

# **The digital economy: A look at the integration of strategic entrepreneurship and innovation in digital start ups**

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## **Attestation of Authorship**

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgments), nor material, which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

Delyce Edwards

## Table of Contents

<b>Acknowledgments.....</b>	<b>5</b>
<b>Summary.....</b>	<b>6</b>
<b>CHAPTER ONE: Literature review and limitations .....</b>	<b>7 - 33</b>
Strategic entrepreneurship: The beginnings .....	7
Entrepreneurship.....	7 - 10
Strategy .....	10 - 11
Strategic Management... ..	11 - 13
Strategic Entrepreneurship: The Development and integration.....	13 - 22
Innovation.....	23 - 27
Strategic entrepreneurship and innovation.....	27 – 29
Explorative and exploitive behaviour .....	29 - 31
Dynamic capabilities... ..	31 - 32
The digital economy.....	32 - 33
<b>CHAPTER TWO: Limitations of literature, the proposed model and research questions.....</b>	<b>34– 44</b>
Limitations of existing research .....	34 - 37
Strategic entrepreneurship and innovation; A proposed model .....	38 - 43
Research Question.....	43 - 44
<b>CHAPTER THREE: Methodology .....</b>	<b>45- 54</b>
Research Design .....	45
Research Paradigm.....	45 - 47
Interview design .....	48 - 50
Sample... ..	50 - 51
Ethical consideration.....	52
Data Analysis .....	52 - 54

<b>CHAPTER FOUR: Findings.....</b>	<b>55 - 73</b>
<b>CHAPTER FIVE: Discussion.....</b>	<b>74 - 79</b>
New emergent themes.....	76 – 78
Model.....	79
<b>CHAPTER SIX: Conclusion .....</b>	<b>80 - 83</b>
Implications for theory.....	81
Implications for practice.....	81
Research limitations and future studies direction .....	82 - 83
<b>References.....</b>	<b>84 – 89</b>
<b>Appendix.....</b>	<b>90 – 95</b>
Appendix 1: Consent form.....	90
Appendix 2: Sample interview questions.....	91
Appendix 3: Ethics approval.....	92
Appendix 4: Participant information sheet.....	93 - 95
<b>List of Figures</b>	
Figure 1: A model of strategic entrepreneurship.....	14
Figure 2: A practical model of Strategic Entrepreneurship.....	17
Figure 3: Strategic entrepreneurship.....	18
Figure 4: Domains of strategic entrepreneurship.....	19
Figure 5: A proposed model.....	43 & 79
<b>List of Tables</b>	
Table 1: A summary of the interviewees and their respective business.....	51
Table 2: A summary of each theme to each startup.....	72 - 73

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## **Abstract**

The purpose of this study is to examine the links between explorative and exploitative behaviors among start-ups in a digital economy, what drives innovation, and what effect the digital economy has on this using and building upon framework previously developed by Ireland et al. (2003;2011) The link between strategic entrepreneurship and how the digital economy affects it within the realm of start-ups is an area that has not been explicitly studied in depth before.

This research uses qualitative, semi-structured interviews with the co-founders of three digital start-up firms. Through an interpretative viewpoint, an analysis of emergent themes in the data was compared to existing research in the strategic entrepreneurship, innovation, and dynamic capabilities literature to develop insights into relating conceptual ideas.

Six main themes of creation, exploration, exploitation, networks/collaboration, human capital, and digital environment, were identified with denoted how a start-up explores and exploits opportunities, innovation, and operates in a digital economy. These themes showed the digital economy provided ample opportunity for each start-up to identify new opportunities by constant environmental scanning and more accessible access information of emergent trends and market data within their respective fields; this was often guided by a founding strategic vision. The digital economy removed geographical boundaries, which exposed them to larger client bases, helped develop and manage external collaborations with other businesses that provided more significant resources and financial capital, and allowed each start-up to gain competitive advantages over rivals. Human capital was also noted as crucial for each start-up, especially when it came to the ability to explore and exploit new ideas and opportunities. Each start-up created an environment that was conducive to open collaboration. Networks enabled all three start-ups to access more resources, markets, and created competitive advantages. These findings confirm research put forth by Ireland et al. (2003;2011) and Mazzei (2017) and added in the effects of hyper globalization, cross-cultural targeting, agility, and further elaboration on exploration and exploitation.

## Chapter One: Literature Review

The purpose of this chapter is to introduce the reader to the core research topics and provide an in-depth examination of the theory surrounding the strategic entrepreneurship field and its development.

### **Strategic entrepreneurship: the beginnings**

Strategic entrepreneurship started as an integration of two management theories; strategic management and entrepreneurship. Each had developed independently but ended up converging in an attempt to explain how firm use explorative and exploitive strategies to gain a competitive advantage when facing unknown discontinuities (Hitt et al., 2001a; Ireland et al., 2007; Chand & Wang, 2013; Kyrgidou et al., 2010).

To provide a better understanding of the foundations of strategic entrepreneurship, an overview will be undertaken and contrasted to the two-decades-long development it has subsequently undergone since its inception as a new theme within the management literature sphere.

### ***Entrepreneurship***

Entrepreneurial theory has repeatedly evolved over the decades and branched off into various streams of thought. Elements of its development from inception to the more recent themes will be examined. The theory of entrepreneurship was first brought to attention during the eighteenth century by Richard Cantillon, an Irish banker. He used the term to make a distinction between self-employed business owners and employed workers. This established the link of risk-taking under uncertainty with entrepreneurship. Later works connected entrepreneurship to economic theory through Schumpeter's theory of 'creative destruction' that linked innovation to entrepreneurs (Kraus et al., 2011).

Schumpeter's work on entrepreneurship is one of the most prominent of the 20<sup>th</sup> century. In his seminal work on entrepreneurship, Schumpeter defined an entrepreneur as a change agent who brought about innovation through a pattern of '*creative destruction*' of existing markets, where innovations were introduced by firms who had not previously innovated (Mark I). "Enterprise" was defined as carrying this change/innovation, and "entrepreneurs"

were the agents who brought this about. Large firms would subsequently lose market share to newer, entrepreneurial firms. Entrepreneurial firms then emerge as dominant market players with creative destruction, bringing an increase in an equitable distribution of wealth. Entrepreneurship, he contended, was the realm of new firms (Schumpeter, 1934).

Schumpeter, in later research, retracted the involvement of entrepreneurial innovation being solely associated with new firms. The concept of '*creative accumulation*' patterns declares that innovation can be introduced by firms who have previously innovated (Mark II). Large firms were assumed to obtain similar economic growth results as those of new entrepreneurial firms (Schumpeter, 1942).

Schumpeter's work provided a foundation for works that followed within the entrepreneurship field. (Spencer, Kirchoff & White, 2008) While criticism of his work exists (Spencer et al., 2008; Hagedoorn, 1996), entrepreneurship was established as crucial to successful innovation. This view was repeated in many other scholarly articles concurring that entrepreneurship is a critical component of innovation (Drucker, 1985; Kirzner, 1997; Hit et al., 2001a).

An alternative model of entrepreneurship was developed by Kirzner (1997), who, in attempting to discover how markets work, developed the concept of entrepreneurship further by examining how entrepreneurship fits within the general equilibrium model. Schumpeter had rejected this model as unrealistic for capitalism. Kirzner theorized that markets are in a constant state of disequilibrium. As such, the entrepreneur's role is to bring the markets into equilibrium by exploiting opportunities that arise due to this disequilibrium. Opportunity exploitation is thus related to the quality of alertness the entrepreneur has and lends itself to discovering undervalued resources. The alertness of disequilibrium opportunities between market suppliers and unfulfilled buyer needs leads the entrepreneur to engage in innovation to satisfy this need and allow for market entry. Kirzner (1997) also acknowledges the imperfect knowledge of entrepreneurs.

A link between entrepreneurship and opportunity (Kirznern's 'alertness') was also made by Scott and Venkataraman (2000). They defined entrepreneurship as "the identification and exploitation of unexploited opportunities" through market exploitation or the creation of



new products involving a process of discovery, evaluation, and exploitation of opportunities by individuals unrelated to the interaction setting (Hitt et al., 2011).

Entrepreneurial opportunities come from uncertainty, and through the use of innovation, can be explored and exploited. With appropriate resources, this leads to wealth creation for the entrepreneur/firm. One key issue presented within the entrepreneurial theory is the need to strategically manage these resources to exploit opportunities and encourage ongoing innovation (Hitt et al., 2011).

Exploration and exploitation of opportunities form a core basis of entrepreneurship literature. However, risk must also not be overlooked. Another defining element of entrepreneurship was a risk appetite. From engaging in risk-taking behavior, innovation emerges due to newness and differentness that make risk calculation difficult (Johnson, 2001).

Johnson (2001) incorporated ideas of entrepreneurship from Schumpeter, Kirzner, and others and proposed that entrepreneurship was defined as;

- *A creative act* occurs when something that did not previously exist is created.
- *Creation* is based upon opportunity recognition and exploitation that may be buried in environmental “noise.”
- Creation is *opportunity-driven* as opposed to resource-driven.
- Invariable *degrees of risk* are involved.
- These actions result in *value creation* for individuals, communities, and society at large.
- Often involves *creative destruction*.

However, this definition ignores the fact that innovation, dependent on the academic argument, can also be incremental.

Shapero (1975) looked at entrepreneurship from a behavioral approach and ascribed the following criteria as key to entrepreneurship: 1) Taking the initiative, 2) Social-economic mechanisms organize and reorganize to turn situations and resources into practical account, and 3) failure of risk acceptance.

Behavioral approaches thus lead to the creation of entrepreneurial characteristics. Johnson (2001) defined entrepreneurial attitudes and behavior as including;

- *Motivation* to compete and achieve; accountability and *ownership*; self-directed, *independent* decision-making;
- *Openness* to new information, practices, and people;
- An ability to *tolerate uncertainty and ambiguity*;
- Flexible and *creative* thinking, decision-making and problem-solving; an ability to see and *capture opportunities*;
- *Risk awareness* associated with choices and actions;
- The capacity to *manage and reduce risks*;
- Determination and *persistence* in the face of adversity, challenges, and lack of imminent rewards;
- Formulating, considering, and discussing a *vision*;
- The ability to *make an impact*;

These qualities are fostered by the entrepreneur at an organizational level to enhance and support entrepreneurial activity and respond to challenges within an environment.

However, there has been limited research into how strategic management of entrepreneurship resources are to be managed. Strategic development and implementation also appear vaguely connected, in relation to strategic entrepreneurial theories of which entrepreneurship provides a branching foundation.

### **Strategy**

Strategy can be classified as either corporate or business strategy. Corporate strategy is often defined as a pattern of decisions that determine and reveal a company's purpose, objectives, goals, produces core policies and plans for achieving goals, determines what business a company pursues, the economic or human resources it has or wishes to have and the nature of economic and societal contributions it makes for its shareholders, employees, customers, and society as a whole. Corporate strategy is applied to business as a whole (Foss, 1997).

Business strategy determines how a company will compete in a given business and position itself to obtain a competitive advantage. Both corporate and business strategies are a continual process of strategic management. Internal and external strategic decisions contribute to this by facilitating decisions made over a long-term period that have multiple effects on a company in different ways and commits and focuses significant resources to expected outcomes that will preferably lead to competitive advantages. (Foss, 1997)

Following this rhetoric, Porter (1996) analyzed strategy in terms of strategic position and fit; in order to achieve sustainable competitive advantage, a company must: perform unique and valuable activities differently from competitors, choose a market position and establish trade-offs in order to achieve a strategic fit, otherwise strategy will not withstand competition. The strategy should be flexible in the face of significant changes and involve continual improvements in areas where there are no trade-offs.

Chandler (1962) determined that structure followed strategy that incorporated organizations long term goals and objectives and added the ideas of economies of scope connecting this to various organizational forms such as the M-Form organization.

### ***Strategic Management***

Strategy links to strategic management, which evolved from a theoretical research field established in the 1960s. At its most basic, strategic management sort to create wealth for firms by creating sustained competitive advantages that create value. A strategy is aligned between a firm's internal and external environment that allows it to identify opportunities and strengths to exploit, weaknesses, and threats to mitigate (Kraus et al., 2011; Ireland et al., 2007). Strategic management processes guide how organizational work is approached, enables continuous renewal and firm growth, and provides a clear and concise context for developing, implementing, and driving strategy that supports its operations (Schendel & Hofer, 1978).

Effective strategic actions are essential to achieving strategic competitiveness and above-average returns and survivability in an ever-changing environment. Thus, strategic management processes must effectively manage a changing internal and external

environment and retain a competitive structure that utilizes resources, core competencies, and capabilities; these themselves must be strategically adaptive and continuously evolving. Strategic planning also forms an essential context for strategic management.

Many internal and external factors influence a strategic plan and add complexity. Hit et al. (2009) outlined five steps associated with strategic planning;

- 1) SWOT analysis of the internal and external environment in which the firm operates
- 2) Formulate short- and long-term strategies pertaining to mission, objectives, goals, policies, and strategies.
- 3) Implementation of a strategic plan that includes budgets, procedures, and programs.
- 4) Evaluation of strategy performance.
- 5) Follow up action taken through continuous feedback.

This model lacks the element of strategic thinking, which requires more than just an external or internal focus. Strategic thinking is a continuous search for new sources of competitive advantage that provide new opportunities for the firm and envision how new sources of value can be created through its resources and core capabilities. It also implies flexibilities in tactical approaches. (Kuratko & Audretsch, 2009).

The possession of rare, valuable, and non-substitutable resources is another source of competitive advantage that requires effective strategic management. (Prahalad & Hamel, 1990).

Sustained competitive advantages determine a firm's ability to obtain wealth. Operating in an attractive industry, identified by Porter (1996), and having and exploiting internal capabilities that are valuable, rare, inimitable, and non-substitutable, are cited as the basis of retaining a competitive advantage (Ireland et al., 2007).

Similarities exist between Strategic Management and Entrepreneurship, including wealth creation and resource utilization. Studies over the past two decades have suggested a need to integrate both subjects into one (Chang et al., 2013).

This was something Hit et al. (2001) sort to do through combining both theories into an integrative approach that was complementary and resulted in wealth creation for all firms

involved. This integration set the groundwork for the emergence of strategic entrepreneurship as a field of study within the management sphere.

### **Strategic Entrepreneurship: The development and integration**

Strategic Entrepreneurship is the creation of entrepreneurial activities with a strategic perspective. This notion provides a necessary context for the theory that most scholars agree to (Hitt et al., 2001a; Hitt et al., 2011; Ireland et al., 2007, Krgidou et al., 2010; Kuratko et al., 2009). However, to date, there has been no clear consensus as to the exact nature of strategic entrepreneurship (Kuratko et al., 2009), and it remains underdeveloped and ambiguous (Mazzei et al., 2017; Simsek et al., 2017.) To understand the multifaceted dimensions of strategic entrepreneurship, we will examine the subject's development from its foundation over a decade ago to current times.

Hitt et al. (2001a) established a foundation of strategic entrepreneurship that integrated entrepreneurship and strategic management theories into one concept to understand wealth creation in firms better. (Ireland et al., 2003.) They identified that strategic entrepreneurship involves opportunity-seeking behaviors (entrepreneurial) while simultaneously engaging in strategic thinking and management (strategic management); this led to wealth creation, innovation, and competitive advantages; this provided one of the first definitions of the subject. (Hitt et al., 2001a.)

Hitt et al. (2001a) further found links between the use of external networks, including networks and alliances, serving as a form of knowledge acquisition, resources and capabilities, and creating external forms of value. Competitive advantages were achieved by leveraging strategic resources to exploit opportunities with entrepreneurial orientation, facilitating this. The importance of organizational learning and knowledge attainment and development assisted with opportunity identification and exploitation. Innovation was enhanced when resources were managed strategically. Ultimately, they found that wealth creation was maximized when firms engaged in strategic entrepreneurship.

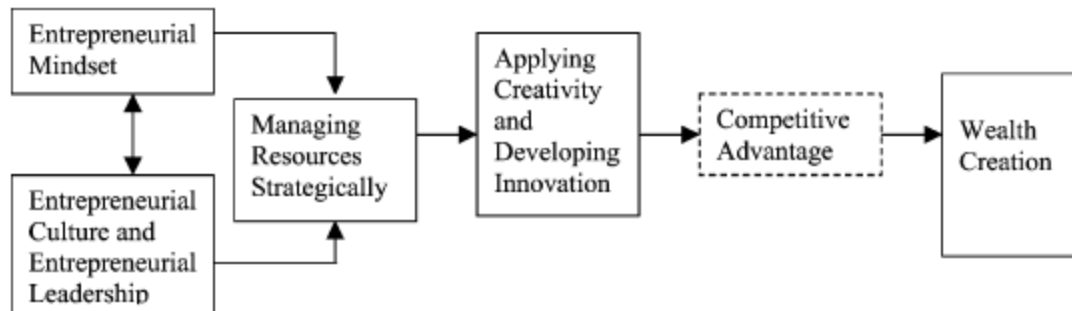


Figure 1: A model of strategic entrepreneurship (Ireland, Hitt & Sirmon, 2003.)

A further theoretical framework (shown in Figure 1) was developed in 2003, with an added emphasis on resources, core competencies, and capabilities; this hypothesized that strategic entrepreneurship was linked to an *entrepreneurial mindset, entrepreneurial culture, and leadership, strategic management of resources, the application of creativity and development of innovation was what created a sustainable competitive advantage that led to wealth creation*, this underpinned both *opportunity-seeking and advantage-seeking behaviors*. By strategically managing resources to achieve these entrepreneurial elements, a firm was best able to maximize profits. (Ireland, Hitt & Sirmon, 2003.)

