pursue opportunities with more growth potential to begin with, making the type of opportunity an important mediator for the discussion of business growth.

Whilst these clear linkages between individual knowledge and opportunities pursued have provided important insights into the individual-opportunity nexus, there is still the need to discuss the mechanisms that encouraged individuals to use their knowledge to embark on innovative ventures. The following discussion sets out to uncover these mechanisms by looking at the individual motivation for getting involved.

### **9.2.2 Initial motivation and subsequent venture growth**

Similarities and differences in the motivation of those individuals pursuing opportunities to create innovative ventures were also identified by investigating the four types of individual-opportunity nexuses. A number of similarities stand out. Most innovative entrepreneurs were not motivated primarily by financial gains, as suggested by research in the economics

tradition. When they started out, profitability was not so much a measure for business success as it was a proof of its financial viability. This proof was important for innovative entrepreneurs. They took the risk of starting their ventures by selling innovative products, and making a profit showed that they rightly took this gamble.

Achieving financial viability for an innovative venture was thus a different type of profit orientation. Whilst profit orientation is traditionally seen as driving entrepreneurs towards profit maximising, most innovative entrepreneurs were more survival orientated, at least initially. This finding extends the importance of non-profit maximising goals in entrepreneurship (Hessels et al., 2008; van Gelderen & Jansen, 2006) to the study of innovative ventures. However, at the same time, it raises the question of why entrepreneurs created innovative ventures, if not for financial reasons.

Reynolds et al. (2005) distinguished ‘pull’ and ‘push’ motives as the drivers for entrepreneurship. Whilst pull motives result from opportunity for gain, push motives are the result of necessity. Given this typology, entrepreneurs in this study were mostly pulled into innovative entrepreneurship. However, pull did not always originate from profit opportunities. The study reveals four distinct pull mechanisms depending on the type of individual-opportunity nexus, namely the career-pull, the customer-pull, the financial-pull, and the identity-pull.

‘Career-pull’ best describes the path of Pragmatists who founded innovative ventures in hope of better career prospects. For them, being an entrepreneur meant climbing the career ladder and increasing their social status. Initially, Pragmatists appeared to be pushed into innovative ventures. This was not the case, however. Pragmatist entrepreneurship was often a response to diminishing job opportunities, seen as an indicator for a push into entrepreneurship. Moreover, their financial growth objectives often remained modest, a fact also commonly associated with necessity entrepreneurship (Davidsson, 2005a). However, entrepreneurs were not necessity-driven in the sense that they start businesses to make a living. They started their businesses because they had greater ambitions than the job-market can cater for.

‘Customer-pull’ is the second pull mechanism identified as leading to the creation of innovative ventures. Customer-pull was very common among Inventors, who are usually more passionate about solving a problem than pursuing an opportunity. Over time, the business developed as a result of a need to solve this problem for an increasing number of

customers. As the data have indicated, customers rather than the entrepreneur finally drove business growth since it was in their personal interest that the products became commercialised. As a result, Inventors were often somewhat accidental entrepreneurs, and opportunities tended to come to them instead of being actively pursued. It should be noted, however, that whilst customers drive product commercialisation, the original product idea resulted from a personal interest in finding a solution for a particular problem rather than by having a particular customer in mind.

‘Financial-pull’ is the third mechanism pulling entrepreneurs into creating innovative ventures; it is Market-seekers who pursue financial gain. For them, creating an innovative venture presented a new opportunity to profit from an existing technology. Like much of the entrepreneurship literature would suggest, these entrepreneurs held different future expectations about the value of resources and acted upon their environment to make a financial profit.

‘Identity-pull’ is the final pull mechanism uncovered in this study. This mechanism is common amongst Pioneers who were often pulled by an opportunity to further strengthen their identity as entrepreneurs. They engaged in these opportunities to create a business capable of leaving a lasting legacy which, in turn, reflected positively on their identity. Pioneers wanted to be recognised as entrepreneurs and pursuing their opportunities provided the prospect of achieving this recognition. Financial gain, in contrast, is not very important for pulling these individuals into entrepreneurship.

Differences in the pull-mechanisms between the four types of nexuses persist, influencing not only opportunity recognition and a decision to start the business, but also the future growth intentions of the entrepreneurs. Currently, the argument in the literature revolves more around general attributes of the entrepreneur such as education or start-up experience, or business related variables such as past growth, to predict future growth aspirations (Hessels et al., 2008). The evidence presented in this study, however, suggests that the initial individual-opportunity nexus influences the future growth possibilities of the business.

As the businesses grew, most entrepreneurs arrived at a point at which the managerial or financial demands of the business outgrew their capabilities. This situation gave rise to a dilemma. The entrepreneurs had to make a decision either to continue to foster business growth at the expense of control, or to retard growth to retain control. The evidence presented

in this study indicates that the initial pull mechanism influences how this dilemma became resolved. The link between initial motivation and growth aspiration has already received some attention in the literature. Kolvereid (1992) found that a relationship between initial motivation and growth aspiration exists amongst Norwegian entrepreneurs, although this relationship is rather small. This indicates that other important concepts influencing the relationship remained undiscovered.

This study indicates that one of the underlying factors influencing individual decisions about business growth is the way in which entrepreneurs see their involvement in the business. Bellah et al. (1986) argued that individuals hold one of three orientations towards their work. First, for those with a job orientation, work is a means to provide a livelihood for themselves and their families.<sup>12</sup> People holding a job orientation towards their work are interested only in material benefits. Work is a means to an end, enabling individuals to enjoy their personal lives. Second, individuals can also see work as a career and are often motivated by personal advancement. Those with a career orientation have a deep personal investment and a focus on advancement within their social or occupational structure rather than pure momentary gains. While these individuals aim at enhancing their social status through their work, their working life remains separated from their personal lives. Finally, echoing Weber (1930 [1904]), work can also be a calling.<sup>13</sup> When viewed as a calling work has a personal, and often a social, significance and tends to provide a sense of purpose or personal fulfilment in life (Pratt & Ashforth, 2003).

Looking at the entrepreneurs featured in this study, the typology provided by Bellah et al. (1986) is useful for understanding the individual orientation towards entrepreneurial projects and how this attitude influences results. The first category would imply that entrepreneurs would consider running a business as a 'job'. In spite of Wrzesniewski, McCauley, Rozin and Schwartz's (1997) convincing argument that all three types of orientations can be found in any profession, none of the entrepreneurs in this study treated running the business simply as a job. Initially, the absence of this type of work orientation was a surprise.

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<sup>12</sup> This type of orientation towards entrepreneurship certainly has some overlap with 'necessity' entrepreneurship.

<sup>13</sup> For Weber, the term 'calling' had clear religious connotations. However, more recently the idea of using 'calling' as a concept to describe individual orientations towards work has been developed into the secular terrain (e.g. Hall & Chandler, 2005).

On second thoughts, however, the absence of this type of work orientation became more intuitive. Entrepreneurship as a job corresponds very well with what has been labelled ‘necessity entrepreneurship’ in the entrepreneurship literature. Necessity entrepreneurship is needs-based and the types of businesses formed often provide very limited growth potential (Reynolds et al., 2005). The focus on innovative entrepreneurship in this study has most probably led to an exclusion of purely necessity-driven entrepreneurship. As pointed out earlier, unemployment and lack of attractive employment opportunities often play a significant role in the decision of individuals to become involved in entrepreneurial projects. However, with the prestige and the growth opportunities that come with running an innovative business, the ‘job’ very quickly turns into a ‘career’.

Many entrepreneurs in this study were, in fact, career entrepreneurs, and since running the current business was their professional career, control over the business was of utmost importance, equivalent to exerting control over their own career. When career entrepreneurs faced the growth-control dilemma, their preferences were with control, and they happily restricted growth to what was manageable for them. Even if the business had the opportunities and competencies to grow, entrepreneurs preferred to decide the pace and direction of growth themselves, the degree to which they saw personal involvement in the current business as a career strongly influencing growth preferences.

Most obvious in the Pragmatist nexus was that the original pull mechanisms influenced career orientation. However, a career orientation also developed frequently in the Inventor nexus. Whilst customers tend to pull Inventors into different markets, entrepreneurs soon realised that business growth also tended to pull them away from what they were trying to accomplish, namely to build great products. In both these nexuses excessive business growth compromised the original ambitions of the founders. This was not the case in the nexuses of the Market-seekers and the Pioneers. They became involved either to make a profit, or because they wanted to build their identity as entrepreneurs. For most of them, being in charge of the current business was a means to an end, not a career in itself. Growing the business allowed them to achieve their original goals.

The present study thus shows that the nexus between the individual and the opportunity is resilient, and plays a vital role in influencing the development of a career focus, and in turn, growth preferences. Resolving the control-growth dilemma in the four nexuses falls largely into two camps. On the one hand, Pragmatists and Pioneers show a

balance between their growth preferences and growth opportunities. Whilst Pragmatists are satisfied with having a small, profitable business, however, Pioneers prefer to operate in high growth environments. While the former group is comfortable with focusing on control, the latter are at ease with business growth and its consequences.

This balance between individual growth preferences and opportunities is absent in the second camp, where either the individual ambitions (in the case of the Inventor) or the growth opportunities (in the case of the Market-seeker) restrict the growth of the business. Wiklund and Shepherd (2003) derived a typology of a misfit in business growth between environmental opportunities and the entrepreneurial business. They distinguish between those that are ‘constrained’ by the availability of external opportunities and business that show ‘unused potential’ as a result of a lack of growth aspirations on the individual level. Applying this typology to the Market-seekers and the Inventors, it becomes obvious that the former are best described as constrained and the latter as unused potential businesses.

Much of the literature on barriers to growth highlights the importance of personal ambitions and aspirations (Hessels et al., 2008; Kolvereid, 1992; Lee & Venkataraman, 2006; Wiklund & Shepherd, 2003). Both ambition and aspiration suppose an orientation towards specific goals, and differences in goals lead to differences in firm performance. Consequently, a lack of growth is frequently associated with the absence of appropriate goals (Coskun & Altunisk, 2002). This study has added to our understanding about the origins of these differences in the goals of entrepreneurs. Given evidence that entrepreneurial ambitions matter for firm performance, insights into why differences in ambitions exist in the first place has both theoretical appeal and practical relevance.

