HATCHING PROSPERITY TOGETHER.
A DYNAMIC ASSESSMENT OF
RELATIONSHIPS IN BUSINESS
INCUBATION IN NEW ZEALAND.

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Abstract

The concept of business incubators has attracted much attention in recent years, both as descriptive of an increasingly important phenomenon and as an effective public intervention in the economies of lagging cities, regions, and countries. However, little empirical research has explored this phenomenon.

To better understand what type of relationships contribute to the performance of newly hatched business ideas, the following study applies a social capital and proximity lenses to explore relationships in business incubation and how they contribute to start-up performance.

Through the use of open-ended questions this study carried out semi-structured interviews with 25 total participants of the New Zealand incubation system. These in-depth interviews allowed participants to express their perspectives on business incubation.

This study revealed that there are tensions that exist in the incubator environment which are as much about the relationship between the two central participants - incubator personnel and entrepreneur - and other stakeholders, as between the two central participants themselves. These tensions, if not aligned, restrict incubating entrepreneurs from gaining advantage from business incubators. Additionally, the study reveals that the role of geographical proximity in business incubation is surprisingly of less importance than other forms of proximity.

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Chapter 1: Introduction

New Zealand's GDP has lagged noticeably over the last five years. Between 2006 and 2010, the economy's growth rate stayed below 3% and during 2008 and 2009, it fell below zero (World Development Indicators, 2011). The New Zealand Treasury has credited the poor performance to several underlying determinants including deficiencies in entrepreneurship and innovation (Ministry of Economic Development (MED), 2011). This evaluation, however, seems unusual since Kiwi ingenuity has contributed to the country's recent advancements in agriculture, science, screen and digital, and information media telecommunications (e.g. New Zealand Trade and Enterprise (NZTE), 2011a). One might expect that these advancements are creating new businesses or allowing current businesses to develop, but this is not necessarily the case. New Zealand's innovations are failing to earn enough dollars to help the country's economy achieve its needed growth. To assist in this effort and bridge the gap between innovation and economic development, the New Zealand government has laid out initiatives to cultivate entrepreneurship and innovation.

As Shane and Venkataraman (2000) indicate, entrepreneurship is a relatively new and undefined field of study. Most academics have defined the field strictly in terms of who the entrepreneur is and what he or she does without incorporating other contributing factors (Venkataraman, 1997). Entrepreneurship is not simply a person, or team, who establishes a new organization. Instead, as Shane and Venkataraman (2000) argue, researchers must begin to think of entrepreneurship more broadly beyond the individual. In that spirit, this paper will define entrepreneurship as an interdisciplinary field that includes the examination of how, by whom, and with what effects the opportunities to create future goods and services are discovered, evaluated, and exploited. In other words, the study of entrepreneurship involves investigating the characteristics of entrepreneurs, the sources for their opportunities, and the execution of those opportunities (Shane and Venkataraman, 2000).

Entrepreneurs typically do not have all of the necessary resources to address these market needs and they require additional tools to begin successful trading

(e.g. Davidsson and Honig, 2003). Capital, business strategy, and relationships with key partners, for example, are absolutely essential for the entrepreneur to meet the market's specific needs. As a remedy to these obstacles, the market has witnessed the emergence of business incubators, which act as catalysts that empower entrepreneurs by connecting them with such necessary tools (Peters, *et al.*, 2004).

Business incubators have been adopted by the New Zealand government as a tool to help entrepreneurs develop new businesses that have the potential to positively contribute to the country's economic growth. To help raise the country's GDP above the bottom half of the OECD rankings, Auckland-based incubator The Icehouse argues that the country needs 3000 new high-growth, internationally-focused companies by 2020 (Fletcher, 2011, October 1). In New Zealand, business incubation is a government-led tool that tries to address some regional and national economic needs through the cultivation of start-ups which have high-growth potential. To date, studies on business incubation have helped researchers and practitioners to understand only portions of the phenomenon, leaving significant opportunities for future research, as Hackett and Dilts (2004) argue. Much of the incubation research has been focused around developing various frameworks for identifying and tracking incubator success and performance. These frameworks have been targeted to academic literature (e.g. Hackett and Dilts, 2004a; Mian, 1997; Phan *et al.*, 2005; Grimaldi and Grandi, 2005) as well as practitioner publications (e.g. OECD, 1999; Erlewine, 2007). However, despite a variety of proposed frameworks, there is yet to be a comprehensive grid that tracks the success and performance of incubation. Other incubation-related research has focused more on the different elements of incubation from the process of selecting incubator tenants (e.g. Aerts *et al.* 2007) to system development and policy formation of incubating start-ups (Bearse, 1998).

But, as previous research has shown - to understand the practical performance of institutions, one must first explore the social context within which they operate (Putnam, 1994). Scholars have shown that knowledge of the social situation can be an effective way to better understand diverse topics from sociology, to political and organizational studies (Adler and Kwon, 2002). Exploring the impact of the

sociocultural, though not necessarily a conventional approach, is a longstanding tradition in many fields. During his travels to America, for example, Alexis de Tocqueville (*Democracy in America* 2000) explored the country's new democracy and found that it could help to reduce inequality gaps between the poor and the rich, a context quite different from France at that time. As apart of one of his conclusions, he found that through association, Americans were able to overcome their selfish differences to create a spirited civil society (p. 19). Following in Tocqueville's tradition of exploring social situations, the French philosopher and self-taught anthropologist and sociologist Pierre Bourdieu discovered that an individual's external environments or social mechanisms permit certain individual experiences to occur (Du Gay *et al.*, 2000). People will naturally begin to view their life as distinctive without considering the valuable societal structures that have directly contributed to their current state (p. 300). Building on these previous strands of research, Putnam *et al.* (1994), in his study in Italy's regional government model, found that the practical performance of institutions are shaped by the social context within which they operate.

Business incubator literature has begun to understand the importance of the social context, relationships, and the networks of relationships in business incubation. For example, recent studies have shed light on the importance of the incubator manager-entrepreneur relationship (e.g. Rice, 2002), the impact of the incubator's and entrepreneur's networks (Sa and Lee, 2012), internal network formation (Lichtenstein, 1992), and the incubator-industry network (e.g. Hansen *et al.* 2000). Of the previous incubator research, few empirical studies have investigated incubation and even fewer have looked at the relational dynamics of incubation. Recently, Sa and Lee (2012) identified relational dynamics between the different networks in a business incubator. Even so, previous research has failed to provide an empirical window for seeing how relationships in incubation are formed, the ways in which actors help to ensure they maximize their relational benefits, the relational dynamics between the different actors in a business incubator, and their effect on incubator performance. Building on this previous literature, this study further investigates the social aspects of relationships in business incubators.

By conducting research at four different incubators with current and previous incubator tenants as well as incubator practitioners, this empirical study has the

potential to be interesting and helpful for academics involved with business incubation, entrepreneurship, and economic development literature. This study may also grow to serve as a resource for incubator managers as well as individual entrepreneurs who are contemplating enrolling in an incubator programme.

The following paper reports on the findings of the study. The first section discusses the current literature dealing with business incubator performance, followed by an explanation of the methodology used for the research element. Finally, the findings of the research will be reported and then discussed, with a concluding section that outlines suggested next steps for further research in this space.

Chapter 2: Literature Review

Entrepreneurship trends indicate that more people than ever are launching new business ventures. The Global Entrepreneurship Monitor, which is composed of academics from a diverse set of universities, recently estimated that in 2010, 110 million people between the ages of 18 and 64 were actively involved in starting businesses (Kelley *et al.*, 2011). However, start-ups typically have relatively low success rates and most are inevitably forced to close up shop within their first year of existence (Dunne *et al.*, 1988). According to a study done by the Organization for Economic Co-Operation and Development (OECD), one-third of European start-ups, on average, fail in their first year of existence (OECD, 2002). Author David B. Audretsch (1991) illustrates this phenomenon by pointing out that very few start-ups ever actually displace current industry leaders. But instead, entrepreneurs typically address a hole in a market when the production and sale of goods or services has failed to produce its desired outcome. In other words, new business opportunities arise when competitive imperfections appear in a marketplace. When this occurs, start-ups have the chance to capitalize on market failure by filling market gaps. However, it has always been a bit of a mystery as to why some entrepreneurs succeed and others fail. Research has pointed to a host of reasons, including the personal characteristics of entrepreneurs (e.g. Kirzner, 1973; Bruderl *et al.*, 1992; Alvarez and Barney, 2007) and a lack of economic development tools such as business incubators which, in theory, help connect entrepreneurs with the resources they need (e.g. Bergek and Norrman, 2008).

In order to better understand this space, literature has been assembled from three main areas. The following chapter will discuss these main topics of literature, which include: entrepreneurship, business incubation, and social capital. Additional literature from other related fields will be incorporated into the review where appropriate. The following, then, does not seek to be a complete literature review of any one space but instead is a compilation of several different areas. For comprehensive reviews of incubation literature, see Hackett and Dilts (2004). For an introduction to entrepreneurship, see Venkataraman and Shane (2000), and see Putnam (2001) for a strong narrative into the nature and impact of social capital.

2.1 Entrepreneurship

A diverse pool of research into the characteristics of entrepreneurs has revealed that these individuals appear to possess unique traits that help them first to discover an idea, and then to exploit it. Additional research also indicates that particular opportunities contribute to start-up frequency.

2.1.1 Discover an Idea

Literature tends to show that certain people discover entrepreneurial opportunities because of their unique cognitive abilities. Kirzner (1973) argues that entrepreneurs have a unique 'alertness' that gives them the eyes to identify new business opportunities, whereas non-entrepreneurs might have similar knowledge and experiences as an entrepreneur but remain blind to the market gaps. Baron (1999) argues, for example, that entrepreneurs will discover and address market gaps because they are less likely to spend time and effort feeling regret over missed opportunities – imagining what might have been – and are more likely to persevere, even in times of difficulty, rather than falling into inaction. Cooper *et al.*, (1988) argue that entrepreneurs have high levels of optimism and they perceive their chances of success to be much higher than they actually are – even higher than others in their industry would project. Entrepreneurs, regardless of the industry, face skepticism from others. To combat these external doubts, Chen *et al.*, (1998) argues that individuals with greater self-efficacy and more internal locus of control are more likely to realise their ideas. McClelland (1967) in particular argues that entrepreneurs require high levels of achievement. Since the exploitation of an opportunity has the potential to produce remarkable rewards, high-achievement minded individuals are more likely to act on opportunities to see them realised (McClelland, 1967). Entrepreneurs tend to exhibit a much higher willingness to bear risk than managers of established firms (e.g. Stewart and Roth, 2001). Alvarez and Barney (2007) go on to find entrepreneurs are endowed with unique characteristics that allow them to see and realise new business opportunities by tapping into their past knowledge. Many times the unique knowledge that an entrepreneur holds is proprietary information not held by

anyone else, since it has been uniquely obtained through their particular life circumstances (Venkataraman, 1997). Prior information could also stem from past industry work experience.

We see entrepreneur's communicating traits which they perceive as common amongst themselves and their peer entrepreneurs. In a 1995 *Wired* interview, Apple co-founder Steve Jobs discussed the importance of an individual's personal characteristics and experience in the act of connecting previous knowledge to produce something new and creative. Jobs commented:

Creativity is just connecting things. When you ask creative people how they did something, they feel a little guilty because they didn't really *do* it, they just *saw* something. It seemed obvious to them after a while. That's because they were able to connect experiences they've had and synthesize new things. And the reason they were able to do that was that they've had more experiences or they have thought more about their experiences than other people (Wolf, 1995).

Similarly, Ward *et al.* (1997) argued that individuals vary in their ability to combine particular knowledge and concepts into new ideas. However, execution of an idea is what separates an entrepreneur from someone with only an 'idea'.

Management guru Peter Drucker (1999) once famously said: "ideas are cheap and abundant; what is of value is the effective placement of those ideas into situations that develop into action." In other words, ideas are nothing without effective execution - it is the realization of an idea that matters most.

2.1.2 Realise an Idea

Authors have argued widely that there are distinctive cognitive attributes which allow entrepreneurs to realise opportunities that others would only dream about. It is still the subject of much debate as to whether this characteristic is innate and specific to the individual or acquired over years of life and work experience.

Whereas Bruderl *et al.* (1992), found that a founders work and school experience greatly matters in the survival of an established firm, Cooper *et al.* (1989) argue that entrepreneurs are more likely to exploit opportunities if they have gained

useful information from their previous employment. This includes not only information about how to be an entrepreneur, but also valuable industry and other business-related knowledge. Although the broad category of business-related knowledge could include a variety of topics, entrepreneurs typically are in need of strategic knowledge and operational knowledge which they often source through different advisors whereas topics of finance, accounting, or legal operations would fall under either of the two categories depending on the particular issue.

Advisory support, whether it is strategic or operational, can be the key resource that propels a start-up toward success. Whereas organizational knowledge concerns the day-to-day running of a venture, strategy is the master plan of a business.

Strategic Knowledge

Strategy is a plan of action that helps to achieve an overall aim and it typically comes with policies, programmes, or tactics that help actualize this intension. The formation of strategy tends to be different from firm to firm. Some companies might lean on traditional strategic planning, as illustrated in the Design School approach (e.g. Mintzberg, 1990), whereas others might follow the trial and experience approach laid out by Mintzberg (1987); a synthesis of approaches such as logical incrementalism (Quinn, 1978), or even the balanced scorecard (Kaplan, 1992) is also imaginable.

Traditional business strategy methods reflect a top-down approach whereby management is responsible for the firm's strategy (e.g. Andrews, 1971; Mintzberg, 1990; Ansoff, 1991). The Design School was developed by the Business Policy group of the Harvard Business School in the 1960's and classically exemplifies traditional strategic thinking. The school encourages management to escape to an isolated room to seek and secure the best fit between external threats and opportunities and internal strengths and weaknesses. The result of these steps is a fully formed strategy (Mintzberg, 1990).

In response to earlier models, emerging approaches to strategy such as Mintzberg's trial and experience help to combat the ever changing marketplace by

encouraging management to move out from the isolated back room and start implementing to figure out what works (Mintzberg, 1990). For a variety of reasons whether they be societal, technological, or a result of globalization, there is generally an increased competition amongst today's businesses (e.g. Friedman, 2007). In order to keep up, companies are continuously evaluating new approaches to strategy so that they might fuel faster reaction time and drive quicker growth.

Operational Knowledge

Operational knowledge concerns everything from hiring methods and employee motivation to the processes for creating annual budgets. Whereas strategic guidance can be a continuous need for entrepreneurs, operational knowledge tends to be gleaned more systematically from previous experience, meaning that experienced entrepreneurs typically come to their start-up more prepared to solve operational issues than strategic ones. One way to explain this difference is to look at the broader context in which business exists in much of today's market-focused world, namely a continuously changing and evolving landscape. In economic terms, the free market is constantly searching for its equilibrium and as such, is in perpetual transition. Although the concept that business is always in motion is mostly accurate, there are particular industries and business that tend to be more stable than others. For example, those industries that are more geographically diverse and which deal in consumer products tend to persist more through economic downturns than do fashion designers (e.g. Adams, 2011). Additionally, the process of starting a business is a creative and typically nonlinear experience, leaving entrepreneurs to discover or find a new path through the ambiguous landscape.

2.1.3 Opportunism

Though the canon of research points to entrepreneurship as a characteristic or cognitive difference of an individual, there exists another body of other research which argues instead or in addition to cognitive characteristics, there are other factors, particularly financial ones, which propel individuals into starting and

sustaining new ventures. For example, Kirzner (1973) points to the potential financial benefit implicit in an entrepreneurial idea as a key driver in the actual realization of the idea. Evans and Leighton (1989) find that individuals are prone to launch into entrepreneurship simply because an individual has built up a stockpile of financial capital. However, Kirzner (1973) went on to argue that for an idea to be realised, an entrepreneur must believe the reward will outweigh any initial investment of time and resources. Years earlier, Schmookler (1966) found that the exploitation of an idea is more common when demand is expected to be particularly high. Similarly, Dunne *et al.*, (1988) found that entrepreneurs are more inclined to act if industry profit margins are significant or if the industry has relatively low barriers to entry (Acs and Audretsch, 1987) or the low cost of capital (Shane, 1996). Additionally, Hannan and Freeman (1984) discovered that for new ideas to be realised, the field of competition must be neither too low nor too high.

Taken together, research remains inconclusive as to how and why an individual finds an idea and then successfully launches a new venture. Nonetheless, research points to the cognitive characteristics of an entrepreneur and the business opportunity as key drivers. Research also indicates that despite an individuals cognitive ability to realise an opportunity, they require other resources that include advisory knowledge. This is where business incubation steps in.

2.2 Business Incubation

Although an entrepreneur's characteristics, the draw of the financial rewards, or a mix of the two can help propel an individual into launching a new business, there are also economic development initiatives like business incubators that help to pair these individuals with other essential start-up tools. Business incubators have long addressed this gap by helping to connect entrepreneurs with the resources they need to start and grow successful ventures.

In recent years business incubators have experienced a rapid increase in popularity, so much so that numerous stakeholders have increased their investments. In the second quarter of 2011, US investors spent 7.5 billion USD worth of venture capital on incubators, up from 2.5 billion in the second quarter of

1995 (PricewaterhouseCoopers, 2011). The rise in incubator interest is also reflected in the sheer number of incubators in operation today. The National Business Incubation Association (NBIA) reports that the number of incubators in North America in 1980 totaled 12, and in 2006 that number grew to more than 1,400, with 1,115 in the US, 191 in Mexico, and 120 in Canada (Knopp, 2007). The United Kingdom Business Incubator Association (UKBI) reports that there are approximately 300 active business incubators in the UK alone (UKBI: Business Incubation, 2011). Most of which are organised on behalf of the government to serve as an economic development tool.

2.2.1 Definition and Structure

According to Aerts *et al.* (2007), the first reported incubator was started as far back as 1959 by Charles Mancuso in Batavia, New York. That year, Mancuso began renting space at a discounted rate in his Batavia Industrial Centre to small and starting companies and helped consult them through their growth process (Mancuso Business Development Group, 2009). However, since Mancuso's first incubator, several economic and market shifts have forced incubators to incorporate different models and as a result, the definition and structure of incubation has evolved. On the whole, researchers have tended to agree that incubators are comprised of four basic components. These components include: a shared space, a host of different business support services such as access to subsidized or free accounting and legal help, consulting support or mentorship, and access to key contacts through internal and external networks - including introductions to capital sources (e.g. Hackett and Dilts, 2004a; Grimaldi and Grandi, 2005; Bergek and Norrman, 2008). However, these components will be slightly different from one incubator to another. For example, in his research, Mian (1997) discovered that university-based incubators, which help to commercialize university research, provide a few unique university-related services, including student employees, library services, and laboratory facilities. Incubation can also be one of the tactics used by economic development agencies (EDAs) to help ignite new business development, though it is usually only one of many tools that EDAs provide. Despite the incubator context researchers tend to agree that business incubators exist to invest in new ventures whose ideas, products, services, and systems are in their earliest phases and are still forming into fully

developed and sustainable enterprises (e.g. Hackett and Dilts, 2004a; Grimaldi and Grandi, 2005; Bergek and Norrman, 2008).

In light of this previous incubator research, the following paper will define incubators as organisations that exist to develop emerging ventures by serving entrepreneurs through the provision of a portfolio of services, which can include, but is not limited to, shared space, business services, consulting support, and access to a wide array of social networks which can include access to capital sources. On the whole, incubators provide these services in exchange for an equity stake in the business. Particular aspects of incubation, such as mentorship or office space, do not solely constitute incubation; instead, incubation requires the integration of multiple tools working in harmony for the betterment of the entrepreneur. In so doing, the macro idea of incubation is that the wider community benefits economically from the creation of new jobs and revenue producing ventures. Under this definition, business accelerators are also included, despite their limited duration and particular focus on technology companies (e.g. NBIA: Business Incubation, 2009).