Ireland et al. (2003) identified the elements of *explorative and exploitive learning* as crucial drivers that work in conjunction to create an optimal balance with each other that enable firms to exploit opportunities better, create advantages, and maximize wealth creation. They hypothesized that individual firms would have different optimal balance levels and that seeking a 50/50 split is ill-advised in resource allocation. Optimal balance is dependent on the environmental factors that each firm operates in. Organizational capabilities and management also significantly contributed to a firm's ability to engage in *explorative and exploitive learning and find an optimal balance*. (Ireland et al., 2003.)

One of the critical limitations of this literature is that there are no definite suggestions to determine the best way to achieve this optimal balance. Additionally, while Ireland et al. (2003) and Hitt et al. (2001a) found a link between *explorative and exploitative learning*, there was a lack of emphasis on personal attributes such as cognitive limitations, bias, or the use of heuristics in decision making that influences individual ability throughout the

strategic entrepreneurial process ascribed above nor does the *entrepreneurial mindset* provide enough detail for these to be integrated within cognitive limitations; instead, it looks at individuals as being business-oriented, with uncertainty as a catalyst of this.

Kuratko et al. (2009) identified links between the Ireland et al. (2003) model and strategic entrepreneurship. However, their results also showed that strategic entrepreneurship impacted staff and management in different ways that the Ireland model did not address, such as motivation level. Therefore, it was suggested that there was a need to customize the subject's design approach to consider these anomalies (Kuratko et al., 2009.) An establishment of motivational factors in strategic entrepreneurship provides an essential basis for examining how different entrepreneurs and employees respond to stimuli differently and how this influences the firm's overall strategy and goals.

Taking inspiration from the links identified by Kuratko et al. (2009), Chang et al., 2013 sort to humanize and further improve the framework initially developed by Ireland et al. (2003) by identifying five core elements that were thought to be relevant to companies exchanging in strategic entrepreneurship.

To study how these factors could influence strategic entrepreneurial strategy, an in-depth case study was undertaken of Giant Manufacturing Co., and this research discovered that Giant's commercial and financial success was linked strongly to strategic entrepreneurship. (Chang et al., 2013.) This went further than prior studies by other scholars (Kuratko et al., 2009). It incorporated elements related to mindset, leadership, and culture, which were left out of prior models and provided. These five elements identified include;

- 1) *The entrepreneurial mindset* consisted of; entrepreneurial opportunity recognition, awareness, and decision.
- 2) *Entrepreneurial leadership and culture* involved three stages of global deployment and leadership within a group.
- 3) *Decision-making resource management* included establishing imitation barriers, the development of value chains, sports marketing, and “A-Team” success factors with maximum differentiation

- 4) *Development, innovation, and creativity* encompassed a glocalization management strategy of; five convictions, four branding personalities, tolerance of fault, and learning.
- 5) *The development of competitive advantages* through comprehensive product lines, global networks for marketing, strong branding and branding advantages, and the creation of “the Giant way.”

While this paper provided an extensive case study and sort to provide a more “humanized” face to existing models, it could have gone further. There has been a lack of emphasis on personal attributes that may influence strategic entrepreneurial decision-making, such as how prior business success/failure influences decision making and how a new graduate versus an experienced business person may approach strategic entrepreneurial strategies differently because of past knowledge and experience. Furthermore, there is no mention of vision or motivation as factors that should be included in the strategic entrepreneurial process.

While particular fundamental theoretical research work (Hit el at, 2001; Ireland et al.; 2003) was often cited and provided a foundation for further research into the topic, certain limitations and absences were apparent. Luke et al. (2011) argued that the framework treated entrepreneurship and the discovery process lightly and believed that it failed to capture strategic entrepreneurship's true nature. Their work involving case studies of SOE's found four elements classified as strategic entrepreneurship; *leveraging core skills, managing resources strategically, and linking innovation to entrepreneurial perspectives*. They further linked strategic entrepreneurship as a key driver behind the most successful SOE's wealth creation. (Luke et al., 2011.)

In their research, Hitt et al. (2011) also agreed that establishing a sufficient balance (or optimal balance) between exploring and exploitive learning can depend on a firm's competitive environment. (Hitt et al., 2011.)



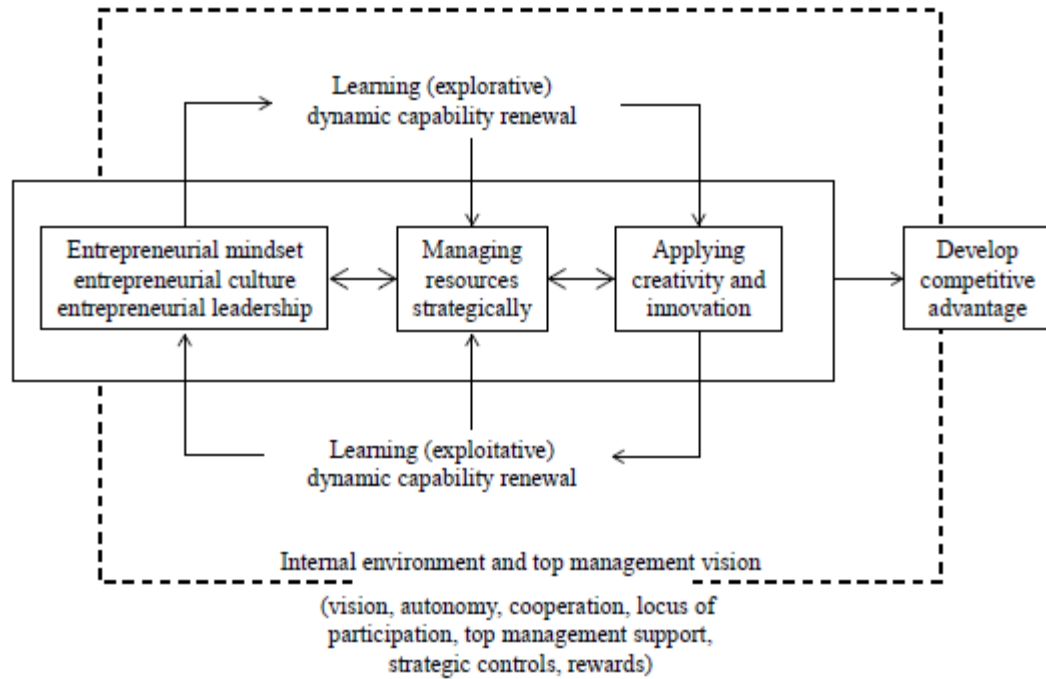


Figure 2: A practical model of Strategic Entrepreneurship ( Kyrgidou & Hughes, 2010.)

In particular, Kyrgidou et al. (2010) found linearity in Ireland et al., (2003) framework, whereby firms switched between entrepreneurial behaviors and strategic engagement episodes while lacking a feedback loop nor did it account for how internal firm conditions account for structural and contextual frameworks for these behaviors to take place. An improved model of strategic entrepreneurship was developed that, while keeping the existing criteria established by Ireland et al., 2003, added a feedback loop that *linked explorative and exploitive learning to a dynamic renewal capability* that was quasi-linear and accounted for the fact that firms did not act in iterative ways. Explorative learning focused on creating new things through discovery and experimentation, and exploitive learning involved acquiring and refining new and existing knowledge to improve problems. (Kyrgidou et al., 2010.)



Figure 3: Strategic entrepreneurship (Ireland et al., 2007)

Ireland et al. also uses the concept of exploration and exploitation. (2007), albeit in a different context (Figure 3). Continuous innovation is at the core of strategic entrepreneurship; strategic entrepreneurs, therefore, exploit current opportunities while exploring future competitive advantages; these acts themselves are balanced out along with resource allocation and management. This model's most exciting aspect is that it sways away from previous theoretical work focused mainly on strategic entrepreneurship to integrate strategic management and entrepreneurship. Instead, it integrates entrepreneurship and strategy, focusing on strategic flexibility enhancement to prior models who did not address this relationship.

This author again draws criticism towards prior models and frameworks developed by Luke et al. (2011), Kyrgidou et al., (2010), and Ireland et al. (2007) given the lack of inclusion of personal attributes related to the entrepreneurial mindset discussed earlier and the assumed level of motivation employed. Externalities that influence strategy was also primarily ignored with a focus instead of the internal environment, even though strategic flexibility requires examining internal and external environments for continuous strategic renewal and sustained competitive advantage.

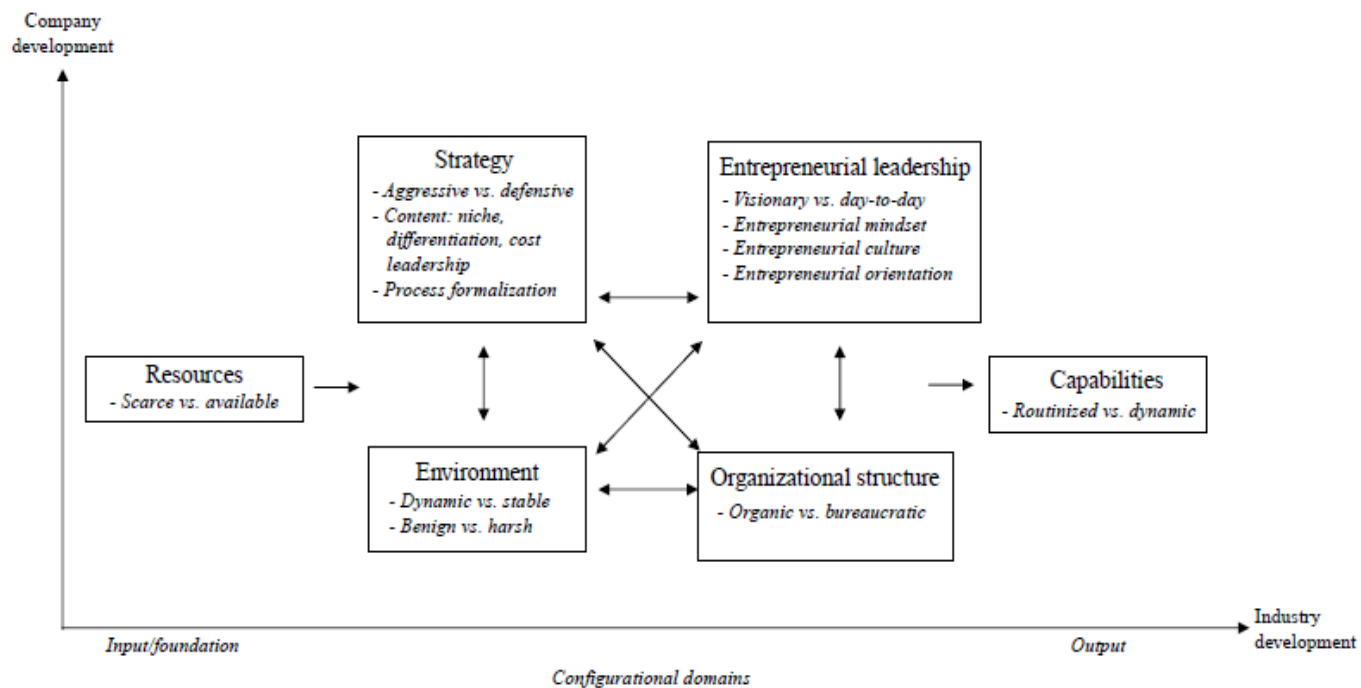


Figure 4: Domains of strategic entrepreneurship (Kraus, Kauranen & Reschke, 2011)

Kraus et al. (2011) utilized a developmental configuration approach (Figure 4) to build a model that looked at the concept's integral domains. They proposed six interrelated domains; *resources, capabilities, strategy, entrepreneur, the environment, and organizational structure*. This previous combined models, i.e. (Ireland et al., 2003), with a differentiation process that they theoretically proposed situational differences of firms in various growth stages, believed that this model helped firms better position themselves during environmental changes and helped to maintain competitive advantages.

An additional model added to strategic entrepreneurship theory is the 'Input-Output-Process model' that acknowledges the dynamic environments modern firms operate under. This model introduced new perspectives to the strategic entrepreneurship theory by looking at individual and societal benefits. The Input-Output-Process model proposes that resources existing or developed at the individual, societal, or firm levels are bundled to create capabilities leveraged to provide customer value; the outcome of these activities benefits society and individuals. (Hitt et al., 2011).

There has been a drive further to distinguish the strategic entrepreneurship phenomena from other organizational processes in recent years, further increasing the uncertainty surrounding strategic entrepreneurship's distinctiveness and core features.

Mazzei (2018) discusses this in-depth by exploring strategic entrepreneurship development under the notions of; content, process, context, *and criterion issues*, using a framework developed from change management literature to investigate various theories and claims.

Within '*content*' differences in definitions became apparent; with some scholars regarding strategic entrepreneurship as a process of organizationally consequential innovations within an existing firm that does not require new business creation (Morris et al., 2009), others saw it as a set of behaviors, domains, decisions or cognitions (Simsek et al., 2017) or under entirely different theories, paradigms and framework. (Mazzei., et al. 2018). This variation in description has led to confusion over terminology, created challenges in defining boundaries, and led to insufficiencies when developing instruments to measure strategic entrepreneurship and its impact. The notion of gaining the most consensus within academia to date describes strategic entrepreneurship as a discrete process, a rapid and deliberate progression of entrepreneurial and strategic behaviors. (Luke et al., 2011; Mazzei et al., 2018). Mazzei (2018) further expanded on this definition through an amalgamation of current definitions, by describing strategic entrepreneurship as "*organizationally consequential innovations within existing firms that involve the integration/combination of advantage and opportunity-seeking behaviors*". This definition itself is still ambiguous as remains to be seen as to what exactly represents advantage and opportunity-seeking behavior. (Simsek et al., 2017).

Hughes (2020) how strategic entrepreneurship may provide a solution for young technology firms to manage innovation ambidexterity and found that it went some way to balancing explorative and exploitive behaviors. Furthermore, their results showed that entrepreneurial orientation was a vital factor in motivating exploitative and explorative innovation, especially in newer firms, and helped them obtain profitability benefits accrued from innovation ambidexterity. This focus on innovation and technology in strategic entrepreneurial studies is a more recent phenomenon.

Another development in the past decade has been the examination of strategic entrepreneurship in developing countries. A study of Russian firms found that strategic entrepreneurship provided the firms with a sustainable competitive advantage in a turbulent business market and showed a positive correlation between explorative and exploitative behaviors on firm performance. It also noted the personal connections were highly important when it came to discovering opportunities and that these relational aspects are often different from those of the West (Shirokova & Sokolova, 2013).

Competition intensity and its effects on strategic entrepreneurship is something that very few have studied. One recent study found that the environment's competitive intensity positively and significantly moderates the relations between the firm's results and strategic entrepreneurship. In environments of intense competitiveness, the relationship between a firm's results and strategic venture improved. It also found that the environment did not moderate the relationship between performance and these strategies when companies developed only one of the two stages (exploration and exploitation stages). The integration of exploitative and explorative behaviors in an intensely competitive environment can have a much more significant impact on a firm's performance than just developing one of these strategies, which meant that ambidexterity was more advisable under conditions where the competition was high. (Estrada-Cruz, Rodrigues-Hernandez & Verdu-Jover, 2020)

While research into strategic entrepreneurial processes has proliferated and seen the development of many frameworks that attempt to link together multiple processes within the construct of strategic entrepreneurship (Ireland et al., 2003; Kyridou et al., 2010), yet, the room remains for further development and discovery. To date, the consensus within these models suggests that the critical elements within the process are; *1) the management of resources, 2) the application of creativity*. Despite the importance of the critical elements, we still know little how their integration is manifested within firms, nor is it clear if all actions within the various models and frameworks are necessary and to what degree. A further challenge is an ambiguity surrounding whether advantages and opportunity-seeking behaviors occur at a singular point or over some time through multiple transactions. (Ireland and Webb 2009; Mazzei et al., 2018.)

It has been acknowledged recently among scholars that the innovative behavior within strategic entrepreneurship occurs within established or existing firms and has seen the value capture/creation benefits of strategic entrepreneurship in both non-profit and for-profit firms in a wide variety of industries, in firms both small and large and through organizational collaboration internally and externally. (Hitt et al., 2001; Lumpkin et al., 2011; Ketchen et al., 2007; Mazzei et al., 2018.) Despite this progression, there is no clarity to date on whether or not strategic entrepreneurship is appropriate for all firms if there is any difference in a firm's ability to successfully implement strategic entrepreneurship based on a combination, in some form or another, of various organizational characteristics. Mazzei (2018) stressed the need to investigate the explicit intent of contextual factors within strategic entrepreneurship literature, noting that absorptive capacity can shed light on the place of externally imported knowledge and its impact on strategic entrepreneurship as the impact of interfirm networks.

Multiple studies to date have endeavored to look at relevant outcomes linked to strategic entrepreneurship, including improved competitive advantage, wealth creation, competitive capabilities, and strategic repositioning, with a significant amount of focus given conceptual and theoretical development, little progression has been directed towards practical or empirical support of these. The limited studies backed by empirical evidence (Lubatkin et al.; 2004; Wong and He, 2004) have investigated the impact of the positives on financial performance within a firm, negating any negative associations that may occur under different circumstances.

Overall, scholars still have a long way to go towards integration and consensus when establishing concise and clear definitions of strategic entrepreneurship elements and processes. A need for better integration and increased use of empirical studies is evident. Additional focus on how a digital economy impacts strategic entrepreneurship would provide exciting insights into how a digitalized international environment may change strategic entrepreneurship as we know it.