## **9.3 The issue of legitimacy**

### **9.3.1 Legitimation strategies**

The first task of the entrepreneurs was to legitimise the innovative venture in the marketplace. Legitimacy challenges in the development of innovative ventures were expected from the outset of this research, based on previous work in economic sociology as well as the sociology of markets concerning the legitimacy of new artefacts and ideas. Sarasvathy and Dew (2005) argued that entrepreneurs often face a significant amount of risk given that their actions are not entirely supported by existing institutional surroundings. This study shows that innovative ventures face various challenges to their legitimacy. Organisational theorists

have long argued that achieving and maintaining organisational legitimacy is crucial for the business to fit into society.

For the study of young organisations more particularly, Stinchcombe (1965) articulated the concept of the liability of newness, arguing that young organisations are less likely to survive as they are not fully embedded in society. Liability of newness arises from the need to build up internal processes and to form relationships with external as well as internal stakeholders (Singh et al., 1986). At the same time, young organisations usually lack resources or power which could help to improve their market position (Geroski et al., 2010; Romanelli, 1989). Finally, trust as an alternative to market governance is also rarely an option for young firms. Kor and Misangyi (2008) found that this lack of trust can be mitigated by relying on external directors, whose reputation and experience can supplement the endowments of the young venture.

Entrepreneurship research often focuses on regulative legitimacy, which is commonly achieved by creating a business as a legal entity (Gartner, Davidsson, & Zahra, 2006; Reynolds et al., 2005). The evidence presented indicates that this focus might be mistaken, particularly in the case of innovative ventures, where creating a legal entity was indeed not a challenge. Instead, in line with Zimmerman and Zeitz (2002), the evidence presented in this study suggests that businesses often need to gain cognitive legitimacy in the marketplace in order to survive, since without this they might become alien in its targeted market. Shepherd and Zacharakis (2003) rightly suggest that cognitive legitimacy is gained primarily through increasing the customers' knowledge of the product, the management team, and the organisation. Moreover, the authors suggest that the customers' product knowledge is generally most important for the purchasing decision, followed by knowledge about the management team and, to a lesser extent, knowledge of the organisation. However, the issue of whether or not all new businesses need to gain cognitive legitimacy remains unresolved.

This study has focused on how entrepreneurs can overcome the liability of newness of innovative ventures by gaining legitimacy for their products as well as their businesses in four different individual-opportunity nexuses. The results suggest that there are very distinct challenges for entrepreneurs in legitimising their ventures, depending on the type of opportunity pursued. Given this evidence, this study presents a more differentiated view of (a) the challenges of legitimacy faced by innovative ventures, and (b) the processes through which legitimacy of innovative ventures is reached. Moreover, based on this knowledge, a number of strategy recommendations can be made.

Overcoming the liability of newness and achieving legitimacy for an innovative venture requires suitable strategic action. Legitimacy challenges were rare in the Pragmatist nexus, since the business and the products were closely aligned with existing customer preferences; in contrast to Aldrich and Fiol's (1994) argument, challenges to the legitimacy of innovative ventures can be avoided. To legitimise their venture, Pragmatists needed to ensure that the business and the product remain aligned to existing customer preferences. In other words, the strategy of the Pragmatists had to be to avoid challenges to legitimacy rather than to overcome them.

Previous research has already documented the process of organisational alignment to existing institutions. DiMaggio and Powell (1983) argue that organisations have a tendency to align to social norms in order to remain competitive. Challenges to legitimacy are thus effectively reduced (Nicholls, 2010). Suchman (1995) points out that organisations can achieve cognitive legitimacy from their immediate audience by conforming strictly to existing beliefs. There is thus a comparatively low degree of liability of newness, since the innovation of Pragmatists was more compelling, given current customer expectations. The legitimisation of the business of the Pragmatists starts with the diffusion of the innovative products (Greenwood et al., 2002; Johnson et al., 2006). No change in the market is required to gain product legitimacy, and the entrepreneur needed only to inform customers to accelerate the diffusion of the products.

For the other three types of individual-opportunity nexuses, however, the situation is somewhat different. These entrepreneurs faced distinct legitimacy challenges as their success depends upon a change in the behaviour of their customers, who need to accept new understandings about what is considered valuable, what business to trust, or a combination of the two.

In the Inventor nexus, entrepreneurs need to focus on the local validation of the business in order to overcome legitimacy challenges posed by the nexus in which they are involved. When they start out, their innovative products are highly desired since they fit well into established product categories and provide better value than alternative solutions within those categories. Innovation has the status of what can be called 'latent normative legitimacy', meaning that customers consider innovation legitimate, and are willing to support it, provided it is possible. The products have legitimacy even before they have been brought to the market in the Inventor nexus. In fact, customers often actively approach

Inventors and foster commercialisation, resulting in an accidental rather than strategic diffusion of innovation.

Whilst the products of the Inventors possess latent normative legitimacy, the legitimacy of the entrepreneurial venture is frequently questioned. Many Inventors had to take action to fully legitimise their venture in the marketplace. Building a reputation for the business stands between the innovative business and the diffusion of its products in the marketplace. To signal that the business is a reputable business partner, entrepreneurs often leverage off their existing customer base. However, achieving legitimacy for the innovative venture does not require institutional entrepreneurship, since changes in customer values and preferences are unnecessary.

This positive effect of building a reputation for the business has frequently been highlighted as a major factor contributing to organisational legitimacy; the work of Fombrun (1996) provides some insight into this matter. The author defines a company's reputation as a "...perceptual representation of a company's past actions and future prospects that describe the firm's overall appeal to all its key constituents when compared to other leading rivals" (Fombrun, 1996, p. 72). In his study of the American automobile industry, Rao (1994) found that a company's reputation is the outcome of the legitimisation process and businesses build reputational capital by being in business. In contrast, Inventors needed to build reputational capital first. Legitimacy in the marketplace was achieved only after reputational capital had been built. Some prior research has already alluded towards the possibility of this causality. Deephouse and Carter (2005), for instance, found that reputational capital helps to overcome the liability of newness. Through their work, the authors demonstrated that reputation building is a critical component of the legitimisation process.

Moving on to the Market-seeker nexus, it becomes apparent that the liability of newness of these ventures is less pronounced. Customers are willing to neglect the lack of track record of the business because Market-seekers use existing competencies to innovate. However, customers question the legitimacy of innovation which does not fit into any existing product categories. Before the innovation can diffuse in this nexus, it needs to gain

normative legitimacy.<sup>14</sup> Customers need to start believing that buying the innovation is the right thing to do, and to consider it valuable.

Gaining normative legitimacy is difficult. Market-seekers typically had to build a new product category which required them to educate customers about the benefits of innovation. As existing theory would suggest, the legitimacy of innovation is gained through institutionalisation (Humphreys, 2010). The utility of innovation needs to be institutionalised, which requires that customers learn to appreciate the benefits of the entire product category. It is often necessary for customers to discard old beliefs and learn to appreciate the utility offered by new products. This process first required de-institutionalisation of existing beliefs, which often had already started through ‘precipitating jolts’, such as changes in the economy, regulatory changes, or new knowledge, triggering customers to question some of their existing preferences. What is needed is to further educate customers into questioning existing beliefs, based on these precipitating jolts, to shape their future preferences.

In the Pioneer nexus, the entrepreneurs themselves needed to bring about the precipitating jolts – those events that challenge existing expectations about products and or businesses operating in their markets. Pioneers needed to create a buzz. To achieve this, two things are paramount, namely technological viability (Greenwood et al., 2002), and initial customer validation. Initial customers can provide evidence of viability and validation, but they are difficult to identify in the first place. Pioneers usually overcome this challenge in securing their initial customers through lighting fires, a strategy aiming at finding customers who have very little resistance to the new product.

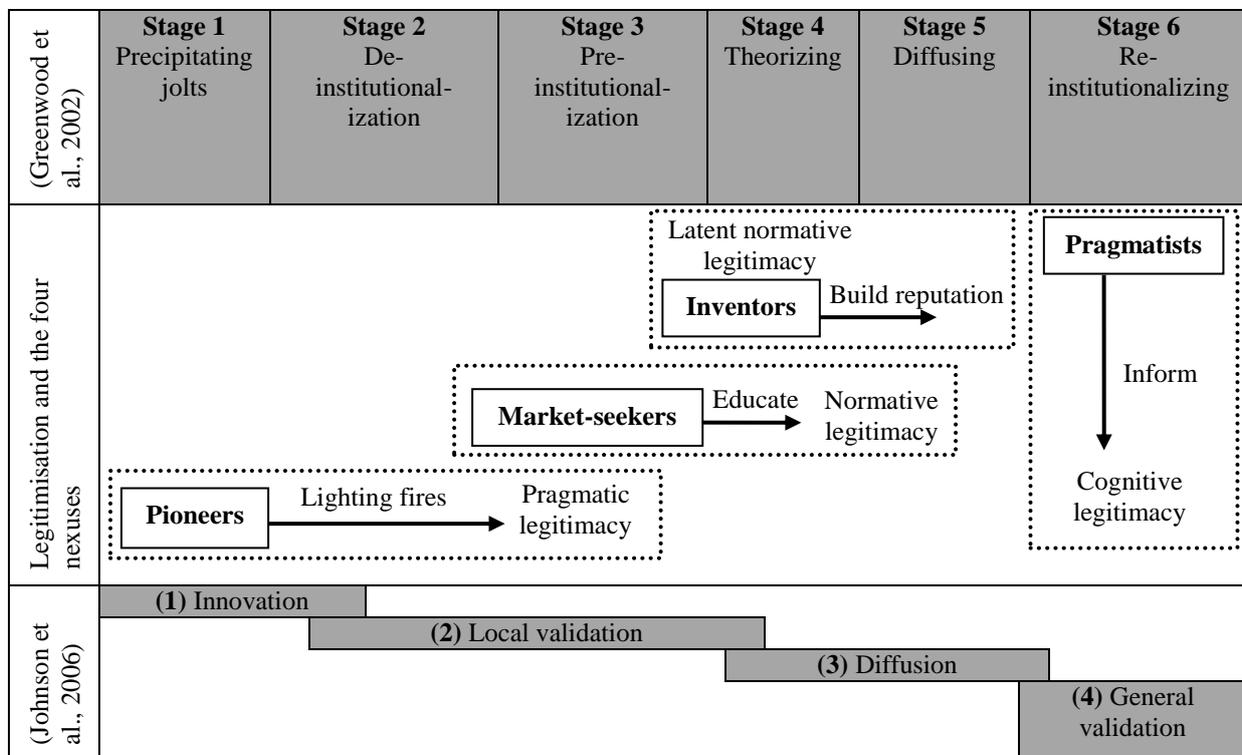
Lighting fires is characterised by trying to initiate as many leads as possible after potential customers, or a customer category, has been identified and then focusing on the most promising ones. It is not a legitimisation strategy as such, but one that tries to avoid legitimisation challenges. It aims at leapfrogging the stage of de-institutionalisation. Using this strategy, Pioneers try to find customers who appreciate the innovative product despite the fact that neither the product nor the business have yet gained market legitimacy. They aim to acquire customers who grant their innovative products pragmatic legitimacy, since the perceived benefits outweigh the uncertainty associated with the offering of the Pioneer.