2.2.2 Incubator Research

Although incubators have existed in one form or another since the 1950's, the canon of incubator literature still lacks a complete framework to define and track the performance of incubation by showcasing the key outcomes of benefit for entrepreneurs, incubators, and each of their stakeholders. The debates around the performance of incubation, from both macro and micro viewpoints, is one of the core conversations working to unite the diverse field and create dialogue about what methods and techniques are actually helping entrepreneurs succeed and which are not. Scholars began trying to address the problem of tracking incubator performance when the field began to grow in popularity in the 1980s. Since that time, academic interest in this area has snowballed. Some scholars have focused on developing metric templates that gauge the success of incubation by applying scales which take into account the goals and configurations of the particular incubator. In this context, incubation is tracked by incubator type, allowing incubators of similar goals and configurations to be compared with one another. Others have sought to develop universal frameworks for benchmarking the

performance of incubators. These grids are not necessarily reserved for only one type of incubator, but have, as the authors argue, the potential to track the performance of multiple types of incubation (e.g. Hackett and Dilts, 2008). Although incubator research has both progressed in terms of tracking incubators based on their unique goals and configurations as well as benchmarking incubators based on the same metrics, the canon still lacks a complete grid with which to gauge incubation performance. The following two sections will further illustrate these two streams of incubator research.

Mission-based Performance

There are a handful of authors who argue that to understand an incubator, you must first begin by understanding the type of incubator. In some of the earliest literature on the topic, authors Temali and Campbell (1984) set the standard for describing incubators and their configurations. They categorized different incubators according to their financial sponsor, whether publicly-, non-profit-, university-, or privately-sponsored. A few years later, authors Lumpkin and Ireland (1988) further argued that incubator qualities differ according to the type of incubation. However, as the particular needs of entrepreneurs evolved, the common classifications did not always accurately portray the individual incubator. Several authors noticed this and began evaluating even further back with an investigation of the incubator's goals. Bergek and Norrman (2008), for example, argue that it is only possible to compare incubators of common goals since different ones yield different outcomes. Some incubators might prioritize job creation, for example, while others might be interested in commercializing research. The second goal is to take research done in universities, research institutions, and in firms so as to transition it into new firms through a process of commercialisation. While both of these goals bear a resemblance to Grimaldi and Grandi's (2005) earlier incubator model of non-profit verses for-profit, Bergek and Norrman's (2008) goals differ in that they are not based solely on incubator funding sources. According to Bergek and Norrman (2008), it is only after an incubator's goals are established that structure and then performance can be tracked through the five components of an incubator: selection, infrastructure, business support, mediation, and graduation. Each component does not hold equal weight, but rather, it is the unique activities in the particular components of

business support, selection, and mediation that help to create differentiations from one like-minded incubator to another.

Service-based Performance

In one of the key initial studies on incubation, Campbell and Allen (1987) argue for a variety of different incubator and incubatee milestones to help distinguish successful incubators from unsuccessful ones. These benchmarks are based on the incubator services provided to incubating entrepreneurs and they range more or less chronologically from the creation of business networks and the participation of investors in providing capital for tenants to even the synergies shared between tenants. Years later, however, Mian (1997) developed a more comprehensive method for evaluating incubators that are tied directly to universities. Borrowing from management literature Mian (1997) uses four commonly accepted approaches to organizational effectiveness in order to provide a viable framework for accessing and managing university technology business incubators in the US context. Although Mian's (1997) focus was on a particular type of incubator, his metrics influenced other researchers including Bearse, whose 1998 framework is rooted in the assumption that data can be regularly gathered by the incubator, which readily allows for the comparison of incubators. Using both common performance growth measures (e.g. the number of jobs or percent of sales growth over time) as well as more intangible measures (e.g. product innovation, the quality of the management team, and the strategic alliances formed by the incubate), Bearse (1998) developed incubator benchmarks by analyzing the activities of successful incubators. Others since that time have built on these indicators, including Phillips (2002), who pointed to both the number of patent applications per firm and the number of discontinued businesses as two of the factors useful for gauging the performance of US incubators. Authors Hackett and Dilts (2008) propose and validate several scales by which to gauge incubation success. Their scales gauge the effectiveness of the internal incubation process by individually measuring selection performance, monitoring business assistance rigor, and resource benevolence. Hackett and Dilts' (2008) scales are not prescriptive to a particular type of incubator, but can be customized and then applied to incubators of differing goals and configurations. Although performance measures do not show the comprehensive story of success or failure in incubators

(e.g. Bergek and Norrman, 2008; Grimaldi and Grandi, 2005), these strategies have earned the endorsement of prominent practitioner organizations such as the NBIA and UKBI, who advise their members to track success based on similar indicators. For example, in the last 12 years, the UKBI reports that over 167 full-time jobs have been created by their members and that 87% of their graduates have survived more than 5 years (UKBI: Business Incubation, 2011).

However, research has shown that business incubator metrics alone do not show the full impact of incubation (Hackett and Dilts, 2004). Incubator success is multifaceted and as such, universal and comprehensive performance tracking has proved insufficient for consistently gathering and maintaining the flow of information from incubator graduates. This leaves researchers, incubators, and associations like the NBIA without a comprehensive system for gauging incubator success and, consequently, without the means for establishing a universal system of benchmarks to grade incubator practice.

2.2.3 Dynamics of Incubation

One of the conclusions common to the majority of framework of incubation is that every incubator is different both in goals and services, demanding that each incubator be uniquely assessed. The differences among incubators are not always radical or unique, but are often found in the incremental changes, the small tweaks, which help yield different incubator successes. Taking notice of this, researchers have begun to investigate in more detail particular aspects of incubation. Studies have been developed around different incubator elements including topics such as internal network formation (Lichtenstein, 1992), incubator-industry network (e.g. Hansen *et al.* 2000), the incubator manager-entrepreneur relationship (e.g. Rice, 2002), and the selection processes (e.g. Aerts *et al.* 2007). Lichtenstein's (1992) work revealed the benefits created by internal incubator network formation where an incubator actively facilitates networking. This could include activities such as conducting regular business, sharing contacts, equipment, and knowledge amongst tenants and with the outside community. Hansen *et al.* (2000) built on Lichtenstein (1992) and others to make the case that a type of incubation called the Network Incubator is more inclined to develop successful businesses because it creates an environment whereby the tenant

develops connections and relationships that provide incremental or game changing benefits for the start-up. However, Hansen's *et al.* (2000) work was solely focused on technology incubators just prior to the Dot-com bubble burst - leaving researchers questioning the legitimacy of his findings. Rice (2002) later claims instead that it is the co-production relationship between the incubator manager and the entrepreneur which help to create the key benefits in incubation. However, he goes on to argue that in order for co-production to work, there must be a good fit between the tenant and the incubator manager. For this to happen, tenants must be carefully selected. With an eye towards that selection process, Aerts *et al.* (2007) discovered that a tenant survival rate is positively related to a more balanced screening profile and that most European incubators screen potential entrants based on its market or the character of the tenant's management team.

Amongst this new research, a common thread around the importance of relationships in incubation has woven through. Lichtenstein (1992) presents a framework for how relationships are created, what interactions are possible, and the benefits from these interactions. He argues that network relationship-building is the most important value-added component of the incubation process. Contemporary research has offered further clarity into this space by exploring in greater detail the who, what, where, how, and why of the different relationships in business incubation. Research has pointed to the importance of the entrepreneur and incubator manager (e.g. Rice, 2002), the entrepreneur and its investors (Shepherd and Zacharakis, 2001), and the external networks outside of the relationship between the incubator and entrepreneur (Warren *et al.*, (2009). As Rice (2002) suggests, there is significant potential for incubator managers to provide valuable counsel to help tenants develop well. However, due to the time intensity of this counsel, an incubator manager's time must be strategically allocated to the different incubating entrepreneurs. Additionally, the entrepreneurs must be ready to engage in this co-production with the incubator manager. For example, the entrepreneur could have gaps in their knowledge, competencies, and other resources that prevent them from connecting with the incubator manager in co-production. On the other hand, the incubator manager could also prevent this valuable council from occurring, for example, by way of their readiness to engage with the entrepreneur in collaboration (Rice, 2002). Additionally, Shepherd and

Zacharakis (2001) discover that entrepreneurs and venture capitalists can build necessary trust with one another through a handful of strategies including having frequent and open communication with each other. This strategy can act as a stimulus for other trust-building techniques and is ultimately more helpful than control mechanisms, a technique suggested by previous VC-entrepreneur relationship research (e.g. Cable and Shane, 1997).

However, research has failed to understand the social context of incubators and the interconnectivity among the participants. Previous incubator studies have tended to isolate a specific dyadic relationship and explore its effects on the success of a start-up. On the other hand, some research into the social context of institutions has shown the complexity of relationships within a given network, rather than just focusing on a particular relational pair (e.g. Putnam *et al.*, 1993). Given the limited research on the topic and this particular gap, it is not surprising that McAdam *et al.* (2006) have argued for more research on the social elements of incubation. Hackett and Dilts (2004) have also called for more research into management practices, the interactions between firms, and the interactions between the firms and their external networks. Important to this discussion of networks and the social aspects of innovation, however, is an understanding of the theory of social capital.

2.3 Knowledge through Social Capital

Even though an entrepreneur may possess certain entrepreneurial characteristics or has partnered with an incubator to help fill gaps they might have, their start-up is not guaranteed success. There are a host of other components that can be the difference between a successful start-up venture and one that fails. One of those key entrepreneurial needs is knowledge. Davidsson and Honig (2003) discover that the further into the start-up process an entrepreneur progresses, the resources and information they require to succeed becomes more idiosyncratic. What this means is that education and other programmes that promote entrepreneurship activities at an early start-up stage may not be the most relevant tools later on to help entrepreneurs succeed. Instead, entrepreneurs reach a point in starting a new venture where they typically have an increased need for specialized

knowledge and other valuable resources (Chung and Gibbons, 1997). One of the key ways to address this need is by facilitating effective knowledge transfer from one individual to another. Anderson and Jack (2002) find that a need can be elevated by connecting an entrepreneur with an individual who has the particular knowledge they need. The authors go on to discuss that this vital connection can result in significant opportunity to help the start-up progress past difficulties and eventually succeed. In order for this knowledge transfer to work, however, some type of relationship must be established between the two parties. Thus, a way to view one's aptitude for building relationships is through the lens of social capital.

The roots of social capital reflect a primordial feature of social life which is that social ties between individuals - such as between friends - can be exploited for different purposes, whether it be economic, moral, psychological, or otherwise. At the core of social capital theory is the notion of relationship value, a concept that has long been studied under topics such as informal organization, trust, culture, social support, social exchange, social resources, embeddedness, relational contracts, social networks, and interfirm networks. Although the concept of social capital is relatively new in academic literature, it helps to unite these different topics under one joint category. The political theorist Robert Putnam (2001) reported that the term has been rather ambiguous as it has been invented and used in the twentieth century by at least six different people at separate times and from separate disciplines. However, it wasn't until the 1980's that sociologist James S. Coleman first established the term in intellectual discourse. In his research into the social context of education, Coleman (1988) argues that social capital is both social and economic in nature. It is aligned closely to economic concepts, such as physical and human capital because at its core, the theory helps to facilitate productivity; although, according to Coleman (1988) the theory is quite different from physical and human capital because it is more concerned with the structural changes in the intangible relations between individuals that help to facilitate action. In other words, he argues that social capital exists in the social relations between people and it persists because of structure in the social context.

Critics of social capital have argued that in shepherding these other topics under one umbrella, the idea helps to create something that means "many things to many people" (Narayan and Pritchett, 1997) and some have even called it an

"elastic term" (Lappe and DuBois, 1997: 119), meaning that its definition can flex or extend to fit a wide spectrum of uses. Putnam (2001) challenged these critiques by further solidifying the theory with a more straightforward definition that focused more on relationships and less on structure. He defines social capital as the "connections among individuals - social networks and the norms of reciprocity and trustworthiness that arise from them" (p. 19). To illustrate this definition, Putnam reports that his interest in social capital arose from research into the lack of civic engagement in American cities. He believes Americans, on the whole, have decreasing levels of social capital because they have traded being involved in their communities for the isolation of watching their own TV.

Despite low levels of social capital, relationships are still possible where there is some level of trust established between parties (Tsai and Ghoshal, 1998). Trust is a governing mechanism that acts as an attribute of the relationship between two individuals (Dibben, 2000). It tends to serve as both a precursor and outcome of successful relationships as modeled through collective action (Leana and Van Buren, 1999). Definitions of trust vary, but most researchers tend to agree that trust is expressed as one's willingness to be vulnerable, such as sharing specialised knowledge with someone else (e.g. Rousseau *et al.*, 1998). Relationships tend to influence economic exchanges, and the level of trust and familiarity between economic agents effects the level of sophistication of these relationships (i.e. Dibben, 2000).

There are a variety of methods by which to view an organization's and an individual's level of social capital. Boschma's (2006) five types of proximity present a unique lens to gauge an actor's level of social capital and to develop strategies to improve their amount of social capital. Boschma (2006) argues that particular types and levels of proximity must be in place if two parties are to learn from one another. Too much or too little proximity can limit the exchange of knowledge. Boschma (2006) discusses five points of proximity: cognitive, organizational, social, institutional, and geographical. Each form has its benefits and limits. Whereas Nahapiet and Ghoshal (1998) argued for three points of proximity that help to facilitate the creation of intellectual capital, Boschma (2006) argues that knowledge acquisition and innovation result from balanced levels of five points of proximity.

Social capital is not only reserved for established organizations, but it is also a tool that can vitally help start-ups. Researchers have found that social capital can help facilitate knowledge transfer and product innovation (e.g. Gabbay and Zuckerman, 1998; Tsai and Ghoshal, 1998). However, the benefits of social capital are not only reserved for established organizations but for start-ups as well. For example, Faichamps and Minten (1999) argue that since network capital is crucial for firm growth, entrepreneurs must accumulate it the same way they gather physical resources. In other words, social capital is a key resource in successful entrepreneurship and it must be cultivated in order for knowledge to be transferred between actors. In a similar way, Putnam (2000) argues that social capital must be in place from the start. Using bowling leagues as his main example, he argues that bowling leagues are not formed as a result of economic prosperity, but it is rather by way of economic prosperity that bowling leagues exist.

2.4 Social Capital and Business Incubation

Cohen and Fields (1999) argued that social capital must be understood in its particular context. For example, they used the theory to understand Silicon Valley's economic success and the importance of the local institutions and entities which help connect the variety of different actors. The authors also found that social capital is often operationalized through networks and network relationships. Firm-level strategic alliances have long allowed organizations to tap into resources, (human, financial, etc.) to which they do not otherwise have access. Alliances between companies continue to grow and with this has erupted a plethora of research to examine the phenomenon. Although start-ups typically enter an incubator as an infant business, the relationship between themselves and the incubator have close similarities to strategic alliances. For entrepreneurs, these new networks help provide an opportunity to identify, collect, and allocate particular resources (e.g. Uzzi, 1999). However, without an understanding of the network structure and the different relationships within that structure, social capital levels alone would be an inadequate measure to illustrate knowledge transfer.

Networks are key for entrepreneurship and social capital because it helps to set the stage for actors to transfer knowledge between one another (Casson and Giusta, 2007). According to Casson and Giusta (2007), networks, along with social capital, help to be the base where actors are able to connect and then share knowledge. Coleman (1988) alternatively believed that social capital was a by-product of organizational activities rather than from individual or network connections. In the context of entrepreneurship, Fafchamps and Minten (1999) do not see developed networks as a by-product of entrepreneurship but instead find that successful entrepreneurs invest in relationships. In other words, entrepreneurs are the type of people that invest in relationships because they see the value and then act accordingly. Researchers also find that social capital acts as a prerequisite for new ventures. Anderson and Jack (2002) in particular find that social capital can be the bridge that helps to connect the entrepreneur with the knowledge they need to succeed. The data is inconclusive as to which comes first, entrepreneurship or networks or social capital. However, as Anderson and Jack (2002) and Fafchamps and Minten (1999) argue, at least some level of social capital and some level of established networks must exist in order for entrepreneurs to both start a venture and to succeed in it.

Socio-economic research shows that economic actions may be influenced by the social structure of ties within which actors are embedded (e.g. Granovetter, 1985). However, the structure in which information is disseminated and the ways in which strategic alliances help entrepreneurs to receive and exploit this information is relatively unknown. Researchers have sought to construct dyads of an entrepreneurs network to show who is in their network and the levels in which the different actors contribute to the success of the start-up venture (e.g. Rice, 2002; Shepherd and Zacharakis, 2001). Although research is inconclusive as to both the network itself and also the influential relationships within, Gulati (1998) helps provide some clarity on the matter by way of investigating the social networks in strategic alliances. What he finds is that managers can benefit from recognizing and learning to understand the evolution and performance of their own strategic alliances through both dyadic and network perspectives, not just one or the other. He also finds that the firms with more social capital are both more likely to have access to a larger number of alliances are able to attract better partners who want to associate with them. This research is relevant to entrepreneurship and

incubation, particularly since this relationship implies some level of strategic alliance. In other words, incubation involves two organizations who have come together to source some amount of mutual benefit, even in the earliest stages of entrepreneurship.

The dyadic perspective helps to identify the key players in a network. They should not be viewed solely as dyadic though since many of the actors involved are communicating across network ties - so much so that networks must be viewed as active with ties of communication happening between the different parties. In the incubator's network, they typically have three primary categories of stakeholders who, in addition to the dyad of the entrepreneur and incubator manager, are influential in their activities. These are: investors, key people, and the public. An entrepreneur is then connected with the incubator through a strategic alliance (Figure 1 - Incubator Network). From the start-up's perspective, their network includes similar types of individuals (Figure 2 - Start-up Network); although, even if the categories or types of people are similar for an incubator, the particular individuals fulfilling those position descriptors may be different.

Figure 1 - Incubator Network

Figure 2 - Start-up Network

In sum, research tends to indicate that business incubators can play a vital role in connecting entrepreneurs with the knowledge they need to succeed, particularly by helping to raise levels of social capital by plugging them into valuable networks. Although research points to incubation's participation in this regard, there is limited

empirical research to help illustrate the ways in which the social context contribute to success in incubation. In other words, research is inconclusive not only as to how incubators help entrepreneurs acquire knowledge but also regarding the levels at which these relationships contribute to successful entrepreneurship. The following study attempts to address this gap in the research. The methodology for the study will be outlined in the following section.

Chapter 3: Methodology

3.1 Introduction

The methodology for this thesis is presented in two main parts. The first section includes an overview of the methodology used in this study, along with the methodology relating to the historical context section. The historical context has been produced from a handful of secondary sources and is presented here to show the history and current conditions of the New Zealand incubation system. The second part of the chapter explains the methodology of the primary research, much of which was influenced or based upon details raised in the historical context section. This part will include the research questions in which the primary research is rooted, the attributes of the sample group from which the data was collected, an explanation of the method of data collection, the approach to data analysis, and finally the limitations of this study.

3.2 Methodology

In their review of business incubation literature, Hackett and Dilts (2004) found that a large portion of the research in this space had been published through economic development-focused journals such as: *Economic Development Quarterly* and the *Economic Development Review*. Although it was not until the 1980s that research into business incubation began to take place, early on researchers tended to use a mix-method approach where mainly quantitative data collection was used to meet their research objectives. In one of the larger reported incubator studies, Hackett and Dilts (2008) undertook a non-experimental cross-sectional survey. A similar methodology was also constructed for Abduh's *et al.* (2007) study of incubation from a tenant's perspective, however this study differed in that its sample included current incubatees rather than incubator managers, which was the target for the Hackett and Dilts (2008) study. Kilcrease's (2011) assessment of the participating tenant's experience in business incubation resembles Abduh's *et al.* (2007) methodology as it is a national study, conducted in a variety of incubators; however, whereas the surveys by Abduh *et al.* (2007) go to a wide range of business incubators, Kilcrease (2011) takes a more localized perspective where

she compares tenants of similar industries who are enrolled in similar types of incubators.

Over the years, there have also been several qualitative studies on business incubation. For example, Rothschild and Darr's (2005) study of Israeli incubation system was based on 49 in-depth interviews with incubator personnel, including the managers, workers, and incubator staff. Sa and Lee's (2012) analysis of the relationships and networks in business incubation carried out 29 in-depth phone interviews with the incubator tenants of one Canada-based incubator. The study also used secondary research sources like documentation in order to further understand the different relationships within business incubation. Lichtenstein (1992) followed a similar approach but only engaged a limited number of incubators (2). His mixed method approach included focus groups, in-depth interviews with the CEO managers and current tenants, and some ethnographic work. Hansen *et al.*'s (2000) Network Incubator study used a mixed-method approach that included a large quantitative survey that was issued to incubator tenants worldwide, followed by a large in-depth qualitative phone interview with incubator executives. There is, however, some uncertainty as to what type of executive was interviewed, as it is not reported whether it is the CEO or someone else.