## Innovation

Innovation is an essential factor of strategic entrepreneurship, with prior studies by Ireland et al. (2007) & Luke et al., 2011 identifying continuous innovation as a critical concept to strategic entrepreneurship because strategic entrepreneurs exploit opportunities while simultaneously exploring future competitive advantages. These acts are then equalized with resource allocation and management, which leads to continuous innovation as companies were continually looking for market advantages that lead to future wealth creation.

Currently, innovation has many definitions and associated components, with no one, mutually agreed to. This lack of agreeability of the definition of innovation has led to a plethora of research denoting different conclusions, definitions, concepts, and details. For this study, an overview of innovation as a concept will be undertaken, while it is in the best interest to include all relevant theories. Due to the vastness of existing literature, key themes have been chosen to provide a background of the subject's subsequent development.

Schumpeter (1934) provided one of the first and most widely cited definitions; innovation was an act of *creative destruction* whereby new firms introduce innovation that destroys old established markets; in later works, he retracted on this by stipulating that large, existing firms engage in innovation by process of *creative accumulation patterns*. (Schumpeter, 1942.)

Creative destruction leads to the Mark I model, whereby appropriability conditions explained innovation, technological opportunities, accumulative knowledge, and relevant industry-based knowledge. Creative accumulative patterns associated innovation as being controlled by top firms in a stable hierarchy of innovations, with barriers to entry keeping new firms out and existing knowledge, R&D competencies, and financial resources leveraged for innovation (Breschi, Malerba & Orsenigo, 2000.)

Criticisms of these models have included; the failure to recognition mutual causation of firm size, market structure, and innovation. Variables are co-determined endogenously. (Dasgupta & Stiglitz, 1980) Empirical research found significant variations in relationships

across different industries. Technological factor inclusion may have changed these variables and may have explained sectoral innovation (Breschi et al., 2000.) Perfect knowledge is an assumptive prerequisite for both models. Nevertheless, the concept of perfect knowledge is unreliable as it does not take into account cognitive limitations that act as impediments to an individual's ability to attain perfect knowledge.

Breschi et al. (2000) attempted to amend the technical discrepancies in Schumpeters Mark I and II models by interlinking technical (learning) regimes with Schumpeterian innovation. They defined a technical regime as a combination of technical opportunities, accumulation of technical advances, innovation appropriability, and a knowledge base of firm activities. Empirical results determined that external technical knowledge was positively associated with Schumpeter's Mark I model, which could be attributed to knowledge acquisition associated with new entrepreneurial firms. External knowledge sources also increased the levels of technological opportunity for firms. Management of knowledge spillovers harmed the firm but resulted in a positive correlation for its external knowledge network. Knowledge spillover can be likened to a potential loss of competitive advantage by having "trade secrets" intimate, technical knowledge, and patents disperse into the industry for competitors to utilize, leading to imitations.

Differing innovation types transpired from Schumpeter's work that attempted to address the many facets and dimensions of evolving innovation theory. Radical, incremental, product, process, technical or administrative innovation was thus established. (Zhou, 2005)

Cooper (1998) discusses dualism in innovation as being a prominent dimension of innovation theory, whereby innovation is seen as either;

- 1) Radical or Incremental.
- 2) Product or Process.
- 3) Administrative or Technological.

Radical innovation has certain similarities to the Schumpeterian (1934) idea of creative destruction and involves ground-breaking, revolutionary, original primary or basic innovation (Green, Gavin & Aiman-Smith, 1995.)



Incremental innovations are small improvements made to enhance a firm's services, processes, or products. (Zhao, 2005.) Product innovation implies changes in a firm's end services or products. (Utterback, 1971.) Process innovation relates to changes made in ways of which firms produce end products or services. (Cooper, 1998.) Technological innovation identified new idea adoption as having a direct influence on the basic outputs processes. Administrative innovation implied changes in resource allocation, policies, and other means associated with organizational social structure. (Daft, 1978.)

Sources of innovation are essential when defining innovation as they denote particular areas of which innovation is obtained. Drucker's (1998) four areas of opportunity within an industry or company;

- Unexpected occurrences- Unexpected failure or successes are abundant sources of innovation as other firms largely dismiss them.
- Incongruities – An existing incongruity between expectations and results can lead to innovation.
- Process needs – Process needs can drive innovation.
- Industry and market changes – New opportunities for innovation change arise out of industry or market changes.

Drucker (1998) also identified three sources of opportunity outside of a firm in intellectual or social environments, that include;

- Demographic changes- Globalization has led to shifting demographics that have created new innovative opportunities.
- Changes in perception – Changes in meanings provide innovation opportunities.
- New knowledge – Knowledge acquisition can foster new innovative opportunities.

Purposeful, systematic innovation requires analysis of new opportunity sources. Drucker (1998) proposed that innovation is “the means by which entrepreneurs create new wealth or endow existing resources with enhanced potential for creating wealth.” Therefore, innovation contributes to developing new and existing business and facilitates its ability to compete innovatively. Failure to innovate leads to stagnation. (Hitt et al., 2009.)

Hit et al. (2009) identified that innovation has a prominent feature of high-performing firms. Innovation, aside from being used as a mechanism for obtaining competitive advantage, may also be required to achieve or maintain competitive parity. However, this definition lacks that distinction of risk management, while innovation is directly associated with risk-taking behavior (Hit et al., 2009.) Risks themselves must be effectively managed to prevent wastage of resources.

Information processing has shown two categories that can influence innovation: environmental scanning, where a firm's ability to recognize its external environment's needs and demands denoted the likelihood of innovative success. (Utterback, 1971; Keller & Holland, 1975.) Controls are proposed to facilitate innovation and monitor performance of tasks, financial results, and identify the area of weakness that require remediation. (Rosner, 1961)

Miller & Friesen (1982) argued that innovation requires environmental challenges in order to occur. Innovation was seen as a catalyst in response to environmental hostility and dynamism. Firms in a stable environment were less likely to innovate than their counterparts in dynamic and hostile environments. The concept of heterogeneity emerges, whereby firms in different markets are likely to learn from broad experiences with customers and competitors. Borrowing ideas from one market for use in another is commonplace. However, high levels of innovation within an industry showed a strong correlation to higher levels of competitiveness. Simplistically, the more a firm innovated, the more competitive its environment became, and the need to continuously innovate became a means of staying competitive.

Too much focus on innovation can be detrimental for an organization due to resource requirements diverted from other areas of day-to-day business operations. Goals and strategies were determined to lead innovation, not the environment. (Miller & Friesen, 1982.)

Organizational structure, knowledge, learning, resources, and ability also plays a vital role in a firm's ability to innovate. (Miller & Friesen, 1982.) Planning was also discovered as likely

to influence an organization's ability to innovate. Future-orientation leads to concerns about the change and, therefore, innovation. (Andrews, 1980; Ansoff, 1965.) Structural variables associated with innovation have centralized structures. Power and decision-making concentrated within an organization were initially linked to an innovative organization as they limited imaginative solutions and dispersed problem-solving. (Thompson, 1969; Hage & Aiken, 1970.) However, this argument does not consider the link between new product innovations being more successful in organizations with a decentralized structure. In contrast, centralized and informal structures supported radical innovation. (Ettlie, Bridges & O'Keefe, 1984.)

Lawson and Samson (2001) proposed that innovation prevails at all business levels and represents today's competitive advantage. High-performing innovators can manage capabilities and consistently bring high-quality products to the market faster and more effectively than their competitors at a lower cost. Successful firms leverage knowledge in uncertain and dynamic environments to create innovation. Networks and alliances were other critical sources of innovation and a means of reducing risk.

While innovation has common themes of organizational structure, culture, leadership and resources, risk, capabilities, external and internal environments, types of innovation and innovative sources, information processing, knowledge, control mechanisms, goals and strategy, knowledge management, external networks and alliances, opportunity recognition and technical regimes; minimal focus is given to risk management associated with innovation from the literature review above. There is no direct focus on *strategic* resource management or personal influencers of innovation, such as cognitive limitations, which is also a common theme identified in the strategic entrepreneurship literature.

### **Innovation & Strategic Entrepreneurship**

Limited studies exist that directly link strategic entrepreneurship and innovation; therefore, a focus will instead be made on entrepreneurship and innovation to examine relationships. This subject's importance relates specifically to proven links established by prior literature that seem to confirm that entrepreneurship and innovation are directly linked and intertwined with each other, especially within a digital economy where the need to innovate

continually is crucial to firm survival. The essence of entrepreneurship is innovation. (Scott & Venkataraman, 2000).

Zhao (2005a) found a positive synergistic correlation between entrepreneurship and innovation. Innovation and entrepreneurship are complementary and help organizations to flourish. Entrepreneurship and innovation were vital to the success and sustainability of organizations. Entrepreneurship was not confined to new firms, as established firms were identified as engaging in entrepreneurial behaviors and innovation in response to competitive environments. Organizational culture and management style were found to be crucial factors of entrepreneurship and innovation in organizations.

From Zhao (2005a), a framework of the 5S's of Strategy was developed; this framework focused on the internationality of a firm;

- Strategy – Pro-active and well-defined strategies are central to innovation and entrepreneurship within organizations. Strategies that are internally focused on stimulating change and drive growth.
- System – Size was found not to be related to organizational capabilities in innovation or entrepreneurship. Structure and culture instead play crucial roles. Control mechanisms and management systems need to be flexible, dependent on situational changes. Empowerment and delegation were also required to foster innovation in firms.
- Staff – The most critical assets in a knowledge economy were employees. In an entrepreneurial and innovative organization, they must be creative, have an innovative flair, adapt to change, and be eager to exploit opportunities resulting from this.
- Skills – Entrepreneurial and innovative organizations require a range of skills and innovative capacities to exploit and develop opportunities, effective planning, and strategic vision and evaluate procedures for effective R&D projects.
- Style – In order to foster innovation and entrepreneurship within an organization, management styles needed to be open and supportive,

knowledge absorptive, encourage and nurture new ideas and identify new customer needs.

Brazeal & Herbert (1999) saw innovation and entrepreneurship as both a process and the corresponding outcome. Brem (2011) found a link between economic and social environments, environmental and technological change coupled with creativity, idea management, opportunity recognition, research opportunity, idea development, commercialization, and diffusion linked to entrepreneurial events and organizational implementation as a whole process of which entrepreneurship and innovation were linked. Influencing, this was Zhou's (2005) 5S's of strategy. While insightful, this model is relatively complex and confusing to understand how each link is related to the other.

As discussed prior, Drucker (1985a;1998) established criteria for sources of innovation, with a focus on externalities. This links innovation to entrepreneurship through the emphasis on explorative and exploitative behaviors;

- Taking advantage of expected and unexpected successes.
- The exploitation of incongruities of trends and change realities.
- Finding and exploiting process contradictions.
- Finding and exploiting incongruities in political and economic realities.
- Exploiting demographic changes where competitors do not.

Overall, entrepreneurship facilitates innovation through explorative and exploitative processes that discover, develop, and exploit opportunities within the environment; this is a common theme found in strategic entrepreneurship. Additionally, the Zhou et al. (2005a) framework introduces new elements that consider internal factors within an organization that contribute to overall success. It appears evident that the internal process and "self" factors are essential for successful innovation and eventual wealth creation.

### **Explorative & exploitive behavior**

Often, new firms, especially those within the digital and technological realms, can regularly detect new innovation and opportunities but are often less effective when it comes to compiling resources and capabilities needed to generate streams of revenue that would

secure their survivability. Strategic entrepreneurship has been proposed by a number of scholars as a way to address this discrepancy. (Ireland and Webb, 2007, 2009; Arzubiaga et al., 2018; Kollmann and Stöckmann, 2014; Hughes et al., 2020).

The ability to explore and exploit opportunities is a fundamental principle of strategic entrepreneurship, and the capability to do so effectively generates innovation in firms and leads to enhanced profitability. However, scholars note that integrating these two elements in practice is far from simple and many firms often find it hard to find a balance between them. (Kuratko and Audretsch, 2013; Mazzei et al., 2017)

Most strategic entrepreneurial scholars agree that explorative behavior involves a search/discovery process of internal or external opportunities that present themselves. Once identified, these firms engage in activities that enable them to exploit this opportunity, such as resource mobilization. Nevertheless, both these activities require a different focus and are at odds with each other. Too much exploitation risks rigidity, loss of an ability to innovate continuously, too much exploration and risks becoming unsustainable, becoming trapped in a neverending cycle of product/technological development with little attention given to further developing its customer market (Hughes 2018; Hughes & Hughes & Morgan & Hodgkinson & Lee, 2020; March 1991).

One solution proposed to address this is ambidexterity. It is seen a necessary step to increase process efficiencies, improve operational management, and create value that could potentially assist firms to attain accountability, reliability, legitimacy, and short-term sustainability (exploitive); while also pursuing new opportunities and building innovative products and services for medium to long term gain. This becomes increasingly important with the rapid technological development and intense competition that many of these firms face. (Hughes et al. 2020; March 1991)

Ambidexterity is not without its critics, who point out the lack of clarity about what conditions shape the interplay of exploitation and exploration and the potential for firms to experience insurmountable challenges and issues with implementation for those seeking innovation ambidexterity (Nosella et al., 2012; Walrave et al., 2017; Stettner and Lavie,

2014). While this is vital for firms' survivability and performance, often smaller, newer firms lack substantial resources and knowledge and have underdeveloped capabilities. Furthermore, current solutions to address achieving ambidexterity are primarily based on larger, established firms. (Hughes et al.,2020)

### **Dynamic Capabilities**

In a fast-moving environment, a firm's ability to explore and exploit opportunities is crucial for success. This is something repeated among numerous studies within the strategic entrepreneurial field (Hit et al., 2001; Ireland et al., 2007.) Dynamic capabilities were incorporated into research by Hitt et al. (2011). They showed that it provided a way of finding an optimal balance between explorative and exploitive learning, which was dependent on the firms' environment. Therefore, it is assumed that incorporating dynamic capabilities into a model will help explain how companies explore and exploit opportunities in the internal and external environments.

As a theoretical principle, dynamic capabilities build on the idea of a companies' ability to reuse, recreate and develop existing assets and resources, thus increasing their ability to be agile (Spieth & Spieth, 2013.) The primary source of sustainable competitive advantage is the accumulation of internal, firm-specific resources, which cannot be imitated by competitors over some time. In modern and more rapidly changing technological environments, continuous innovation sees a need for rapid adjustment to remain competitive in the market. The deterioration rate of resources is high and requires a quicker rapid renewal process, rather than just maintaining existing ones (Boccardelli & Magnusson,2006.) This matches Teece's (1997) idea that firms need to continually renew their bundle of competencies and create radically new ones to achieve congruence within a continuously changing business environment.

Martin and Eisenhardt (2000) also draw inspiration from Teece's (1997) definition, as well as work by Cockburn and Henderson (1994), which focuses on a firm's processes used to reconfigure, integrate and gain resources to match existing markets or develop brand new markets. These processes are used as a part of the firm's strategy and enable them to develop dynamic routines used to meet the demands of a continuously changing market environment, whether it is dying, developing, or changing.

In a modern work environment, dynamic capabilities enable firms to co-create or co-evolve new products and services by enabling and encouraging collaboration within different departments and look at past developments to see if there are reusable materials. Dynamic capabilities can also be utilized outside of one's firm to gain new ideas and increase knowledge; this is done either through cooperation or inspiration was taken from external forces (Eisenhardt & Martin, 2000.) If it occurs only once, it is not generally thought to be a dynamic capability. However, if a firm develops routines where they continuously and repeatedly look for unique collaborations, this becomes a dynamic capability. Path-dependencies are often able to explain a firm's dynamic capabilities. These being traits that have been developed over a period of time internally within a firm as knowledge that was possessed and nurtured and has led them to the position they currently are in (Eisenhardt & Martin, 2000.)

Modern technology has led to an increase in market shifting and development; firms unable to adapt to change and utilize dynamic capabilities often find themselves no longer able to compete. Kodak is a prime example of a firm whose lack of adjustment to shifting technology changes led to redundancies of product lines and severe financial impact after a shift in the market saw digital cameras' emergence.

Eisenhardt and Martin (2000) note that firms have a more unstructured way of gaining knowledge and changing their way of providing services and products. They have to adjust more rapidly and use exploitative measures, given new markets are undiscovered to a greater extent than what they have been before. Hence the ability to be quick and agile has become of immense importance in the current age. While dynamic capabilities, in various forms, have always been necessary for firms in the past, in a rapidly changing global market, they have become even more crucial for firms who wish to remain competitive on a national and global scale.

### **The digital economy**

In alignment with the notion of a fast-paced and dynamic environment comes the digital economy. The digital economy is explored in this study as it is one area where limited research has been conducted to date around its influence on strategic entrepreneurship. It is



assumed that strategic entrepreneurship will play a key role in innovation as it is globally interconnecting, “never sleeping,” extraordinarily competitive and diverse.

The concept of a digital economy is a relatively new phenomenon emerging within the past few decades and allows companies to trade on a global scale for minimal costs. It represents intensive use of IT (software, applications, hardware, and telecommunications) in all aspects of the global economy; this includes the operations internally within an organization (government, not-for-profit, and business); transactions between individuals and organizations, acting both as consumers, citizens, and organizations and ventures far beyond the internet and personal computers encompassing an array of products, services, applications, applications, and many other technological items. (Atkinson & McKar.,2007.)

As IT has become increasingly faster, cheaper, more straightforward to use, and more pervasive, firms have increasingly endeavored to discover new ways to utilize and expand upon its uses. (Malecki & Moriset, 2008.) This digital revolution has impacted and transformed entire industries and created new ones in the process as societies and countries adjust to new opportunities and horizons, allowing a business to solve customer problems in a way that has not been done before with digital technologies playing a crucial role in continuous innovation within firms. (Nwaiwu, 2018.)

