FOUNDER-CEOs AS DECIDERS IN CHIEF:
A NARRATIVE RESEARCH STUDY EXPLORING OPERATIONAL
DECISION-MAKING IN ENTREPRENEURIAL PHASE VENTURES

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Dedication

For my wife, Deborah, who has supported me, looked out for me and has been holding hands with me through this adventure and the past 31 years

My children Ellie and Adam, Aaron and Kylie

My parents. They set the example.
Abstract

This study sought to understand how Founder-CEOs of entrepreneurial stage new ventures experienced operational decision making. Little is known about how operating decisions are made in entrepreneurial stage companies. Decisions are fundamental to the organization, as decisions are the point where leadership can commit resources, select a direction for the organization, or take other actions that commit the organization in some manner (Useem, 2010). This study was influenced by a process perspective in examining how Founder-CEOs made decisions by examining a specific operational decision and sought to understand the actions and process that the decision-makers use.

Eight Founder-CEOs of technology-enabled companies located in a smaller city in the Southeastern, United States were interviewed to examine a recent operational decision. Data collection consisted of document review, field notes and confidential interviews. The theoretical framework used for this dissertation was naturalistic decision-making (NDM) (Klein, 2008). NDM accounts for dynamic situations where problems are not clearly defined, information is incomplete, and there is the pressure of time. NDM integrates the emerging recognition of expertise and experience in decision-making. (Orasanu & Connelly, 1993).

Five conclusions are presented: (1) Founder-CEO decision-making process was quick but deliberate, (2) Founder CEOs fostered informal, open relationships, (3) Growth and achieving goals were paramount for all Founder-CEOs’ operating decisions, (4) Startup partners served as a key advisory source for Founder-CEOs and (5) Precipitating problem issues are inherent in entrepreneurial stage companies. For all participants, the decision to be made was precipitated by the situation and the goal of sustainable growth for the company. Decision-making,
therefore, was quick and eschewed formal reports and presentations. Founder-CEOs turned to their business partners and board members as key advisors, yet also typically fostered an open environment and to varying degrees, they would discuss the situation and decision with their small number of employees.

This study found that the decision-making process used by Founder-CEOs was deliberate but informal in providing enough information for a good decision to be made. This process should be viewed more broadly as that of an entrepreneurial stage company, one that is striving for growth and has a product/service that is on the market.
CHAPTER 1: INTRODUCTION

All human action is the result of a human choice (March, 1982). We make decisions every day from the small and insignificant to the big and significant. Some decisions are made immediately when a situation arises, and a decision needs to be made, other decisions we contemplate for months or even years. Decisions can be small, such as selecting clothes to wear on a particular day. Decisions can also be big, such as whether to marry, buy a house, or to start a new business to exploit a good idea. For some decisions, we have enough information to make a good decision, however, sometimes we have imperfect or little information and yet a decision must still be made.

The act of making a decision is complex and one this has been explored by researchers in several fields, including psychology, economics, philosophy, and business. Several theories have emerged and have evolved, as we have come to understand that people are not completely rational and disciplined in how we think and make decisions. In business, decisions may have broader implications and be deemed as strategic, for the longer term. Others are operational, with more limited implications. Other decisions lie within the intersection of the two sets.

This dissertation examines decision-making within the subset of business: new ventures that are led by Founder-CEOs. Entrepreneurs and entrepreneurial organizations have drawn attention to the opportunities for innovation and wealth, and for the economic growth and health of communities and nations. Entrepreneurs such as Bill Gates, Jeff Bezos and Oprah Winfrey are among the some of the most admired Americans. Communities around the United States – and the world – work to develop a cadre of entrepreneurial companies to drive
economic growth. After declining for several years, the number of new business starts has been rising again (Fairlie, 2015).

Technological advances, notably the Internet, have opened new opportunities to do business using methods that did not exist 25 years ago (Stevens & Johnson, 2016). Geography is now a minimal hindrance, as communication and logistical chains make it possible to produce products and quickly deliver them to buyers (businesses and consumers) in most places in the world at relatively low cost. To paraphrase venture capitalist Marc Andreessen, a 14-year-old in Bangalore (in India) has access to the same computers, software and communication tools as a 14-year-old in the United States. To those same 14-year olds, the cellphone they hold in their hands is the worst technology that they will know (Friedman, 2005).