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<sup>14</sup> Suchman (1995) refers to ‘moral legitimacy’ to avoid ambiguity resulting from a possible overlap between ‘normative’ and ‘cognitive’ legitimacy. However, the risk of ambiguity is higher in cases where value judgments directly refer to morality rather than buying decision more broadly.

Figure 9.1 illustrates the legitimisation processes of the four nexuses. Pragmatists achieve cognitive legitimacy through informing their customers, who question neither the innovative product nor the business selling it. A process leading to institutional change is not required. This is different for Inventors and Market-seekers. In these nexuses, institutional change is required for innovation to reach the diffusion stage; this stage is reached when knowledge about either the business (Inventor) or the product category (Market-seeker) increases and customers grant normative legitimacy. Finally, Pioneers avoid legitimacy challenges through lighting fires, a strategy aiming to find customers who grant pragmatic legitimacy despite much uncertainty around the innovative product.

**Figure 9.1: Innovative ventures and legitimisation processes of innovation**



### 9.3.2 Compliance and non-compliance

Investigating strategy within institutional logic inevitably raises the question of whether strategy aims at compliance or non-compliance with the institutional surroundings. Munir and Phillips (2005) argued that the success of innovation based on new technologies depends to a large degree on the compliance with existing norms and expectations. Using the example of photography, they showed that the process of its becoming a part of modern everyday life was critically dependent on compliance with existing norms. Rindova and Petkova (2007) extended this argument by hypothesising that there might be an optimum of compliance, with

over-compliance leading to the questioning of innovation and non-compliance leading to its rejection.

This reasoning has relevance for the legitimising strategies used in the four individual-opportunity nexuses. In these, three conditions can be identified, namely non-compliance, accidental compliance, and compliance. Let us begin with non-compliance, which assumes that customer preferences and expectations are challenged rather than reinforced. This was true in the Market-seeker nexus. These entrepreneurs actively opposed commonly-held preferences and tried to build new ones through educating their customers.

Non-compliance aims at, or gambles on, institutional change. Institutional theorists have long recognised that institutions do not arise or change automatically, and that emergence and change inevitably requires agency (Battilana, 2006; Beckert, 1999; Neca & Naccache, 2006; Oliver, 1991; Suchman, 1995). A focus on institutional emergence and change highlights the importance of human agency within institutional logics (Dorado, 2005) and “reconnect[s] the institutional with the individual” (Hung & Whittington, 1997, p. 553). The present study has provided a deeper insight into individuals operating in environments characterised by incomplete cognitive institutional frameworks. Building these frameworks is, above all, an educational challenge and Market-seekers often played a critical role in overcoming this challenge in their markets.

In the other three nexuses, legitimacy is reached through compliance or avoidance. This compliance occurs for different reasons and thus entails different processes. Inventors often complied accidentally. They invented for themselves or an initial customer, and questions about legitimacy in the wider market environment were unimportant. The legitimacy of the products frequently came as a surprise to them. In fact, and as the preceding analysis has pointed out, many Inventors were even overwhelmed by how well their invention was received, and they tended to comply more than they originally anticipate.

The strategies of Pragmatists and Pioneers, on the other hand, aimed directly at compliance. In institutional logic more legitimacy is given to action that conforms with existing beliefs, incentivising individuals and firms to closely comply, and this is what these entrepreneurs are trying to accomplish. DiMaggio and Powell (1983) argue that this pressure may force firms to compete within an “iron cage”, making their behaviour increasingly similar. By the same token, the incentives within the iron cage make strategy predictable.

Predictability cannot be established for the nexuses of Pragmatists and Pioneers, primarily because they used different strategies to achieve compliance. Pragmatists started with environment – their knowledge about existing customer needs and technologies available to meet those needs – and developed innovation that fitted into this environment. Their strategy is a traditional case of compliance, despite the fact that it aimed at innovation. This innovation of the Pragmatists complied better with the existing environment. In institutional logic, this behaviour corresponds to the notion of strategic choice. Child (1997) argues that companies are free to innovate within the boundaries of the institutional environment, leading to diversity rather than the predictable mimicking of behaviour. Pragmatists produced diversity within commonly understood barriers. In this process, they decided on the barriers first, and had very little intention of questioning these barriers.

Pioneers performed another type of strategic choice and engaged in an alternative process to ensure environmental fit. They started with the innovation and then chose a favourable context in which to place it. By lighting fires they strategically tried to identify customers who considered the innovative offering legitimate. Like the Pragmatists, the Pioneers legitimised through compliance, but while in the former case compliance was achieved by choosing innovation that fits a predefined context, in the latter case the context was chosen according to the innovation at hand. Pioneers were on a quest of finding the right iron cage for a choice that was already made.

In sum, most innovative entrepreneurs tend to comply with, rather than to directly challenge, commonly held beliefs in the venture's environment. Even in the case of the Market-seekers, who innovate against commonly held beliefs and expectations, non-compliance is not aggressive. Even though Market-seekers intend a change in customer behaviour, their efforts can, at least initially, stay alongside existing beliefs. The other three types of entrepreneurs comply more closely, although through different processes. Inventors comply accidentally. They innovate for themselves, or an initial customer, and discover over time how well their innovation fits into the established expectations of their audience. Finally, Pragmatists and Pioneers both aim at compliance. However, whilst Pragmatists innovate in order to increase compliance, Pioneers try to find a context that supports their innovation.

## **9.4 The issue of emerging rivalry**

### **9.4.1 Rivalry and strategy**

The results of this thesis show that rivalry impacts on the entrepreneur as the decision maker, as well as on firm strategy. The empirical results indicate that the textbook concept of competition and competitive analysis is not only largely irrelevant for the reality of the entrepreneurial business, but also mostly absent at the level of the decision maker. Most businesses operate in international markets, which makes researching and evaluating all competitive activities prohibitive. Because of the impossibility to do thorough market research in a yet-to-be established market, entrepreneurial rationality is bounded. To circumvent these bounds, they focus on strategies to outwit direct rivals who contest their daily business.

Focusing on direct rivals is not only a decision to ensure “good enough” solutions as argued by Simon (1991). Sarasvathy’s effectuation theory highlights the importance of building important networks with key stakeholders, over conducting competitive analysis (Read et al., 2009a). Sarasvathy further argues that this is only one symptom of the general focus on control over prediction in effectual logic, and that entrepreneurial control is exerted through focusing on: “Who I am, What I know, and Who I know” (Sarasvathy, 2001a).

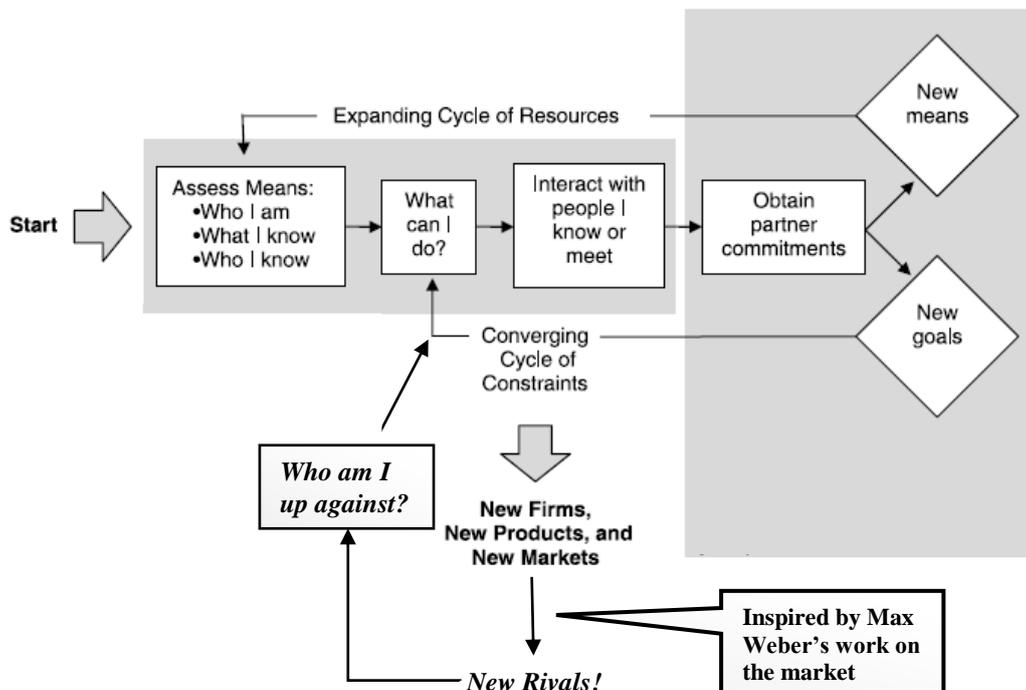
For start-ups, highlighting relationships with key stakeholders over competition enhances control, as suggested by Sarasvathy, and certainly presents a plausible strategy. Once the innovative business matures, however, emerging rivals start to challenge its existence. Faced with this situation, entrepreneurs do not conduct extensive competitive analysis and forecasting, as suggested by much of the strategy literature (Porter, 1996). Instead, they often focus on the actions of direct rivals.