## **Chapter Two: Limitations, proposed model & research questions**

This chapter introduces the reader to various gaps identified in the prior literature review and set forth propositions and research questions based on note gaps in the literature. An updated model is then proposed that incorporates components of previously suggested frameworks.

### **Limitations of existing research**

Currently, limited research has been undertaken on the direct link between strategic entrepreneurship and innovation in start-ups in a digital economy; for-the-most-part innovation is taken as a given of strategic entrepreneurship without much clarity on how strategic entrepreneurship links to innovation as a subject. This assumption is akin to assuming with strategic entrepreneurship that innovation will automatically follow.

While commonality can be drawn from previous studies regarding some aspects of strategic entrepreneurship, there is limited focus on entrepreneurial vision as guiding strategy and a lack of inclusion on how the influence of the personal environment impacts strategic entrepreneurship, as far as the use of heuristics and bias in decision-making and problem-solving which influence strategy and individual cognitive limitations. We continue to lack the development of the cognitive process and creativity occurring with the fundamental actions (resource management, creativity application) and how they interact with different elements leading to successful strategic entrepreneurship.

Furthermore, studies linking strategic entrepreneurship and the digital economy have not been thoroughly explored. This may provide an opportunity for exploring how a digital environment affects strategic entrepreneurship versus more traditional settings. Would the digital economy require a new set of processes and capabilities to employ strategic entrepreneurship successfully? Does this require the inclusion of new sets of outcomes, such as opportunity recognition obtained through data mining and analysis, increasing data stocks, and the digital platform's growth? (Mazzei et al., 2018).

The existing literature on strategic entrepreneurship proposes conflicting accounts of what encompasses strategic entrepreneurship, at stages, gravitating between entrepreneurial characteristics of opportunity exploration and exploitation, knowledge, networks, and learning processes (Luke et al., 2011; Hitt et al., 2001a; Kuratko et al., 2009). with each author disagreeing with aspects of this and adding new interpretations that further complicate the subject. While this is typical within academia, it does little to progress towards a more concise definition that clarifies what precisely strategic entrepreneurship is and what elements form a part.

Hit et al. (2001a) and Ireland et al. (2003) directly associate strategic entrepreneurship with wealth creation that comes as a catalyst for innovation and competitive advantage; this implies that all strategic entrepreneurial firms who engage in innovation will create wealth themselves. This is an unsubstantiated claim that, given the relatively small samples of qualitative, subjective terms used for a financial measure, cannot be generalizable.

Another association between strategic entrepreneurship and innovation is the 'entrepreneurial mindset' (Ireland et al.,2003). However, no links are made regarding the level of motivation related to entrepreneurial decision-making and employee involvement and engagement, nor how low motivation can negatively impact innovation with low task performance and influence the entrepreneurial process. (Shane, Locke & Collins,2003.)

While touched on by Kyrgidou & Hughes (2010), vision is mostly missing from all other research reviewed. Strategic vision, more importantly, is absent from the literature reviewed. The strategic vision itself aides with driving strategy, goals, and innovation, and is crucial to success (Wilson, 1992.) The lack of this as a concept in direct relation strategic entrepreneurship and innovation is concerning.

Another point to consider is the relationship between bounded rationality and decision-making when acquiring and retaining knowledge. Limitations of human cognition prevent perfect knowledge; people learn and make decisions based on the concept of bounded rationality and satisficing. (Sirmon, 1957; 1978.) Prior research on strategic

entrepreneurship and the associated innovation has not acknowledged this as a potential influencer of innovation and competitive advantage.

What can be said is that the overall general approach of towards strategic entrepreneurship does encompass some common themes (Ireland et al.,2003;2001, Kyrgidou et al.,2010), that strategic entrepreneurs engaged in the process of explorative and exploitative behavior, while strategically managing resources, this process leads itself to continuous innovation and eventual wealth creation. This theme is also prominent in earlier entrepreneurship literature from strategic entrepreneurship emerged. Johnson (2001) incorporated earlier ideas from Kirzner and Schumpeter. He defined the entrepreneurial process as a *creative act* in which *creation occurs* and brings about an *opportunity* with *risk* and creates eventual *value* through a process of *creative destruction*. With this in mind, this author proposes the following proposition;

*Strategic entrepreneurship is a process of creation, exploitative, and explorative behaviors which lead to continuous innovation and wealth creation.*

Innovation is an essential aspect of competitiveness, especially in today's modern society, especially within the digital environment. Nwaiwu (2018) and Malecki & Moriset (2008) noted that the digital revolution has revolutionized the industry and created brand new ones that would be non-existent without the digital economy and has helped companies solves consumer problems in ways not possible before technological invention. Technology and the digital economy also have played an important role in continuous innovation within firms. No study has thoroughly investigated how the digital economy. However, academics have speculated that the digital economy may change how companies employ strategic entrepreneurial strategy and continuous innovation because the digital economy is highly dynamic, global, and fiercely competitive. While it has brought about new opportunities, it also has many risks, especially for new entrant start-ups. Mazzei et al. (2018). Mazzei (2018) went further by suggesting that a new set of processes and capabilities may be needed to successfully engage in strategic entrepreneurship, such as opportunity recognition obtained through data mining and the effect of social media and other digital platforms on strategy. Considering this, this author proposes;

*The digital economy may change how a start-up discovers, explores, and exploits opportunities.*

Existing literature has acknowledged the impact and influence networks, knowledge, vision, and motivation may have on strategic entrepreneurship and innovation (Hitt et al.,2001; Luke et al.,2011; Kuratko et al.,2009.) there has been no agreement on one set model. What is evident in the research is that the “human” side has a significant impact on the success of innovation and strategic entrepreneurship. Ireland (2003) noted that an entrepreneurial mindset was crucial to opportunity identification and recognition. Kyrgidou (2010) added that vision guided the deployment of strategy in entrepreneurial firms. Hitt et al. (2001) found the use of networks and alliances increased the resources and information obtained within companies, through this came opportunity and lead to exploitation of these. Shapero (1975) noted in his seminal work that the motivation of employees and owners affected how companies compete and achieve goals. That accountability, ownership, and independent decision making were critical motivational factors for success. Piecing these together it is proposed:

*Human factors, including motivation, networks, knowledge, vision, and motivation, influence a firm's ability to discover and exploit opportunities, which affects a start-ups' ability to innovate continuously.*

In light of the limitations and propositions discussed above, a strategic entrepreneurship model and innovation will be proposed.

## **Strategic entrepreneurship and innovation: A proposed model**

Prior theoretical studies have demonstrated that innovation is crucial for firm success and has shown that strategic entrepreneurship enables firms to achieve competitive advantages and fuels innovation by incorporating elements of entrepreneurship and innovation into one integrated framework which takes inspiration from an early model by Ireland et al. (2003;2011) and builds upon this with other gaps identified as mentioned prior. This model was developed using theory from strategic entrepreneurship, innovation, strategic management, organizational behavior, and entrepreneurship obtained through research conducted. It incorporates aspects identified as limitations found in the existing literature.

It can be argued that strategic entrepreneurship and innovation are linked by a process that follows, creation, exploitation, and exploration *processes* that lead to continuous innovation and competitive advantage; at the heart of this process are four related *elements* of Strategic vision & Motivation, Search process, Opportunity, and Innovation. These elements are affected by the notion of *Influencers* that include; Network/Collaboration and Human Capital. Collectively these are hypothesized to link together strategic entrepreneurship and innovation.

However, the complex nature of strategic entrepreneurship and innovation, as shown in the studies presented prior, means that the proposed model may only address specific issues of strategic entrepreneurship and innovation at the detriment of others. While all care was taken, cognitive biases on behalf of the author may also have influenced the inclusion criteria' selections for this model. The model should thus be seen as a starting point towards future integration.

### **Process: Creation, Exploration, and Exploitation.**

Strategic entrepreneurship and innovation are argued to be a process *of creation, exploration, and exploitation* that bring about innovation and potentially creating a competitive advantage.

## **Creation**

The creation process lends itself to the idea that to explore and exploit, you must first create a guiding strategic vision (Wilson, 1992.) Thus, creation is the first step of the process to ensure that the process has a strategic guiding point to help achieve successful exploration and exploitation processes. With the creation process as a strategic guiding principle for the rest of the process model, it is presumed that the explorative and exploitive process will be managed more strategically, efficiently, and effectively.

## **Exploration**

The exploration process is not unique to this study, having been extensively discussed in entrepreneurship, strategic management, innovation, and strategic entrepreneurship literature (Schumpeter 1934;1942; Hitt et al., 2001a;2009; Ireland et al., 2003; Brem, 2011.) This process presumes that after obtaining a strategic guiding principle through the creation process, a strategic entrepreneur engages in explorative actions searching for opportunities that will be exploited for current and future competitive advantages. This exploration period recognizes the limitations of the human capacity to engage in continual searches for the most optimal choice; thus, satisficing selections are instead made.

## **Exploitation**

The final phase of the process involves the process of exploitation, which has been cited in numerous works (Hit et al., 2011;2009; Schumpeter 1934;1942; Ireland et al., 2007.) This process is what leads to innovation in strategic entrepreneurial firms through the exploitation of opportunities. It is presumed that the most satisfying opportunity has been discovered through the exploration process and that this has led to an exploitive opportunity to innovate.

The *Creation, Exploration, and Exploitation process* is integrated with learning capability renewal and the strategic entrepreneurship innovation framework's five integral components. It is assumed these led directly to continuous competitive advantage for a firm.

### **Learning; External and Internal dynamic capability renewal**

In an uncertain and ever-changing environment such as that presented digitally, companies' ability to learn throughout the *Creation, Exploration, and Exploitation* is crucial for attaining continuous competitive advantages and firm survival. The main idea behind dynamic capabilities is that of a companies' ability to reuse; firms recreate and develop existing assets and resources and thus increase their ability to be agile (Spieth & Spieth, 2013.) The process of continual learning and pivoting allows for creating new strategies and markets and improvements and refinement of existing ideas and products, which adds to existing knowledge and is something touched on by an early model that Kyrgidou et al. (2010) developed.

### **Five elements**

Five related elements denote the *Creation, Exploration, and Exploitive process* discussed prior. These are; *Strategic vision & Motivation, Search process, Opportunity, Innovation, and Competitive Advantage*. These elements work in conjunction with each other to achieve a result (continuous innovation and competitive advantage).

### **Strategic vision & Motivation**

A strategic vision forms the sole creation process of the model. A strategic vision guides as a mechanism that guides strategic mission, strategy, planning, and acts as a driving force for the organization. (Wilson, 1992.) Without a strategic vision, a company has no foundation for building an effective strategy, affecting innovation capabilities. This element then links to motivation, which is an explorative process that requires a search for critical motivators to achieve results. Motivation influences the transition of strategic entrepreneurs from one stage of the entrepreneurial process to the next. (Shane et al., 2003.) A high level of motivation can lead to higher productivity and efficiency levels and positively influence innovation through idea engagement, creation, and implementation. Low motivation will have a reverse effect on innovation. Motivation links to strategic vision through a drive created by a compelling strategic vision that inspires action towards its attainment.



### **Search process**

The search process is an explorative process of which opportunity is sort the offer current and future opportunities (Scott et al., 2001.) The search process allows strategic entrepreneurial firms to identify trends, patterns, new needs, and niche markets, leading to innovation opportunities. Motivation is linked to this element as the search process itself may be time-consuming, resulting in many opportunities found with only the most satisficing and strategically compatible option chosen.

### **Opportunity**

An opportunity is an idea that leads to innovation. (Kuratko et al., 2009.) Opportunity is an exploitive process that leads to eventual innovation. Innovation would not exist without opportunity; therefore, it is crucial to the notion of strategic entrepreneurship and innovation. Opportunity is the result of a search process that has identified it as the most strategic applicable option for innovation.

### **Innovation**

Innovation is a core process of strategic entrepreneurship. (Ireland et al., 2007.) Without innovation, strategic entrepreneurship would presumably not exist. As an exploitative process, successful innovation leads to creating competitive advantages, another competency of strategic entrepreneurship. Innovation is resultant from an opportunity process. Innovation in new or established strategic entrepreneurial firms can be radical or incremental, technological or administrative, product, or process. (Cooper, 1998.)

These *elements* and *processes* alone are insufficient to establish a congruent link to strategic entrepreneurship and innovation without considering things that influence these.

### **Competitive Advantage**

As most existing articles and scholars have eluded to, the result of successful strategic entrepreneurial strategies leads to continuous competitive advantage, especially among new firms. (Chang et al., 2013; Ireland et al., 2007). While debate remains about specific nuances of strategic entrepreneurship, one explicit agreement is that a firm can obtain a competitive advantage through successfully executing strategic entrepreneurial strategies.

## **Influencers**

Influencers' notion presumes that they affect the overall process of innovation. Influencers include; *Network/Collaboration and Human Capital*.

### **Human Capital**

The effective management of human capital within a firm is undeniably crucial for overall success. Zhao (2005a) extensively discussed the impact of human capital on the attainment and dispersion of new and existing knowledge and the ability to adapt to change and identify new opportunities for exploitation. Kuratko (2009) noted differences between employee motivation, which affects a firm's ability to be innovative and creative if staff are not of similar motivational levels, opportunities and process improvements can be overlooked. Knowledge, either prior or shared, also forms an integral part of ensuring information is disseminated effectively, including knowledge about opportunities or process improvements. Successful firms leverage knowledge in uncertain and dynamic environments to create innovation. (Lawson et al., 2001.) Thus while knowledge is usually associated as part of the internal environment, it was taken as a standalone topic due to its link to all the *influencers* discussed in this model. Knowledge is a vital component of innovation and is apparent in all aspects of the strategic entrepreneurial *elements* defined in this model.

### **Network/Collaboration**

Networks and collaboration create a successful exchange of resources and information. (Brem, 2011.) Networks and collaboration provide strategic entrepreneurial firms with an option to share the risk associated with innovation and acquire knowledge and resources needed to innovate. Cautiously, not all networks or collaborations necessarily lead to favorable outcomes for all firms involved. Many factors are at play, including larger size and more significant resources, leading to a smaller firm not reaping the same benefits as its larger counterpart.

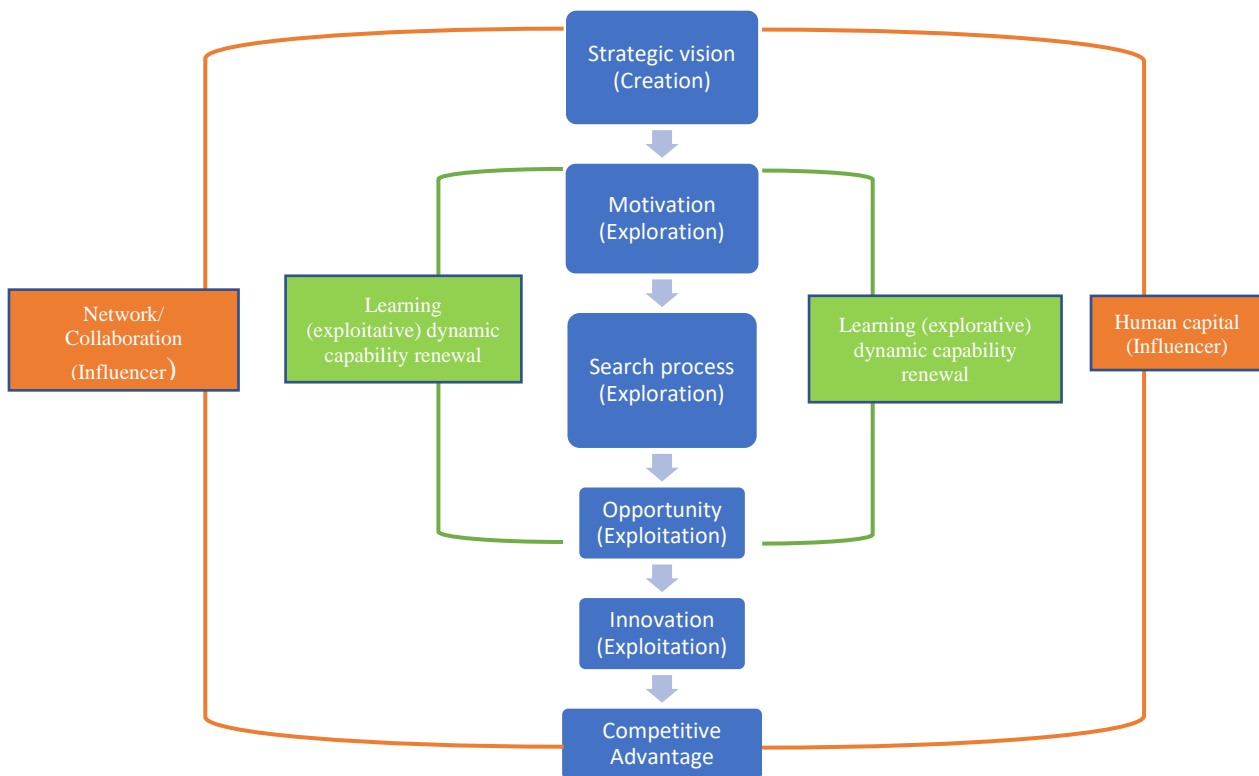


Figure 5: A proposed model

### Research Question

The main research question to be explored is:

***How do start-up firms use strategic entrepreneurship in a digital economy?***

As a relatively new area of inquiry, current links between exploitive and explorative behaviors and strategic entrepreneurial activity within the digital sphere are sparse and needs to be furthered explored given the current age of heavy digital usage among global populations ( Hitt, et al., 2001; Mazzei et al., 2018.) This study will look at how start-ups use strategic entrepreneurship in a digital environment to understand this relationship better.