As introduced above, much of the previous research on business incubation takes a quantitative approach, which usually resulted in large-scale, country-wide or world-wide studies (e.g. Hansen *et al.*, 2000; Kilcrease, 2011; Abduh *et al.*, 2007; and Hackett and Dilts, 2008). As is typical with large-scale quantitative approaches, the researcher ensures they are generating sufficient sample sizes, but in doing this, certain firms or participants could be included who might be otherwise omitted if a more structured selection process was implemented (e.g. Hindle, 2004). Furthermore, the difficulty in comparing data from participants and practitioners of dissimilar incubators can distract from forming clear conclusions as to which incubator resources help the tenant's businesses.

On the other hand, there is a stream of business researchers who are recognising the value of qualitative research as an approach to entrepreneur and incubation research. Historically, entrepreneurship research has swayed toward quantitative

studies that are based on structured surveys that are more descriptive in nature than qualitative studies. But with researchers finding that entrepreneurship is much more of an applied science than a 'pure' science, recent studies have called for a greater use of the qualitative method in studies of this topic (e.g. Hindle, 2004). Although research continues to identify trends quantitatively in the entrepreneurial experience, the act of starting a new business exists in a constant state of flux, hindered and fuelled by current market conditions. Since this is the case, one would suspect that there would be an influx in qualitative research since it is often emergent in nature, where the research question is given the freedom to evolve with the information gathered from a study's data. This flexibility allows the researcher to identify and then respond to growing knowledge in a field (e.g. Eisenhardt, 1989). However, the opposite has occurred and qualitative studies in entrepreneurship are greatly underrepresented in comparison to quantitative research (Hindle, 2004).

The thesis presented here builds on some of this previous research, but it also distinctly differentiates itself methodologically from quantitative research because of its qualitative approach. Qualitative research was chosen here because of its usefulness for conducting exploratory research that's aimed at theory development, rather than theory confirming. Additionally, the New Zealand incubation industry is limited in size - containing eight total incubators, each having a relatively small number of employees as well as incubating entrepreneurs. With this being the case, this study was confined to a limited sample size. However, by doing interviews you tend to get more nuanced data than by simply surveying the participants. In other words, this study is focused on the interaction that takes place on behalf of both the interviewee and the interviewer, which can allow the interviewer to access aspects of an interviewee's reality that would have been inaccessible, such as their subjective experiences and attitudes (Peräkylä, 2005). Although there are a variety of interview styles, a semi-structured interview was chosen because of the exploratory nature of this thesis. This style provides a broad subject coverage in which the researcher is free to expand and explore further themes or comments that arise in conversations (O'Leary, 2009). In sum, this data collection methodology allowed the participant's perspectives and opinions to be investigated in more depth and flexibility than possible with a quantitative survey.

3.3 Methodology for Historical Context

Before further discussing the primary research methods of this thesis, it is necessary to further understand the historical context of business incubation in New Zealand. An understanding of the industry and its historical context will help to make clear why certain participants were chosen for this study. Hindle (2004), for example, argues that selection cannot be divorced from the social and philosophical context. With this in mind, the following historical context will draw on a handful of secondary resources to gain an understanding of the evolution of the business incubation system in New Zealand.

The secondary data has been obtained from several secondary sources including:

Internet searches. Google was the primary search engine used. To stay current on present industry changes, several Google Alerts were setup. The alerts typically provided up-to-date news from Global News sources, such as AP, as well as local New Zealand news outlets like The New Zealand Herald and The Dominion Post.

Government reports. New Zealand government reports supplied details into the history and present state of the country's incubation industry. The reports were acquired from professional contacts within the Ministry of Economic Development (MED) and New Zealand Trade and Enterprise (NZTE). These contacts were established by one of two ways: a recommendation from one of the study's participants, or arbitrarily at industry-related conferences or events.

Industry-related websites. The websites of individual incubators, government agencies, and the industry's association site provided details as to the number of incubators, age, location, and other relevant details.

These sources have been used to assemble a historical context for incubation. The context helps to set the stage of the industry, from its inception to its current

state. A focus on New Zealand's history as a country will also be included because it helps to demonstrate both past and present need for incubation and other innovation catalysts. These historical points will cover relevant government decisions, key trends, and changes to the incubator industry.

3.4 Historical Context

As one might expect, the current incubation system in New Zealand has evolved over the course of its ten-year life. Its most recent configuration has attracted worldwide attention, with two of the incubators receiving worldwide recognition by Forbes and the North American Business Incubator Association (NBIA). But, in order to understand the incubation system in New Zealand, one must go further back to get a sense of the country's economic history.

From the first English settlers in the 18th century, New Zealand's economy has been built on the back of commodities, primarily farming. Until England joined the European Union (EU) in 1973, the bulk of the country's GDP left the country as exports to the motherland. In the 1980's New Zealand suffered a second major dip as a result of regulatory changes including the deregulation of the transportation industries and the growing openness to importing foreign made products. These two changes helped contribute to the country's current economic situation and led to its fall from the top half of the OECD in per capita GDP, to the bottom half (Table 1 - OECD GDP Per Head Rankings: 1970 and 2010). Since these two major shifts, New Zealand has grown, but it has yet to regain its place at the top half of the OECD in per capita GDP (OECD, 2011). Nonetheless, the country continues to be recognised worldwide for its contribution to a range of industries including manufacturing, tourism, and the creative industries.

Table 1 - OECD GDP Per Head Rankings: 1970 and 2010

1970 GDP Per Head*		2010 GDP Per Head*	
Rank	Country	Rank	Country
1	Switzerland	1	Luxembourg
2	Luxembourg	2	Norway
3	United States	3	Switzerland
4	Sweden	4	Australia
8	New Zealand	18	United Kingdom
9	Netherlands	19	Italy
10	Belgium	20	New Zealand
11	Germany	21	Spain
24	Mexico	33	Turkey
25	Turkey	34	Mexico
* GDP Per Head Rankings by Purchasing Power Parity based on Current Currency Rates (OECD, 1971; OECD, 2011)			

Since the 1980s, the country has grown to regain some of its economic footing in the OECD, but it still trails neighbouring Australia and comparable countries such as Finland in annual economic growth. Economic growth can come from a variety of sources, including entrepreneurship. New Zealanders are never short on good ideas (and for that matter, entrepreneurs), and measures of entrepreneurship report that New Zealand's lack of high-growth start-ups is not necessarily due to the lack of good entrepreneurial ideas (MED, 2009). Difficulties arise, however, in commercializing the ideas by developing them into new ventures that contribute to economic development. This is illustrated by the sheer number of start-up firms in New Zealand compared with their lackluster performance (e.g. Kelley *et al.*, 2011). Ideas are being developed, but for some reason they struggle to develop into ventures that grow. New Zealand's government leaders have taken notice of these developments and have put together several initiatives in an attempt to

propel the economy forward at a faster rate. A growing cohort of New Zealand government leaders believe that economic growth is directly connected to equipping high-growth start-ups with the tools and resources for realizing their potential (MED, 2011). The primary initiative in this space is business incubation.

At the turn of the century, New Zealand rolled out its new incubation system. The central government-funded Incubator Support Programme (ISP) was assembled by New Zealand's Ministry of Economic Development (MED) and launched in June 2001. Today, the programme's oversight is provided by New Zealand Trade and Enterprise, the governmental department responsible for recruiting offshore businesses and helping domestic businesses expand abroad. At the time of the ISP was formed, New Zealand had four incubators. Soon after that, the number grew to 17 and eventually reached 19. By 2012, however, the number of incubators reduced to eight, which are located in New Zealand's six largest metropolitan areas (NZTE, 2011b). See Figure 3 to see the logos of the current New Zealand incubators. In the time since the ISP began, several of the individual incubators have been recognised worldwide. ICEHOUSE in Auckland was voted one of the top ten incubators in the world by Forbes in 2010 (Adams, 2010), and in 2011, PowerHouse in Christchurch was recognised with the Incubator Innovation Award by the largest industry body, the National Business Incubator Association (NBIA) ("Success Stories - NBIA," 2011). The New Zealand's government policy toward incubation is to "catalyze" rather than "support-in-perpetuity" the aspects of the innovation system, a system that includes business incubation. The idea of incubators as self-sustaining entities is a rather new concept for the worldwide industry. Most governments who run national incubator systems provide the majority of the operational resources for these incubators to survive and many have no intention of changing their model. For example, seventy-five percent of the incubators in the United States are not self-sustaining, but are non-for-profits – this from the US, the country who birthed the concept of business incubation and for years has led a strong innovation system marked by strong institutional frameworks, thriving early-stage capital market, and a healthy entrepreneurial class (Wiggins and Gibson, 2003). In Europe, several governments consider incubator spending a necessary public investment (e.g. Frenkel *et al.*, 2008). Germany, for example, sees incubators as a tool for job creation. France, on the other hand, uses incubators primarily to

improve the commercialization of university research. Italy has used their incubation system in part to promote economic development in some of their outlying regions. In Israel, a country widely thought to have the most successful system in terms of company output, began incubating to help incorporate new highly skilled immigrants into the country's economy. In comparison, the New Zealand government states that their incubation system has been established to "enhance the success of early-stage entrepreneurial companies and speed the establishment of self-sustaining companies" (MED, 2008). Incubators in New Zealand have diversified their sources of funding; however, the industry taken as a whole has not yet actualized the governments goal of "catalyzing" rather than "supporting-in-perpetuity" the country's innovation system (Lane, 2009). Although the New Zealand incubation system is yet to achieve sustainability, from an economic development point of view, the incubator system's return on investment (ROI) continues to improve. Yee (2009), for example, reported that the current ROI is \$47:\$1. In other words, the total economic impact from incubated businesses is currently reported as higher in comparison to the cost of incubating.

Figure 3 - Industry Logos

Chapter 4: Method Primary Research

This section describes the research methods used for this thesis. Drawing on the historical context, the following section will further address the research questions, as well as define the methodological approach for the primary research.

4.1 Research Questions

This study seeks to address a number of questions via semi-structured interviews:

What is the role of relationships in incubated entrepreneurship?

Through open-ended questions, the role of relationships in the process of starting a business is revealed. Each participant deems certain relationships to be more important or influential for their own venture than others.

What is the role of relationships in business incubation?

This question will build on the previous question by exploring the relationships in business incubation, both from the perspective of the entrepreneur and of the incubator personnel.

Are business incubators supporting entrepreneurs in New Zealand?

Exploring this question from an entrepreneur's and incubator manager's perspectives will help to provide awareness for certain issues or benefits related to the effect of business incubators.

4.2 Data Required

After considering available data collection approaches for this project, a series of semi-structured interviews were selected as the most appropriate research design for understanding the perceptions of New Zealand entrepreneurs and incubators on this topic. This method allowed for a great deal of flexibility in its implementation.

Although this research started with a series of open-ended questions, the interview developed into a conversation, creating a natural flow of dialogue between the interviewer and interviewee. As a result, this method helped to establish trust during the interview and opened up doors for a deeper investigation of particular themes raised by the interviewee. In each case this method helped to draw out beliefs and opinions around different issues that had not been previously planned for discussion. As this was the case, the data collected was then grouped into themes by the researcher. Prompting was avoided in terms of asking about specific relationships, such as the entrepreneurs relationship with the incubator CEO.

By providing open-ended questions, interviewees were able to reflect on and talk about their incubation and entrepreneurial experience, particularly how relationships helped in their pursuits of either starting a new business or helping entrepreneurs get started. Additionally, previous research into incubator literature and the industry's historical context carried out prior to the interview allowed the researcher to prompt the interviewee with certain open-ended questions. For example, this could include questions related to the incubator's history.

4.3 Participants

Current research on business incubation has typically sought to investigate business incubation from the viewpoint of practitioners and current entrepreneurs. This study brings in a third sample set of the graduate incubatees. Taken together, the addition of graduate incubatees help to reveal additional aspects of business incubation that current users or practitioners overlooked. At the start of this study, it was suspected that because graduate incubatees had been removed from the incubator, they would be better able to critically reflect on their incubation experience. Generally, this hypothesis proved to be true. Graduates typically spoke more candidly about their time in the incubator. For many incubator graduates, this study was the first time they had spoken at length to anyone about their time in incubation. For some graduates, the interview took on a cathartic experience, whereby they were able to reflect on and talk through their experience with someone who generally understood incubation and could sympathize, and in

some cases empathize, with the participants. Some of the richest data came from these incubator graduate conversations. Though there were several particularly excellent interviews with practitioners and current entrepreneurs, they were, on the whole, much more guarded and hesitant to discuss the more critical aspects of incubation. Nevertheless, the methodology of interviewing these three groups helped to create a well-rounded perspective on incubation.

On the whole, business incubation research focuses in on technology incubators which exist to help quickly grow technology start-ups. Although each of the participating incubators in New Zealand are primarily focused on incubating Information and Communications Technology (ICT) companies, they are not confined solely to that sector. Instead, New Zealand incubators serve a variety of start-ups from different industries, assuming these start-ups have high-growth and exporting potential. Amongst this study's sampling of incubating entrepreneurs and incubator graduates, there was only three whose company's would not be considered ICT. A handful of the incubators have more of a focus on particular industries depending on what are the key industries in their region or city. To this end, this thesis will not solely include technology incubators, but will instead classify the participating incubators simply as business incubators.

4.4 Sample

The sampling was purposefully selected in order to ensure the interviewees in the sample were comparable (O'Leary, 2009). This required the sample group to be in a similar strategic environment, which was achieved by choosing participants that were in similar positions in the incubator support staff and entrepreneurs who were in similar stages within their start-up process. Four primary guidelines were used to qualify participants.

1. Each of the four selected incubators are part of New Zealand's government-backed incubator system.
2. Incubating entrepreneurs were comparable across the four different incubators. First, one of the incubating entrepreneurs was on the front end of incubation. They had recently entered the incubator and had typically been in the incubator

less than a year. Second, an incubating entrepreneur who had been in the incubator for some time and was nearing the time for graduation from the incubator was selected. Each of the incubator CEOs graciously recommended these two incubating entrepreneurs to this study.

3. Two past incubatees were selected from each incubator. These entrepreneurs left the incubator at some point in their start-up process, either because they graduated the incubator or because their business failed, and they were forced to leave.
4. At each of the four incubators, two incubator employees were selected, one was the CEO and the second participant either fulfilled the role of incubator manager or incubator strategist.

Based on these criteria, a total of twenty-five participants were recruited from four incubators in New Zealand. The sample included incubating entrepreneurs who are currently enrolled in a New Zealand incubator (28%), incubating entrepreneurs (40%) who were previous incubator tenants but they have either graduated or left an incubator, and incubator staff (32%) who in this study included the CEO and one incubator manager or key strategist at each of the four studied incubators. Table 2 lists the participants by incubator, name, and position. Additionally a typology is included here for a quick reference back from the findings and discussion chapters.

Table 2 - Study Participants

Incubator	Position	Name		Typology
Incubator 1	Incubated Entrepreneur (A)	Frasier	Claire	1A
		Katie	Whitney	
		Trevor	Karrie	
	Incubating Entrepreneur (B)	Sam	Zak	1B
	Incubator CEO (C)	Jared		1C
	Incubator Strategist (D)	Jeff		1D
Incubator 2	Incubated Entrepreneur (A)	Ben		2A
	Incubating Entrepreneur (B)	Susan	Stephen	2B
	Incubator CEO (C)	Luke		2C
	Incubator Strategist (D)	Sarah		2D
Incubator 3	Incubated Entrepreneur (A)	Caleb	Mark	3A
	Incubating Entrepreneur (B)	Bobby		3B
	Incubator CEO (C)	Matt		3C
	Incubator Manager (D)	Jessica		3D
Incubator 4	Incubated Entrepreneur (A)	Patrick		4A
	Incubating Entrepreneur (B)	Zoe	Nate	4B
	Incubator CEO (C)	David		4C
	Incubator Manager (D)	Rachel		4D

The four participating incubators were chosen at random. There are currently eight incubators in New Zealand who are government-backed. By way of recommendations, this study was connected to CEOs, support staff, and entrepreneurs associated with four of the eight incubators. The method of identification and recruiting the incubators and their participants utilized both handpicked and snowball sampling. Support staff from each of the four participating incubators were met at an industry conference in Auckland in December 2011. From these meetings, relationships were developed with three of the four participating incubator CEOs. After a series of emails with the CEOs in January 2012, interviews were scheduled with them, one of their key support staff, and two current incubatees. The process of connecting with graduate

entrepreneurs was different. Since many of these graduates are now out on their own and are no longer closely associated with the incubator, they had to be accessed through other means. In most cases, the process of sourcing these participants followed a snowball sampling approach. Usually either a participant or someone familiar with this study recommended them.

Although the study's participants were either entrepreneurs or incubator employees, the participants in the interviews often suggested a third category of individuals who were involved in incubation. This third category, which will be classified as stakeholders, includes three sets of individuals: investors, key people, and the wider public. Each stakeholder has differing influence on the start-up or incubator. Figure 4 helps to illustrate the dyadic connections between the entrepreneurial stakeholders, the entrepreneurs themselves, incubators, and incubator stakeholders.

Figure 4 - Stakeholder Diagram

4.5 Data Collection

Preliminary interviews were carried out in September and October of 2011 and the majority of the interviews took place from January to March 2012. Once the participants agreed to take part, interviews were scheduled. Although the participants were geographically dispersed throughout the cities in North and

South Islands of New Zealand, each of the interviews were carried out one-on-one and face-to-face. The locations for the interviews typically took place within the office space of the incubator, the office of an incubator graduate, or a public location such as a local cafe. In every case but one, the interview was recorded and later transcribed.

Before the interviews, each of the participants were presented with an information sheet (Appendix A: Information Sheet). The information sheet broadly overviewed the study as well as explained the confidential nature of the interview, and their rights. The broad overview titled: "An assessment of relationships and business incubation in New Zealand" aided participation and ensured the interviews covered certain aspects of incubation. A prepared consent form (Appendix B: Consent Form) was presented after each interview for them to sign. This further outlined their rights, the confidentiality of the study, and also provided them an opportunity to choose their pseudonym used in the study. Most pseudonym's ended up being chosen at random as several of the participants declined to assign themselves a false name.

Interviews ranged in length from approximately half an hour to an hour and a half. The average length of an interview was around 46 minutes.

4.6 Data Analysis

After most interviews, the transcription process began immediately. This helped to decrease the time between research and analysis, while also helping to strengthen the researcher's questionnaire by reworking for the next interviews the wording of some questions which might have originally been difficult for the participants to understand.

Once the transcriptions were completed and checked for consistency, common themes between transcripts were identified. Content analysis was the primary strategy used to evaluate the findings of this research and was selected because it provided an opportunity to run a thematic analysis with coding (e.g. O'Leary, 2009). Following this strategy, after each interview, the data obtained was

analysed, line-by-line, exploring words, concepts, and linguistic devices. The themes that resulted from this analysis not only both confirmed and refuted various themes in the literature but also resulted in the development of new themes. After each transcript was individually coded, the corresponding quotes were compiled from the different transcripts into one document. Of the themes assembled into the one document, three particular thematic categories rose to the surface. These categories have been defined as tensions and include:

1. Advisory Tensions
2. Financial Tensions
3. Ethotic Tensions

These three themes will be discussed in greater detail in the Findings chapter of this thesis.

4.7 Limitations

There have been a handful of limitations associated with this study. Four limitations will be discussed here. The first relates to the sample size. As discussed above, the target sample size for each incubator was six participants. These six include two incubator personnel, two incubating entrepreneurs, and two incubated entrepreneurs. This target sample was mostly met at each of the incubators except for three, where one participant was not available to be interviewed in the timeframe for which the study took place. One of the participating incubators, however, exceeded expectations with an additional four incubator graduate participants. These developments produced a total sample size of 25 participants. Although an even sampling across the four incubators would have been preferred, the researcher believes the new sample size to have no limiting effect on the exploratory conclusions drawn here. Furthermore, with the sampling slightly skewed toward incubator graduates, the researcher suspects that the study is more reflective of the incubator space. As mentioned previously, the incubator graduates on a whole spoke openly and in some cases, especially candidly about their experience in incubation.