The empirical results further show that there are differences between entrepreneurs with and without previous business experience. Whilst inexperienced entrepreneurs were mostly oblivious about competition, entrepreneurs with business experience developed a focus on direct rivals as a specific competitive strategy. Through previous business experience, these entrepreneurs gained practice in how to handle competition. Baron (2009) argued that engaging in practice about certain aspects of the entrepreneurial task will better equip individuals to start and grow ventures. The evidence presented here highlights that practising how to handle situations of rivalry by being in a market alters the importance of rivalry in decision making. Entrepreneurs with previous business experience focused on

keeping their direct rivals at bay in order to remain in control of their market. The first part in this process is the identification of such information and limitations in the competitive environment of the innovative venture. Baron and Henry (2010) found that recognising crucial information as well as the relevant limitations is one major outcome of entrepreneurial practice more generally. The focus on controlling direct rivalry is one important outcome of experience in running a business.

The second part of this process, the focus on direct rivalry in order to control the market, provides further insights into effectuation theory. Sarasvathy (Sarasvathy, 2001a, 2001b) frequently emphasises that effectuation is a logic of control rather than prediction. This underlying logic resonates well with the observed focus on direct rivalry. Linking this change in what entrepreneurs consider important in decision making as a result of experience with competitive situations might also indicate that effectual reasoning does not stop after the initial opportunity has been exploited. Instead, entrepreneurs might follow the logic of control whilst trying to build a competitive advantage once the business faces rivalry. Building on this reasoning, it seems apt to add emerging rivalry to the effectual model below and to give it some additional consideration. Once the business grows, experienced entrepreneurs increasingly ask the question: “Who am I up against?”

**Figure 9.2: Rivalry in the effectual process**



Adapted from: (Read et al., 2009a, p. 4).

The study showed that different types of rivalry emerge, and that rivalry fulfils different functions in the development of the four types of entrepreneurial opportunities. Given these differences, a further investigation of the respective strategies used to outwit emerging rivals (What can I do?) is both practically and theoretically relevant. Depending on the type of individual-opportunity nexus, four types of abilities (What can I do?) to pursue differentiation developed, these being adaptive, absorptive, disseminative and innovative ability.

Adaptive ability is needed to build competitive advantage in the Pragmatist nexus. This ability ensures strong alignment with existing customer preferences and needs. This ‘adaption’ goes beyond the design of the product. The entire business needs to assimilate to the demands of its environment in order to achieve product differentiation. Adaption aims at creating additional value by giving customers exactly what they want. This is achieved by improving the whole buying and ownership experience rather than through product innovation or product utility. Customers need to believe that they made the right choice, and this belief cannot be grounded in product utility alone.

Adaptive ability was most suited to building advantage in the Pragmatist nexus. In this nexus, rivalry can lead to the stifling price competition described in neo-classical economic models (e.g. Shaked & Sutton, 1982). Product competition drives cost efficiency and is thus a major threat to the profitability of the innovative venture. Products are constantly at risk of becoming commoditised. Schrage (2007) points out that although a common thread, commoditisation is not an economic inevitability, as argued by neo-classical economics. For him, intense price competition signals primarily a lack of innovation. To avoid commoditisation, entrepreneurs need to make a number of choices leading to further alignment with customer preferences. Relying on consumer ethnocentrism, building tight networks with key customers, or building clans (both outlined in chapter 8) were ways to achieve superior customer experience through adaption. In other words, adaption aims embedding the exchange of the product into some form of social relation.

Absorptive ability is needed to build competitive advantage in the Inventor nexus. Unlike adaptive capacity, the concept of absorptive abilities has received much attention in research investigating firm-level strategy. Prior research has highlighted the importance of absorptive capacity (which essentially summarises the capabilities of a firm to evaluate and commercialise newly available knowledge) in building competitive advantage of technology-based firms (Zahra & George, 2002). Moreover, absorptive capacity has made inroads into

both the small business and the entrepreneurship literature. For instance, Alvarez and Busenitz (2001) point out that the absorptive capacity of entrepreneurs becomes a competitive advantage of the entrepreneurial firm as it facilitates expanding the knowledge base. Building on Cohen and Levinthal (1990) the authors argue that the recognition and the evaluation of commercially useful information build competitive advantage. Further research on this issue has shown that in particular the ability to evaluate the relevance of external information enhances the innovativeness and competitiveness of small firms (Gray, 2006).

This study makes a contribution in arguing, in line with Lichtenthaler and Lichtenthaler (2009), that benefits of absorptive capacity are contextual. Out of the four nexuses, absorptive capacity matters most in the Inventor nexus in building competitive advantage. In fact, as pointed out in section 8.4 customers often look at the entrepreneurial business for guidance once it has gained legitimacy in the marketplace. This reputation as an expert poses a competitive advantage which can only be maintained through carefully absorbing and introducing further technological change. This match between the Inventor nexus and the importance of absorptive abilities in building competitive advantage is not surprising. The businesses of Inventors started by using new technologies to solve a well understood and pressing problem. To retain their customers and to strengthen their market position, Inventors needed to remain at the forefront of technological innovation that better addressed customer needs, and integrating new technological knowledge into their products was a necessity in building competitive advantage.

Disseminative ability is needed to build competitive advantage in the Market-seeker nexus. In this nexus, it is crucial to educate customers in order to change preferences. This change in customer preferences provides, in turn, the foundation for differentiation. Given this centrality of education to the sustainability of the Market-seeker's business, these entrepreneurs need an ability to efficiently and effectively alter the preferences of customers. Like absorptive capacity, disseminative capacity has often been discussed in the inter or intra organisational context (Gupta & Govindarajan, 2000). So far, however, contributions are theoretically rather than empirically focused (Mu, Tang, & MacLachlan, 2010). Linking the findings of this thesis to the existing literature on disseminative and absorptive capacities indicates that the concepts have relevance for the opportunity development of innovative ventures. While the innovative venture of the Inventor needs to become a receiver (absorber) of new customer preferences, the business of the Market-seeker needs to become a sender (disseminator) of new customer preferences.

Innovative ability is needed to build competitive advantage in the Pioneer nexus. This nexus is characterised by a very distinct type of competition. The competitive struggle as discussed by Weber is absent and only develops very sporadically, if at all. Instead, the business of the Pioneer has to compete with companies using a different technological basis. Schumpeter regarded the competition of new technologies as the major driving force behind capitalist economies, and regarded price and quality competition as relatively unimportant and predictable (Schumpeter, 1947a). He suggested focusing instead on the type of revolutionary competition by which existing organisations and technologies become abandoned due to the process of creative destruction. No concept can summarise Schumpeter's work on the business cycle as nicely as the process of creative destruction, a process by which old products, technologies and so forth are replaced by emerging ones (Spencer et al., 2008). In other words, products, technologies and companies are not defeated on their own terms, but on those of their emerging rivals (Metcalf, 2002).

Creative destruction as a form of competition has frequently been linked to evolutionary economics (Metcalf, 1998). Work has often focused on the innovation itself (Abernathy & Clark, 1985; De Figueiredo & Kyle, 2006) or the impact of innovation on economy and society (Dopfer, Foster, & Potts, 2004), rather than the innovating business or the individuals running them. Given the specific form of rivalry in which the innovative business is trying to replace the current basis for competition while constantly at risk of being replaced, more work on the firm and the individual level is required. This research has shown that Pioneer followed a distinct strategy. To build competitive advantage in this environment, the entrepreneurial business needs to constantly innovate and actively drive technological development. The business needs to develop an innovative ability and become a leader around the emerging technology.

The four nexuses also differed regarding the freedom entrepreneurs had in introducing innovation to build competitive advantage. In the Pragmatist nexus, there was very little leeway for innovation since customers continued to demand innovation that fitted into existing product categories. Diversions from these categories usually results in rejection. The Inventor nexus provides more autonomy. In this nexus, customers welcomed the use of new technologies for solving existing problems. This gives Inventors leniency in designing innovation. The Market-seeker nexus offers the most autonomy to entrepreneurial innovation efforts. Customer preferences tend to remain malleable in this nexus, offering much room for innovation within existing technological constraints. Finally, innovation in the Pioneer nexus

tends to be more constrained. Whilst customer preferences are also malleable, innovation is constrained by the technological capabilities of the business. The four nexuses thus pose different boundaries to product differentiation based on innovation. Table 9.2 summarises the discussion of innovative ventures and rivalry. It also shows the relationship to the existing theory for each of the four types of individual-opportunity nexuses.

**Table 9.2: Form of rivalry and strategy**

	<b>Pragmatist</b>	<b>Inventor</b>	<b>Market-seeker</b>	<b>Pioneer</b>
<b>Form of competition</b>	Neoclassical economics	Chamberlin	Chamberlin	Revolutionary competition Schumpeterian competition
<b>Competitive strategy best understood as</b>	Adaptive ability – the ability to adapt to customer values and preferences.	Absorptive ability – the ability to absorb changes in the environment and to selectively incorporate these in further innovation.	Disseminative ability – the ability to communicate the benefits of innovation.	Innovative ability – the ability to constantly establish a barrier to entry by rivals through innovation.
<b>Autonomy in innovating efforts</b>	Low - Strongly externally constrained	Medium – Some external constraints, but possibility for choice between alternatives	High – Constraints only arise out of the availability of technology	Low – Strongly internally constrained by development of competencies

In the cases of the Inventors and the Market-seekers, rivalry directly drives product differentiation. On the one hand, rivals help in building up the market by establishing a product category for innovation. Max Weber originally articulated the idea that there is no market in the absence of competition. For these types of entrepreneurs, this lack of a market initially hampers the success of the business. Many entrepreneurs in both categories pointed out that the emergence of competition facilitated the legitimisation of their products or their businesses. On the other hand, rivalry provides an opportunity for differentiation. Hence, the emergence of rivals gives rise to competition as described by Chamberlin (Barney, 1986b), and differentiation is pursued by creating additional product utility rather than by economising on cost (Holcombe, 2009).