Additional questions will explore what drives a start-ups ability to explore/exploit opportunities in a digital environment and seek to identify what impact operating in a digital economy has on this by asking the following;

***-What are the main drivers for innovating, and how do these influence the decision-making process?***

***-How does a digital economy influence exploitive and explorative behaviors?***

All questions will be explored through a case study analysis comprising three start-ups across various industries with a predominant focus on product and service delivery, mainly focused via a digital presence. The criterion for what constitutes strategic entrepreneurship will use existing definitions (Ireland et al., 2003; Hit et al., 2001.)

A presumption is made whereby employing strategic entrepreneurial strategies leads to successful innovation; this being based on previous studies that have shown positive correlations between innovation and entrepreneurship. (Scott & Venkataraman, 2000.)

## **Chapter Three: Methodology**

This chapter introduces the reader to the overall methodology used for this study and provides a detailed look into the research design, paradigms, and analysis method.

### **Research design**

This study explores and expands upon the current understanding of how start-up companies within the digital economy use strategic entrepreneurship and investigate whether a digital economy has negative/positive results when it comes to explorative and exploitative behavior.

Given these factors, an deductive, theory-driven qualitative approach has been selected. It has been deemed the best approach to understand the occurring phenomenon and answer the research questions outlined. A qualitative approach would allow theory development, generalizability, and a deeper understanding of the research subject's viewpoints.

Furthermore, a deductive theory-driven approach is often used when developing hypotheses based on existing theory and then designing research strategies that test these hypotheses. Deductive reasoning explores known phenomena or theory and tests if this is valid under the given circumstances (Sneider & Lamar, 2009).

### **Research paradigm**

Currently, links between strategic entrepreneurship and innovation are still being established. With this ambiguity of links between innovation and strategic entrepreneurship, it is thought that a constructivist-interpretative paradigm will aid in understanding people's experiences and thus allow for greater understanding of the subject matter at hand.

The constructivist-interpretivism paradigm acknowledges that multiple realities exist, and within these, a diverse range of interpretations is possible. Realities are seen as individually socially constructed views within the individual's world (Marshall & Rossman, 1989.)

Knowledge is obtained through the interpretation of the subjective meanings of experiences between different individuals. (Maxwell, 1992.)

As this study seeks to interpret and assign meaning to how entrepreneurs engage in strategic entrepreneurship within a digital environment, this paradigm will enable this researcher to understand what it means to be a social actor and explore the meanings attached to social phenomena. (Grant et al., 2002.) Given this, it is believed that the paradigm selected will elicit the most appropriate information needed to address and understand the research questions at hand. While a positivist approach was considered, it was deemed inappropriate for this type of study. It focuses more on a scientific view versus on the assignment of meanings to experience. (Bryman & Bell, 2011.)

Furthermore, as strategic entrepreneurship in the digital economy is an emergent theoretical area, context-specific research into cases was deemed crucial and necessary to explore the subject properly. (Yin, 2009.) The actions of entrepreneurs in the digital economy are likely only to be fully understood by exploring said actions and related concepts acted on by those involved. (Bryman & Bell, 2011.)

An interpretive paradigm will allow for exploratory research, especially with the conduction of interviews with open-ended questions, which allows for probing of a research subject's experiences and belief on the matter at hand and provides room for interpretation of this. Thus, the research area's focus will examine research subjects' experiences and understand how these experiences, values, and beliefs relate to strategic entrepreneurship and innovation. (Grant et al., 2002.) Given the emphasis placed on understanding individual experiences and interpreting their meaning, other possible paradigms were less likely to allow for the interpretive paradigm's insight.

A researcher must adopt an empathetic view towards their subject; this presents a challenge for the researcher and requires the ability and willingness to immerse oneself into the research subject's universe. Only then can the research develop a better understanding of the research subject's experiences, values, beliefs, and views, which are interpreted into data and analyzed to understand the research topic and how social actors' views and experiences influence this. (Saunders et al., 2009.)

In order to gain credibility, reflexivity is necessary. This occurs when the researcher makes it transparently clear of their position relevant to the social phenomenon studied. This can

include relaying information on the researcher's background and acknowledging how this may influence this interpretation of data and influence outcomes due to personal heuristics. (Creswell, 2014). With relation specifically to this researcher, I have a strong background, at a senior level, in sales, management, human resource management, as well having co-founded a start-up within the social media space and worked as a consultant to new tech start-ups, especially with the recruitment, HR and strategy realm. I act as a consultant to start-ups in New Zealand and Australia, especially within the digital space, and guide them by setting up recruitment strategies, training staff, management interview technique training, HR strategy, and culture and advantage training guidance. I have also recently co-founded another start-up company the focuses on selling products within the digital sphere globally. Considering all of this, how I interact and engage with my interviewees may be impacted by my personal experience, which could impact how I translate the data. Personal biases could skew the results. Thus it is imperative that this researcher endeavors to separate personal experiences from the subjects and a neutral stance.

The power distance between researcher and research subject is minimized due to the researchers' objective of immersing themselves into the research subject's world to understand their experiences, values, and view of the world. As a qualitative research method, an interpretive paradigm allows for the empowerment of research subjects to share their experiences and have their voices heard.

The empowerment and encouragement when sharing helps to minimize power distance between the researcher and the research subject. Furthermore, there is also the ability to collaborate directly with research subjects by undertaking participatory reviews of research questions and data analysis. (Creswell, 2014).

The interpretive researcher can be likened to a translator, minimizing the power distance to encourage the in-depth sharing of stories that are then translated and ascribed personal meaning to be used for data analysis purposes. This presents itself as an ideal situation when researching an emergent theory and allows for in-depth experiences, values, and beliefs to be captured.

## **Interview design**

With emergent theory, detail and elaboration provide an essential insight into the subject matter and extend knowledge related to the ascribed phenomena. The study will endeavor to use multiple interview information sources to develop a framework related to strategic entrepreneurship and innovation. In-depth, semi-structured interviews with probing questions will allow for capturing the research subject's story and allow for the research subject's participation to ensure that the interpretation of their experience is concise and understanding the essence of what lies beneath the verbal discourse-given. Interviews are a vital component of interpretive phenomenological methods (Grant et al., 2002.)

Semi-structured interviews have been chosen to be conducted for this research. It is believed that this will allow for the flexibility of interview questions and the opportunity to redevelop and restructure these questions during the interview to ascertain and ascribe more profound meaning to research subjects' experiences. (Creswell, 2014.) The research undertaken will look at existing elements (creation, exploration, and exploitation) at the core of most existing strategic entrepreneurship frameworks to date and incorporate new ideas identified as research gaps in existing material, strategic vision, motivation, and personal attributes. Given that no current published material has looked at and linked these explicitly to strategic entrepreneurship, a meta-study would not be favorable as there is nothing from which to build a foundation probably. By conducting these in-depth, open interviews, it is believed that open interviews a better understanding of how strategic entrepreneurship and innovation may be linked and provide a better understanding of this in the development and supporting argument for the framework created.

Noting the above factors, this author has decided to conduct semi-structured interviews. It allows the interviewer to interact and engage more intimately with the interviewee. It enables probing questions and follow-ups to acquire more information while allowing the interviewee to freedom to go into new areas without constriction. Traditionally semi-structured interview questions are based around a few core subjects, and within each subject, multiple questions are contained. (Bryman, 2012.)



The most significant benefit afforded by semi-structured interview questions is that they are not set in stone. They afford the interviewee the ability to change or alter the questions and probe interviewees for more information. It also offers the interviewee an ability to refuse to answer questions and then have them retailed to their preference while still obtaining relevant information. This allows the interview to retain a balanced relationship between interviewer and interviewee and flow better and more naturally. (Bryman, 2012.)

While the other two interview alternatives were considered (structured and unstructured), this author believes that they do not adequately align with the chosen research design. A structured interview would not allow for any flexibility in questioning, which is necessary when examining peoples' perceptions processes. Furthermore, an unstructured interview would result in the discussion becoming open and lead to the potential of forgetting or neglecting key topics that need to be addressed.

The interviews to be undertaken using the following structure;

- 1) **Introduction to the research area/topic:** interviewees will be introduced to the research's subject matter and background. This will allow the interviewee the opportunity to become familiar with the research subject and allow any questions around ethics to be addressed.
- 2) **Collection of factsheet information about the interviewee:** This may include information about their background, including their position in the firm, prior work experience, number of years in the start-up, and geographical position. This information will be used to help contextualize answers given. (Bryman & Bell, 2012.)
- 3) **Interview research question commencement;** The research topic will be delved into by asking relevant questions that align with the study area. The goal is to develop an excellent conversational flow between interviewer and interviewee regarding strategic entrepreneurship and innovation within the digital economy. They operate to identify how to identify and exploit opportunities within their business ecosystem and what influences this. Probing and follow-up questions will be asked further to obtain relevant information and practical examples of said experience.

- 4) Interview conclusion;** interviewees will be allowed to add additional information about themselves and business, which may have been missed initially. Consent will be asked for here should further information be required at a future date.

### **Sample**

When selecting participants for research purposes, a purposive sampling approach will be undertaken. This method of sampling does not select participants on a random basis as that of probability sampling. Instead, a purposive sampling method seeks to select its units (firms, people, industry) directly related to the research question to be addressed. (Bryman & Bell, 2011.)

Given that this is qualitative, probability sampling was eliminated as a possibility as it is seldom used in qualitative studies due to constraints. It would be almost impossible to map out a populace from a random sampling. One issue that may arise when using non-random sampling is how many people will be required to participate; this is ambiguous and has no definite rule around the number. Therefore, it has been determined that because this is a dissertation and not a thesis, it would be more logical to focus on a smaller number of interviews

The research question/s addressed as part of this study indicates which units will need to be sampled. In this study, participants will be senior figures within a digitally based start-up who have an overview of the business's operations. This could include the founding members, where available or senior executives of the business, including the CEO, Managing Director, COO, or CTO. The reasoning behind the selection of senior management figures is that they will likely have either been part of the firm's founding and have access and knowledge of its strategy and overall operations, which will provide in-depth knowledge based around the research questions.

One to two participants will be used for a single case study of each of the three selected companies. The number of people is ranged to reflect the possibility of lack of availability of more than one senior executive to interview at any given time within the three chosen

organizations due to lack of time to interview, possible overseas travel, business commitments.

It has been decided that companies will be start-ups and operate within the digital economy; this has been chosen based on prior studies where there is a current gap in research that examines links between start-ups in the digital economy. Research by (Mazzei et al., 2018.) indicated the potential of start-ups, especially those within the digital economy, being more likely to use strategic entrepreneurial strategies in practices and raised questions about how the digital economy affects and changes general strategic entrepreneurial strategy. (Mazzei et al., 2018.)

The companies selected to participate in this study are profiled in the table below. A focus was made on looking at companies in different industries and global locations to see if there will be any variation in how they utilize strategic entrepreneurship for innovation in a digital environment.

Startup	Location	Industry	Position	Employees	Interview method	Interview length
Furniture Co.	New Zealand	Online retail	Co-Founder & Operations Manager	20+ full-time staff	Phone	29.17 mins
App Co.	Australia	Social Media	Co-Founder	3 full time & 2 part-time staff	Phone	32.50 mins
Digital Agency Co.	China	Digital Marketing Agency	Co-Founder	4 full-time staff	WeChat phone call	33.21 mins

Table 1; A summary of the interviewees and their respective business

## **Ethical considerations**

Numerous ethical considerations must be made when conducting qualitative research; this includes the approaching and treatment of interviewees, handling and using data and information collected, cultural differences, and many other potential issues. (Bryman & Bell, 2015.) Questions for this study have been reviewed and approved by an internal ethics community and developed to be as neutral as possible so-as-to not lead to interviewees providing coerced information. Interviewees are also afforded the option to leave the interview at any given time. (Saunders et al., 2009.)

The research was conducted as transparently as possible and offered interviewees the option of confidentiality and anonymity, whereby no identifying data will be used, and no malice assigned to individuals. Where possible, as much care as required has been assigned to ensuring individuals are not uncomfortable; however, as the interviews will take place via face-to-face Skype conversations, it is impossible for complete anonymity. One way around this is to ensure that only the researcher, academic supervisor, and interviewee are the only ones who know who participated in the interview. (Brinkmann & Kvale, 2009.) This is especially crucial. It is assumed that interviewees are more likely to be truthful and transparent with their answers as anonymity/confidentiality affords the ability to speak freely without having information traced back to the interviewee, which may harm them and their business and physical and mental health. (Bryman & Bell, 2015.) To ensure that research is undertaken according to ethical standards, Saunders et al. (2009) recommend the following research guidelines in the specific areas studied and institutional guidelines. For this study, ethical guidelines published by AUT will be used.

## **Data Analysis**

It can be challenging to analyze qualitative data since no clearly defined rules on how an analysis of this type should be administered. (Bryman & Bell, 2011.) Whereas quantitative data derive meaning based on numbers, qualitative data assigns meanings expressed via non-standardized data and words that need to be classified into various categories. (Saunders et al., 2009.)

Commonly the process of qualitative data analysis begins during the collection of data and continues afterward. (Brinkman & Kvale, 2009.) Two strategies most commonly used for analyzing qualitative data are grounded theory or thematic analysis. Grounded theory is generally used by researchers to develop a deductive theoretical analysis of data initially collected and then gather additional data to cross-check these analyses. (Silverman, 2010, p. 292.)

A thematic analysis provides flexibility and analyses text by identifying recurrent words, statements, and patterns within the data. Emerging themes discovered during this process invoke the researcher's previous knowledge and data interpretation. For this research, a thematic analysis approach has been selected as the most appropriate. This will be conducted by transcribing and going through interviews and finding commonality between statements made across all interviews.

Yin (2011, p. 179.) states that qualitative data analysis comes from five differing phases; data compilation, data dismantlement, remounting of the data, interpretation, and ends with the conclusions drawn from the data. There is no linearity in these phases, and researchers can go back and forth through the differing phases.

- The data compilation phase sees the gathering of all materials from interviews, transcriptions, and other sources of data acquired in order to get a general overview of everything collected to date.
- Data dismantlement takes apart the collected data and places labels on different subjects that are deemed relevant and exciting.
- The remounting of data makes sense of the researcher's assigned coding and looks to find patterns within it by categorizing and finding different themes in the data, which provides a richer understanding of the concepts. It is especially beneficial to use models, tables, or diagrams to properly organize the data.
- Interpretation of data involves the researcher attempting to decipher the data, identifying where it leads the research towards, and addressing how it will best be presented and ordered.

It also delves into how to present the data credibly and fairly—Yin (2011, p. 203) offers two data presentation approaches, either descriptive or explanatory. The descriptive

approaches seek to characterize occurring phenomenon and offers suggestions for future change. Comparatively, an explanatory approach involves discovering why the phenomenon is the way it is.

- Data conclusion sees the interviewer piecing together all information and drawing conclusions and recommendations based on it.

For this research, interview tapes were transcribed and analyzed by this researcher. During the transcription phase, comments on key themes and ideas identified were noted down.

Once all transcriptions were completed, all interviews were re-examined and re-read multiple times, and notes were taken on recurrent themes. Key themes discovered were placed into the following categories relevant to this research and model; *creation, exploration, exploitation, networks/collaboration/ human capital*, and the *digital economy/environment*. Great care was taken to ensure that my own bias had a limited effect on the data analysis by ensuring quotations taken from transcripts were not altered in any way and stayed true to the entrepreneur's intended meaning.

A Microsoft Word Doc was then created with a table for each company and each category identified above. Quotes from the transcribed interviews were then individually assigned under each company and category. This gave a better idea of how each entrepreneur viewed the phenomena and allowed a clearer picture of how each entrepreneur experienced each issue. This document was color-coded to each category to allow for easier reading. After examining this document multiple times, it became apparent that emergent themes were particularly unique to the digital environment that impacted the entrepreneurs' experiences and their various successes and failures. These themes include; low entry cost, low barriers to entry, hyper-competition, external collaborations for competitive advantage, and the impact of digital marketing. These themes will be discussed more thoroughly in the following chapter.

## Chapter Four: Findings

Key findings from the research undertaken will be discussed in this chapter to answer the following research and sub-questions mentioned earlier;

*How do start-up firms use strategic entrepreneurship in a digital economy?*

*-What are the main drivers for innovating, and how do these influence the decision-making process?*

*-How does a digital economy influence exploitive and explorative behaviors?*

This section is put together under the following key themes; *Creation, Exploration, Exploitation, Networks/Collaboration, Human capital*, and the *Digital environment*. Each theme category has been selected from the proposed model, and key themes identified in the data and follow in alignment with prior frameworks introduced earlier on in this study. Examples are given under each category and fundamental commonality and patterns identified amongst the start-ups in this study.

### **Creation**

A vision acts as an anchor for any company and helps to guide it strategically throughout its existence. All co-founders in this study started their companies with a vision of what they wanted to solve and how they would go about it. Underlying this was the idea of bringing about innovation, improvement, and creating positive experiences for their various customer base.

App co was founded on the vision of *creating a unique environment that allows people to express themselves freely without fear*. This vision was underlined by the fact that the founders had noticed that while social media at the time allowed people to express themselves, often people were fearful of stigmatization if their thoughts and ideas were seen as different from their peers, the idea of creating an app where people could do this freely. It was an app that anyone could use. App Co's founder recognized that this would allow consumers "to spend as much time in your app as they can without having to go to

another app” and simplified how people communicate by “making it as simple as we can and always being different” and give “consumers something that they want.”