With a portion of the sample including entrepreneurs who are not currently enrolled in an incubator, the interviews forced these participants to reflect back to their past experiences in the incubator. For some, the time since their departure from the incubator had been a period of several years. Literature has shown some limitations and benefits related to how participants retrospectively recast their past experiences (e.g. Wolfram Cox and Hassard, 2007). To address this limitation, this research incorporated strategies to help participants accurately recall their past experiences. The main strategy was to provide the participants with the information sheet over email before their interview took place. This allowed them to get a sense of the direction of the research so they could reflect on their experiences beforehand.

A third limitation is that some of the participants may have altered their responses to place themselves in a more positive or negative light. To address this, the researcher ensured that the information sheet and other prior communication with the interviewee before the interview helped to reinforce that the study was solely focused on hearing their perspective rather than trying to extract out preconceived answers from the participants. Although the researcher does not believe this limitation was a major issue for this research, he found that some participants who were either currently incubating or were employed by the incubator were guarded in their answers to the questions. In other words, the incubated entrepreneurs tended to communicate their entrepreneurial and incubation experience openly and in detail whereas participants on the incubator side, such as CEOs or incubator managers often were more guarded and reserved. This was not always the case, but there was a general sense that the entrepreneurs had less to lose in sharing their story than incubator employees or incubating entrepreneurs. The data is inconclusive as to why this was the case, although collecting data from entrepreneurs helped to provide a consumer-sided perspective as well as reveal aspects of incubation that might have otherwise remained unsaid. Interestingly, as the interview would progress in length, the interviewee usually provided answers that seemed to be more in line with their perspectives. This might have been due to the trust that was developed over time between the interviewer and interviewee (e.g. Creswell and Miller, 2000). Additionally, the researcher found many of the participants were very open and inviting and often stayed around to chat past the end of the interview. These informal conversations were not recorded, but they did

lead the researcher to believe that the participants responses during the interview were a valid and accurate reflection of their perspective.

Additional limitations may result from the fact that a single researcher carried out this research. Here, everything from the structure of the interviews and the presentation of the study to the interviewee to what questions are or are not asked has been determined solely by researcher. The use of a question outline helped to ensure that each interview followed the same list of open-ended questions. However, the nature of the interview helped to determine if the interviewer asked the interviewee other questions additional to the questionnaire or if he should chose to drop some questions and not ask them. The researcher helped to ensure that the interviewee communicated additional thoughts, outside of the research. Ending each interview by asking if the participant had further comments helped the researcher to open a topic of dialogue that might have been previously unaddressed. Answers to this final question often helped to further illustrate the interviewees answers to the previously asked questions.

Finally, because the researcher is not a native to New Zealand and who has spent the majority of their life outside of the New Zealand context, they may have been prone to mistakenly define words or comments from the interviewee. If this were ever the case, a faulty definition could lead to a misunderstanding on the part of the researcher and lead him to mistakenly categorize an interviewee's statement. Although it is worth noting this potential limitation, the researcher is confident that misunderstanding due to cultural differences did not take place. The researcher attempted to overcome this potential complication by examining the patterns in the data in order to verify that certain themes were categorized accurately as well as discussed results with the supervisor, who is a native to New Zealand.

Chapter 5: Findings

This thesis took the researcher to three cities, four incubators, and 13 companies. In total, 25 participants took part in in-depth conversations. After each of the interviews, the researcher grew in intimacy with the findings through a rigorous transcription and thematic process. Then, over conversations with the researcher's supervisor and after a return to the literature, he began to identify corresponding responses from the participants. Many of their responses concerned the different relational tensions affecting entrepreneurs in business incubation. The following chapter will use these tensions to report the findings and illustrate the relationships between the entrepreneur and incubator and between their different stakeholders.

Oxford University Dictionary defines the word *tension* as a relationship between ideas or qualities that is characterised by conflicting demands or implications (*Oxford Dictionary*, 2012). In management literature, the concept of tension has been both used to explain intra- and inter-organisational relationships (e.g. Asakawa, 2001) in organisational identity literature (e.g. Fiol, 2002) and applied to a discursive perspective to understand collective identity (e.g. Hardy, Lawrence, and Grant, 2005). In this final instance, tension helps to illustrate an ongoing interplay between individuals that helps to facilitate effective collaboration. In other words, the concept of tension can be viewed as a healthy strain between actors of differing demands that is optimal, not when the tension is elevated or increased, but when it is maintained. In this paper, the concept of tension will be used to describe the relational dynamics between different parties in entrepreneurship and incubation. In this context, if a tension is well managed, then a relationship will be mutually beneficial to all parties involved. A tension can either be offset by a surplus or a shortage. In each case, the tension has either too little or too much. Imbalance can then occur, forcing the involved parties to manage the surplus or shortage in order to help deliver the tension back to a healthy state. Parties can impose tactics to help position the tension back to an aligned state. In sum, a well-managed, healthy tension will result in favorable outcomes for the entrepreneur, incubator, and stakeholders.

The study revealed that, among the participants, entrepreneurs who were either currently incubating or had graduated from an incubator dealt with similar stakeholder tensions. Since this was often found to be the case, the thesis will group both sets of entrepreneurs into one category titled *entrepreneurs*. This title will refer to participants as entrepreneurs, if they are currently incubating or have already incubated.

The data revealed three primary tensions in the different human relationships in entrepreneurship and incubation. Each of the three tensions helps to illustrate a categorical issue that, if not balanced, the entrepreneur and incubator's success (or potential for success) will be diminished. First, tensions relating to advisory matters came up frequently in the data. To better explore these advisory tensions, they are introduced here as either strategic tensions or operational tensions. As discussed in Chapter 2, operational tensions encompass any particular activity that involve running a business. This could include how to deal with situations with employees, procedures in accounting, sales, or other common business activities. Strategic tensions, on the other hand, relate to the plans and policies of an organisation – the key decisions and plans that end up shaping an organisation. In fact, more than any of the other tensions, the data tended to show that issues relating to strategy substantially contributed to a start-up's success or failure. However, various alignment tactics will be illustrated to help counteract a surplus or shortage of an advisory tension. Second, the financial tension illustrates the need for entrepreneurs to ensure that their relationship with investors maintains a healthy balance. Finally, tensions relating to an incubator's ethos were repeatedly raised in the data. However, a healthy ethotic tension may be unaligned when incubating entrepreneurs are overly independent or too dependent on their incubator. In sum, the following section will report findings under the three categorical tensions of advisory, financial, and ethotic.

5.1 Advisory Tensions

The entrepreneurs interviewed for this study tended to emphasise the impact advisory support had on their venture, both positively and negatively. Of all the different advice provided to entrepreneurs, the data tended to isolate two particular

types: strategic and operational. In the below section, the findings concerning this tension will be reported.

5.1.1 Strategic Advisory Tensions

Those entrepreneurs who enter an incubator have identified that they cannot fulfil their start-up goals with their single expertise, but they need help from others who can provide knowledge in areas other than their own. As Claire (1A), an incubated entrepreneur, discovered:

The whole thing with the incubator is that it's a bunch of amazing people with really quite significant resources, who have put up their hand already, regardless of you, and say "we want to help the little guy who wants to help themselves." So by stepping in as the "little guy", all of that goodness was made available to us.

For several start-ups, like Claire (1A)'s, there are valuable resources available from incubators. Patrick (4A), an incubated entrepreneur, comments on the importance of the incubator help strategically:

The incubator provided a vehicle for getting out of the day-to-day and talking about my company's bigger plan. They also introduced me to some other people who I could do this big picture stuff with.

For an entrepreneur, good strategy can be the difference between creating a successful or failed company (e.g. Grimaldi and Grandi, 2005). As Zoe (4B), an incubating entrepreneur discovered:

There's such a bit difference between strategy and day-to-day management. Often, the management could be going alright, but if the strategy is wrong you've got a bigger problem long-term. But, it could look all good at the time.

An entrepreneur's venture strategy will also determine how long they will spend in the incubator, its life cycle, market targets, and other key configurative decisions. In most of the incubators, the entrepreneur is primarily looking to the incubator for

sound advice, particularly advice that lies outside of the entrepreneur's area of expertise. Zak (1B), an incubated entrepreneur, comments:

So one of the big things in the incubator is getting some advice that's more strategic and not limited to my experience as an industrial designer.

Zak (1B) later discovered that the strategic input from the incubator and its stakeholders either positively or negatively affected his venture. He commented:

Sometimes it turned out that it was a good suggestion and other times it wasn't really constructive and it caused you to be a bit rash and pressured into doing something that you later regretted.

5.1.2 Operational Advisory Tensions

On the whole, incubators tend to be populated with first time entrepreneurs, many of whom have very little business experience. Nate (4B), an incubating entrepreneur comments on his own experience:

I've come from almost a completely technical background and the incubator has really filled in the business gaps, and continue to do so now - particularly the role of CFO and COO. They basically plug in the gaps where I don't have the skills yet. Hopefully those gaps are decreasing.

Like Nate (4B), an entrepreneur might be trained as a scientist or an engineer who ends up unintentionally inventing a new technology or discovering a new application for an existing technology whereby they are catapulted into forming a new business to bring their new invention to the marketplace (e.g. Callaghan, 2008). Their goal was not to be an entrepreneur per se, but in order for their technology to grow, the role of chief executive falls to them. Though other new entrepreneurs might have some business skills, they could lack experience in important areas, for example, in hiring and managing a team or raising capital. Whatever the state of an entrepreneur's operational experience, an incubator positions themselves to train and equip entrepreneurs so that they will be able to mend their inexperience quickly. However, with multiple stakeholders who try to

participate in providing operational support to the entrepreneur, advisory tensions tend to arise.

Operational support can be quite different from strategic support; however, both come from similar advisory sources. The Oxford Dictionary defines *operational* as “readying for use” (Oxford Dictionary, 2012). Applied to business, operational support can encompass all of the activities that ready a business to run efficiently and effectively. This could include registering the business with the state, running an effective accounting system, and HR techniques for managing employees. Jeff (1D), an incubator strategist remarks about the importance of operational support:

They (advisors) are someone to ring up in the middle of the day to say, I’ve just had a staff member shout at me and walk off. What do I do now?

Many entrepreneurs start a business with very little or any operational background. One entrepreneur is of the opinion that there are certain people who have the potential, but their abilities need to be developed in order to run a successful venture. Bobby (3B) remarks:

There is a group of people, who could be good, but don’t have the skills to get there. The ones that learn those skills are the ones that get there.

With a bit of education and experience, the limited operational knowledge can be mended as the entrepreneur develops into a successful businessperson.

This study identified that as each entrepreneur moved deeper into starting their business, they began to confront new operational challenges. These challenges could include new experiences like hiring and then managing employee number one, or figuring out how to file their first year of taxes. Over the course of operating a start-up or an incubator, these operational milestones might be more challenging to confront without supportive advisors who can, in a sense, teach the entrepreneur how to manage different situations. Nate (4B) remarks:

There’s a gap in our knowledge, cause we’re new at this. The incubator brings in people to fill those gaps, or they fill the gaps themselves.

But, if an entrepreneur fails to acquire the necessary knowledge to manoeuvre certain situations, then the start-up might inevitably lose progress and fail. Incubating entrepreneurs are caught in a stream of advisory currents that make recommendations from a variety of sources. The entrepreneur must manage and find ways to combat the different advisory input.

5.1.3 Alignment Tactics

With all of the potential benefits for a start-up that can stem from advice - both of the strategic and operational type - it can be disastrous when entrepreneurs either have a shortage or surplus of advice. To address different types of misalignment, the data revealed a number of tactics that can help to readjust a surplus or shortage of advisory knowledge in order to ultimately protect the entrepreneur and incubator from failure. The tactics to align a shortage by way of bridging the learning gap and to confront a surplus by way of filtering strategic advice will be reported here.

Aligning a Shortage of Advice

To confront a shortage of the advisory tension, entrepreneurs tend to source particular knowledge from within their pool of stakeholders. In several cases, the entrepreneur reported looking to key people such as a mentor for advisory support, even if they did not have all the words to communicate what they needed. Research has shown that a mentor can, for example, be highly successful in helping to provide management advice and much needed confidence to an entrepreneur (Deakins *et al.*, 1998). Claire (1A) found that her particular mentor was able to draw out and help enable her to engage with abilities that she might have possessed, but she had not realised her potential until now. She comments:

He (my mentor) leads me to be the best person I can be and empowers me to believe in myself. I'd trade pretty much anything to have that.

However, as Bisk (2002) discovered in Ireland, most economic development agencies fail to supply advisors that effectively help the entrepreneurs, and an entrepreneur's age and education play quite heavily in whether these advisors relationships are successful. Jeff (1D) has similarly found that you cannot immediately match an entrepreneur with advisory support. He remarks:

The incubator can never do it (pair an incubator with a mentor) straight away, because you don't know enough about the person. You don't know how they react to advice, what kind of personality they need to interact, and whether that mentor is just purely on the human side or if it's best that they had a bit of skill.

Although not all shortages of advisory tensions stem from a mentor and entrepreneur relationship, entrepreneurs tended to find other support in the incubator staff and other individuals through the incubator. Trevor (1A), an incubated entrepreneur, discussed learning where to go to source particular kinds of support. He comments:

I learned that those people and networks are out there and now I know where to go and where to look for them.

Now with an understanding of where he can source advisory support, Trevor (1A) is equipped to go out and find the knowledge he might need. Reflecting back on past experience, Caleb (3A), an incubated entrepreneur, noticed that he still applies much of the operational knowledge he gained during his time in the incubator:

The incubator opened the way for how I thought and how I engaged with my company and engage with partners.

However, the other entrepreneurs revealed that their shortage of advisory support tended to breakdown when too much dissonance between the parties prevented the listener from understanding and then applying the advice given. In some situations, there was a learning gap for either the advisor or advisee that prevented understanding from occurring between each party. Although they might

communicate with one another and sense that they were understanding each other, there was a tendency for neither party to actually assimilate. Karrie (1A), an incubated entrepreneur, commented:

There can't just be clear communication, but there has to be understanding on the receiving side.

As entrepreneurs move through the incubator and learn, they tend to become better equipped to bridge the learning gap and communicate with individuals, even those who perhaps earlier on in the entrepreneurial journey, might have been quite difficult to understand. As Katie (1A), an incubated entrepreneur alludes:

At some stages some people were just so difficult to work with, but then when the company was a different stage, those same people became valuable again.

As she discovered, the learning gap that once separated her from understanding certain guidance was mitigated over time as she progressed in the incubator.

Despite all the advisory support available in business incubation, many are not able to carve through the knowledge gap that contributes to their failure to comprehend guidance. Incubators can assist entrepreneurs in sourcing the appropriate advisory support, however, when they do not do this, the entrepreneur could be left with a shortage of guidance that eventually prevents them from receiving the information they need. Karrie (1A) comments:

You have to pickup a lot on your own, which I guess is what you're supposed to do as an entrepreneur. That's not a problem, but I do think with more discipline and communication that things could work a lot more efficiently.

Some find that its not just miscommunication between the entrepreneur and strategist, but that there are other factors that confine an entrepreneur from connecting with input that is otherwise fruitful for their venture. As Bobby (3B), an entrepreneur, explained, the solution can be as simple as asking:

If you ask people, you'll get it. If you don't, you don't.

Other times the obstacle is the entrepreneur's personality. If they are closed off to learning and are not interested in input from others, then there is a problem.

Frasier (1A), an incubated entrepreneur, pined the issue rather poignantly, stating:

As an entrepreneur, you have to have enough of an ego to believe you can actually make it (your start-up) happen. You have to be kind of a strong person to be doing it. It would be easy for entrepreneurs to be thought of as egotistical blowhards, which is why there are real benefits in having certain virtues or certain types of character traits as apart of your personality. Nobody wants to help the blowhard.

Frasier (1A) implies that boastful and egocentric entrepreneurs will receive less support, simply because of their personality or attitude. Others have used the analogy of the incubator as a school to describe the ways in which an entrepreneur's knowledge gap is addressed in incubation. In a sense, the stakeholders maintain the role of teacher while entrepreneurs enroll as students. The different entrepreneurs or students may also learn from each other. Those who know more about one subject could reach out to assist other students who might be struggling. Incubation can be an insular collective where people with ideas come to be entrepreneurs and, in some cases, graduate as a CEO of a growing venture. Zak (1B) remarks:

It's kind of like school, it doesn't feel quite as real. You're in this game where you're doing this, sliding this, aiming for investment, and then this (your venture) is somehow now real.

Another entrepreneur commented on the learning she achieved from her stakeholders:

They were willing to develop me a little and teach me what I needed to know.

Entrepreneurs like Karrie (1A) understand that they can benefit greatly from receiving the right knowledge to top up their shortage of advisory support and that

they will be closer to leading their venture down a route to growth if they are willing and able to learn and grasp advisory input from others.

However, in several of the incubators studied, entrepreneurs disclosed that they would have been able to connect with more of the resources offered by their stakeholders had they been aware of these resources. This also includes resources in the broader start-up ecosystem that are available by way of connections through the incubator.

People and organisations need to be really clear about what they're good at and what they're going to do and how that fits in with another organisation. Otherwise, resources just get wasted and people end up getting toes stepped on and getting offended and nothing gets done.

As Karrie (1A) points out, entrepreneurs and incubators will be better off with more defined roles and clearer connections with the available resources. In other words, effective communication may help to align a shortage of advice by helping to overcome a learning gap and allow shortages to be overcome. On the other hand, a surplus of advice can occur. Tactics to align a surplus will be reported in the following section.

Aligning a Surplus of Advice

Entrepreneurs are often the recipients of an eclectic mix of advice from a variety of sources. Even though learning gaps might be filled and are no longer much of an issue, entrepreneurs may still be prone to have trouble filtering the surplus of advice they receive. Different mentors, investors, friends and family, incubator personnel, and others might provide an entrepreneur different advice on a single topic. Deciding which advice to act upon can be a daunting and nearly impossible task for many entrepreneurs, particularly individuals who are new to entrepreneurship and business in general. Zoe (4B) framed the issue well, stating:

Everyone wants you to succeed, but maybe they don't have the right way to look at something. Some people will push you in one direction, which is actually wrong so something I've learned is highlighting that advice and

going: “hold on, that’s not really good advice.” So it’s kind of working that out...

Zak (1B) found himself in a similar situation:

I got pressured into looking way too far down, like going abroad and talking to big companies (potential distributors) before we had anything.

Zak (1B) has since put controls in place for himself to help filter input, but, it was only after the fact that he believed he got pressured into following a strategy he later regretted. Although successful entrepreneurs will eventually learn to sort through differing perspectives in making decisions, early stage entrepreneurs might have difficulty deciphering. He remarks:

You don’t get bullied per se, but you’ve got someone in their 50’s with a good track record, and you go: “a lot of it (advice) can be right, but he may not have much experience in this type of business,” so you’ve really got to keep on.

Incubators and entrepreneurs alike should know that trouble filtering strategic advice is common for new entrepreneurs. However, for this first to be the case, an entrepreneur’s needs must be understood. Entrepreneurs have a plethora of differing needs. Researchers have sought to quantify an entrepreneur’s different needs in different stages through which entrepreneurs move in forming a new venture (e.g. Kaulio, 2003). In other words, if the start-up process is a journey from conception to sustainable business, then there exist a variety of intermediate stages. Research is inconclusive concerning the particular stages of entrepreneurship, possibly because there are a variety of external factors that contribute to the entrepreneur’s context (e.g. Manolova and Yan, 2002). The interviewed entrepreneurs tended to identify that the incubators lacked a framework for understanding the different stages entrepreneurs moved through. Karrie (1A) commented:

I think to really get the incubation right, there has to be a really clear understanding of the networks and the infrastructures and how the flow

works - so understanding what is happening at a company at this stage and who do they need to access, how do they need to access and identify those steps and how we need to get them over those hurdles.