Even though rivalry has very similar functions in these two nexuses, different strategies to respond to emerging rivalry are required. Inventors need to assess emerging knowledge in their own and related markets, and decide whether integrating this new knowledge into their products creates additional value. Often the means to further innovation do not originate from their businesses but in related industries, and entrepreneurs need to

develop abilities that facilitate the recognition and integration of these changes. In other words, Inventors need to become skilled at exploiting externally available knowledge.

#### **9.4.2 Innovative ventures and the effects of rivalry**

Traditionally, discussions of rivalry are the terrain of economists rather than sociologists. With the exception of earlier writings by Schumpeter (1939) and Weber (2008), the field of economic sociology avoided discussions of competition and rivalry so that today the dominance of economists in this has become largely uncontested. This study addresses this shortcoming by exploring the effects of emerging rivalry on innovative ventures. Rivalry is a complex issue influencing entrepreneurs as individuals, their markets and, in turn, business strategy. Aldrich and Martinez (2001) encouraged researchers to look into the interplay between innovators and reproducers (or imitators) in the context of industry and market creation. The present study provides additional insights into this matter.

The effects of rivalry on the nexuses of innovative entrepreneurs were largely unexpected. Based on the economic literature, as well as writings in economic sociology, an emerging competitive struggle as described by Max Weber was expected. It was further anticipated that the effects of this struggle would be largely detrimental to the innovative business, and that the competitive struggle instantly become a matter of life or death for the innovative venture. Whilst the first statement can be largely confirmed by this study, the second must be challenged. Only the Pragmatist nexus is characterised by a tough competitive struggle in which rivalry exerts a mainly negative influence. Rivals face very low barriers to market entry, leading to frequent new entries as well as lack of sustainable quality differentiation. This form of rivalry faced by the Pragmatist most closely resembles the concepts of perfect competition in the economics literature leading to intense price competition and diminishing returns (Baumol et al., 1982). In other words, the temporary monopolistic position of the innovator as outlined by Schumpeter (1939) erodes very quickly in the Pragmatist nexus.

In the other three nexuses rivalry is not necessarily negative. In fact, rivalry helps to legitimise new products or new competencies in the market. In the nexuses of the Market-seekers, Inventors and Pioneers, emerging rivalry provides an important reference point for customers in their judgment about the utility of new products or the trustworthiness of business, alleviating experienced legitimacy challenges. At the same time, rivalry often

remains rare. Unlike in the Pragmatist nexus, the initial rivals in the other three face similar legitimacy challenges as the innovative venture, making market entries far less likely. Rivals need to fight their way into the market and they often do so using already differentiated products. Some entrepreneurs are even disappointed by the lack of emerging rivalry due to barriers to market entry.

These results suggest that there is an optimal level of rivalry for an innovative venture to achieve quality differentiation. Rivalry is positive as long as it can be controlled. In cases of excessive rivalry, as experienced in the Pragmatist nexus, price competition and pressure of commoditisation are almost unavoidable, resulting in a constant struggle for non-product differentiation for these ventures. On the other extreme, rivalry emerges only very hesitantly in the other nexuses, and innovative ventures face distinct challenges in justifying their existence. Customers expect some level of rivalry as it provides them with choice when making their purchasing decision. If customers see no alternatives, innovation seems disconnected from reality.

This situation gives rise to a paradox in which the erosion of the innovator's monopoly position does not erode the profitability of the new venture. Even though imitation through rivals compromises the monopoly position, it does not erode profits in the way existing literature would suggest. Rather, in an emerging market, rivalry gives more legitimacy to the product category, providing innovators as well as their imitators with an opportunity to grow with the market. Through this process, the innovative venture becomes one player in a much bigger market, rather than the only player in a very small market, and imitators achieve an important function for innovation and the market of the innovative venture. They are needed to build a market in these nexuses. It is, therefore, not imitation as such that poses a danger to the profitability of the innovative venture, but the rate of its occurrence. Both too much and too little imitation through emerging rivals is problematic.

In uncovering these effects of emerging rivalry, this research provides empirical insight in the so far mostly theoretical discussion about the role of innovative and imitative entrepreneurship in the market process (Aldrich, 2001; Aldrich & Martinez, 2001). Innovators open up the ground. If legitimised, new products, services and production processes frequently change the basis of competition in challenging established offerings on new grounds (Aldrich & Fiol, 1994). Initial competition helps to change the perception of people about innovation. It helps to legitimise it. Without the emergence of rivalry,

innovation is difficult to justify at the time and people continue to prefer the status quo. Once rivalry emerges, innovation becomes noticed by a wider audience.

Innovation also becomes more diffused through replication. The legitimising effect of rivalry overshadows the negative impact on prices in the short run. Over time, however, market growth rates slow down, making it more difficult for businesses to grow. Rivalry becomes more standardised and clear product categories emerge, making it increasingly difficult to differentiate on quality. Whilst this increased standardisation means that the innovation has been fully legitimised, it also gives rise to more intense price competition which now outweighs the possible positive effects of additional emerging rivals.

## **9.5 Four roads to innovative ventures and sustained business success**

This study has identified four distinct types of individual-opportunity nexus. These differ not only regarding the individuals involved and the type of opportunity pursued, but also regarding the strategies used to legitimise the innovative venture and to build competitive advantage. Table 9.3 summarises these results and links them to the entrepreneurial process as discussed by Bygraves (2007) as well as the research questions of this study. The linkage reveals that the type of nexus matters with regard to the three primary research questions. There are distinct differences in how entrepreneurs become involved in innovative ventures depending upon the business opportunity pursued, differences that do not stop with the individuals who pursue these opportunities. On the contrary, there are also differences regarding the challenges faced in establishing the innovative venture in the marketplace, as well as in remaining competitive.

The road of the Pragmatist is often characterised by a rather unpleasant start. To a degree, Pragmatists are pushed into entrepreneurship and innovation by some financial or practical necessity. However, whilst financial reasons are often the trigger, they are not the main reasons behind the engagement in the business. Instead, Pragmatists were excited about having a management career. To achieve this career, Pragmatists responded to incentives provided in their environment. They did not bring about change in customer preferences or technology, but tended to exploit it. Since the business reflects current customer preferences and technology, establishing the business was less challenging to replicate, which eroded competitive advantage.

This situation gave rise to a distinct competitive strategy. Because of constantly emerging competition Pragmatists strive to control their market through non-product differentiation, such as embedding the exchange of the product in social relations or by creating small but strong brands. In other words, Pragmatists are small niche creators who closely adapt to the preferences and values of customers to shield the niche from competition. At the same time, this strategy to create a small niche also fits their personal growth preferences. Not only do these entrepreneurs want to control their market, but also they want to remain in control of their business since it provides them with good career opportunities. In order to maintain these career opportunities, the niche market needs to be controlled given the current business structure.

In the Inventor nexus, innovation occurs for different reasons. Inventors were usually intrigued by a problem that lacked a satisfactory solution and that required a technological invention. The commercial implications of resolving the problem, on the other hand, were not fully anticipated. To a certain degree, their customers demanded commercialisation. Evidence of this is plentiful, since initial customers provided market validation, and pointed towards new markets or even new applications. To compete effectively, the business of the Inventor needs to become a recognised industry expert, and the business needs to become the professional's choice. On the way towards becoming the professional's choice, Inventors faced the challenge that the business lacks an established reputation in the industry.

Once this challenge has been overcome, technology provides an effective barrier to competition. To maintain this barrier, Inventors need to continue innovating cleverly. In the market of the Inventor, innovation needed to be simple and focused in order to demonstrate technological capabilities to customers by incrementally incorporating new knowledge into products. It was important that the venture did not need to generate that new knowledge; should instead become skilled at integrating externally available knowledge. Competition might even help to build the market of the Inventor since it offers a reference point for customers that Inventors can use to demonstrate their technological expertise. This technological expertise develops through cautiously incorporating external technological changes into the products. As a result, the business of the Inventor has solid growth potential. However, because Inventors tend to focus on building and refining a product rather than a business, growth is often retarded.

The Market-seeker nexus provides a more adventurous road to market. Market-seekers perceive an unrecognised need in the market, hoping that they will make a fortune if customers finally understand what their 'real' preferences are. Market-seekers hope for this change since products lack legitimacy, posing a critical challenge given current customer preferences. To overcome this challenge, customers need to be educated about what their needs ought to be. Here, emerging competition can help to educate customers, which provides growth opportunities for all businesses in that market.

Since customer preferences are not fixed, their business can build a competitive advantage around influencing future preferences by building a disseminative capability. However, Market-seekers cannot build a market on their own. They need a larger change in society to occur, a change which is always influenced by multiple sources, such as the government, the press, or even competition. Given the initial interest of the Market-seeker in financial success, these changes do not materialise quickly enough and the businesses of the Market-seekers are often constrained by a lack of opportunities rather than a lack of ambition.

Finally, the Pioneer nexus entails the most treacherous road. Neither the technologies used nor the needs to be fulfilled are well understood, which makes establishing a business a true challenge. So why do Pioneers take on these challenges? Having previously worked in, or founded, larger businesses, these entrepreneurs are ambitious and want to create a business that stands out from other start-ups. Starting and owning a business does not satisfy them, and they pursue only opportunities that allow them to build a respectable business. Initially, Pioneers seem to be pushing the boundaries of people's expectations slightly too far, which calls for a distinct strategy. In order to overcome the challenges posed by their environment, Pioneers aimed at identifying innovative customers who themselves are prepared to take considerable risks.