Digital Agency Co was created as the founders believed that *brands could be made better* by using new technology working cohesively with the marketing mix. Core to this vision is that social media and other technological platforms allow brands greater exposure, greater connection with their customers, and the ability to relay stories in real-time as social media is prolific. They sort to “break the boundary between different art forms and different business perspectives to sort of collaborating with artists and brands.” The firm's vision-guided them by creating partnerships with local artists and wide-spread use of social media platforms that enabled them to deliver successful campaigns and drive growth throughout their client base.

Furniture Co’s founders’ aimed to move away from the idea of everything made in China was cheap and low quality, so they envisioned a firm where *a focus on design, personalization, quality, and efficiency is who we are*. This vision saw the founders focus specifically on creating furniture unique to the New Zealand market by sourcing design overseas and working in conjunction with local partners to create personalized furniture items that “bring us a much greater advantage over our competitors.” They did not focus on “the cost, but rather the quality of the product,” which for them “is a better way to go for business.” This vision drove them to develop unique and commercially successful products within their first year.

All companies agreed that the digital environment was crucial to enabling them to bring their visions to life. Without it, they may not have the opportunities to reach broader audiences or, in the case of App Co and Digital Agency Co, would not have existed. Digital Agency co elaborated on this saying, “online tools, plus localization knowledge makes the brand.”

Interestingly, none of the companies was guided by a singular strategy; instead, they believed that their visions afforded them the flexibility to be agile, giving them an ability to



try new things, be dynamic, and bold without the restraint that is often found in more established, traditional businesses.

App Cos founder summed it up as:

“I do not think we use only one type of strategy for business since there is nothing that we will not do or try.”

All three companies continuously seek out new ideas that align with their visions so that they can bring the best experience possible to their customers and as App Co’s founder said, “create something that was not able to be easily replicated,” with copycat products being something that challenges all three start-up’s. It is evident that having a clear vision of who they are and their values helped them become what they are and motivated them to seek new ways to innovate and deliver value continuously.

### **Exploration**

The digital economy offers vast opportunities for both new and established businesses as it removes geographical borders and gives access to a global customer base. Companies can now reach out and engage with their customers directly and on levels not seen in the past. Companies also have access to consumer data on a scale not seen before, which helps with decision-making, trend identification, collaboration, and much more. All start-ups in this study were continually scanning their environment for opportunities by monitoring trends overseas, competitors, consumer behavior and buying patterns, and discovering new partnerships, collaborations, products, and services that they could offer their client base to obtain a competitive advantage.

The digital economy provides an environment where almost anything imaginable is possible with App Co’s founder stating;

“I feel that in the online space, especially with tech start-ups, there is a space for almost everything. I do not think you are limited in terms of ideas, and even with the app early on, even it was a few years ago, we had predicted smartphones would be even more prevalent in society.”

Access to readily available and cheap data was also a common theme identified that allowed each firm the opportunity to pinpoint emergent trends and information about the market and their customer base, often before their competitors. Furniture Co's founder discussed how "information becomes much more (sic) cheaper, much quicker," enabling them to make more informed decisions about product lines and marketing activities.

The ease of access to information spurred the idea for App Co initial product offering with the co-founder recognizing a trend among emergent apps in the market and existing websites needing better integration in app form; often, when websites made the transition to apps, the end product was "clunky" and stated;

"Basically, all of these were just skins for the same product; there was no difference between these products. Yeah, they had success and so many different forms for such a long time that they just evolved differently. I just thought the next step in evolution would be instead of making a website into a native app, which is the better idea; there was no just app form of the same product, so that is sort of how the app can about."

App Co's social media app would allow the users a platform in which they were freely able to express their ideas and create shareable content within an anonymous framework. The founders believed that this would provide ample opportunity to develop successful relationships with customers through continual user and allow everyone the opportunity to have a voice in an industry overrun with noise from their research into incumbents and competitors.

Digital Agency Co similarly noted the importance of the digital economy when it came to ideas and opportunity recognition with its founder stating, "You need to dive into it to identify, the market, where they are gathering, even if it is the online market." Based in China, Digital Agency Co noted that there are a plethora of platforms, which new ones emerging every day, which meant "sometimes you do not even know there is another app or another social media channel." This presented challenges for the company that addressed this by always analyzing online trends, hashtags, and media online and having a

presence “across many platforms.” Digital Agency Co further position themselves to discover opportunities by promoting “our content posted, so that more people from different regions” will be able to “identify our existence.”

This multiple platform approach enabled Digital Agency Co to identify an opportunity to work with “a very famous hotspot chain, we identified, because we have followed the account for that brand.” Digital Agency Co quickly put together a client brief focusing on increasing the brand's presence online to generate further sales and promote the business to new clientele. To do this, Digital Agency Co identified the need to streamline their branding and collaborated with a local artist to do so; this effort ultimately saw Digital Co winning the account over its competitors.

While it is apparent that the digital economy affords a great deal of opportunity for firms to create and explore, not all companies start with the idea of having an online presence. When Furniture Co’s founder was establishing the business, they originally wanted to focus on opening stores as this was how most in the industry were set up with its founder recalling, “at the very beginning we wanted to have a retail business, like all of the companies at a time.” At the time, having a business-focused almost exclusively online was uncommon. However, Furniture Co’s founders, while researching competition both here and overseas, saw the emerging trend of the predominantly online-based furniture business and saw it as a way to reach customers outside of the local market, so pivoted to establish a firm based mostly around a digital presence with the founder stating “we discovered being online was a much better idea.”

The digital economy also enabled Furniture Co to “follow trends of new furniture ideas from America and Europe” as information was free and readily available online. What successfully sold in a market like Australia was a good predictor of “what was going to sell here.” One of Furniture Co’s earliest successes saw them develop an idea of creating a standing desk; this was not available in the New Zealand market on time but had success in overseas markets. Through their first-mover advantage, Furniture Co executed a plan to create and import

these and ended up having a wildly successful commercial product. This clearly shows how monitoring emergent trends online can have a significant impact on a business's success.

A thirst for creation eventually seen Furniture Co move away from traditional marketing avenues of radio, print, and television, which were common in their industry at the time. While they initially experimented with “traditional marketing,” they found it “did not work well.” Through their persistent online environmental scanning, they noticed an uptake of “social media tools” in other industries. They decided to instead move towards that as it was more affordable and allowed them to reach new client bases. Furniture Co’s founder stated;

“Now, you just go online and see things that much cheaper, much quicker to get. We can now respond immediately and can follow emerging trends, much better than before.”

The data showed that while all start-ups enjoyed various degrees of success with their explorative behaviors. Not all ideas worked out, but as Furniture Co’s founder said, ‘we do not know which thing works, so we will have to try one by one.’ This was a sentiment shared through the other participants of the study.

Nor do all opportunities our founders discover come to fruition when App Co’s founder pursues an idea to add ‘a photo editor’ for his app. He ran into issues with integration. He found that once they attempted to implement it, it had to be “stripped back to the basics” with “limited cropping and photo editing,” which ended up diluting the original idea and enthusiasm for it. Similarly, Digital Marketing Co “to collaborate on the Forbidden City IP with one of our clients” and came up with an “excellent range of products” and online promotional strategies to increase tourism in the city. However, the partnership did not end up working out as “things took a long time” to put together, and there was significant back and forth with caused delays and ultimately seem them lose out to their competition.

Additionally, while all three start-ups are open to new ideas and opportunities, they also exercise strategic choice when selecting what to pursue instead of just pursuing every idea that came about. The company’s criteria for ideas generally fell into a ‘what will work with

existing infrastructure and its impact on the overall business.’ App Co’s founder elaborated on this point, stating that it is not “so much the idea” that is important; it is about “thinking about how it will go down” and its impact on existing business.

## **Exploitation**

As noted prior, ideas provided all starts-ups with various opportunities and were the very core of what initiated the business in the first place. All starts-ups in the study showed a strategic selection of what ideas they executed. This was determined by thinking about what best fits their business model and existing product offerings and how executing an idea would enhance this. Using a mixture of trial and error along the way during the initial stages of their companies establishment, each start-up showed common themes; ideas were discussed and thought about in terms of impact, those that founders thought were most positively impactful and gave them a competitive advantage were selected, the execution of these ideas was done in collaboration with employees through means of discussions and actions along with collaboration with outside businesses. Once each start-up had determined the best cause of action, they executed the plan, informing and getting onboard relevant staff and collaborators. They monitored the execution and reception of the idea and made changes when they felt necessary. Their smaller sizes almost meant they were more agile during the execution stage and were able to test multiple ideas and pivot when needed.

When App Co’s founder was transitioning his app from idea to execution phase, he emphasized constantly identifying “the impact it might have, this is how easy or difficult it might be to do,” especially in terms of “time and money” and how the “consumer will use it.” He worked closely with his team organizing meetings to discuss ideas and features and worked in close partnership with his developers. He relied on to acknowledge the viability of implementing each development stage and what potential problems may arise. He noted that executing whatever idea came along would “raise costs” and integrate too many features into the app would cause challenges during this phase.

One idea that came up during this process was a feature that would “allow the user to take a photo, edit it in the app, make it into a meme and make it into whatever content they want and then the and then post it back on the same app” However upon execution he found

“The issue is, image editing software or image editing apps are an entirely separate app in most other programs.” Integrating this feature into the app's existing framework was difficult and made it “much more clunky.”

The execution of this idea “required a lot of back and forth and we had to just strip it down to the bare basics, which meant we implement filters, we have to limit the amount of cropping you could do and the type of tech that you could put on it.” However, it also “just opened so many doors for other problems,” which made him realize that competitors with photo editing technology overcame this by creating “standalone apps.” Subsequently, this feature was removed from the app with the founder noting “a second idea into our primary idea does not always work quite well.”

Comparatively, as discussed prior, Digital Agency Co also ran into problems when executing a bid for the Forbidden City IP. After noticing the opportunity and working collaboratively with a client to win over the account, they found themselves unsuccessful. The execution of what they thought was a brilliant offering was marred by constant “back and forth” between each company. It delayed the process of finalizing and finishing a brief for the potential client. This delayed execution of their strategy saw Digital Agency Co lose the account. However, they have had success in other areas.

Digital Agency Cos presence on multiple online platforms lead to the discovery of an opportunity to work with a large brand in China. They develop relationships with “local artist” to create a unique branding package for the client and worked on strategies to increase the brands “online exposure to the public” through offering a multiple-platform approach that was brand intuitive and combined this with “local knowledge” of the client and its customer base, this gave them an advantage over agencies from “Hong Kong and Taiwan.” Additionally, during execution, Digital Agency Co remains “flexible” to the client’s needs and is always “willing to go for the extra mile.” This lack of rigidity allows them to

pivot to different strategies at the client's request but can also end up “time-consuming” and add into the “cost” that the company takes on board while obtaining “thin profit lines.”

When Furniture Co decided to pursue a majority online presence, the founders knew that to be competitive, they would have to develop a product that set them apart from their competitors and slowly venturing into establishing a more robust online presence. After noticing a trend for “Scandinavian furniture” in overseas markets, they had “a design purchased online from a European company” which they sent to their Chinese suppliers to make that furniture” and then started successfully “selling them here” which lead to them securing further “capital investment” due to their first-mover advantage. Now the company “get clients, not only from Auckland, we get them from New Zealand, sometimes we even get orders from Australia.”

Exploiting digital trends and the plethora of information available online was something Furniture Cos founder noted that they “cannot traditionally do that.”

To take a concept from idea to production, Furniture Co work closely and collaboratively with their suppliers, with its founders stating that they;

“We contacted our suppliers and ended up trying several models before finalizing the final product. Everyone was involved in this process.”

Furniture Co also works collaboratively with local suppliers as not all customers want to wait. The founder believed that creating an environment and partnership where locally sourced products can be made or customized leads to increased sales. Using an example of selling custom made Super King beds, he stated;

“They are going to buy other things like mattresses because you do not want to spend money everywhere; it is just chaotic. They want to spend money in one place. So, you benefit from personalized items.”

With an emphasis on a digital presence, Furniture Co’s founder sort to improve their existing website and noticed the popularity of virtual reality, so decided to include

“that is why we get up in this new system, virtual reality, to make people work better, to if the furniture is going to fit.” Thus, “if this personalization becomes successful, I think we can reach a higher-level market.” This focus on the customer experience has so far garnered much commercial success for the start-up.

Ultimately, it is evident that the digital environment is an integral part of their execution strategy across all three start-ups and provided all firms with feedback rapidly. With Furniture Co’s founder noting”

“Now, you just go online and see things that much cheaper, available much quicker. We can respond quickly and follow trends, much better than before.”

### **Networks/Collaboration**

Networks and collaborations with outside firms helped all start-ups in this study expand their existing resources, access to new markets, and finances. All founders acknowledged both the strategic benefits of these as a means of gaining access to new markets and customers, developing new products and ideas, and gaining additional resources and cut costs down. Being smaller in size than established incumbents meant that they could not execute ideas solo, so strategic partnerships offered them a way to remain competitive in their respective market places. The importance of establishing and maintaining these partnerships was evident in the data.

Early on in App Co’s development, its founder “realized relationships are critical” and sort to “try and work more with people who are already in that space or thinking about going in that space “ so that they were able to share “resources” and find “where we can add value” as its “sometimes too much stress to take on a project by yourself.” One such area where App Co worked collaboratively was with a friend who was working on a “dog walking app in New Zealand” and was “able to share resources.” The founder saw this as a way where;



“We could use our skills in other areas that we may not have gone with (sic), so seeing what sort of opportunities we have or what works well, and not just in countries but in local areas.”

Comparatively, Digital Agency develops strategic partnerships with “clients” and a range of “local artists and talent” to create a brand offering that they otherwise may not have the resources. In one case, they worked with an “artist, he was good at drawing things and so when one of the restaurant clients came to us, they asked for a redesign of their whole menu and visual identification system (sic).” They worked collaboratively with this artist to bring together “something brilliant for the restaurant.” This enabled them to offer “something different that was more connected to the customers.” This focus on placing local artists and talent, together with branding packages, helped the start-up stand out from its competitors.

Collaboration with suppliers is core to Furniture Co’s business through customized furniture and creative new product lines. These collaborative partnerships have often given Furniture Co first-mover advantage and provided very profitable in the past with one idea bringing in revenue over “NZD 2,000,000”. Furthermore, Furniture Co’s founders find that customers were more likely to spend money on ancillary items with them by offering personalization. On the topic of collaboration Furniture Co’s founder stated;

“We have local suppliers as well, so collaborate with them, especially when a customer wants something customized made. Moreover, it can take three months to be designed, developed, and then arrive in port if it comes from China. Sometimes people are unwilling to wait that long, so we have these local suppliers who can provide those things in about two weeks. (sic)”

Furniture Co maintains “a direct channel with the designers,” which has allowed them to turn around design ideas they have developed quickly. The digital economy further allows them to collaborate with designers overseas.

It was equally crucial for Furniture Co to maintain collaborative partnerships with its Chinese supplier. Emphasis on relationship management was vital as “things work a little bit different in China,” and by successfully managing these partnerships, “we can get the product in and be the first in the line,” which meant “we can get this product sooner.” To do this, the founders regularly return to China to “go to dinner” and have “face to face” contact.

The idea that collaborations work differently between China and the west was one shared by both Furniture Co and Digital Agency Co, who emphasized the need to maintain the relationships with Chinese collaborators to court favoritism and obtain products and clients over their competitors.

While it is evident that collaboration with other companies has afforded all of the start-ups in this study opportunity that they might not have otherwise had, not all collaborations ended up being successful. As discussed prior, Digital Agency Co worked with a client on a large project and sort to put together a creative brief that would enable them to win the contract through their shared resources. However, in execution, this partnership was “very time consuming” and ended with Digital Agency Co losing the bid. When reminiscing about this, the founder stated that it is sometimes challenging when you “try to bring two brands from two companies together” and that it does not always “work out.”

### **Human Capital**

The importance of human capital as a resource to explore and executive opportunities was evident in data across all start-up’s interviewed. Commonly, all three have open work environments. Employees were encouraged to freely engage and share ideas; upper management was accessible to everyone without departmental silos. Each company established an environment where they were always looking for new ideas and improvements opportunities. The companies' small size provided agility when sharing and implementing ideas and sharing knowledge amongst its employees. Employee engagement and motivation were seen as necessary, with praise given out lavishly to staff.

App Co's founder encourages staff to "come up with any new ideas." They achieve this through the creation of "an open environment, and it allows people to add opportunities for features and improvements as we go along," where company thinking is more along the lines of "any idea" could potentially "be a good idea." The founder felt that sharing ideas and information should not fall on "not just a single person" as "that would diminish it if we all just felt it all just breaks to one person" Employees were encouraged to think about the process of developing the idea to fruition as opposed to "Hey this popped up in my head so let us do it" as "that would never work." When it came to learning and sharing information, App Co's found stated:

"There is so much back and forth; it is hard not to learn. There is so much discussion and planning for the execution as it is such a huge aspect of it."

To keep staff informed of what is happening at any given time, they "have tracking sheets and internal processes that everyone is included in" "so they can see what is tracking, what is going on, what is going to be next, and why."

Digital Agency Co's founder noted that their small size provided an opportunity to collaborate with staff openly, which helped foster an environment where everyone could "express themselves openly." Whenever a new client case was taken on, the founders encouraged staff to speak freely of their ideas for the project employing collaborative "brainstorming," which allowed them to "really develop and think it through." Employees were encouraged to be inventive and innovative and to "learn more to read more from what our competitors are doing, what other brands are doing for similar goals, and what can we learn from it."