Likewise, Patrick (4A) remarked:

Watching incubation go on for so many years with so many companies, while I was a tenant in that building, there were a lot of good ideas that should have been put through some stages because it became evident that there's a bit of a pathway - it's not always linear. That flow or that process of moving company's to the next stage should have been stronger. There were some company's that suffered because the steps weren't laid out for them or they weren't pushed to take the next step.

To help move entrepreneurs beyond their current obstacle, particular individuals and other resources are needed. Karrie (1A) remarks:

The most useful people in those situations were people who understood that you were in a start-up phase and who could apply their skills and gifts to that.

Karrie identifies two things. Entrepreneurs need help first of all from individuals who can understand where they are at and second, from those who can communicate specifically to them based on the stage they are in. This implies that entrepreneurs require help that appertains to their particular situation. Frasier (1A) illustrates this point further, commenting that the useful people are:

Anyone who knew what they were talking about and could translate those terms for start-ups.

Once an entrepreneurs' needs are understood, Frasier (1A) argues that these needs can then be addressed using appropriate language that allows an entrepreneur to understand. This knowledge transfer, which usually concerns operational or strategic advice, can be offered by a diverse range of individuals, including investors. An incubator can be a crucial guide for ensuring that entrepreneurs receive advice from suitable investors. Although this study's data

tended to reveal that an investor's advisory influence must be maintained with the help of incubation, it is also up to the entrepreneur to help manage the different investor agendas.

Methods

In response, entrepreneurs raised a couple of practical methods to help address a surplus of advice. First, it was suggested that entrepreneurs put together a strategic decision-making team composed of business professionals (potentially all on staff at the incubator), which would meet often, but only for short periods of time. Zak (1B) remarks:

Same issue when you have individual meetings with people. Whoever you last talked to, you're at the mercy of their latest scheme. But, if those three or four people were in the same room, they could together argue about the next step.

Whereas an entrepreneur is left to filter different advice and then make the best decision, a group approach allows for differing views to be debated in order to reach a solution. Some entrepreneurs and incubators have chosen to formalise their strategy-making approach by forming an advisory team which resembles a board of directors, but it usually does not have the same decision influence as a formal board. Whitney (1A), an incubated entrepreneur commented:

The incubator put us in contact with the people that become our advisory board. When we started that board, we were probably doing a couple hundred thousand dollars in revenue. We were probably closer to a couple million dollars by the time we decided we wanted a formal board.

An incubator manager put forward a similar resolution, to that of Whitney's (1A). Sarah (2D) noted that she tries to figure out what her entrepreneurs are not good at and what the skill gaps are that they need to fill by hiring or assembling an advisory board. Another incubator manager saw the incubators role as one of finding the right contact to disseminate advice to incubating entrepreneurs, which

could include connecting the entrepreneur with another incubating CEO. Jeff (1D) comments:

Sometimes they (incubating entrepreneurs) need to use other parties to impart advice in a way that it gets absorbed. A CEO who is going through the same process can be a very powerful ally in your decision making, because after all it's not the incubators business, it's the entrepreneurs business. They need to make the decision, they need to have the confidence that it's the right thing to do.

The second method to help address this issue is that entrepreneurs have found that instead of asking for an advisor's opinions on a particular problem, they might instead make a plan and then gather the corresponding guidance. Zoe (4B) comments:

It's good to touch base with people. More-so than getting advice, it's saying: "hey, I'm doing this, should I be, or is this stupid?" This is quite handy...

Zoe (4B) later states:

It's about selectively listening, or talking to everyone and picking out bits... I guess the thing I've learned is at the end of the day you still have to take the lead, it seems to work better that if you have a clear agenda, you just pull the resources that you need.

Dissimilar advisory support typically arises from a variety of stakeholders. If not managed well, the entrepreneur will be left without ways in which to decipher or sort through a surplus of advice. If an entrepreneur can take control, by both seeking strategic input and filtering that input, they then set themselves up to make the best the best decision for their company. Because strategic decisions are of utmost importance, especially with a new venture, it is essential for an entrepreneur to ensure they implement tactics to filter advice.

5.2 Financial Tensions

With money comes influence. Whether an entrepreneur or an incubator, the individuals who provide the financing earn a unique position of influence. This study's findings revealed this to be the case for start-ups. The individuals or firms who provide much-needed capital are often the ones who hold significant influence both on financial and advisory levels. Their control was particularly felt in terms of their effect on the strategic and operational decisions made by the firm. With control in their hands, investors may be prone to propose one-sided arrangements that could have detrimental effects for the start-up, over the long-term. Caleb (3A) commented:

We got quite a few poor deals from investors. The terms and conditions of the deals they proposed were shocking.

Another entrepreneur, Karrie (1A), classified investors as a negative aspect of starting a company and said that incubators did not do much to help start-ups mediate between fair and poor investment arrangements.

The venture capitalists are actually just out there to get you, they're just out there to take advantage of you (the incubating entrepreneur).

In defence of the investors, the New Zealand investor landscape is small in comparison to other countries, both in terms of the quantity invested as well as the number of investors (e.g. Springall, 2011). Furthermore, many investors are cautious about their investment and want to ensure they put their money in start-ups that can produce significant returns. Jessica (3D), an incubator manager observed that:

To get investment, the company really has to have one hell of a unique story, backed up by some fantastic credentials of the team or individual.

With investors typically earning their wealth in business as well as having more experience than the entrepreneur (e.g. Fenn, Liang, and Prowse, 1995), most are

not only looking for a significant return, but an abundant return in a short period of time (e.g. Springall, 2011). If this seems unlikely, then many investors are not interested in investing in a start-up at all. Jessica (3D) again commented on a businessman's desire for an above average return on investment:

Experienced business people want that (a significant return) and won't put their hand in their pocket if it's not there.

Caleb (3A) also emphasised this point remarking that investors are much more willing to put their money in an investment vehicle that provides consistent returns, such as the Australian marketplace, than in a volatile New Zealand start-up, which could either produce a robust or minimal return, or fail and lose even the principle.

Investors don't want to wait long. One came to us and asked: "why should I invest in your company when I can go to the Australian stock market and get a 10% return on investment annually?"

In order to elevate the risks for investors, incubators try and minimise the risk of these new ventures by advising them through a bootstrapped market validation period whereby they are able to better defend their concept to an investor later on. Not only does this help to prepare the start-up to earn investment capital, but it also helps to ensure the entrepreneur's reputation is left intact. Luke (2C) commented:

Reputation is important. If you ask for the money too soon and your back in twelve months asking for more money, then your reputation is not good.

The entrepreneur's reputation is not the only one preserved in this situation, but the incubator's reputation is protected as well. An incubator's reputation blossoms in the eyes of their investors if they are growing successful companies. However, not all start-ups can wait for investment dollars. When this becomes the case, they're forced to pursue funding, but since New Zealand's investment population is relatively small, if an entrepreneur fails a few times, most likely they won't start another company. The individual will then, in a sense, be forced to return to a

position within a company, rather than trying to start their own. Luke (2C) comments:

New Zealand is quite small, different than the States. If you fail a few times in the States they tell me that it's seen as a good thing. But if you fail a few times here, you're history.

Financial tensions must be maintained in order that investors can be involved though not glorified to a position of influence unattached from their expertise and the goals of the entrepreneur. For example, research has indicated that if this tension becomes unbalanced, entrepreneurs might be prone to fall into full submission to the investor rather than relying on them for their unique competence (e.g. Cable and Shane, 1997).

5.2.1 Alignment Tactics

The data identified two particular alignment tactics to help resolve financial tensions, each of which are focused on regulating or balancing the influence of investors. As explained previous, it was found that entrepreneurs and incubators alike are prone to allow their investors substantial influence on the organisation, primarily due to their financial influence. This study revealed that a surplus in this financial tension was often the issue, rather than a shortage. Since this tended to be the case, alignment tactics raised below will focus on elevating a surplus of support by way of limiting an investor's influence and endorsing broad investor goals. Several entrepreneurs struggle with a shortage of investors, however, the data is inconclusive as to whether a lack of investors is issue enough to effect financial tensions. As such, the following section will focus on the two tactics to help align a surplus of financial support.

Limit investor influence

An investor can grow to be too involved in a start-up and its tactics. As such, entrepreneurs and incubators must find ways to limit their influence. Unless an investor's particular expertise is needed and they are able to communicate their

knowledge in a language an entrepreneur can understand, then their influence must be limited, particularly concerning advice on both operational or strategic matters. Several of the entrepreneurs observed found it particularly challenging to disagree with investors, even though the investor might have been incorrect in their guidance. Zoe (4B) discovered:

A lot of people in the investment business world tend to have quite strong personalities and opinions. At first it was quite hard to go against them, but you sort of got to. Everyone you talk to here has a strong opinion on something, even though half of them are wrong.

To more fully illustrate the investor landscape and the different relationships involved, there are typically three different classifications of investor start-ups, particularly in the New Zealand context. The first is the incubator. With each incubator taking at least five percent of each venture, these entities are a key investor in the venture. Government funding can be an investor in a start-up as well. Although each of the New Zealand incubators involved in this study receives government funding, there are a variety of other forms of funding sourced from different ministries and other government entities. Patrick (4A) comments:

We've learned to play that game (government funding). When I started, I wouldn't have given that the time of day, cause it just seemed like a waste of energy. But in fact, it's one of the funding vehicles for New Zealand companies. I actually now see it as a valid part of the entrepreneurial ecosystem. Albeit, they speak a different language and are from a different planet.

As Patrick (4A) discovered, government funding can be helpful, but they also can be very difficult to work with. A third form of funding is angel investment. The entrepreneurs tended to admire angels, especially for their willingness to take a risk and for their philanthropic focus. Patrick (4A) remarks:

I think the angel investors are heros, they take risks beyond the call of duty - in a philanthropic way. They do it because they want to make a difference to someone's ideas, or for the good of local business.

However, not all angels were idyllic. Other entrepreneurs found angel investors to be simply about money and tech start-ups that could eventually be worth billions. Caleb (3A) comments:

Some angels weren't supportive, they didn't see the value of our business to the degree that we saw the value of our business. They wanted the sexy stuff, the stuff that had billions of potential customers.

Venture capitalists were typically the final source of funding. Patrick (4A) described VCs as quite different from the other forms. He comments:

They were very different. There were, and still are, quite a small number of VC entities and they're quite easy to distinguish because they had business cards, had a company name, and had a track record. So you could research them and when you were meeting with a VC, you knew you weren't meeting with an amateur. An angel on the other hand could have very little knowledge of investment, but they were doing it because of your passion or because of their desire to help.

The relationships between the investors and the different pressures put on the entrepreneurs can be different from one investor to another. Nate (4B) observed that the incubator in particular was quite happy with taking a longer-term view, whereas his other investor stakeholders were more interested in the short-term. He remarks:

There is a pressure to grow companies fast and to produce financial returns. Understandably, I'm completely in line with that. But, I suppose the pressure is higher from my actual company's stakeholders as opposed to the incubators stakeholders - they're a bit happier to take the longer-term view.

Zoe (4B) also found himself in a similar position to Nate (4B) and comments:

I think often there is, even between the incubator and the other investors, sometimes they have kind of a different agenda. It's kind of tricky managing that, or managing what they think of each other.

Entrepreneurs and incubators who enact strategies that help to regulate investors to less involvement can be helpful in ensuring that a surplus of financial tension is lessened. One method to do this is for entrepreneurs to manage the different investor personalities so that the relationships and advice received from investors works best on behalf of the start-up. Nate (4B) remarks:

Every investor I've worked with genuinely wants the businesses to succeed, but it's like any group, there will always be personality clashes and those sorts of things.

Along similar lines, Zoe (4B) comments:

It really just comes down to managing everyone's agenda. Everyone seems to have a different one, which is frustrating, but it's sort of identifying that and managing it. One says A and the other recommends B, but then you go and do C. There's a bit of that.

Establish broad investor goals

Entrepreneurs tended to believe that financial tensions, especially those shared between themselves and the incubator, could be alleviated if there was a clear understanding of each other's expectations and goals. Within the New Zealand context, both the incubator and entrepreneur are tasked with creating internationally-focused companies. Patrick (4A) remarked:

The idea to have an internationally viable product really was formed at the time I entered the incubator and saw that their (the incubator's) vision was to grow some hundred-million-dollar New Zealand companies.

With many of the entrepreneurs and incubators having financial stakeholders with broad, yet aligned expectations (i.e. growing global company's for New Zealand),

the data showed that the goals of an entrepreneur, incubator, and other stakeholders can be quite different and often overly ambiguous. As a result of these incongruences, an entrepreneur's priorities may be suddenly put on hold for one of their investors, particularly the incubator. Karrie (1A) observed:

The staff of the incubator need to be accountable to what they're doing and sometimes to validate what they're doing, they may or may not have the best interest of the company in play.

Karrie raises an interesting conundrum. In her experience, the incubator is at times in a position where they use the entrepreneurs to substantiate their own egocentric goals. Although this relationship should be mutually beneficial, as an investor of the entrepreneur, the incubator has a unique influential position to take advantage of the entrepreneur by pursuing their own motives, which can at times prove detrimental to the entrepreneur. When this becomes the case, it can be damaging for both parties involved. Trevor (1A), whose start-up failed in incubation, framed this issue up appropriately commenting:

At times it did feel like they were doing things for their reasons rather than my company's reasons. But, that's kind of expected, it's part of the deal.

Incubators taking advantage of an entrepreneur happens, but it should not be part of the deal. Instead, it is part of a financial tension in which one party has a surplus of influence. In Trevor (1A)'s case, his relationship with the incubator deteriorated to a point where his arrangement became increasingly one-sided. He comments:

The focus became more about growth and expectations than meeting my own goals and achievements.

In hindsight, Trevor (1A)'s goals were quite different from that of the incubator, and so each party's expectations were not maintained. Other entrepreneurs of the same incubator, however, had experiences very different from Trevor (1A)'s. Whitney (1A) commented:

There was no conflict, the incubator was always acting in the interest of my company.

Method: Communicate Individual Goals

Goals that are not communicated and happen to be conflicting with the other party's goals are the ones that appear to be the point of conflict, whereas the overarching and clearly communicated objectives are understood and respected by the involved parties. For example, Jessica (3D), has commented that her incubator communicates clearly and is upfront with entrepreneurs regarding their primary objectives and their expectations of the incubating entrepreneurs:

We make it quite clear that we're a commercial entity and they're not here as an academic exercise.

One of the incubators not only disseminates their *market-oriented* objectives verbally, but they also explain them to entrepreneurs more intangibly by way of the incubator environment, the language used by incubator managers, and the ways in which they celebrate success. Current incubating entrepreneurs acknowledge the incubator's commercial goals. Bobby (3B) noted:

They (the incubator) will always have their agenda. The incubator, at its heart is a funding organisation, that has a percentage of your company. But, it's in their interest for your business to succeed.

Bobby's last line is especially interesting, because it is when the entrepreneur's goals for success differ from their stakeholders that the healthy financial tension becomes fragmented. In response, one incubator put strategies in place to mediate the issue, especially pertaining to managing each of the involved parties to help alleviate incongruent goals. Bobby (3B) remarks:

In the new work we do with them (the entrepreneurs), we try and understand what the individual entrepreneur wants to do and the impacts around them and the effects of what they're about to embark on. Whereas in the early

days it was all about - wow, you know I felt good about them, I'm sure they're going to try hard, and then they fail...

Incubators must also know that entrepreneurs strategies and plans may change overtime. Claire (1A) asserts that mistakes are made and that it's important to allow plans to evolve. She comments:

I've tried that and it doesn't work and I may have not screwed up in that, but it didn't work and therefore I'm not going to repeat that and I'm going to try something else.

It is the nature of an entrepreneur to morph and adapt to different market conditions. Investors must take this into account and have goals broad enough to challenge them, but which also allow a bit of flexibility and freedom for the entrepreneur to make adjustments along the way. Jeff (1D) comments:

We're driving them with their own mandate, which is interesting, because how do you balance that with the fact that the entrepreneur is an entrepreneur and only wants to do what they want to do. There's an interesting tension between accelerating them, within a framework we know that works, and giving them enough openness to work in so that the entrepreneurial spirit can do its best work.

The need also arose to regulate the different goals between incubators and their investors. Despite NZTE's substantial investment in business incubation, they allow each of the individual incubators to operate more or less autonomously and outside of an overarching strategy and routine qualitative reviews, NZTE is relatively uninvolved. Sarah (2D) commented on their main investor's particular goals for the incubator:

For our major funder, NZTE, it's creating sustainable and quality deal flow companies for New Zealand.

In other words, NZTE tasks business incubators with creating new companies whose revenues outperform their costs as well as earn the bulk of their revenue from international sales.

Method: Create Broad Goals Together

The tension between an entrepreneur and the incubator, one of their investors, is also alleviated with the establishment of goals that are relatively broad in nature.

Bobby (3B) comments:

We're a part of a bigger goal, which is really about returning the best business results for New Zealand.

To help enact these broad goals, another incubator strategist mentioned that their main investors encouraged them to diversify their stakeholders and not associate too closely with any one entity. Jeff (1D) comments:

Interestingly, NZTE put a bit of pressure on us and other incubators to not associate closely with any one funding entity. They wanted a more generic mandate and a more generic equity owner base.

Enacting broad goals ended up also changing the incubator's governance structure. Jeff (1D) remarks:

We had to change our governance structure where we formed our own independent board.

Although each incubator will have more detailed goals than returning the best business results for New Zealand, they will be well suited to perform successfully. In sum, it was discovered that a surplus in financial tensions can be managed with clearly understood goals by both parties, yet broad and overarching goals between both entrepreneurs and investors as well as between incubators and investors.

5.3 Ethotic Tensions

This study revealed that an incubator's ethos can empower or discourage start-ups from moving forward. Ethos is the characteristic spirit of a culture or community as manifested in its values and aspirations (*Oxford Dictionary*, 2012). Kenny and Goe (2004) pointed to the concept of ethos and social embeddedness as a key intangible that led to entrepreneurial endeavors by professors in particular university departments. A connected community-minded ethos will help to either encourage or discourage particular behaviours. In organisational studies, we often see this in HR literature, where the company culture either helps or hinders efficient work environments (e.g. O'Mahoney, 2007). Business incubators and corporations are similar in this regard, their ethos contribute to favorable or adverse organisational outcomes. However, in business incubation two organisations are effected - both the incubator and the incubating companies. This indirect influence was found to also greatly impact the business.

Due to its intangible nature, an organisation's ethos can be difficult to grasp and explain, but the concept of an organisation's environment is much more of a comprehensible and communicable representation of a collective ethos. By environment, this study particularly refers to the surroundings or conditions in which an individual works. The environment of an incubator could be compared to a corporate environment, except that corporations might have different business units with an umbrella leadership team. An incubator instead has separate autonomous businesses along with a team of incubator support staff, who as participants in this thesis tend to also form a provisional leadership team for the company's as they get started.

The entrepreneur participants would describe an organisation's environment using words and phrases such as: funky (Whitney, 1A), high-energy (Jared, 1C), sense of camaraderie (Karrie, 1A), serious fun (Sam, 1B), and family (Stephen, 2B). As Rachel (4D), the incubator manager put it:

It's all fluff, but it's the tempo that helps everyone keep going.

5.3.1 Advantages: Privacy, Validation, Guidance, and a Sense of Camaraderie

On the whole, entrepreneurs tended to emphasise the importance of the incubator environment and as such, the broader ethos. These were seen as key contributors to the success or failure of the start-ups. Although different words were used to describe the incubator environment, entrepreneurs tended to collectively see a beneficial incubator environment as consisting of core characteristics like privacy, validation, source for guidance, and a sense of camaraderie. Whitney (1A) remarks:

You've got a bunch of people doing what they want to do, everyone's working hard, and there's a real shared camaraderie in doing what were doing.

Karrie (1A), goes on to similarly remark:

There's certainly camaraderie and kinship with us all going through the same thing.

A sense of camaraderie that came from working with and around other individuals who were living the similar lifestyle of starting a business. Sometimes this sense of camaraderie was communicated as a sense of family. Stephen (2B), an incubating entrepreneur commented: "It's kind of like a bit of a family."