Once initial customers are secure, the business of the Pioneer has a competitive advantage as the initial challenges persist, creating effective barriers for emerging rivals. However, this lack of direct rivalry is not necessarily beneficial. On the one hand, low levels of direct rivalry impede the development of a more vibrant market for the products of the Pioneer. On the other hand, their market position may still be challenged by companies using alternative technologies and who are, at least currently, serving different customers. In other words, the Pioneers are competing for, rather than in, a market. The basis of competition is not simply an alternative product per se, but the technologies, standards and preferences

against which products are accessed. They are faced with a distinct form of competition. Pioneers take on this form of competition since they want to create a business that is considered a market leader that defines standards in an emerging market.

Given these differences between the four nexuses, future research would benefit greatly from comparing additional ‘types’ of opportunities. Currently, there is still some preoccupation with establishing differences between entrepreneurs and non-entrepreneurs (Orser & Dyke, 2009; Sarasvathy, 2004b) or between different types of entrepreneurs (Hayton, Chandler, & DeTienne, 2011; Morris, Allen, Kuratko, & Brannon, 2010). Whether or not these differences exist cannot be confirmed or challenged based on this study. However, what can be said is that there are profound differences between certain types of individual-opportunity nexuses in innovative ventures, and that these differences are important for developing theory in the field of entrepreneurship as well as for developing practical guidance for entrepreneurs.

*Table 9.3: Final overview*

Entrepreneurial process	Emergence of idea	Triggering Event	Implementation			Business growth and opportunity development			
Q4: Does the type of opportunity make a difference with regard to the three primary research questions?	Q1: How and why do entrepreneurs start innovative ventures?		Q2: How do entrepreneurs legitimise innovative ventures in the marketplace?			Q3: How does emerging competition impact on innovative ventures, and how do entrepreneurs pursue competitive advantage?			
	<b>Nexus</b>	<b>Prior knowledge about</b>	<b>Initial motivation</b>	<b>Legitimacy challenges</b>	<b>Strategy</b>	<b>Major challenge</b>	<b>Type of Rivalry</b>	<b>Build</b>	<b>Aim</b>
	<b>Pragmatist nexus</b>	Customer problems	Career ‘pull’	Little challenges	Inform customer	Non-product differentiation	Intense – neo classical price competition from very similar products	Adaptive ability	To build an enjoyable workplace
	<b>Inventor nexus</b>	Means to serve the market	Problem ‘pull’	Pronounced: Business legitimacy challenge	Reputation building	Product differentiation – technological innovation	Modest – Helps in establishing market and provides basis for differentiation from similar products	Absorptive ability	To build a product
	<b>Market-seeker nexus</b>	Markets	Financial ‘pull’	Pronounced: Product legitimacy challenge	Educate	Product differentiation – tell you are different	Modest – Helps in establishing market and provides basis for differentiation similar products	Disseminative ability	To build a market
<b>Pioneer nexus</b>	How to run a company	Identity ‘pull’	Pronounced: Product and business legitimacy challenge	Lighting fires	Continue to innovate	Often absent. Lack of direct rivalry can be disadvantage Different technologies	Innovative ability	To build a company	

## CHAPTER 10: CONCLUSION

### 10.1 Introduction

The previous chapter summarised the key findings of this research and related them to the original research questions as well as to the extended literature. This final chapter presents the conclusions that can be drawn from this study. In essence, the study combined three prominent theoretical concepts: the individual-opportunity nexus, Schumpeter's focus on the innovator as an economic actor, and Weber's actor-oriented sociology of markets. Based on these concepts, this study was designed and positioned to contribute to our understanding of how individuals see markets and how they create innovative ventures (Chapter 6); how they perceive challenges to legitimising their ventures (Chapter 7); and how their perception of markets influences the pursuit of competitive advantage (Chapter 8). Now, the impact of these findings needs to be assessed by outlining their theoretical and practical implications.

Even though this study emphasises innovation, it is not a study of innovation per se. It is a study of the individual-opportunity nexus which investigates innovative ventures as a special case. In the entrepreneurship literature there has long been an agreement that innovative ventures are different from imitative ventures. However, cementing this difference is not where the contribution of this thesis lies; it was not ever intended to compare innovative and imitative ventures. Its aim was to compare different types of innovative ventures in order to study the nexuses that lead to their creation, the challenges experienced by entrepreneurs in achieving market legitimacy, and the impact of imitators, or rivals, on these innovative ventures. Explaining the differences between types of innovative ventures in these three regards marks the contribution of this thesis, making it a study of individual-opportunity nexuses as well as innovation.

Becoming and staying involved, (Chapter 6), is at the core of the academic research agenda in entrepreneurship. In essence, this chapter put forward the simple thesis that the background and motivation of entrepreneurs mattered for what type of opportunity they pursued and how they pursued it. It uncovered four distinct individual-opportunity nexuses: the Pragmatist nexus, the Inventor nexus, the Market-seeker nexus, and the Pioneer nexus.

Gaining legitimacy, (Chapter 7), focused on the practical problems arising from legitimising innovative ventures in these nexuses. Depending on the nexus, four roads towards achieving legitimacy for an innovative venture have been identified. The data have

further shown that achieving legitimacy required different degrees of compliance with existing institutional arrangements.

Chapter 8, on emerging rivalry, elaborated how legitimacy in the marketplace is retained given the arrival of rivals. Like processes of legitimisation, staying competitive involved important strategic decisions. Fierce price competition only emerged in the case of opportunities that did not require a change in customer behaviour or the competencies used to meet customer needs. For all other opportunities, rivalry had a vital function in bringing about this change.

Empirical research on the individual-opportunity nexus is still emerging (Short, Ketchen Jr, Shook, & Ireland, 2010b). This thesis contributes to the emerging discussion by examining whether there are differences between the individuals who become involved in the different types of innovative ventures. In so doing, this study provides empirical evidence on four nexuses, and shows how initial conditions influence their unfolding.

## **10.2 Individuals and innovative ventures**

This section discusses the conclusions regarding the individuals involved in innovative ventures. Controlling for the type of opportunity pursued provides further insight into these individual-opportunity nexus shedding light on the individuals who are part of them. Entrepreneurs differ regarding their prior knowledge and their motivation depending upon the type of opportunity pursued. With regard to prior knowledge, much of the previous research on the importance of certain knowledge categories for the creation of new ventures is supported. However, there is a large disparity in the importance of specific types of knowledge in the pursuit of different types of opportunities.

The entrepreneurs in this study avoided the combination of two unknowns to reduce uncertainty. Whilst Pioneers usually utilise prior knowledge about how to run companies, this knowledge is not crucial for all other types of individual-opportunity nexuses; as knowledge about a market (Pragmatist), general market knowledge (Market-seekers), or technological knowledge (Inventor) is more critical for opportunity identification and exploitation. In cases where prior knowledge about a market, its demand as well as its supply side, is unavailable, entrepreneurs tend to compensate for this lack of knowledge with experience of how to run companies.

Grouping different types of opportunities (or the individuals pursuing them) together despite these apparent differences, will lead to blurry results showing that all types of prior knowledge matter to entrepreneurship, which they arguably do. However, this study shows that prior knowledge of individuals needs differentiated treatment to uncover why some individuals have the knowledge to discover and successfully exploit certain types of opportunities to innovate, whilst others do not. This study also explained the processes by which individuals became involved in an innovative venture, and provides insight into why some entrepreneurs utilise their prior knowledge and rush (Aldrich & Fiol, 1994) into innovative entrepreneurship.

Individual-opportunity nexuses also differ regarding the individual motivation for becoming involved. All entrepreneurs in this study show evidence of an opportunity ‘pull’ rather than a necessity ‘push’. Innovative ventures are not created in order to make a living, but because of some personal involvement with an innovation or a perceived opportunity. This study uncovered four distinct mechanisms pulling entrepreneurs into creating innovative ventures: Pragmatists are often pulled by career prospects, Inventors by their customers, Market-seekers by financial gain, and Pioneers by an opportunity to build their identity as entrepreneurs. These mechanisms are an important part of the nexuses. Not only do they explain the reasons for involvement, but they also influence the degree to which entrepreneurs see their involvement in the current venture as part of their personal career path. Whilst Pragmatists and Inventors see running the current business as their career, Market-seekers and Pioneers do not.

The different career orientations of entrepreneurs engaged in the four nexuses influence decisions about business growth. Once businesses start growing, demands on the entrepreneur increase, creating a dilemma between either sacrificing control to focus on growth, or retarding growth to retain control. The decision about which growth path to pursue is influenced by the career orientation of the entrepreneur. Entrepreneurs who see the current venture as their career tend to retard growth so that they remain in control. Entrepreneurs who do not see running the current venture as their career see the loss of direct control over the businesses as an economic inevitability.

The idea that the nexus is resilient, influencing future goals and with them growth-control preferences of entrepreneurs, needs to be taken seriously in advising small businesses. Over time, growth-control preferences can become at odds with the actual development of the

market. Particularly in the Inventor and the Market-seeker nexus, this discrepancy between growth-control preferences and business opportunities can create a misfit as either the growth aspirations of the individual exceed (Market-seeker) or restrict (Inventor) business growth. In the nexus of the Pragmatist and the Pioneer, on the other hand, there tends to be a fit between growth preferences and either the absence (Pragmatist) or the existence (Pioneer) of opportunities for business growth.

These differences also indicate disparities between the objective reality and the individual perception thereof in some nexuses. Those characterised by fit, entrepreneurs anticipated the objective reality of opportunity rather well. But this is not the case for nexuses showing a misfit. In these, entrepreneurs tend to over- or underestimate the commercial potential of their ideas depending on whether they are financially driven or task-oriented. Whilst financially-driven Market-seekers perceive opportunities to be more profitable than they really are, task oriented Inventors underestimate the commercial value. Hence, the original goals of entrepreneurs distort their opportunity perception, explaining incongruities between the objective value of opportunity and individual perception.