Furniture Co's founders also operate an open door and collaborative policy where "if someone has a good idea that can directly talk to me or just send an email or to my partner." The founders' approachability and general environment of sharing knowledge and ideas allow Furniture Co to quickly and creatively execute ideas. Ideas and processes are also implemented collaboratively, stating if its "a good idea, we try it. If everyone tries it and

everyone says its good and works well, we then are given feedback as well as a sense of growth with the present work.”

Interestingly, none of the start-ups interviewed provided any financial incentives to encourage their employees to develop new ideas or processes. Furniture Co’s founder stated that it is very tricky sometimes as you cannot see the effect of the ideas’ only “offering money” and that it was not “really quantifiable.” All founders agreed that this did not affect employees’ motivation level as new ideas were frequently shared among staff. The data suggested a positive correlation between this and creating open, friendly, inclusive environments created by all start-ups in this study.

## **Digital Environment**

The digital economy has provided many business opportunities to grow and expand into new markets, reach new customers, and build relationships with existing clientele. It has also seen the rise of industries that did not exist a few decades ago. All businesses interviewed in this story would not have existed in their current capacity with the digital economy. The digital economy offered all firms access to market trends internationally, helped develop and execute ideas and processes, provided access to new markets, offered information instantaneously, and cost-effectively. Global interconnectivity meant that all companies could reach their clients in a way not afforded before the dispersion of internet capable devices. The freedom of information allowed them to closely monitor their competitors and customers and granted them the ability to act reactively versus reactionary when they came up against challenges.

App Co’s founder discussed how the digital economy provides “a space for almost everything.”. Their geographical location no longer confines companies, and people globally were highly engaged online. He noted:

“I expected that usage would have increased not just for the 20+ age bracket but also for those in the younger age groups. You can see that everyone has a phone or device in front

of them nowadays and are comfortable using it proficiently, especially as usage and availability of these products have become widespread, globally. Now, people are generally just willing to have solutions that can solve even their smallest problems. The need to address these is how ideas develop in the first place.”

The ability to reach a global customer base further enabled App Co and others in its industry exponential growth opportunities.

The emergence of the digital economy has revolutionized Digital Agency Co’s industry in the past two decades. Its founder noted that “online business is taking over 60 to 70% of the business we are operating in at the moment, from the business development, projects, and even client cases.” The industry's massive expansion into the digital realm has proven challenging at times and assisted in Digital Agency Co, gaining new clientele through its extensive social media presence. Operating extensively in the digital economy also saw “things change very fast, especially information and various hot topics.” The fickleness and longevity of markets trends made it hard sometimes to predict what would be the next “hot topic” in the market, so Digital Agency Co was constantly scanning their online environment to stay up to date with what is happening in their industry, amongst competitors and looking for ways in which they could further expand their competitive advantage. One way they address this was through the promotion of paid content in markets to predominately position themselves where their clients operate.

When establishing themselves as a predominately online-based business, Furniture Co realized early on that the digital economy would provide more significant opportunities to access information quickly and cheaply and enabled them to reach and expand their customer base on a level not possible without a digital presence and large budget. The cheapness of social media marketing was a drawcard for Furniture Co early on in their establishment, after finding traditional radio and TV advertising costly and ineffective without excessive budgetary capital. Instead, they found that ‘with platforms like Instagram or Facebook, you send all the information needed to the right clients, like promotions, new

product pictures, and much more.” Furniture Co used the digital economy to respond to emergent trends in overseas markets and act swiftly through global partnerships.

Furniture Co noted about their market was that “customers these days are well informed, they do their research before they call us, and often compare prices.” Furthermore, the digital economy allows Furniture Co to “track the ship, where it is in the ocean.” Hence “you know when the products will arrive,” which provided better customer service for its clientele.

Furniture Co has subsequently expanded from their local operations in Auckland to attracting customers nationally with its founder stating;

“We get many orders from Queenstown, Christchurch, and Dunedin. As well as sometimes getting orders from Australia.”

Even potential global competitors were aware of Furniture Co’s product offering, which saw them approached by an American company keen to work together and collaborate on a product line

While the digital economy has afforded all start-ups in this study various opportunities and advantages, all three firms identified negative aspects. The hyper-competition was evident across all industries. Digital Agency Co’s had to compete against “competitors from different regions” and countries in an environment where “everyone is trying to break through and stand out.” With many social media platforms in the Chinese market, Digital Agency Co’s founders struggled to keep up with new apps emerging all the time.

App Co found that although its tech/app market was multiplying, it was also becoming “saturated.” This saturation leads to a “lack of innovation” and “many people doing very similar work.”

Furniture Co found themselves competing with establishing trading platforms, “Alibaba, Trade Me, and eBay.” These platforms offering clients instant access to products with better and bigger marketing budgets and the benefit of being household names, and anyone can

sell to another. Furniture Co also found the success fees assigned to each sale prohibitive on a grander scale.

Copycat practices were also rampant through each of the three start-ups industries. App Co's founder stating, "There is nothing to stop someone from making a more relevant version of a product for themselves in the same way that Wechat is for Asia and Whatsapp with the west."

The emergence of a "copy-paste model across the industry "has meant that people are now able to enter into different markets and knock off products quickly and efficiently, which presents many challenges for the original creators. "

The global digital economy meant it was easy to locate "ghost developers" in overseas countries cheaply and "rip-off whatever already exists and then secure the number one spot in the search results." Predatory practices meant that "everyone is not always concerned with the social impact of their actions," nor were some of these competitors "concerned about what may happen to consumer" as "many people are just out to make a quick buck." He also noted that "white label products have become a huge problem for this industry," as they allow people to "just purchase them and put their name on it" while some of these have been "good revenue streams" for others in the tech industry it has also lead to a lot of replication and lack of creativity.

Digital Agency Co has also struggled with competitors trying to replicate their strategies. Its founder noted that competitors "do not care about any ideology or strategies they just pretty much copy everything and never give credit for using people's work."

One interesting point raised by all founders was the difference in their approaches to customers in different countries. A globalized strategy might not work in all markets; instead, glocalization became a core focus for entering overseas markets and communicating with a global customer base.

Start up	Vision (creation)	Exploration	Exploitation	Innovation created	Networks & Collaboration	Human Capital	Digital Environment	New Emergent Themes
<b>App Co</b>	<i>Creating a unique environment that allows people to express themselves freely without fear</i>	-Constantly scans the environment for trends, ideas, and data -Social media influenced.	- Staff engaged in execution strategies. Everyone is aware of what is happening and why. - Works with outside partners to share resources and costs -Tests out new ideas and pivots to something else if it is found not to work out.	-Social media app -Platform integration - Partnership with another app company jointly created a new app	-Collaborates with other companies to search for knowledge and resources to give a competitive advantage	-Openwork environment -Everyone shares idea -Employees praised -Collaboration encouraged -Knowledge shared freely -Creativity encouraged	- Ample opportunities for discovering and exploiting new ideas and processes. -Opportunity to work remotely with partners and external collaborators - Greater access to global markets and new clientele - Information widely available and cheaper	- <b>Low entry costs</b> - allow firms to join the digital economy with minimal costs i - <b>Low barriers to entry</b> - enables many start-ups and individuals the opportunity to access national and global markets without extensive initial capital costs. - <b>Hyper competition &amp; replicas</b> - forces firms to scan and exploit opportunities constantly - <b>Impact of digital marketing</b> used extensively to promote & communicate with clients - <b>Use of external digital collaborations</b> -predominantly used for increased resources and competitive advantage attainment - <b>Differences in west/east marketing and product offerings</b>
<b>Digital Agency Co</b>	<i>Brands can be made better</i>	-Constantly scans the environment for trends, ideas, and data - External partnerships as a means of idea identification -Social marketing	- Staff engaged in execution strategies. Everyone is aware of what is happening and why. - Works with outside partners to share resources and costs -Tests out new ideas and pivots to something else if it is found not to work out.	-Use of multiple online platforms for campaigns -Artistic collaboration with local artists	Collaborates with other companies to search for knowledge and resources to give a competitive advantage	-Openwork environment -Everyone shares idea -Employees praised -Collaboration encouraged -Knowledge shared freely -Creativity encouraged	-Ample opportunities for discovering and exploiting new ideas and processes. - Opportunity to work remotely with partners and external collaborators - Greater access to global markets and new clientele - Information widely available and cheaper	- <b>Low entry costs</b> - allow firms to join the digital economy with minimal costs - <b>Low barriers to entry</b> - enables many start-ups and individuals the opportunity to access national and global markets without extensive initial capital costs. - <b>Hyper competition &amp; replicas</b> - forces firms to scan and exploit opportunities constantly - <b>Impact of digital marketing</b> used extensively to promote & communicate with clients - <b>Use of external digital collaborations</b> -predominantly used for increased resources and competitive advantage attainment - <b>Differences in west/east marketing and product offerings</b>



<b>Furniture Co</b>	<i>A focus on design, personalization, quality, and efficiency is who we are</i>	<ul style="list-style-type: none"> <li>-Constantly scans the environment for trends, ideas, and data</li> <li>- External partnerships as a means of idea identification</li> <li>-Social media</li> </ul>	<ul style="list-style-type: none"> <li>- Staff engaged in execution strategies. Everyone is aware of what is happening and why.</li> <li>- Works with outside partners to share resources and costs</li> <li>-Tests out new ideas and pivots to something else if it is found not to work out.</li> </ul>	<ul style="list-style-type: none"> <li>-NZ first product line</li> <li>-Partnerships with local furniture producers</li> <li>-VR integrated into the website</li> </ul>	Collaborates with other companies to search for knowledge and resources to give a competitive advantage	<ul style="list-style-type: none"> <li>-Openwork environment</li> <li>-Everyone shares idea</li> <li>-Employees praise</li> <li>-Collaboration encouraged</li> </ul>	<p>Ample opportunities for discovering and exploiting new ideas and processes. Opportunity to work remotely with partners and external collaborators</p> <ul style="list-style-type: none"> <li>- Greater access to global markets and new clientele</li> <li>- Information widely available and cheaper</li> </ul>	<ul style="list-style-type: none"> <li>-<b>Low entry costs</b>- allow firms to join the digital economy with minimal costs</li> <li>-<b>Low barriers to entry</b>- enables many start-ups and individuals the opportunity to access national and global markets without extensive initial capital costs.</li> <li>-<b>Hyper competition &amp; replicas</b>- forces firms to scan and exploit opportunities constantly</li> <li>-<b>Impact of digital marketing</b> used extensively to promote &amp; communicate with clients</li> <li>- <b>Use of e digital external collaborations</b>- predominantly used for increased resources and competitive advantage attainment</li> <li>- <b>Differences in west/east marketing and product offerings</b></li> </ul>
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Table 2: A short summary of each theme to each start up

## Chapter Five: Discussion

This section discusses the findings' results and aims to answer the research question put forth earlier in this study. It also discusses critical emergent themes identified from the findings, which add new information to our understanding of how the digital environment can change how firms utilize strategic entrepreneurial strategies. Lastly, the reworked model is seen before, is reassessed and presented.

### Discussion

This study's primary purpose was to explore how start-ups explore and exploit opportunities in a digital economy and what drives innovation. The findings have provided a wealth of information to address these key points and have further identified emergent themes not previously addressed by studies.

The main research question of this study asked;

*How do start-up firms use strategic entrepreneurship in a digital economy?*

The research suggests that strategic entrepreneurship in a digital environment is one process of creation, exploitation, and exploration with is impacted by networks/collaboration and *human capital*.

The startups interviewed were all driven by a creative vision of who they were and what they wanted to achieve. It drove their environmental scanning; all three start-ups were continually using the digital economy to access cheap and easily accessible information; this enabled them to rapidly identify emergent trends and themes within their markets and exploit them. The digital economy also enabled all start-ups to continually monitor their competitors and global markets for threats and opportunities, which helped offset the hyper-competitive digital market. Ideas were discovered through the involvement of employees throughout the discovery and implementation process and external collaborative partnerships. Start-ups were able to implement ideas and pivot quickly when testing showed they would be unsuitable. Each start-up engaged a dynamic learning process by examining ideas strategically and looking at how they would implement them when ideas

were unsuccessful; they learned from this and shared it among their employees.

Open environments among all three start-ups' saw an internal collaborative approach to sharing ideas freely and motivated staff to discover new ideas and processes. Constant engagement helped to create dynamic environments where knowledge and information were freely shared. External networks were used to gain further access to resources and new markets; this saw the start-ups gain various competitive advantages over their rivals.

These findings, while in a different environment, and at various stages, were in alignment to previous theoretical ideas discussed by Ireland et al. (2003:2011), Hitt et al. (2001), Kuratko et al. (2009), Scott et al., (2001) and Brem et al., (2011.)

An additional subset of secondary research questions aim to identify how innovation was created and what the impact of the digital economy was, with the two following questions addressing this;

*-What are the main drivers for innovating, and how do these influence the decision-making process?*

The research showed that multiple factors influence how each start-up innovated and its effect on the decision-making process. Innovation came about through a process of exploring and exploiting ideas and opportunities available in a digital environment. The ability to easily access information about competitors, new trends, both local and overseas, influenced innovation as did ideas and concepts developed internally amongst employees. Each start-up would strategically select ideas most relevant to their end goals of profitability or survivability in a dynamic and rapidly changing digital economy.

The digital environment also harmed all three start-ups' with issues identified around hyper global competition, copycats, and unscrupulous business practices. It meant that the founders were always scanning their environment and looking for new opportunities and ways to stay competitive and further innovate to obtain the first-mover advantage of new

innovation. Incremental improvements were often crucial for their survival.

*-How does a digital economy influence exploitive and explorative behaviors?*

The digital economy provided each start-up with a new way to obtain customer data and information to make a more informed decision. It opened up new markets outside of their locality and continuously environmental scanning of emergent trends and themes. Start-ups were able to have a global presence not possible without the digital economy that was cost-effective. It also allowed the creation of new external partnerships to explore and exploit opportunities by sharing finances and resources. It also focused on social media as a platform for communicating information to their customer base, especially as the global digital economy meant that information was freely available anywhere, and customers were more informed of their decisions.

Negatively, hyper-competition and copycats within each industry meant that each start-up had to be consistently aware of what was happening in their industry to remain competitive. This follows similar research conducted by Mazzei (2017), who had previously discussed how hyper-competition and globalized digital economies offered both positive and negative opportunities for exploration and exploitative behaviors in start-ups

### **New Emergent Themes**

Interestingly, emergent themes were also identified that had not previously been noted in strategic entrepreneurial literature. These new themes impacted how the start-up's interacted and explored their environments. In some cases, these new themes provided vast opportunities for competitive advantage and innovation; in other cases, it made operating in the digital economy troublesome and challenging. While some of these themes appear unique to the digital environment, others were seen differently in a more traditional business setting.

- 1) **Low entry cost and low barriers to entry** meant that each of the start-ups in this study was able to commence operations without having to inject large capital investments into their business. It allowed firms to establish themselves in the marketplace against

both national and international competitors while allowing them to compete for a competitive advantage. It also saw the start-ups explore and exploit multiple ideas and opportunities during their set up phase as low costs meant they could test multiple ideas and then pivot when they found them unsuccessful.

- 2) **The hyper-competition** saw the start-ups continually having to scan and monitor their environment against their competitors. Low entry costs and low entry barriers meant that many other firms could quickly establish an online presence, which meant that competition was not just local but also international. It meant the start-ups had to continually innovate to stay competitive and at levels not seen outside of the digital environment. Due to global connectivity, the needs of the consumers and the market can change rapidly. Each start-up felt the pressure to continually monitor trends nationally and globally to stay ahead of the curve.
- 3) **The impact of imitation products and services** meant that each startup faces challenges of having their products replicated by national and international competition. This threat was so dire to the start-ups that they were constantly looking for ways to be better and offer better than their competitors by creating unique experiences for their consumer base. Outside firms' ability to potentially replicate the start-ups was noted as one of the biggest threats to their existence as global connectivity meant that people in other countries could quickly obtain information online and imitate.
- 4) **Differences in product and marketing offerings for global customers.** While this is not something unique to the digital environment, start-ups noted a significant difference in how they delivered their products and services to Western and Eastern markets. Mazzei (2017) briefly touched upon how the digital environment may affect product offerings nationally and internationally but did not delve significantly into this. All start-ups acknowledged that using a glocalised strategy was important when communicating with their consumers. What worked in one country and appealed to one market may not appeal to another. The most significant discrepancy in this came

when two of our start-up's engaged with Chinese clients. A focus on relationships was crucial to being successful in the B2B market there. Furthermore, the way they marketed themselves was drastically different. Acknowledging cultural differences and how they impacted the consumer's decision making was equally important.

- 5) **Digital marketing was used extensively.** All start-ups used social media and online advertising extensively, as this allowed them to position themselves to both local and global consumer bases. Digital marketing allowed them to react quickly to new market trends and exploit them for advertising purposes. Digital marketing, specifically a social media presence, meant that they could directly communicate to their consumer bases and were highly responsive. It also provided a platform to receive instant feedback about products and services offered. Another drawcard was the lost cost of digital marketing. Whereas traditional marketing methods were seen as expensive and hard to measure, digital marketing was cost-effective and gave greater reach.
- 6) **The use of digital collaborations** is something unique to the digital environment. The start-ups had all collaborated online with both local and international firms and individuals. The ability to work with someone collaboratively in another country was crucial to the success of one of our firms. These collaborations extended beyond borders and meant sharing resources and costs was easier. It also helped open up new markets and generate new ideas and opportunities for each start-up. Various digital collaborations were often used to address the hyper-competition in the digital environment. With the removal of geographical boundaries, they could collaborate with a range of different individuals and firms in a way that would be impossible were it not for the digital environment.