Related to a sense of camaraderie, the concept of validation was also reported by participants as a core characteristic of the incubator ethos. It is as Matt (3C), an incubator CEO discovered that validation is a key aspect of incubation, from the entrepreneur's point of view. He comments:

From the entrepreneurs point of view, it's validation - that we believe in them.

Zak (1B) also observed this firsthand:

It's (supportive environment) made a crucial difference, we probably would have burnt out a while ago.

Validation helped Zak (1B) to continue running his new venture. Stephen (2B) also understood first hand how important validation is for incubating entrepreneurs. He describes it as a gift that guards you from psychological villains that will bring down your business. He remarks:

I think doubt is the biggest villain. That's the kicker. That and panic is another villain. When you think it's going to fold and then your brain goes off, people like the incubator CEO will help to bring it back.

Susan (2B), an incubating entrepreneur found that there were several skeptics outside of the incubator who sought to barrier her and her idea, but, her incubator helped to validate what she was doing and shield her from doubt. She comments:

There are people that don't want me to succeed. There are other people that believe the issue needs to be resolved using an alternative solution. And if I succeed, it proves that I was wrong. In a way though, the incubator environment protects me from that. I know what I'm doing is right and I know what I will do will be successful.

In order to have validation and a sense of camaraderie, one assumes there is already a trusting incubator ethos. In the study, a trusting incubator tended to be representative of a respectful environment where privacy was maintained. The incubator was described as a place where entrepreneurs could be open and honest with one another, particularly about their business, whereas the entrepreneur outside of the business incubator felt pressured to maintained a positive rhetoric that they and their business were doing well, when in fact, they might instead be struggling through a challenging stage. No matter what was said within the incubator, however, privacy would be maintained and sensitive conversation would never leak to unexpected people and places. Karrie (1A) comments:

Confidentiality and trust was kept. That was really nice in the incubator, you felt like you could be saying anything about your business and it wasn't walking out the door. It was sort of a built in trust locker.

The final advantage of a productive incubator ethos is the unstructured guidance that is provided to the tenants by their peers. Guidance tended to differ from the gained knowledge described in the advisory section in two particular ways. First, the entrepreneurs share information and knowledge amongst themselves rather than only learning from the incubator and their other key people. Second, it differed according to the way the knowledge is disseminated. Often entrepreneurs share information casually. It is typically unstructured and impromptu, whereas the incubator and other key people tend to provide knowledge with a more structured approach. Nate (4B) comments:

I think part of the belonging thing, is working in a group and sharing the group knowledge and the group enthusiasm - trying to motivate each other as a group.

As Nate (4B) alludes, the support he found in the incubator was not only knowledge-based, but was also the unstructured motivation from the other tenants. The data revealed that Nate (4B) was not alone in this and that the entrepreneurs on the whole experienced this final advantage. He went on to report in greater detail regarding the start-up support he found in incubation:

You get a really large bunch of intelligent people from different backgrounds, we're all helping each other, we all had contacts in different areas where we could each feed off each other, then there was just an excitement around the place, someone makes a good phone call, everyone else is congratulating them. The word gets around to everyone that they did a good phone call, the energy level is really high.

In the end, this study revealed four advantages of a productive incubator ethos. However, unless a productive ethos is cultivated within an incubator, these benefits will struggle to be actualised. The next section reveals a few ways in which a productive ethos is cultivated in incubation.

5.3.2 Cultivate a Productive Ethos: Peer Relationships, Take Time, Make Introductions

This study returned three particular methods by which to cultivate a productive ethos. Each of these methods helped incubating entrepreneurs actualise the three advantages of a beneficial incubator ethos. The first is peer relationships. Sharing the common vocation of starting a business contributes greatly to cultivating a productive ethos. As Katie (1A) noted, the act of starting a business is a very personal journey and is generally different from most others in society who work for established organisations. Frasier (1A) also points out that launching into a career as an entrepreneur is a countercultural move and one that propels you into a small group of people.

When you do this stuff you're weird, because the vast majority of people, even if they have an idea that they think is great - they won't do anything about it. You can't imagine how many times someone said, I've had an idea once. But that's it! All they had was the idea.

In incubation, though, these "weird people", these entrepreneurs, are brought together where they are able to share in each other's journey. There is a consensus amongst entrepreneurs that they are not starting a business alone but are doing it together with other entrepreneurs, the incubator, and their network of other key people. They might not have any employees to share the experience with but because they have put themselves in an incubator environment, there tends to be an advantage from the sense of camaraderie. Frasier (1A) remarks:

The value of having a whole bunch of really committed people who are taking a step away from the ordinary path of life, but they're doing it together. They find themselves together. That gives each of them a strength.

There is a potential for entrepreneurship to be quite a lonely journey, and to be able to connect with the advantages that come from an incubator ethos, one of the

key underpinnings is to share the start-up journey with other like-minded entrepreneurs. Whitney (1A), remarks:

For us the main benefit, and I've often said this, wasn't really the incubator, it was the people at the incubator. It was the kind of camaraderie and shared experience which made it special.

Katie (1A), another entrepreneur points to the supportive energy in an incubator, that's shared between entrepreneurs in a similar situation.

The certain energy was the same. They (the other entrepreneurs) equally wanted you to do well. It's a strong thing and I'm not quite sure why.

Claire (1A) commented that entrepreneurship is a unique experience that cannot be shared by others who have not experienced it firsthand.

You can share some experiences with people who haven't done it themselves, but nothing can simulate the sense of having your entire livelihood and ass on the line.

The data tended to highlight two particular ways in which peers are able to develop beneficial relationships with one another. The first is the concept of working together, or collaborating. It was found that when entrepreneurs gather together and share knowledge openly with one another, they are able to help each other past certain obstacles that would be much more challenging had they been forced to confront them alone. The knowledge gained could be simply a passing comment from another entrepreneur, or it could be a substantial amount of helpful advice. Zoe (4B) remarks:

It is quite good having that team around. It's a good environment to be in, your not kind of siloed alone, chipping away. You've got people going: "what are doing" and they're not just keeping an eye on you, but are making sure your doing it properly, which is quite helpful.

Some entrepreneurs pointed to peer relationships as a key variable or prerequisite to connecting with the advantages of incubation. Katie (1A) commented:

It's really fundamental. You've got to have really awesome people - other entrepreneurs that are there and willing to share their journey with their fellow incubatees. That's vital.

The second way in which peers are able to develop beneficial relationships with one another was by sharing honest and objective feedback with one another. Frasier (1A) indicated that other start-up kind of people are able to provide necessary feedback that cannot come from other sources. Jim explained that this was due to the similar position of each tenant. He remarks:

When you're around people who are doing the same thing - day after day - you can be real because one of the things you learn is that everyone is doing a little smoke and mirrors - a little of spin and gloss - cause you don't hang out your dirty washing for everyone to see. But for the people in it with you - there's not so much to hide.

Frasier (1A) alludes that there are certain things you can only share with others who are also actively involved in entrepreneurship and are enrolled in the incubator. He goes on to comment:

There's a really good sense of camaraderie - that were in this together and that you can tell each other stuff you wouldn't tell an outsider.

Typically, entrepreneurs would share honestly and openly with one another what they had learned during their start-up experiences. Sam (1B) discovered:

Being around other people, it's nice to have a good chat and share your knowledge.

Caleb (3A), similarly commented that this was one of the most beneficial aspects of incubation for his company:

The engagement of fellow incubated companies, to hear what they've learned and experienced.

Stephen (2B), another incubating entrepreneur similarly remarked that it is important to develop relationships with other incubators, particularly the new entrepreneurs who can benefit most from these relationships. He remarks:

At first it's just: get, get, get. You want help, you want advice. It's always on your terms - you're the small person with no money. But, I've found as we've grown that it's a relationship, you give back. You go and talk to the up-and-comers in the same field. It's hard for some of the younger guys who want to get their idea out, but their without feedback. It's a two way street.

Although providing honest, objective feedback is important in developing peer relationships, as Stephen (2B) indicated above that there was limited time to spend with other peers. The entrepreneurs were typically extremely busy and caught up in their own company tasks. As this was often found to be the case, the second element for cultivating a productive ethos is taking time. As Whitney (1A) indicates, despite their limited availability, entrepreneurs typically found time amongst their busyness to connect with other incubating entrepreneurs. She remarks:

When you are heads down, you're working all hours of a day, not deliberately connecting with someone who does something very different from you - you're just not going to do it, there's no real reason to connect, which is why the parties, social events, and the Friday drinks were so important - it provided an excuse.

Frasier (1A) also found valuable time to spend with other entrepreneurs in common areas, such as the shared kitchen.

You bump into each other in the kitchen and start to talk through what's going on with you - you're often working very long hours in the same building and in an open floor plan office.

Although all members of the incubator ecosystem contribute to the incubators ethos, the data tended to emphasise the entrepreneur's participation in this regard. Nate (4B) commented:

The culture of the incubator is really driven by the companies in it, a you get out what you put in sort of thing.

Finally, the introduction of fellow incubating entrepreneurs by incubator managers proved valuable in cultivating a productive ethos in the incubator. The data indicated that incubator managers might connect entrepreneurs, particularly if they think one can help the other with a certain problem. Luke (2C) shared about the willingness of incubatees to give another entrepreneur some of their time.

In some situations, I will say (to a tenant) that this guy (other entrepreneur) actually needs your help. Everyone of the other company's have said: "happy to give the time."

Sometimes introductions are the key way in which incubating entrepreneurs connect with one another. As Matt (3C) indicated, tenants are busy and do not necessarily do a good job connecting with one another, unless they are introduced. He remarks:

They (incubating entrepreneurs) work together and share and learn from one another. But I think also, most of them won't share and work together if you don't facilitate them. A key part of what we're about is trying to get them to network and to share experiences. It's hard though, because I think they naturally don't do that. They just want to get on and do it.

Matt (3C) goes on to say that the act of making introductions must not only happen once or twice, but that introductions must be made continuously by both peers and incubator staff. He comments:

You need people who are bring people together always and create events that give people a shared learning experience and creates a common bond.

In sum, an incubator's ethos, may produce a variety of advantages for the incubating companies, including the creation of an environment that's validating, private, where guidance can be found, and there's a sense of camaraderie.

5.3.3 Alignment Tactics

Whereas tensions can reach inflection points for both advisory and financial tensions, ethos tensions are no different. In order to confront this issue, there were two particular alignment tactics that were unveiled from the data. The first confronts a shortage in collective lifestyle and is appropriately titled *independent*. The second is titled *dependent* and it addresses an abundance of collective lifestyle.

Independent

Those incubating entrepreneurs who remove themselves or choose to stay independent and not participate in the incubator, do not receive the advantages that come with an empowering incubator ethos. The data tended to show that entrepreneurs who took a more independent and uninvolved position might have lacked the character traits and the relationships with stakeholders prerequisite to achieving a sense of togetherness or community within incubation. Frasier (1A) comments:

There's real benefits in having certain virtues or certain types of character traits as apart of your personality when your in an incubator. It comes down to being polite and not being rude.

Even though traits, such as being polite and not being rude, are relatively simple, the data tended to emphasise that they must be principally maintained in incubation because of the effort each entrepreneur is giving to try and transform their idea into an actual, sustainable venture. Frasier (1A) remarks:

It's extra necessary to have those key traits because your all so focused on what your doing. Every bit of your life is being poured into this thing.

Without these beneficial traits, entrepreneurs do not tend to be willing to share their journey with others. Although they might be on a similar entrepreneurial journey as others in the incubator, they must have certain personality traits that lend to being open to sharing their journey with others.

With an understanding that certain character traits are important to cultivate a sense of camaraderie, incubator managers can then make selection decisions that are indicative of the type of ethos they look to cultivate. For example, Sarah (2D) comments:

It's less about the idea of the business, and more about the people. We're sort of trying to figure out if they're the right people to work with us. One of the main things for us is fit. The right person with the right attitude and an average idea will be really successful, as apposed to the greatest idea with the wrong attitude.

If other entrepreneurs entered the cohort without the character traits that contributed to the sense of camaraderie, it brought down the rest of the group. Frasier (1A) comments:

If you had someone that disrupted the coherence of the group and peoples fellow feelings it would bring everyone down.

In addition to cultivating or selecting a group of entrepreneurs with certain beneficial character traits, the data also stressed the importance of supportive external stakeholders of an entrepreneur. Sarah (2D) commented:

If they don't have a supportive environment, they're not going to make it.

Outside of the incubator, these stakeholders particularly tend to be an entrepreneur's family and friends, but although they're technically on the outside of incubation, even the incubator managers stressed the important contribution they make towards the success or failure of the entrepreneurial venture. Sarah (2D) comments:

It totally depends on who the stakeholders are. You get anyone from the families and partners who are not supportive, the entrepreneur is not going to be successful.

Jessica (3D) has learned that it is crucial to evaluate the impact of an entrepreneur lifestyle has on someone's key people - like they're family and friends. She comments:

In our selection of those early stages we try and understand if it (entrepreneurship) will have too much impact on their lives and on their family. We see a lot of entrepreneurs fail by not understanding that.

However, incubators have found that their ideal entrepreneur candidates are more prone to start a business themselves, regardless of the help the incubator thinks they can provide. Sarah (2D) comments:

A lot of people we believe are the right people, whom we could add a lot of value to, are usually the people who say: "Incubators - nope. I'll do it myself."

Nate (4B) seemed to see small groups as problematic in incubation and emphasised the necessity of large and diverse groups of entrepreneurs working in the same space. He remarks:

I think it's important to have a good amount of people involved. If you can get it to the point where there's enough people and enough skill sets in the incubator, then it starts to feed on itself and is quite critical to business development.

Some incubator managers have blamed the critics of incubation for bad mouthing the industry. Whereas others have simply taken the blame themselves, noting poor communication of the incubator's value proposition. Karrie (1A), touches on the importance of an incubator articulating the value they provide effectively. She remarks:

Finding a message of what the incubator does isn't very clear. I don't think its communicated very well to the community or internationally - as well as it can be.

Dependent

Within incubation, entrepreneurs can grow dependent on the incubator's ethos and particularly the collective lifestyle shared between entrepreneurs. When this becomes the case, entrepreneurs are left with too much of a good thing. The data tended to show that too much dependency on the incubators ethos can prevent the entrepreneur from developing and progressing their business beyond the start-up phase. Karrie (1A) comments:

One of the things that I think is interesting about incubation - is that when you're in an incubator it's OK to be a start-up. But, when you are a start-up it almost feels like you can get stuck in the start-up phase. Or maybe you don't get stuck, but it can be challenging to get out that phase of that because everybody in the incubator's in that same situation.

Now that Karrie (1A) is graduated from incubation, she now has a very different perspective on new businesses and the issue with getting stuck in the start-up phase. She remarks, as an entrepreneur now working outside of incubation:

Whereas now, I'm in and around businesses, I'm looking at them and seeing that they're just doing it and I think that there is huge value in that.

Zak (1B) has also found a similar benefit from becoming less dependent. He comments:

Being hooked into the bigger start-up network has made a big difference.

Likewise, Karrie (1A) went on to express:

Collaboration just outside of the incubator has been the most valuable.

When entrepreneurs grow to be too dependent on the collective lifestyle shared with other entrepreneurs in the incubator, they can get caught or stuck in the start-up phase rather than growing beyond their early beginnings into sustainable ventures. In a similar fashion, entrepreneurs can be prone to be too independent whereby they lack the benefits that a collective lifestyle can afford. In sum, the data tended to show that entrepreneurs and incubators alike must maintain a healthy ethotic tension between too much or too little collective identity.

As both entrepreneurs and incubator managers alike denote importance to a collective lifestyle amongst the entrepreneurs in incubation, incubators cultivate such a collective not only through a thoughtful selection process that takes into account the personality of participants and key stakeholders, but also through creating a physical space that can help to foster such an ethos. Since incubation typically occurs in a physical location, an office building, there are certain aspects of the space that help to bring the entrepreneurs together.

A well run incubator is about a space to collaborate and grow together - that includes the physical space.

Nate (4B) remarks:

I suppose it has to partly depend on the building, but everyone does cluster together. We've already got sort of open door policy where everyone sticks their head in the door: "Hey do you know anything about this? What are you doing for lunch."

Whitney (1A) elaborates on the importance of the physical space by talking about the little things that help to bring entrepreneurs together so they can realise the advantages. She comments:

It's probably silly things, but a well run incubator probably has a massive table where people can share lunch together. That's where good stuff happens.

5.4 Conclusion

The data pointed not only to the importance of the relationships within incubation, but also to the significance of stakeholder relationships for both entrepreneurs and incubators. These findings, when brought together, indicated three categories of tensions: advisory, financial, and ethotic - each contributing, in their differing ways, to entrepreneurship and incubation outcomes.

Chapter 6: Discussion

6.1 Introduction

The notion that there can be either a shortage or surplus of tensions corresponds nicely to the concept of social capital and particularly Boschma's (2006) five forms of proximity. Taken together, a balanced level of proximity helps to ensure optimal levels of social capital and thus allows knowledge to be shared between different parties. The following chapter will use Boschma's (2006) framework to illustrate the three relational tensions that face entrepreneurs, incubators, and their different stakeholders. This discussion chapter is divided into five main sections that correspond with the five areas of proximity introduced by Boschma (2006). Using a social capital lens with an eye towards the network perspective, the following presents a fresh viewpoint to understand how these tensions develop and how they may be realigned.

Boschma (2006) argues that the transfer of knowledge between actors is not governed by geographic proximity alone, but rather by four other forms of proximity, some of which are even of greater importance than the geographic proximity of knowledge-sharing actors. Moreover, too little or too much proximity of each dimension may be harmful for effective learning and innovation. The following chapter will introduce and discuss each of the five forms of proximity, modeling out how actors may have too much or too little of one form of proximity.

6.2 Cognitive Proximity

Entrepreneurs typically lack vital knowledge required to start and grow a business. In order to fill in their comprehension gaps, they turn to advisors who typically provide valuable business-related knowledge (e.g. Lorraine *et al.*, 2009). In the previous chapter this insight was subdivided as either strategic or operational. Many of the entrepreneurs found these valuable resources in and through the incubator. Nate (4B) remarked:

The incubator has been integral in what I've been doing. I've said it before, my company wouldn't exist if the incubator hadn't taken it by the hand and led me.

Although participants of this study, such as Nate (4B), agreed that the incubation process was thorough and thoughtful, they also found that advisory pairings could be problematic and that they may eventually lead to poor advisory support. When this became the case, the actors were found to lack the necessary requirements to effectively communicate with one another. This dissonance tended to either manifest itself as the start-up was left with a shortage or overwhelmed with a surplus of advisory support.

Boschma's (2006) concept of cognitive proximity relates well to advisory tensions observed in this research. He argues that actors may fill up or level off communicative gaps to reduce cognitive distance between one another. In other words, the cognitive proximity between actors must not be too great or too small to prevent new knowledge from being communicated and understood. There are a variety of factors that can prevent knowledge transfer and therefore unhinge the healthy advisory tensions that ensures entrepreneurs receive the advice they need. This section will illustrate the advisory tensions using Boschma's (2006) concept of cognitive proximity.

6.2.1 Levels of Proximity

Cognitive proximity helps to facilitate effective communication by way of ensuring a shared understanding between the individuals involved. Two actors with cognitive proximity share a common vocabulary or a common narrative, which could be typified by a shared experience. For example, two actors that have both started a business share a common story because they have each been through a similar experience. Nahapiet and Ghoshal (1998) propose that a shared understanding of meaning between individuals results in knowledge transfer. One example of this comes in the form of a shared narrative. However, the bringing together of effective knowledge transfer is not easy, even between actors who have shared many of the same experiences. At the core, effective knowledge transfer requires actors to absorb knowledge and then identify, interpret, and

exploit what they have learned. Knowledge transfer requires some level of cognitive proximity, even if it is only minimal. Additionally, the cost of bringing together the right diverse knowledge cannot be too high, which would prevent knowledge from being shared (Boschma, 2006).

Many of the interviewed entrepreneurs had backgrounds in science, engineering, and industrial design, but were without much experience in managing people, sales and marketing, or other key tasks of running a venture. These participants had operational and strategic knowledge gaps. Reflecting on his entrepreneurial experience, Frasier (1A) comments:

Advice is really important - if you don't have it, you really don't have much that is going to help your business.