Effectuation literature suggests that goals are emergent, which can also be said for the nexuses in this study. Given the focus on successful ventures, some entrepreneurs were pleasantly surprised by how successful their businesses became, and the goals currently pursued were not envisaged at the time they started out. However, current goals are still mediated by the initial motivation to become involved in the business. This suggests that the entrepreneurial goals in a nexus evolve around a corridor where the evaluation of emerging goals depends on the original conditions. This link between the initial mechanism that explains individual involvement and the resolution of the control-growth dilemma highlights the importance of further investigating the initial motivation of the decision maker.

Together, the existence of the nexuses and their resilience, have important practical implications. Nexuses build on the idea of fit between the individual and the opportunities pursued. This fit helps in identifying the right opportunity for individuals based on their existing knowledge and motivation to become involved, ultimately answering the question of whether pursuing an opportunity is desirable given certain characteristics of the founder. Entrepreneurs with a growth preference require specific advice on how to realise growth in their current businesses. Here, the strategies outlined in this study provide a solid foundation to develop growth strategies for different market environments. At the same time, such

growth advice might be unsuitable for the entrepreneurs who do not desire growth, but rather control of their personal career path. Pushing these founders into growing their businesses will very likely result in the rejection of the advice given. For those entrepreneurs, advice on how to retain control despite growth might be more suitable for the unlocking of missed growth potential. Further research should investigate how personal growth barriers can be overcome.

### **10.3 Emerging opportunities of innovative venture**

Controlling for the type of opportunity provided deeper insights into opportunity emergence for innovative ventures. This study focused on two major external forces shaping opportunity emergence, the interaction with customers, and with rivals. In these interactions opportunity emergence depends primarily on gaining and retaining market legitimacy.

Opportunity emergence poses different challenges in legitimising the venture vis-à-vis a customer. This embodies a major hurdle given that there is no opportunity without legitimacy in the eyes of customers (Webb et al., 2011). This study found that innovative ventures encounter certain challenges on the way towards achieving legitimacy. Depending on the nexus, the fact that the venture is new is either irrelevant (Pragmatist nexus); a major challenge (Inventor nexus); or either overshadowed (Market-seeker nexus) or accompanied (Pioneer nexus) by the need to legitimise the innovative product. These variations in legitimacy challenges point to different degrees of compliance and non-compliance with established norms and expectations in opportunity emergence.

Compliance versus non-compliance marks the underlying conundrum in institutional theorising. Irrespective of the school of thought, institutional theorists argue that institutions reward compliance, causing mimicking behaviour amongst actors in their pursuit of legitimacy. At the same time non-compliance is effectively discouraged by the lack of such rewards, or even because conformity becomes actively enforced through sanctioning. Researchers interested in innovation and competitive advantage, on the other hand, point out that advantages arise from successful non-compliance with established norms and expectations, provided sanctioning can be avoided. Given that both compliance and non-compliance may lead to opportunity emergence, it became interesting to resolve this conundrum for the nexuses investigated here.

In this study, opportunities usually emerge by complying with commonly held customer expectations. This study identified three compliance processes leading to opportunity emergence. First, opportunity emergence may result from direct compliance, in that opportunity derives from designing innovation that better fits an established environment. This has been most obvious in the pragmatist nexus. Second, opportunities may also emerge through inverting the compliance process. Whilst in compliance logic action occurs in accordance with a predetermined context, Pioneers decide on action first and then choose the appropriate context. Thus, in this nexus, opportunity emergence depends on finding the context that is receptive to the innovation. Third, opportunity emergence may also result from accidental compliance. In this case, compliance is a side product of another activity, such as a strong task orientation in the case of the Inventor.

Non-compliance may also lead to opportunity emergence, but this had been an exception. Only Market-seekers strategically diverged from customer expectations in their pursuit of innovation. However, they did not directly challenge their environment, because innovation did not contradict commonly held beliefs and can therefore stand alongside established institutions. Together with the more general tendency of entrepreneurs to follow compliance rather than non-compliance strategies, this absence of direct challenges to the environment provides evidence that innovative ventures are rarely started as blatant challengers to the status quo.

This observation provides insights into Schumpeter's paradox about the type of businesses that bring about innovation-triggering processes of creative destruction. Schumpeter's revised thesis about the innovation process, namely that innovation directed at challenging existing beliefs often requires resources that are found only in larger businesses, may have merit. His original observation, that individual entrepreneurs aggressively challenge their surroundings, on the other hand, appears flawed. Even innovative entrepreneurs tend to be legitimacy satisficers striving for, or avoiding, challenges to legitimacy, either by accident or by design, in the process of opportunity emergence. In other words, even if ventures are started based on innovation, entrepreneurs endeavour to make their businesses 'fit in'.

Despite playing an important role in assuring fit, entrepreneurial activity cannot entirely account for opportunity emergence. Other actors, such as financiers, employees, and in particular customers contribute to opportunity emergence, making solely individual level

theories inadequate in explaining the investigated processes. Emphasising elements of individual creation, a frequent consequence of methodological subjectivism advocated in entrepreneurship, may come at the expense of missing these important pieces of the puzzle. While this study had its primary focus on entrepreneurs and their customers, it also shed light on a third piece in the puzzle of opportunity emergence, that of rivalry.

Rivalry plays an important role in shaping opportunity emergence for innovative ventures, through two countervailing forces. Emerging rivalry enhances the legitimacy of a market and promotes opportunity emergence whilst at the same time posing the danger of competing profits away: the paradox of emerging rivalry. Initially, emerging rivalry can help the innovative venture by providing important reference points to customers. These reference points have two effects. Given that multiple businesses now operate in the market, the innovative offering appears less out of context, which helps in gaining legitimacy. Emerging rivalry thus shapes opportunity, as association with rivals can be a source of legitimacy. At the same time, rivalry enhances opportunity emergence by providing scope for establishing product differentiation to pursue premium pricing. However, with intensifying rivalry, differentiation becomes increasingly difficult, causing increased price competition. Hence, whilst rivalry plays a critical role in opportunity emergence, it also contributes to its demise. This insight clearly enhances our understanding of the interplay between innovators and reproducers in emerging markets (Aldrich & Martinez, 2001).

Rivalry often occurs neither instantly nor forcefully in opportunity emergence. This study has shown that there is an inverse relationship between the legitimacy challenges faced by the innovative venture and the emergence of rivalry. Challenges to the legitimacy of new entrants tend to be resilient, suggesting that overcoming these challenges establishes barriers to entry for emerging rivals. However, in the light of the paradox of emerging rivalry, the legitimacy challenges faced by rivals do not constitute a 'first-mover' advantage for the entrepreneurial venture, as barriers to legitimacy complicate the development of an active market, and in doing so hinder opportunity emergence.

These observations about rivalry have theoretical implications. On the firm level, rivalry might not necessarily be as negative as existing theory suggests. Traditional theories of competition and competitive advantage derived from established firms assert that the effects of competition are negative for the individual firms and that competition should preferably be avoided. Strategy aims at achieving a favourable competitive position. It seems

that these theories describe the competition in mature rather than emerging markets. In emerging markets it is not so much the relative competition position that drives strategy, but the need for legitimisation. For entrepreneurs pursuing emerging opportunities, rivalry has the capacity to alleviate barriers to legitimisation, and having some legitimate competition often helps in establishing a clear value proposition. Being a recognised, and therefore legitimate, business in the marketplace constitutes a competitive advantage. In other words, it is not the relative strength of the business compared to others in terms of capabilities or resources endowments, but the legitimacy of the business that constitutes an advantage its own right.

The role of rivalry in opportunity emergence also has theoretical implications for the sociology of markets. Rivalry is necessary for building a market. Customers need to observe some form of rivalry. Max Weber considered ‘dickering’ (bargaining) a core element of the market, making interaction between buyers and competing sellers one defining criterion of market exchange. The current sociology of market literature primarily addresses this feature of the market, which is again a feature of developed rather than developing markets. In developed markets, dickering between customers and rival sellers aims at finding the price for the goods and services exchanged. This presupposes that goods and services can be categorised and compared, which is not the case in emerging markets. In emerging markets, dickering is a mechanism that brings about agreement on what can be traded. Innovation often comes with many unknowns for the customers. In this stage of market development, rivalry may help in legitimising a product category, and hence, the market.

The distinctiveness of products subsides once rivalry intensifies, unleashing the price-finding forces of rivalry. From the perspective of the innovative venture, this rivalry needs to be controlled. This study puts forward two contributions as to how this control is achieved. First, on the level of the individual, there is some evidence that more experienced entrepreneurs see rivalry differently from their less experienced counterparts. To date, the literature on entrepreneurial expertise interprets this behaviour as the irrelevance of the textbook concept of competition to real life entrepreneurial decision making. This study concurs. However, dismissing the relevance of the concept of competition might be premature. This study has shown that more experienced entrepreneurs tend to strategise having only their direct rivals in mind. This ensures that the entrepreneurs can devise strategies under the constraints of a young and small venture.

The derived strategies need to ensure that the venture retains a differentiation from its rivals to avoid price competition. Here, this thesis reinforces the importance of strategic fit between the demands posed by the environment and the action chosen to address these demands. Whilst the idea of strategic fit is not new (Zajac, Kraatz, & Bresser, 2000), fit is often difficult to achieve, and theories about the processes that lead to fit have therefore great practical value. This study put forward four strategies, one for each individual-opportunity nexus, to increase fit with the emerging environments of innovative ventures.

#### **10.4 Limitations and research suggestions**

This study has a number of limitations, some of which derived from compromises necessary for strengthening it. Understanding and addressing these limitations provides fruitful avenues for further research. An important limitation arises from the focus on a single country, that of New Zealand. Country-specific characteristics may have influenced some individual level findings such as the observed career orientation amongst some entrepreneurs. Future research should build and ultimately test the findings on a comparative dataset in different national contexts to eliminate this limitation to theoretical generalisation. The findings on opportunity emergence, on the other hand, do not suffer from the same limitation since most entrepreneurs pursued their opportunities internationally.