## Framework

A framework is thus proposed, which shows how start-ups explore and exploit opportunities in a digital environment. This framework is developed from the previous framework presented by Ireland et al. (2003:2011) and enhanced by Spieth & Spieth's (2013) idea of dynamic capabilities through their ability to reuse, recreate and develop existing assets and resources. It proposes that a fundamental vision drives start-ups in a digital environment; this motivates them to scan their environment for opportunities and exploit them. The digital environment influences this process by offering rapid information, trends, and global markets to the start-ups, which creates further opportunities to be exploited. During this process, the start-ups are engaged in continuous renewal motivated by opportunities and also by hyper-competition forcing this upon them. Throughout all steps, networks/collaboration and human capital affect how the start-ups can explore and exploit opportunities as do the emergent themes discussed earlier. It is assumed that upon successful exploitation that competitive advantages are then gained.

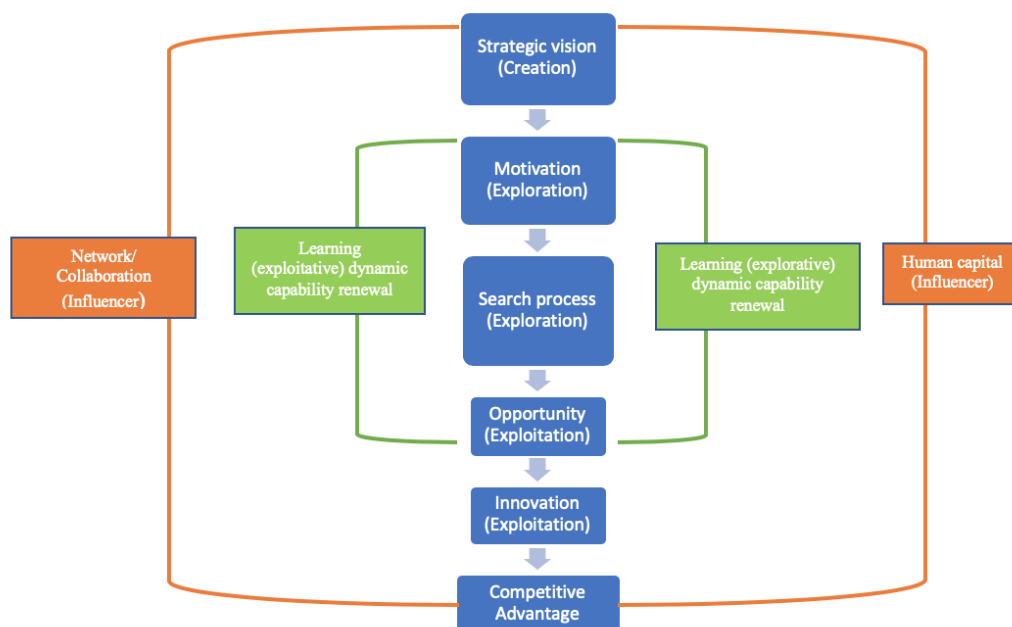


Figure 5: A proposed model

## Chapter Six: Conclusion

The digital economy has created many opportunities for businesses and erased geographical borders. Its low cost and low entry barriers have seen the creation of millions of businesses globally and the development of an industry that did not exist a few decades ago. While ample opportunities exist for new firms, the impact of hyper-competition on both a local and global scale provides a constant existential threat to businesses. Start-ups who can successfully negate this enhance their survivability odds.

This study found that start-ups have borderless opportunity potential and are constantly scanning their environments for new trends and information. The digital economy enables them to market themselves to millions of customers and create intimate relationships through social media platforms. The digital economy provided instant access to data and information that allowed start-ups to grow and develop their offerings. This meant they faced global competition, which spurred their need to monitor and scan their environments continuously. Digital collaborations allowed all start-ups to create products and services while sharing resources and costs; this leads to competitive advantages and first-mover advantage for all start-ups involved in this study. Sharing of knowledge and open work environments were seen as necessary for facilitating discussion and motivating employee performance. Motivated employees were more willing to contribute ideas and work cohesively towards a goal.

Copycats were an immense challenge to all start-ups. They sort to overcome this via external collaborations, creating unique product offerings, and ensuring they were continually engaging with consumers through various platforms. In turn, this helped each startup further develop their brand.

This research adds to existing knowledge discussed previously in this dissertation and enhances this identifying new emergent themes that influence how a start-up operates and responds to its environment. It presents new areas of interest for further study and confirms the need to delve deeper into understanding how the digital environment is unique and not comparable to traditional ones.



### **Implications for theory**

Limited research outside of Mazzei (2017) has been conducted, which examines how the digital economy impacts the implementation of strategic entrepreneurial practices. This research enhances existing knowledge by confirming networks and human capital's importance to explorative and exploitive practices. It emphasizes on how companies use digital technology to identify trends and competition in their markets.

New emergent themes were identified, and these enhance current knowledge on how the digital economy affects start-ups. The interviews in this study provided a rich source of information. They were vital in enhancing existing knowledge of how explorative and exploitive behaviors are complex and multi-faceted within a digital economy than those of a more traditional setting.

The proposed model contributes to the existing theory by examining how start-ups explore and exploit and look at the intricacies that influence this behavior in a digital environment. It proved useful for understanding and interpreting the data and was core to aiding the discoveries of the new emergent themes discussed previously. This model could be built upon in further research and expanded.

### **Implications for practice**

The research showed that start-ups could compete against larger incumbents through constant environmental scanning to industry practitioners. It shows that while the digital environment provides plentiful opportunities to communicate with their customer base and expand into new markets. It is also marred with challenges such as replica and hyper global competition. Industry practitioners can overcome these obstacles by continually monitoring their environments, engaging employees throughout the explorative and executive phases, seeking out external collaborative networks, and communicating with their client base digitally.

## **Limitations and future research**

As is often the case for all research, both existing strengths and limitations must be considered when interpreting the data and findings. While the study used qualitative research methods and a multiple case study approach, one of the critical limitations of this approach is that findings are limited to the researchers' specific interpretation and are often not without bias. (Van De Ven & Johnson, 2006.) Furthermore, the interpretation of data is influenced by the viewpoint of the researcher (Yin, 2003.) Further research into strategic entrepreneurship and the digital economy could expand our understanding of this by allowing newer researchers to present different viewpoints.

Additionally, due to time constraints and this study's nature, only three participants were selected from each of the three start-ups. Future studies could broaden this by including more firms and a more significant number of participants to provide richer detail. All interviews were a once-off. Under an hour-long, further studies could look towards conducting interviews over time and compare results to see if there are any changes, especially relevant to following start-ups as they grow.

The effect of Covid19 had an impact on this study, as the entrepreneurs initially chosen for this study ended up declining to participate as they were busy trying to maintain supply chains and negotiate through uncertain time. This led this researcher to use her business network to find entrepreneurs who operated within the digital economy that could dedicate some time to participating in interviews. However, this presents an interesting opportunity for future research, which could investigate the impact covid19 has/will have on digitally based businesses and how these change or influence how strategic entrepreneurial strategies are used. This study noted how hyper-competition negatively impacted firms and how they used external partnerships to overcome resource scarcities. Would this now have changed in the covid19 era? Has competition to survive intensified? Are companies less willing to engage in external partnerships? Has covid19 changed how firms explore and exploit opportunities?

While the global dispersion and different start-up industries provided fascinating insights that were often shared between all firms, future research could take a more localized

approach to see if the local digital economy provides different results to what was identified in this study. Would all firms in the same industry have similar stories, and if so, why? If not, how come?

Finally, while this study has highlighted the importance of strategic entrepreneurship to a digital economy, the results are not generalizable to theory, which provides future researchers with the opportunity to future research in this emergent area and gravitate towards a more generalizable framework.

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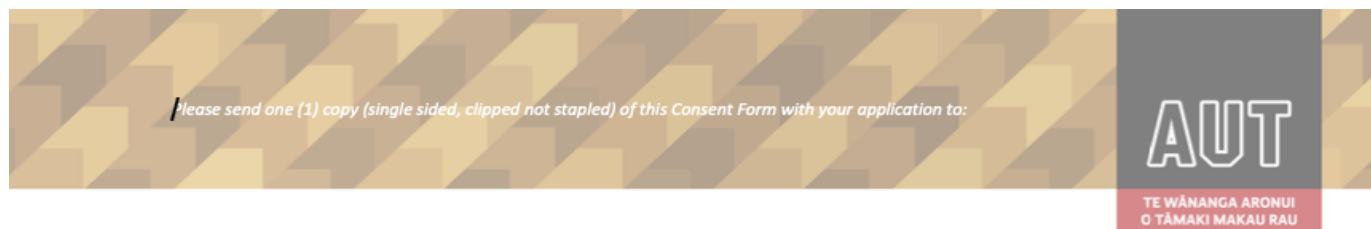
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## Appendix 1: Consent form



Please send one (1) copy (single sided, clipped not stapled) of this Consent Form with your application to:

AUT

TE WĀNANGA ARONUI  
O TĀMAKI MAKĀU RAU

### Consent Form

For use when interviews are involved.

**Project title:** The digital economy: A look at integration of strategic entrepreneurship and innovation in digital start ups

**Project Supervisor:** Dr. Simon Mowatt

**Researcher:** Delyce Edwards

- ☐ I have read and understood the information provided about this research project in the Information Sheet dated dd mmmm yyyy.
- ☐ I have had an opportunity to ask questions and to have them answered.
- ☐ I understand that notes will be taken during the interviews and that they will also be audio-taped and transcribed.
- ☐ I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time without being disadvantaged in any way.
- ☐ I understand that if I withdraw from the study then I will be offered the choice between having any data that is identifiable as belonging to me removed or allowing it to continue to be used. However, once the findings have been produced, removal of my data may not be possible.
- ☐ I agree to take part in this research.
- ☐ I wish to receive a summary of the research findings (please tick one): Yes ☐ No ☐

**Participant's signature:** .....

**Participant's name:** .....

**Participant's Contact Details (if appropriate):**

.....  
.....  
.....  
.....

**Date:**

**Approved by the Auckland University of Technology Ethics Committee on *type the date on which the final approval was granted* AUTEK Reference number *type the AUTEK reference number***

**Note:** The Participant should retain a copy of this form.

## Appendix 2: Sample Interview Questions



Interview Guideline	
Questions	
1. Can you describe how your firm identifies and explores external opportunities? a) Effect of the digital economy on this? b) Any challenges resultant from this? i.e. global digital competition, data driven consumer info.	Exploration (Ireland et al, 2003) <u>Start up</u> innovation-Zhu et al, 2013 - Ketchen et al, 2007
2. How does the firm encourage employees to develop ideas they may have? a) How does management take on these ideas? b) Are employees incentivise to contribute?	Collaboration-Ireland et al, 2013
3. How does your firm test new ideas? a) Do you have certain process for this? b) Separate brand? Etc	Follow up
4. How would you describe the level of "innovativeness" within your firm? What would you say drives this?	
5. How has the digital environment impacted your business? a) What issues/challenges have you faced?	
6. After each innovation is deemed "successful", what kind of learning processes do you have in place to retain or share the knowledge gained from this?	Learning process- Luke et al, 2011, Kuratko et al, 2009
7. Does a strategic or company vision influence your innovation process? How?	Strategic vision- Kyridou et al, 2010

## Appendix 3: Ethics approval



### Auckland University of Technology Ethics Committee (AUTEC)

Auckland University of Technology  
D-88, Private Bag 92006, Auckland 1142, NZ  
T: +64 9 921 9999 ext. 8316  
E: [ethics@aut.ac.nz](mailto:ethics@aut.ac.nz)  
[www.aut.ac.nz/researchethics](http://www.aut.ac.nz/researchethics)

TE WĀNANGA ARONUI  
O TĀMAKI MAKĀU RAU

3 May 2019

Simon Mowatt  
Faculty of Business Economics and Law

Dear Simon

Ethics Application: 19/121 **Strategic entrepreneurship and innovation: An integration**

I wish to advise you that the Auckland University of Technology Ethics Committee (AUTEC) has **approved** your ethics application at its meeting of 29 April 2019.

This approval is for three years, expiring 29 April 2022.

#### Non-Standard Conditions

- Revise the Information Sheet using a current exemplar ensuring all sections and the current AUT logo is included along with the following:
  - Include a definition of strategic entrepreneurship as it is intended in this context;
  - Include the full withdrawal statement;
- The Consent Form requires a date aligned with the Information Sheet.

#### Non-Standard Conditions of Approval

Non-standard conditions must be completed before commencing your study. Non-standard conditions do not need to be submitted to or reviewed by AUTEC before commencing your study.

#### Standard Conditions of Approval

- A progress report is due annually on the anniversary of the approval date, using form EA2, which is available online through <http://www.aut.ac.nz/research/researchethics>.
- A final report is due at the expiration of the approval period, or, upon completion of project, using form EA3, which is available online through <http://www.aut.ac.nz/research/researchethics>.
- Any amendments to the project must be approved by AUTEC prior to being implemented. Amendments can be requested using the EA2 form: <http://www.aut.ac.nz/research/researchethics>.
- Any serious or unexpected adverse events must be reported to AUTEC Secretariat as a matter of priority.
- Any unforeseen events that might affect continued ethical acceptability of the project should also be reported to the AUTEC Secretariat as a matter of priority.

Please quote the application number and title on all future correspondence related to this project.

AUTEC grants ethical approval only. If you require management approval for access for your research from another institution or organisation, then you are responsible for obtaining it. If the research is undertaken outside New Zealand, you need to meet all locality legal and ethical obligations and requirements. You are reminded that it is your responsibility to ensure that the spelling and grammar of documents being provided to participants or external organisations is of a high standard.

For any enquiries please contact [ethics@aut.ac.nz](mailto:ethics@aut.ac.nz)

Yours sincerely,

Kate O'Connor  
Executive Manager  
Auckland University of Technology Ethics Committee

Cc: [delyce.rojas@gmail.com](mailto:delyce.rojas@gmail.com)

## Appendix 4: Participant information sheet



# Participant Information Sheet



Note: This project information and participation invitation will be sent to the potential participants either as a letter or as an email following initial contact.

### Date Information Sheet Produced:

15.03.2019

### Project Title

The digital economy: A look at integration of strategic entrepreneurship and innovation in digital start ups

### An Invitation

Master of Business student ~~Delyce~~ Edwards and Associate Professor Simon ~~Mowatt~~ (AUT University) would like to invite you to contribute to a study on strategic entrepreneurship and innovation. Participation in this project will be voluntary and based on informed consent.

### What is the purpose of the study?

The aim of this research is to investigate how start-up companies identify and exploit opportunities and innovation within their given industries. This research will use strategic entrepreneurial strategy as a framework and aims to build upon existing materials and models to further knowledge within this topic.

### How is the organisation / participant chosen to be asked to be centre of the study?

You have been chosen because you are a senior manager in a start-up who has an overview of the business.

## What happens in the study?

1. You are asked to give your consent to the study in writing (a form will be provided for this purpose).
2. Participants will be interviewed
3. Publically available relevant information in the public domain (e.g. website), will be reviewed to identify relevant policies and practices that are in current strategy or action.

## What are the benefits?

The anticipated benefits for you and your organisation will be to provide a review of how strategic entrepreneurial activities encourage and develop higher levels of technological innovation through exploitation and development of innovation in start-ups. This has the potential to be used to inform future policies and practices.

There will be the chance to receive a summary of the research, which may be of assistance in development of innovation policies and practice.

The student will be able to conduct research required to complete their dissertation as part of the Master of Business qualification.

## How will privacy be protected?

This research does not seek to gather personal information from participants. A pseudonym will be assigned each participant and their organisation and all identifying details will be only known to the researcher. Applicants have the right to withhold permission or to withdraw from the study at any time until the end of data collection should they feel that they would rather withhold any issues of personal or commercial sensitivity from the public domain. If you choose not to participate or withdrawal from the study will not be communicated to your colleagues or manager.

## How do you join the study?

Please contact the project researcher, Delyce Edwards (contact details below).

## What are the costs of participating in the project? (including time)

There are no direct financial costs associated with participating in this research. The primary cost is that of time. The plan is to conduct an interview of a maximum of 60 minutes in length.

## Opportunity to consider invitation

You will be contacted by phone/Skype within two weeks of receipt of this invitation to ascertain whether or not you wish to participate in the project.

## Opportunity to receive feedback on results of research

A collated summary of the research findings will be available on request. The completed research dissertation will be available via the AUT library. However, specific or individual responses to interviews, or site-specific data will not be available, to protect the privacy of participants.

## What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Dr Simon Mowatt, [simon.mowatt@aut.ac.nz](mailto:simon.mowatt@aut.ac.nz) telephone 09 921 9999x5424.

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTC, Kate O'Connor, [ethics@aut.ac.nz](mailto:ethics@aut.ac.nz) , 921 9999 ext 6038.

## Whom do I contact for further information about this research?

### Researcher Contact Details:

Delyce Edwards, [Delyce.rojas@gmail.com](mailto:Delyce.rojas@gmail.com)

### Project Supervisor Contact Details:

Dr Simon Mowatt, [simon.mowatt@aut.ac.nz](mailto:simon.mowatt@aut.ac.nz) telephone 09 921 9999x5424

Approved by the Auckland University of Technology Ethics Committee on *type the date final ethics approval was granted*, AUTC Reference number *type the reference number*.