From an incubator's point of view, there is an abundance of knowledge available for the entrepreneur. Sarah (2D), an incubator strategist remarks:

There is such a big knowledge depository here in the incubator that they can tap into and utilize.

As both Frasier (1A) and Sarah (2D) point out, advice is extremely important for entrepreneurs and incubators can be a source to bridge the gap between entrepreneur and advisor so that knowledge is effectively transferred. However, tensions may arise when entrepreneurs have too much or too little cognitive proximity.

Too Much

Too much cognitive proximity may lead to lock-in, which is a lack of openness and flexibility to expand outside of one's established networks (Boschma, 2006). An excessive amount of lock-in can prevent actors from connecting with novel sources of advice that can provide them with valuable new knowledge.

As Boschma (2006) describes, most actors who experience lock-in tend to stay within their established networks rather than expanding outside of them by

meeting new and diverse groups of people. In other words, the actor that does not cultivate networks of contacts who are diverse in their skills and interests, will inevitably be prevented from being exposed to new ideas and viewpoints that might be held by other people outside their current network. When this takes place, there becomes too much cognitive proximity shared between parties so that they are unable to learn from each other or are unable to move beyond their existing sources of advisory support to connect with vital information held by parties or networks outside of their own.

This concept of cognitive lock-in illustrates one way in which an individual may reach a certain stage of development where they are no longer able to develop and grow. In a sense, they are stuck, unable to progress beyond their current situation. However, by expanding outside of their current network to make new friends and contacts, who, for example, have different areas of expertise or different viewpoints on a particular topic, they may find a way out of what seems to be an immovable phase.

There were a handful of ways the participants became lodged in certain phases and were without what seemed to be a clear way to get out. Many entrepreneurs in incubators were prone to become stuck in the start-up phase and unable to move beyond it in order to connect with the knowledge they need. In other words, an entrepreneur could not quite get past being a start-up in order to move on to developing a fully functioning venture. Several of the participants credited the incubator's culture as something that is incredibly important in helping start-ups to develop. However, participants also simultaneously found that the nature of an incubator as a club can prevent entrepreneurs from seeing their businesses as operating independently of the incubator. Jared (1C), an incubator CEO comments on his incubator's culture:

We'd like to think that they belong to this club, which they define the culture of the club.

Here, Jared (1C) touches on a poignant and potentially detrimental metaphor of incubation for an entrepreneurial tenant. Entrepreneurs help create the culture of an incubator in such a way that helps their business develop, but in doing so, what

appears as a healthy incubator club can quickly evolve into an unhealthy confinement whereby the members no longer are exposed to or fail to expose themselves to novel sources of knowledge. When this becomes the case, too much cognitive proximity may lead to cognitive lock-in which obscures entrepreneurs from looking beyond their present situation to view new technologies or new market possibilities (Boschma, 2006). Outside of clustering exclusively with the same people, an actor's routines or habits can prevent them from engaging with new knowledge. Several of the participants of this study, particularly the entrepreneurs who had graduated from the incubator, found that one of their vital sources of new knowledge came from individuals outside of the incubator. Karrie (1A), for example found that her collaboration with individuals outside of the incubator has been some of the most valuable experiences she had while she was incubating. By connecting with new knowledge in local universities, industry, and government, Karrie (1A) was able to grow her venture beyond the incubator. In a similar way, Zak (1B) helped to sort through the diverse advice he would receive by engaging with individuals in the broader business community, outside of the incubator. Being a part of the incubator helped him hook into this larger network. He commented:

Being hooked into the bigger network so you can be linked all together.
Having access to all those people has made a big difference.

Although participants reported on different forms of cognitive lock-in, several entrepreneurs found themselves overwhelmed by the multitude of new knowledge in their incubator. When there becomes an excess of available new knowledge, it becomes more about trying to better connect with the people in your current network, rather than always searching for novel sources elsewhere. Susan (2B) found her incubator to be packed full with new knowledge that she has not yet and will never fully tap into. She comments:

I've loved being in an incubator environment where the people have really good brains, really intelligent people. Thinking about really interesting things, throwing really amazing ideas around and for me, that's a really stimulating environment to be in. You don't get exposure to those things outside in the real world. You don't find that much outside. We've got engineers,

physicists, and you catch their conversations and you know that you're in the presence of some very bright people.

Susan (2B) goes on to mention that these individuals have not only been inspiring, but they have helped to directly contribute to the success of her start-up.

To be part of that in and of itself is inspiring and makes it exciting. You see what people are doing and the projects they're working on have a real wow factor! My product has been impacted by that as well. I thought, well, I don't need to be limited only in my thinking.

In terms of development time, she estimates that being exposed to these novel sources of knowledge in and through the incubator has significantly reduced her start-up time. She remarks:

What being apart of an incubation programme has done, is that we've probably cut back by about five years of the length of time in development.

Within the incubator, new knowledge can be sourced from a variety of outlets. Since incubators typically have a good amount of entrepreneurs who come in for a while and then leave, these new entrepreneurs can become valuable sources of knowledge for other incubating entrepreneurs. The cyclical nature of new people entering and others leaving an incubator helps to continually bring in new, novel sources of knowledge. Stephen (2B) found that:

You see a lot of people come and go, which I think is good. The incubator helps to sort people's heads out before they launch their venture.

Although the cyclical nature of an incubator is helpful in that it continuously brings in new people with new ideas, the number of businesses who go on to graduate from the incubator is small in comparison with the number of businesses that fail. Nevertheless, the act of bringing in new people with novel knowledge and ideas can be a valuable source for incubating entrepreneurs to escape a state of cognitive lock-in and connect with vital knowledge that helps their start-up grow.

Too Little

In contrast to having too much cognitive proximity, some of the participants reported that there was a lack of cognitive proximity, which prevented knowledge from being understood between two actors involved in business incubation. Although knowledge was shared, the receiving entrepreneur failed to understand the new knowledge and was thus unable to absorb and apply it to their start-up. Several of the participating entrepreneurs found that they did not understand certain advisory support because it was ambiguous or overly difficult to understand. Zak (1B) remarks:

And you think, why did the incubator not say this? They probably did, but it wasn't clear.

When too little cognitive proximity is present among actors, knowledge cannot be shared successfully. In order to bridge this gap, the two parties must have some level of common knowledge between them. In other words, knowledge acquisition requires similar, yet complementary bodies of knowledge. As Cohendet and Llerena (1997) similarly found, this "same, but different" situation is necessary to trigger creativity and the development of new ideas. Stephen (2B) found that he shared a common identity with other entrepreneurs:

Most people know everyone, but most of us are geeks - so you can have crazy conversations and we've done a lot of technical collaboration.

When entrepreneurs within an incubator can identify on such a level of common interest, there is immediately a common ground that allows them to communicate with one another. Other entrepreneurs found that it was difficult to understand knowledge that was being communicated by an advisor because it was being told in such way that the entrepreneur did not hear the knowledge correctly. Karrie (1A) described being caught in a place where she did not understand the advice that was given and suggested that

It would be nice if the incubator could inform tenants when they are about to get to an inflection point and who the right people are within the incubator network to talk with about it.

As Karrie (1A) discovered, there are certain stages in entrepreneurship that are best overcome with the help of certain actors. An incubator has the potential to play a strategic role in helping to connect entrepreneurs with the right advisors. If not, advisors might convey valuable knowledge to the entrepreneur without it being understood.

6.2.2 Just Right: Similar, Yet Different

In a perfect world, the business incubator helps entrepreneurs source valuable new knowledge as well as provide them with the tools to filter advisory support so that they are able to connect with and understand the right knowledge to grow their business. Cognitive proximity can both support and prevent actors from being exposed to and understanding valuable new knowledge. An incubator can assist to mediate this tension by helping entrepreneurs to not have too much or too little cognitive proximity. By helping to get them the right balance in order to create more productive knowledge-sharing environments, entrepreneurs and incubators must be at balanced levels of cognitive proximity.

Many of the participants of this study reported that forming advisory teams, boards, and limiting those from whom they seek advisory support helps guide them through an excess of knowledge. However, in doing so, actors can be prone to fall into a state of cognitive lock-in, whereby they become removed from diverse streams of knowledge and lack sources of novelty, sources which can be crucial for attaining valuable new knowledge. In an effort to filter the valuable advice, actors might need to unlearn some habits or routines, which were once successful but have become redundant over time (e.g. Levitt and March, 1996). Incubators can also help on this front by connecting entrepreneurs with actors who might possess valuable knowledge. Nate (4B) found that the incubator staff has a unique skill of connecting entrepreneurs with the knowledge they needed, when they need it:

Some of the staff have the ability in a couple hours per week to understand where you're at, the key issues, and what help you need from other people.

Other than through helpful incubator personnel, the networks available in an incubator also provide avenues for entrepreneurs to bridge their learning gap.

Luke (2C) remarks:

With the linkages through an incubator, an entrepreneur is able to be introduced to influential people that could help their business. That's a hard thing to do by yourself, even trying to get past a secretary.

However, not all incubators and not all networks are allowed to be accessed, particularly when there is a shortage of cognitive proximity. Jared (1C) finds that outside support must meet three criteria in order for the incubator to connect the entrepreneur with an external actor. He comments:

Connections have to happen on a variety of levels. Strategically - can they actually add genuine value to the business? It has to happen on a personal level - do they create a great relationship with the founding entrepreneur and the team that's in there? It's also has got to happen on a level where they don't become disruptive to the programme we're running with the business.

As Jared (1C) points out, in some cases, the cost to source the right knowledge may be too great or even ineffective for learning. However, too little cognitive proximity represents a lack of a point of connection between actors and may be mended through different tactics.

One tactic is for actors to discover mutual points of connection, which can be some type of shared knowledge between them. In other words, they must find someone with a common knowledge base, but who also has diverse and complementary capabilities. Boschma (2006) argues that an individual must search in close proximity for the knowledge they need. Although incubators can help in establishing these connections, the responsibility of performing well does not solely fall on the incubator; the entrepreneur plays a key role in resolving their

own shortage or surplus of advisory tensions. In fact, their success ultimately hinges on their own efforts. As Zoe (4B) expresses, if an entrepreneur needs particular knowledge, they must not wait for the incubator to act but must pursue it themselves. Zoe (4B) remarks:

One trap I've fallen into is, maybe its an age thing, I didn't have much experience so I let people come over top and say "you should do this, you should do that, try that, do that" and what I've learned is that's actually the wrong way to do it. I know more about this company than anyone else so it's about me going "right, I'm doing this and I need that, or I need that person's perspective, or I need him to work out how we do this piece."

As Zoe (4B) alludes, it is also up to the entrepreneurs to source the right methods to connect to that vital knowledge. Claire (1A) observed that successful entrepreneurs, acknowledged their position of leadership and influence and take credit for the success or failure of their company.

I wear the success of my company myself. I think that's probably one of the common traits I see amongst successful entrepreneurs and equally one of the traits that is missing with people who are not successful - or are less successful in starting a business.

Whether it's the entrepreneur's connection or the incubator's, in terms of proximity, it is important that an entrepreneur finds points of connection with other actors so that they are able to communicate with as well as absorb new knowledge. In short, knowledge sharing actors must be "similar, yet different."

6.3 Organisational Proximity

Capital is often a key ingredient in entrepreneurship, but once start-ups have attracted investment, inter-organizational tensions tend to develop between entrepreneurs and their investors. Whereas other tensions could be alleviated from both surpluses and shortages, the financial tensions concern a surplus of investor participation in the start-up, typically regarding advisory matters. The data

showed that a surplus in financial support brought tension that could cause the entrepreneur to act on inadequate information that might prevent the start-up from reaching their potential. Incubators can fulfil a vital role by stepping in to connect entrepreneurs with investors. Luke (2C) remarks:

If you're out there on your own, knocking on doors trying to raise money and you fall over, it's a far more public flogging than if you fail in the incubator.

Similarly, Susan (2B) found:

Within a year, I have a substantial investor on board. That could have not just happened out in the real world.

By inserting themselves in a mediating position between the entrepreneur and financial sources, the incubator positions itself to protect their own investment. An incubator is a major stakeholder of incubating entrepreneurs. Each of the participating incubators take at least a five percent non-dilutable equity stake in the start-up in exchange for the suite of services the incubator offers. This equity position propels the incubator immediately into an investor role in the entity. Since a New Zealand incubator is a shareholder in each of the incubated companies, it is in the incubator's best interest to ensure their investment is ready to raise capital before they begin to make introductions, not only in order to protect their own investment, but also maintain their reputation with potential investors. Susan (2B) found:

Backing a project in an incubator helps to give other investors confidence, partly because they know that the business will have the expertise to grow.

However, with their inheritance of influence, the incubator must wisely balance the ways in which they influence their incubating businesses with allowing the start-up to get on with what it's trying to do. Jeff (1D) comments:

We want to act like investors, we buy with our effort a portion of the company.

Many of the times, the incubator tries to assert themselves as neutral, and some of the incubator employees might feel impartial themselves while other individuals might even have varying degrees of neutrality, however, taken as a whole the incubator and any of its employees or agents are far from neutral. Boschma (2006) argues that organization proximity is needed to control the uncertainty and opportunism in knowledge creation between and within organizations. Applied to relationships between investors and those firms in which they invest, organizational proximity can help distinguish and illustrate the tensions between members of different but related organizations. These intra-organizational relationships bring much needed benefit, but as the study discovered, tensions regarding finance in particular can develop between start-ups and their investors.

6.3.1 Levels of Proximity

Organizational proximity can be best illustrated when two actors share a similar relational space that is typically based on certain shared interactions. For example, these relationships are representative of a set of interdependencies within and between organizations that help to connect individuals of different organizations. In the case discussed here, the financial dependency between entrepreneurs and their investors help to bring the two parties together. As Cooke and Morgan (1998) discover, this organizational proximity is not only the mechanisms that helps to coordinate transactions of knowledge, but it is also a vehicle that enables the exchange of valuable information.

As illustrated above, inter-organizational relationships can be highly beneficial to start-ups, particularly their relationship with an incubator, other start-ups, advisors, and investors. These relationships can provide important connections to different resources, like the knowledge and capital that new businesses need to succeed.

Although some investors play more active roles than others, there were no situations where investors were “under-involved” in the start-up. Data did show, on the other hand, that those investors who were uninvolved, were completely uninvolved, and that the start-ups were typically left underfunded. Incubators helped to bridge this gap by connecting investors with a new business. Matt (3C) remarked:

We advise, guide, connect, and help raise money, we don't do it. That's a philosophy that we have. They are the guys and girls that are driving the decisions, not us.

Although incubators typically have a higher level of responsibility for the outcome of their incubating entrepreneurs than Matt (3C) alludes, an incubator's role is to help to establish inter-organizational relationships between their incubating tenants and financial investors. On the other hand, even though connections were made, the amount of both private and public funds available for start-ups in New Zealand is limited. Stephen (2B) commented:

You almost want to give the finger to the government! What did you do? You did nothing. And banks, oh my god, they're even worse. Therefore you need incubation. Without the ability to raise money, your nothing.

As Stephen (2B) points out, the investment options in New Zealand and in many other parts of the world today are limited (e.g. Springall, 2012). However, for those start-ups that have secured at least some level of investment from an incubator or others, there are financial tensions that can become inflamed with too much investor participation.

Too Much

The data tended to show that the relationships between a start-up and their investors can become asymmetric whereby the start-up becomes highly dependent and develops a surplus of investor participation. Like advisory tensions, financial tensions may grow too strong and may then limit the access to various sources of novel information, since new knowledge often requires going outside of one's current network.

Entrepreneurs typically allowed investors to highly influence their start-up. It was especially challenging for the entrepreneur to mediate this relationship by seeing the two organizations as separate but related. Zoe (4B) grew to view their incubator and her start-up as similar, particularly in behaviour. She remarks:

We behave in very similar ways, there's not much difference.

There is benefit to close organizational relationships. For example, Jared (1C) described that his incubator ensures their new tenants are flexible and open to the incubators influence, both so that the incubator may do their job as well as earn a return on their investment. He comments:

From an investment side, we look to see: is this a good investment? Can we see ourselves working with them? Are they coachable? We do work on both the soft stuff and the hard stuff, to ensure it'll be a good partnership.

Investors who confined start-ups to strict parameters and goals took away an entrepreneur's flexibility to adapt and change. These investors tended to desire a quick return on their investment, and some even as a result of their corporate backgrounds, typically favored hierarchical governance structures – neither of which provides the high level of flexibility needed to launch some start-ups. Blanc and Sierra (1999) found, for example, that innovation requires organizational flexibility. The more systematic the relations, such as in a bureaucratic system, the less often new ideas will be rewarded and interactive learning will take place. As discussed with cognitive proximity, a type of lock-in can occur if an actor's organizational proximity is too close. The tighter the organizational arrangements, such as between start-ups and their investors, the less flexible and innovative the two organizations are as a result.

6.3.2 Just Right: Loosely Coupled System

A surplus of investor support can result in a state of lock-in that prevents entrepreneurs from connecting with the unique knowledge they might need. To help confront this situation, the study tended to show that entrepreneurs and incubators can enact the alignment tactics reported in the findings section, which are: limiting investor influence and endorsing broad investor goals. Although the study was unclear as to which of the two alignment tactics help best to reduce a surplus, one of the two tactics were typically of greater benefit depending on the individual entrepreneur and the stage of their start-up.

In order to align investor relationships so that the entrepreneur did not fall into a state of lock-in requires balanced levels of organizational proximity. Boschma (2006) discovered loosely, as opposed to tightly, coupled systems can help an individual to maximize benefit from both intra- and inter-organizational relationships and thus gain a necessary amount of flexibility. A balanced level of organizational proximity guarantees network connections between organizations and thus helps to provide start-ups access to complementary sources of information within the pool of investors, without limiting their access to knowledge from other sources. David (4C) has found that his incubator needs to take an active role in the incubating entrepreneur's start-ups, but that there will be a point when they strategically remove themselves and to allow others advisors to be more involved. He remarks:

We kind of see ourselves as being an add-on of their management team. Eventually we get replaced by other people. But we're a bit of a bolt-on member at the start.

Boschma (2006) explains that for loosely coupled systems to exist, organizations must maintain limited hierarchy without centralized units. Coordination, however, is required to help bring together the different units (Lawson and Lorenz, 1999). Rachel (4D) found that her incubator's culture helped to bring together the different incubating entrepreneurs, the incubator, and other's who were invested in the start-up. She remarks:

The culture kind of rains as the most important thing. It's all fluff, but it's the tempo that helps everyone keep going and connect.

In sum, an excess of advisory support from investors can lead to an excess of organizational proximity and thus result in lock-in that prevents actors from gaining knowledge outside of their current sources. Although this study tended to show that investor relationships can grow to become problematic, there can also be great benefit in tight relationships. As Hanson (1999) realised, tight relationships can help actors transfer complex knowledge between organizations in product development projects. Despite the different inter-organizational benefits from tight

and loose investor relationships, entrepreneurs and incubators alike must continually evaluate their level of openness to ensure they are preserving a balanced state of tension, between having a surplus and a shortage. However, if a surplus does take effect, the two tactics of limiting investor influence and endorsing broad investor goals may help entrepreneurs to realign their unhinged relationships.

6.4 Social Proximity and Institutional Proximity

In differing levels of importance, the ethos of an incubator can help to connect entrepreneurs with the resources they need to succeed. Typically these resources take the form of different sources of knowledge and psychological outcomes, such as increased self-confidence. As reported in the Findings Chapter, these ethotic benefits tend to grow out of the incubator's trusting and communally-minded environment. Within this context, relationships between entrepreneurs were able to produce mutually beneficial outcomes, which previous research has also revealed. Lichtenstein (1992), for example, discovered valuable benefits from peer relationships. In addition to this, other researchers found many benefits that can develop from the other relationships in incubation (e.g. Hansen *et al.*, 2000; Bollingtoft and Ulhøi, 2005).

Boschma (2006) offers some unique lenses to view the ethotic tensions raised in this study. His view of social proximity, institutional proximity, and the relationship between these two forms of proximity provide a good illustration of this theme. The concept of social proximity shows the importance of relationships at the micro-level. High levels of social proximity imply relationships that involve trust based on friendship, kinship and shared experience. Embeddedness literature helps to shed additional light on this concept by suggesting that social embeddedness in a firm's relationships is positively correlated with interactive learning and innovative performance (e.g. Granovetter, 1985).