Moreover, given the focus on small and young ventures in this study, transferability to larger, already established businesses is questionable. As suggested by the strategic entrepreneurship literature, established businesses may systematically engage in opportunities to innovate, and it remains unresolved whether the challenges identified are experienced by these businesses in a similar fashion. The findings of this thesis at least indicate that established businesses might be endowed with some advantages in the pursuit of opportunities, given an established record of accomplishment. Institutional theory supports this idea, arguing that powerful actors, including large organisations, may be capable of introducing institutional change in an attempt to avoid non-compliance. At the same time however established businesses may face distinct challenges resulting from an existing organisation structure and product portfolio, forcing them to make unpleasant compromises in their pursuit of opportunities. Here, future research could benefit from comparing the pursuit of opportunity by large and small businesses. This comparison between different types of businesses pursuing a particular opportunity to innovate would certainly provide

valuable insights into an important paradox in Schumpeter's work on innovation, that of the role of established and new businesses in the innovation process.

The focus on the four types of opportunities led to a further limitation. Typologies of opportunities come at the expense that they are not exhaustive, meaning that they highlight certain types of opportunities whilst omitting others. Entrepreneurs may pursue opportunities that are different from the four types investigated in this study. Other areas of entrepreneurship research, such as social entrepreneurship or family entrepreneurship, draw our attention to other types of opportunities. Pursuing opportunities in these areas will certainly require the consideration of different motivating factors, and in particularly non-financial goals. It can also be expected that these entrepreneurs will rely on different types of prior knowledge as well as face different challenges in legitimising ventures. Future research would greatly benefit from adjusting and extending this study to these streams of entrepreneurship research.

An additional limitation issues from the focus on legitimisation efforts in product markets. Whilst this focus provided deeper insights into challenges and strategies of product market legitimisation, it leaves room for questions of legitimisation in other markets such as funding markets or the labour market in the process of innovative venture creation. Since these markets might also pose distinct legitimacy challenges to the innovative venture, future research could benefit from investigating these markets.

Finally, a number of biases may limit the generalisability of the results as a result of retrospection and introspection. On the one hand, the results may have been influenced by the respondents' retrospective sensemaking, in which they rationalised the way in which past events and results are related. Although biases have been mitigated by triangulating the interview data, a residual risk remains. On the other hand, the findings may have limited generalisability due to bounds to my own sensemaking. While the results of this study have been discussed with other researchers at various points of the research process, in an attempt to achieve further triangulation, this is no objective quality criterion measuring the generalisability of these results. Instead, its quality derives from the processes used and the close adherence to the data, fostering the 'honesty' of the presented findings (Eisenhardt & Graebner, 2007).

## 10.5 Overall conclusion

This thesis has integrated a number of perspectives on entrepreneurship, strategy and the sociology of markets. In essence, it puts forward the idea of four individual-opportunity nexuses leading to the creation of innovative ventures. Nexuses matter for both how businesses are legitimised and how they can strive in the face of emerging rivalry. This thesis thus contributes to the understanding of the individual-opportunity nexus for the case of innovative ventures.

Two ideas stand out from this research, namely that differences between the individuals creating these ventures matter, and that there are different issues for innovative ventures around market legitimacy, including rivalry as a challenge to legitimacy. Understanding individuals is important. On the one hand, creating innovative ventures requires certain skills, which makes some individuals more likely to create innovative ventures than others. On the other hand, skill alone does not grow ventures: it is the motivation of the key decision maker and in particular the decision maker's willingness to sacrifice control to enable business growth. Understanding individuals clearly makes a difference. Aside from the attitude of the entrepreneur, growing an innovative venture depends upon certain tasks in legitimising the venture and in remaining competitive. Understanding both the individuals involved and the tasks necessary will help in creating more innovative, internationally competitive ventures.

Individuals and the opportunities they pursue do not meet only once to establish the nexus. Instead, the nexus manifests itself through a series of events, and describes this interplay between individuals and emerging opportunities. The nexus can thus be uncovered only by using a process perspective that focuses on the events themselves. Opportunity is the emergent outcome of this interplay, indicating that opportunity requires agency, although to a lesser extent than suggested by creation theory. Focusing on the individual-opportunity nexus means acknowledging the role of agency, without assigning the emergence of opportunity to the actions of the individual alone.

Focusing on the individual-opportunity nexus also demands a commitment to dualism. Individuals and opportunities exist independently of one other. The nexus marks the interaction between the two phenomena, but it does not justify collapsing one into the other. Given this dualism, entrepreneurship studies in the individual-opportunity nexus necessitate theories about opportunities, the individuals pursuing these opportunities, and most

importantly the interaction between opportunities and individuals. This study has provided insights into all these concerns.

The insights from this study can be related to the New Zealand context. It has often been argued that many New Zealand entrepreneurs have low growth aspirations since they allegedly favour lifestyle over business growth (Frederick & Chittock, 2006). This argument presupposes that New Zealand entrepreneurs take more satisfaction out of their private than their professional lives, which results in low growth aspirations. In other words, the lack of growth in the current business is a consequence of the resolution of the conflict between the private and the professional life of the entrepreneur, and entrepreneurs receive more satisfaction from pursuing private rather than professional goals.

The data presented here paint a different picture. Entrepreneurs take pride in the businesses they have created and derive a clear sense of satisfaction from their engagement in the business. Many Pragmatists and Inventors have the best 'job' they ever had, and in order to maintain control over their currently very satisfying professional life, they need to maintain control over the business. This presents a conflict between control and growth rather than between professional and private life. The lack of growth is predominately a professional decision rather than one that emerges out of conflict between the private and the professional life.

It might be that New Zealand has, in fact, a high degree of career entrepreneurship compared with other countries due to fewer opportunities for pursuing a corporate career track caused by a lack of large businesses. The New Zealand economy is dominated by small, and in particular, micro-businesses that do not allow for formal career tracks. Future studies therefore will need to compare whether career entrepreneurship is more common as a result of this structural condition. These studies will need to control rigorously for industry differences. Previous research has shown that low-growth entrepreneurship tends to be more common in certain industries such as agriculture (Olsson, 1988) and tourism (Ateljevic & Doorne, 2000). Since these industries are central to the New Zealand economy, low growth entrepreneurship might be a feature of the economic structure rather than that of the motivational choices of New Zealand entrepreneurs. This, too, would benefit further investigation.

On a final note, let me return to the issue that sparked my initial interest in this research project, namely the capacity of innovative entrepreneurship to contribute to economic growth as well as how it might be encouraged. Innovative entrepreneurship matters for economic growth. Innovative ventures have growth potential, creating attractive employment and tax revenue whilst remaining engaged with innovation. On occasion, this potential becomes obstructed through individual growth preferences. This does not mean, however, that the growth potential lays idle for the entire economy. Rivals are prepared to realise this potential, and all innovative ventures provoke rivalry, either directly in a marketplace or through indirect rivalry for establishing a market.

The combination of innovative entrepreneurship and emerging rivalry releases a wealth creating capacity, at least in the early stages of market development. Rivals need to acquire resources and build capabilities to compete effectively, contributing to economic growth. Rivals also encourage the efficient use of resources by eroding favourable market positions. In this process, rivals grow the market and provide the capacity to satisfy increasing market demand. These are major contributing factors in the process of creative destruction.

Nurturing the wealth creating capacity of innovative entrepreneurship requires a realisation that not all innovative ventures are created equally. Their emergence depends on a nexus between individuals and contextual conditions. Having venturing individuals, thus, does not suffice if those individuals fail in identifying or creating contextual conditions conducive to opportunity emergence. At this juncture, every insight into individual-opportunity nexuses improves our ability to foster the growth of innovative ventures.

## **APPENDIX – INTERVIEW GUIDE (short version)**

### **A. Introduction – Entrepreneur and the business**

Can you tell me about yourself (professional background prior to involvement), your role in the business, and why and how you became involved?

What are you trying to accomplish with the business?

Can you tell me about your business? What makes your business distinct?

How would you define your customers?

How do you define results in your business?

What are core competencies of the business? And what do they have to do with the results?

### **B. Questions relating the product – Origins and vision**

Can you tell me a little bit about the product?

Where did the product idea come from? Were there earlier versions of the product?

Who was involved in the development?

Why did you want to sell the product? (Would you rather sell something else?)

What is unique about your product?

Are other firms crucial in the production or distribution of your product?

### **C. Initial sales – Legitimising the business**

How did you identify your initial customers; or did they find you?

What was new about the product from their perspective?

How did they react when you first approached them? Did you get any valuable feedback?

Did problems/advantages arise out of the newness of the product? How did you overcome these problems?

Why did customers buy your product?

Did your initial customers differ from your current customers?

Can you describe the initial competitive environment? Who were the major competitors, and what were possible substitutes?

How did you determine the price for the product? What did you do to influence it?

If you had to set/ negotiate a price for your product again, what would you do differently?

After the initial sales, did changes to your (1) product, (2) its method of production and/or (3) its positioning become necessary?

#### **D. Business growth and market changes**

Can you tell me a little bit about your current market?

How do you now approach customers (or they you), how does this differ from initial sales?

What is the basis for competition, and how has this changed?

How did the changing competitive environment influence your business and its market?

Why do customers now buy your product? Did the demand increase?

Do you get valuable input from customers?

Were changes to the product, or its positioning necessary in order to achieve growth?

Did it become easier to sell your product over time?

Did you (or your customer) initiate price changes?

Did the overall development of the business and the market match your expectations?

How did you finance growth?

How important is the local market for business success?

What are the major obstacles to growth for your company?

#### **E. Future – Lessons and the business in 5 years time**

What are the major future opportunities/challenges for your business?

If you had to start all over again in the future, would you do something differently?

In a few words, what would you be looking for in a new business idea?

Where do you see the product in 5 years?

Where do you see your business in 5 years?

Finally, where do you see yourself in 5 years?

**Any comments/thoughts?**

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