In many parts of the developing world, entrepreneurship is seen as the best opportunity for economic development. “A nation is doomed without entrepreneurship,” said Dr. Muritala Awodun, the business school dean of Kwara State University in Nigeria (Aliyu, 2014). Major corporations are also supporting entrepreneurship as marketing investments. Amazon India has launched the Sehali program as a focused program supporting women entrepreneurs’ access to the company’s customers across India. Global certified public accountant (CPA) and consulting firm Ernst and Young sponsor regional and national entrepreneur competitions in 60 countries. Microsoft has established 100 Innovation Centers to promote local collaboration and provide support and resources to accelerate the creation of new companies and jobs (Anderson, 2009). In academia, the number of campus-based entrepreneurship programs has climbed from 180 in 1990 to over 2,000 in 2014. Entrepreneurship centers and programs are
similarly sprouting in other countries as a means of spurring economic development (Kuratko & Morris, 2018).

Venture capital investment, which can be viewed as a proxy for the most promising startup companies, amounts to $164 billion globally and $71.9 billion in the United States alone (CB Insights, 2018). Venture capital investment in the United States is centered in Silicon Valley and the Boston/New York/Washington DC corridor. Globally, top cities for venture capital investment include London, Paris, and Moscow in Europe; Toronto in Canada; Beijing and Shanghai in China; and Mumbai and Bangalore in India (Haemmig, 2003).

At the same time, the angel investor movement has grown as wealthy investors make investments, often alongside other angel investors or as part of an investment club. Angel investors are wealthy individuals who make smaller investments in startup companies. Many times, these investors are part of local angel investor groups that are pitched by entrepreneurs and may conduct some due diligence work (Edelman, Manolova, & Brush, 2017).

**Entrepreneurship**

Entrepreneurship is the nexus between an identified opportunity and an individual who identified the opportunity and marshals the resources to exploit the opportunity. Entrepreneurial organizations are nascent organizations and do not have the depth of resources, established policies and procedures, and employee duties that changing as the organization grows and external events occur (Lichtenstein, Carter, Dooley, & Gartner, 2007).

The Founder-CEO is now in a leadership position which is likely to be new to them. This study examines decision-making as being the central role of a leader and is the most practiced leadership skill. In emerging organizations, decisions are being made without the history,
policies, and procedures, or an established organization as precedent and guide to new
decisions (Simsek, Jansen, Minichilli, & Escriba-Esteve, 2015).

For this study, the theoretical framework is Naturalistic Decision-Making or NDM. The
study is influenced by process tracking models of decision-making that analyzes a situation by
tracing the steps that lead to the decision, assessing the information gathered, and the
sequencing which was used to make the decision. The models emerged from the recognition
that decision-making cannot be understood purely from the outcome but should closely
examine the steps between the introduction of information and the decision (Ford, Schmitt,

NDM emerged in the 1980s as a descriptive model that focuses on the individual who
uses their experience and knowledge in decision-making and recognizes that the setting of the
decision and decision-maker impact the decision-maker. The field research has found that, in
actual situations, people were relying on their prior experience to categorize a situation and
choose a course of action. NDM suggests that decision-making is driven by the individual’s
experience and knowledge in making a decision (Klein, 2008).

Statement of the Problem

Leadership decisions are fundamental to the organization, as decisions are the point
where leadership can commit resources, select a direction for the organization, or take other
actions that commit the organization in some manner (Useem, 2010). Mature companies have
policies and procedures in place and an organizational culture that has developed over time.
The management structure is established and relatively stable, so the decision-making
experience is established. Entrepreneurial phase companies lack these precedents and the
entrepreneur-leader often has little or no significant leadership experience. Young and growing organizations operate in a constant state of uncertainty, as they have undeveloped processes, few resources, and lack an established customer base and sales flow (Lidow, 2014).

The research into entrepreneurial decision making has focused on the decisions made to identify and exploit a perceived market opportunity (Shepherd, Williams & Patzelt, 2015). Much of the research of entrepreneur decision making has attempted to understand motivations, context, and the influence of the risk of financial loss. These studies have a common theme: trying to understand why entrepreneurs make the decisions they do (Shepherd, 2011). In their review article, Shepherd, Williams, and Patzelt (2015) cited the need for research in entrepreneur decisions, specifically research that takes a process perspective. This study was influenced by a process perspective in examining how Founder-CEOs made decisions by examining a specific operational decision and sought to understand the actions and process that the decision-makers use.

However, little is known about how operating decisions are made in entrepreneurial stage companies. Operating decisions are those decisions made every day to implement the companies’ plan and goals for growth (Chrisman, Chua, De Massis, Minola, & Vismara, 2016). In small organizations, it is the CEO who is driving these decisions, either the ultimate decider or, as appropriate and mandated by law or contract in conjunction with the board, who has the ultimate governing responsibility for the organization. This study sought to understand how Founder-CEOs of entrepreneurial stage organizations experienced operational decision-making.
Research Question
For this study, the following question was the primary research question that guided the study. How do Founder-CEOs of new ventures experience decision making as they transform from “founder with an idea” to “leader of a growing company” during the entrepreneurial phase of venture development?