As revealed in the Findings Chapter, start-ups within incubation are separate yet can be intimately connected. Although each firm associates with all other firms on an intra-firm level, the common location of incubation helps to eliminate walls

between organizations and allows incubating start-ups to associate more with one another on an inter-firm level. Whereas social proximity focuses on the social ties or connections that develop relationships, it does not include shared sets of values, such as from religious perspectives or ethnic backgrounds. Those values and others at the macro-level are classified under the concept of institutional proximity. As Boschma (2006) explains, institutions function as a sort of glue for collective action because it reduces uncertainty and lowers transaction costs, while also increasing certainty within the institution.

6.4.1 Levels of Proximity

Much of the ethotic benefits in incubation tend to stem from mutually beneficial friendship, which thrived because of a considerable amount of social proximity. In other words, the relationships were based on friendship, kinship, and shared experience. This social proximity helped contribute to the sharing of knowledge as well as the providing of psychological support, such as a boost to an entrepreneur's self-confidence. However, an excessive amount of social proximity can be detrimental to an actor. Too much commitment may lock members of social networks, like incubators, into established ways of doing things at the expense of their own innovative and learning capacity. Without being able to connect with valuable new knowledge, start-ups will then find themselves trapped without the key resources to grow and develop.

Coupled with and related to social proximity, the concept of institutional proximity helps to further explain the ethotic tension discovered in incubation. Institutions are established sets of common habits, routines, practices, rules, or laws that help to regulate the relations and interactions between actors and groups. Institutional proximity can then be seen either as an enabling or constraining mechanism that affects the level of knowledge transfer, interactive learning, and consequently the innovativeness of the firm. As observed in this study, institutional proximity represents how closely the incubating entrepreneur "behaves" according to the incubator expectations. With too little institutional proximity, actors may lack the social cohesion and common values that help establish relationships and create a climate for knowledge transfer. On the opposing spectrum, too much can lead to a state of inertia whereby accretive institutional proximity hampers collective learning

and innovation. A state of inertia or lock-in tends to hinder the development of new innovations which require, as a condition, the build-up of new or the restructuring of old institutional structures. Freeman and Perez (1988) in their work on technology systems found that new ideas and innovations were obstructed by increased institutional proximity, which blinds ones ability to see new possibilities.

When an actor's field of vision is either increased or impaired with a shortage or surplus social proximity and institutional proximity, a balance must be struck to ensure actors are in a state to capitalize on ethotic benefits. This study tended to reveal that actors were either dependent upon or independent of ethotic support available in incubation. In other words, dependent actors tended to struggle with lock-in from a surplus of social and institutional proximity whereas independent actors maintained low levels or a shortage of these proximities and failed to benefit much from ethotic support.

Too Much or Too Little

Incubating entrepreneurs tended to be either too involved in the incubator or not involved enough. Each of these poles came with different issues that negatively contributed to an entrepreneur's venture.

With too much institutional proximity, start-ups were prone to get caught in the incubator's system and processes. Jessica (3D) commented:

When I first came to the incubator a couple of years back, I did my normal corporate thing and I tried to help a couple of entrepreneurs become more process oriented. I beautifully laid out this process, but the human elements played constantly and I quickly determined, maybe unscientifically, that good incubation requires a mixture of art and science.

As Jessica (3D) found, having an abundance of structure prevented them from connecting with innovative new knowledge. On the other hand, the data also reported that when an entrepreneur chooses to be more independent and they invest too little time and energy into the incubator itself, they are not able to yield

the ethotic benefits. Caleb (3A) found that problems occurred when start-ups stayed more independent. He comments:

You tend to get a lot from the incubator if you actively engage in it, for those who didn't engage, that's where the problem is.

Zak (1B) remarks:

It's probably my fault as well for not engaging with those guys (the incubator), so that I got the best out of them.

Those entrepreneurs who rely on the incubator for some things but can simultaneously maintain a healthy level of independence are best able to realise the ethotic benefits of incubation. Taken together, in order to realise the most benefits from incubation, entrepreneurs must maintain a *permeable community*.

6.4.2 Just Right: Permeable Community

Zoe (4B) realised that once someone first discovers the many benefits available from being involved in the incubator, they are able to connect with valuable new knowledge. She remarks:

Now that I've been working with everyone (in the incubator) I have a clear picture of who is good at what. So I try and manage it that way, rather than asking everyone. You just go: "he's good at that, I'll just ask him."

The different relationships in incubation have the potential to result in substantial ethotic benefits. Some actors, on the other hand, were also prone to grow dependent on ethotic benefits causing them to become locked-in or constrained to limited sources of knowledge. Those actors who were less involved also limited themselves by not engaging in the incubator and failed to capitalize from any available ethotic benefits.

Although an incubator's ethos can be a powerful tool in connecting entrepreneurs with others in the network to the valuable knowledge and psychological support

they need, many of the participants found themselves unable to capitalize on these benefits because they were either too dependent upon this knowledge or completely removed and independent from these resources. As a result, this study revealed that the actors involved in incubation must strike a balance between these two poles. In other words, they must find ways to connect with the incubator's ethotic benefits without growing to be dependent upon them.

Permeable community might be the appropriate language to describe such a balanced approach. Something that is permeable has a defined structure but allows things – particularly liquids and gases – to pass in and out. A *permeable community* then would be one that retains the exclusivity, the shared experiences, and language of a collective, but which is open to the benefits of knowing new people and bringing exposure to external ideas. Boschma (2006) talks about social proximity as needing to maintain a balanced mix of both market relationships, where individuals keep a fair distance between one another, and embedded relationships where social proximity is particularly strong in order to help circumvent issues and increase innovative performance. Gordon and McCann (2000) argue that agglomerations, or a large collective, can also help to compensate for the lock-in or dependent aspect of social proximity. For institutional proximity, Boschma (2006) argues that misaligned institutional proximity requires checks and balances, which help create a balance between institutional stability, openness, and flexibility. Regardless of the form of proximity - whether formal (laws and rules) or informal (cultural norms and habits) - a balance is required to ensure both openness and connectivity. In other words, actors must seek to retain *permeable community* by ensuring a balance between being independent of and dependent upon the incubator.

Incubating entrepreneurs, who have maintained a sense of *permeable community*, have the unique state of benefiting from both the ethotic benefits of incubation as well as the other benefits, such as new knowledge, that comes from sources outside of the incubator. Stephen (2B) comments on his experience:

It's not really the building. The network you build and this is one thing you learn from being in the incubator. Even outside of being involved my start-up, and no matter what kind of job you may get next, your network is your

name and your name is everything. It carries beyond whatever you do now. I now know most of the powerful people in New Zealand, and I'm just Stephen. How did that happen? It happened because of this and I get to take that with me. How do you buy it? You can't, it's like insane.

Simply on a relational level, by maintaining a sense of *permeable community*, the incubating entrepreneur is not only able to connect with diverse groups of people, but as Susan (2B) finds, they are also able to protect themselves from other individuals who doubt that they will be able to successfully launch the venture:

One of the really valuable things for me has been that while I had this one problem with this one person, which could have absolutely destroyed me if that would have been the only relationship I had in this building, the fact that I had another two people I could turn to pulled me through that problem.

6.5 Geographic Proximity

The fifth category of Boschma's (2006) proximity framework is geographic proximity. Although, this proximity fails to match directly with one of the three tensions reported in the findings section, it does simultaneously support each of the tensions in differing acuteness. For example, Karrie (1A) made the decision to physically relocate to a city she perceived as more helpful for her as an entrepreneur starting off. She remarks:

I found that people here were much more willing to talk and provide advice at such an early stage, as opposed to other cities and countries I've lived.

Geographic proximity has long been seen as the key form of proximity that physically brings relationships together. Research indicates that those agents who are spatially concentrated benefit from knowledge externalities (e.g. Audretsch and Feldman, 1996). When entering the incubator, Whitney (1A) was not expecting benefits from being physically proximate with other entrepreneurs and incubator staff, but after a while she found that the geographic proximity helped to connect

her with people who had new knowledge her business could benefit from. She remarks:

Physical space was the key ingredient for this, it provided an opportunity for individuals to connect - especially those who thought initially they might not have anything in common.

This act of being present in a physical location has long been observed in highly innovative and connected places, like Silicon Valley. In a study of this geographic space filled with technology companies Audretsch and Feldman, (1996) found that those firms near knowledge sources tend to show a better innovative performance than firms located elsewhere. However, Boschma (2006) and others (e.g. Davenport, 2005) have shown, an actor's physical distance is not the only spatial factor that helps or hinders relationships between other economic actors. Antonelli (2000) argues that although firms might be geographically close to one another, they still require other forms of proximity such as cognitive proximity in order for them to absorb and process new external knowledge. Boschma (2006) builds on this argument by finding that other forms of proximity, particularly cognitive proximity, can act as a substitute for geographic proximity. In other words, individuals are able to benefit from the shared knowledge in Silicon Valley, not necessarily because they are neighbors, although that might help, but because they share a similar interest in something like technology. Ben (2A), an entrepreneur, remarked that he found early on that there were different applications of the same product in different countries. By using the knowledge he knew about his product and by working to understand what the different applications of his product were, he was able to bridge the cognitive and geographic proximity gaps and earn new customers and develop new partnerships.

Current models for business incubation are premised on geographic proximity. Each of the participating incubators in this study was based in a geographic place where they both had their office and sourced the majority of their incubating entrepreneurs. Since this was the case, incubators were premised first on growing local businesses that impacted their own city's economy as well as that of the country. However, as shown in this study, geographic proximity is only one of the

many forms of proximity, and incubating entrepreneurs are not able to advantageously connect unless optimal levels of proximity are cultivated and maintained. What this means for practicing business incubators is that they must ensure they are not solely focused on their geographic proximity, but that they take into account the other forms in all aspects of incubation, from recruitment of prospective incubating entrepreneurs to the different key people they connect to help their incubating businesses. In New Zealand, this might include incubators sharing particular individuals who specialize in certain knowledge. In other words, if an incubating entrepreneur requires expertise located outside of their geographic area, they must be connected with it. Sarah (2D) remarked:

Maybe there are people across the country that the incubators need to share. Some people are so valuable for the industry, that it doesn't make sense just to hold onto them tight and not let them work with anyone else - but instead to make that expertise available.

Additionally certain incubators in New Zealand could become less known for their geographical location as for their specialization. Specialised incubators could mean each incubator focuses on start-ups involved in particular sectors or industries. Caleb (3A), who found that his start-up failed to establish many strong connections because his company wasn't in the ICT space, commented:

I can see the value of incubators having specialist areas and sectors, you can't have one broad spectrum incubator.

For this to develop, a sector-specific network of advisors and investors must be established. These are professionals who know a particular space and can provide incubating entrepreneurs who are creating start-ups in their space, with valuable knowledge.

In sum, successful management of the tensions highlighted here require a balance of each of the areas of proximity. Other forms of proximity can compensate for limited geographic proximity and an excess of proximity weakens the learning ability of locals because they are too inward looking. In other words, similar to the ways in which individuals can experience lock-in from too much cognitive

proximity, an abundance of geographic proximity can also create a sense of lock-in which can prevent an individual from connecting with new knowledge that might be physically located elsewhere. To mediate, those actors involved in business incubation must make a conscious effort to maintain balanced levels of proximities so that incubating entrepreneurs are able to connect to the resources they need.

Chapter 7: Conclusion and Future Research

Incubation can be a powerful instrument to serve entrepreneurs by connecting them with the tools they need to develop and grow, if tensions are well managed. Boschma's (2006) social capital framework helps to illustrate each of the three tensions reported in the findings section. By viewing these tensions through each of Boschma's (2006) proximity lenses, one is better able to understand the incubation process and how to realign unbalanced tensions. According to the data, there can either be too much, too little, or just the right amount of the different proximities. As is the nature of tensions, if there is a surplus or a shortage of something, then the involved actors are left at a disadvantage. However, a shortage or a surplus of one area of proximity can be mended with the help of certain techniques that either increase the level of proximity or decrease it. The following conclusion offers a summary of the research presented here and unveils a number of ideas for future research.

7.1 Key Relationships: Central Participants and their Stakeholders

This study revealed that there are tensions that exist in the incubator environment which are as much about the relationship between the two central participants - incubator personnel and entrepreneur - and other stakeholders, as between the two central participants themselves. Several of the entrepreneurs pointed to the broader ecosystem as a key driver in helping provide them the knowledge they need to move beyond the start-up phase. This includes both stakeholders they knew before incubation and ones they met during and through incubation. These heterogeneous sources of information help to trigger knowledge transfer because they involve actors with dissimilar, yet complementary areas of mutual understanding. However, they also bring about different advisory, financial, and ethotic tensions, which leaves the entrepreneur or incubator to manage their levels of proximity so that they are maximizing their advantage.

7.2 Role of Proximity in Business Incubation

Geographic proximity was long assumed to be the key driver in effective knowledge transfer; although, recently with social capital research from Boschma (2006) and others (e.g. Nahapiet and Ghoshal, 1998; Davenport and Daellenbach, 2011), various new forms of proximity, such as cognitive, institutional, and organizational have been shown to be of greater effectiveness than geographic. Although, there were exceptions, each of the business incubators who participated in this study was focused on serving a geographic-specific area of entrepreneurs who had high-growth potential. In other words, incubators are very much premised on geographic proximity. However, as highlighted above, organizational, institutional, cognitive, and social proximity have equally important roles that need to be taken into account and, at times, emphasised over geographic proximity.

7.3 Remedies: Calculated Levels of Diversity

This study found that tensions exist in business incubation and that tensions may be mended by way of applying a number of remedies that help to strategically ensure diversity, rather than succumbing to uniformity. These diverse, yet similar, relationships help to position a start-up to acquire and disseminate the valuable knowledge they need to lead their start-up beyond the early stages of business and on to sustainable and growing ventures.

Cognitive proximity, for example, allows actors to share a common knowledge base and expertise so they may learn from one another. Boschma (2006) argues that cognitive proximity is a prerequisite for knowledge sharing, more so even than geographic proximity. As it relates to business incubation, incubating entrepreneurs must surround themselves with an optimal level of cognitive proximity, and they will not be able to connect with all the advantages if they have too much or too little.

7.4 Future Research

The lessons learned here may be useful for practitioners involved in business incubation - both on the incubator and entrepreneur sides. Additionally, these lessons may help an entrepreneur engaged in some form of start-up assistance, such as in corporate ventures, in technology or business parks, and business assistance programmes offered to members through a local Chamber of Commerce.

This research has opened up a number of interesting doors for future research, both for academics and practitioners. Three additional angles of prospective research will be suggested here.

First, a long-term study of incubation may help to further illustrate the tensions raised in this thesis while also revealing how practitioners may further balance tensions from becoming too great. An extended study could include the tracking of several participants from the time they enter the incubator through to when they graduate while also incorporating interviews with individuals a part of the broader network of incubation. This could include government leaders, investors, and other key incubator and the entrepreneur's stakeholders. Such a study would allow for a more comprehensive view of the progression of an entrepreneur through incubation.

Second, one limitation of this study is that it solely investigated one incubator system in one country. Although the 25 participants of this study came from one of four different incubators, future research that takes a multi-country and even multi-region view of incubation could be helpful to test and validate the tensions raised in this study.

Third, for practitioners, this study can be used as the basis for creating a benchmarking tool for gauging the effectiveness of incubation by identifying why an actor may have too much or too little of one tension and by addressing their imbalance through fueling initiatives for the purposes of realignment. A benchmarking tool could not only help support an incubator, but it could also help

entrepreneurs to track their incubation experience. Ways for entrepreneurs to gauge their incubation experience have not typically been developed or published, but such a tool might be beneficial not only to incubating entrepreneurs, but also to individuals who are considering bringing their start-up into an incubator.

7.5 Concluding Statement

In sum, as New Zealand seeks to grow its GDP in part through business incubation, practitioners and researchers must account for other elements of proximity, beyond geographic. To ensure entrepreneurs are given the advantages they need to succeed, an optimal, or “just right” level of cognitive, social, institutional, organizational, and geographic proximity must be cultivated and maintained. With balanced levels of proximity, entrepreneurs are equipped to realise the advantages of hatching their venture together with an incubator.

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Appendices

Appendix A: Information Sheet

VICTORIA MANAGEMENT SCHOOL
TE KURA WHAKAHAERE O WIKITŌRIA
VICTORIA UNIVERSITY OF WELLINGTON, PO Box 600, Wellington 6140, New Zealand
Phone + 64-4-463 Fax +64-4-463 5084 Email vms@vuw.ac.nz Web www.victoria.ac.nz/vms

Information Handout

Research title

Hatching prosperity together. A critical assessment of relationships and business incubation in New Zealand.

Research overview

I am a Masters of Commerce student at Victoria. I'm embarking on some research in the New Zealand business incubator space.

This study seeks to explore perspectives of entrepreneurs and incubator managers on how relationships impact successful high-growth start-up develop in New Zealand business incubators.

How will you be affected?

- Each interview will be 30-60 minutes in duration. A range of views, experiences, and opinions are being sought.
- Participation is entirely voluntary. You are not obligated to participate.
- Participants will be interviewed individually and confidentially. Interviews will be reported in an aggregated, non-attributable form. A position descriptor and a pseudo-name will be used in the report in place of participant's real name.
- The interview will be recorded.
- Other than the Researcher (Brock Starnes), only his Supervisor (Dr. Sally Davenport) will have access to the interview data.
- Participants may withdraw themselves or any information they have provided from this project anytime before March 30th, 2012, without having to supply a reason for doing so. All data from withdrawn participants will be destroyed immediately.
- All data will be stored free of any identifiable details and destroyed two years after the study's conclusion.
- Should you request it, a summary of Findings and Conclusions will be forwarded to you after all analysis has been completed. I will also make myself available to provide feedback through presentations at the organisation sites if requested by participant individuals. (This will be no earlier than July 2012.)
- Ethical approval from Victoria University of Wellington has been obtained for the purpose of this research.
- All participants will sign a *Consent Form*

The researcher

Brock Starnes is currently a Masters of Commerce and Administration (MCA) student at Victoria University of Wellington. This study is being conducted as part of the requirements for the completion of the above degree.

Contact information

Please contact either of those listed below if you'd like further information.

Researcher: Brock Starnes
Email: brock.starnes@vuw.ac.nz Phone: 022 081 57 07

Supervisor: Sally Davenport, Professor of Management, VUW
Email: sally.davenport@vuw.ac.nz Phone: 04 463 51 44

Appendix B: Participation Consent Form

VICTORIA MANAGEMENT SCHOOL
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Participation Consent Form

Research overview

This study seeks to explore perspectives of entrepreneurs and incubator managers on how relationships impact successful high-growth start-up develop in New Zealand business incubators.

Purpose of agreement

This agreement is to ensure that you are sufficiently informed about the purpose of the research, and your right to confidentiality.

Consent to participation

- I have been given an explanation and have understood this research project.
- I have had an opportunity to ask any questions and have them answered.
- I understand the interview will be recorded.
- Should I request it, a summary of Findings and Conclusions and/or feedback through presentations at the organisation sites will be provided after all analysis has been completed. This will be no earlier than July 2012.
- I understand that I may withdraw myself or any information I have provided from this project anytime before March 30th, 2012, without having to supply a reason for doing so.
- I understand that I will be interviewed individually and confidentially and that my interview will be reported in an aggregated, non-attributable form. A position descriptor and a pseudo-name will be used in the report in place of my real name.
- Please circle or write in a position descriptor and one pseudo-name:

Position Descriptor	Incubatee	Incubator Graduate	Incubator CEO	Incubator Manager	Other: _____
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Pseudo-name	Claire	Susan	Karrie	Sam	Zoe
	Ben	Mark	Luke	Patrick	Sarah
	Katie	Whitney	Zak	Rachel	Jessica
	Matt	Caleb	Trevor	Bobby	Frasier
	Stephen	Nate	David	Other: _____	

Participant

Signature: _____

Name: _____

Date: _____

Researcher

Signature: _____

Name: _____

Date: _____