Purpose and Overview
The purpose of this study is to uncover how Founder-CEOs of entrepreneurial stage companies experience decision-making. This context is a critical backdrop to any study on how managers work in an entrepreneurial organization. For a growing firm, roles and responsibilities may be unclear and decisions are deferred to top management. As a result, decision making is inefficient and slow, and middle managers avoid responsibility for their areas of responsibility (Flamholtz, 1986).

Making good decisions is a defining aspect of leadership and has a direct bearing on the organization’s performance. Decisions are typically not obvious or preordained. Through decisions, leaders direct the organization towards its purpose and goals (Useem, 2010). This is paramount, as managerial problems are one of the top reasons for company failure (Bruno, Leidecker, & Harder, 1987). For investors and board members, and for entrepreneurs and their teams, furthering an understanding of decision making and how to develop this skill and competency will contribute to strengthening management capabilities and the performance of the entrepreneurial organizations.

Leadership in a company requires several traits and practices: vision, sense of mission, ability to motivate and to execute. How leaders do these actions – how they move an
organization along – is through their capacity to make good and timely decisions (Useem, 2010). Mintzberg (1989) found that as an entrepreneur, decisions emerge as a series of small decisions and actions that occur over a period of time. Decisions are not made in isolation, and the impact on the organization is cumulative (Mintzberg, 1989). Choices and decisions made by entrepreneur leaders create the company; decisions as to the opportunity to pursue, the team, funding, and markets to pursue, among others.

The best theoretical fit to the purpose and goal of the study is naturalistic decision-making (NDM). NDM has emerged as a theory and model of decision-making that recognizes the decision maker’s reliance on their experience and expertise in how they make decisions (Salas & Martin, 2017). Complementing and influencing this framework, the researcher used a process tracing model to map out the specific steps and actions that the decision-maker took in making a decision. This researcher for this study looked at how the entrepreneur leader went about making the decision, e.g. what information was gathered and how? Were other people, inside or outside the organization, consulted? How engaged were investors and board members? Were peer groups, both formal and informal, called upon as a resource?

The outcome of this study adds to our ability to train and coach entrepreneurs in decision making as part of their development as managers and leaders. Employees, including middle managers, can rely on a decision-making process that supports a growing company. Investors are interested in their investment developing a return, and this will only happen in a well-run organization. For entrepreneur-leaders and other less-experienced managers, the research in NDM and process tracing provides an applicable model for decision-makers to utilize as they make decisions in conditions of uncertainty and with a level of expertise that
Entrepreneurial skills are defining skills for successful business leaders in the 21st century. The focus of an entrepreneur is on rapid learning, opportunity identification, and the gathering of resources to effectuate a solution to a perceived market need. Large companies see the need for such skills, and the term *intrapreneurship* has gained usage to describe those working within existing companies (Fernald, Solomon, & Tarabishy, 2005).

Entrepreneurship scholarship has sought to understand why, when, and how the nexus between opportunity and individuals who seek to exploit it comes about (Shane & Venkataraman, 2000). The research into entrepreneurial decision making has focused on the decisions made to identify and exploit a perceived market opportunity (Shepherd et al., 2015). This study looked at new ventures after they were in business and had a product on the market, examining decision making from the perspective of an operating business leader running and growing a business.

**Research Plan**

This study is a narrative research study on Founder-CEOs of new ventures in the entrepreneurial phase of development. Eight Founder-CEOs of companies located in the Southeastern United States were interviewed to tell their story of specific experiences related to decision making as the Founder-CEO of their company. The participant interviews were conducted in a private setting and were recorded and transcribed. An open-ended, guided question format was followed, which allowed the researcher to probe and ask follow-up questions. By doing so, the interviewer was engaged with the participant in telling the story,
interpreting, and constructing meaning (Riessman, 1993). In this study, interviews were introduced and conducted as a conversation, thereby eliciting a rich discussion of topics and events that added context and explanation to the focus of a specific operational decision. Subsequently, the transcripts were read, and coding was refined several times to identify themes and findings from these experiences.

The participants are all located in a smaller “2nd City” in the Southeastern United States. This region was selected because it was large enough (population of over 750,000) and supported an entrepreneurial ecosystem. Entrepreneurial ecosystems are a geographic region that consists of several actors and elements that encourage and support the development and growth of nascent and innovative startup and emerging companies (Audretsch, Mason, Miles & O’Conner, 2018). The selected metropolitan statistical area (MSA) is a region of approximately 750,000 people, two public tech-related companies and approximately 280-300 tech-related companies. The center city government houses a 20-year old economic development project that supports tech companies, there are several incubator and accelerator locations and programs, several angel investor groups, and is frequently designated as an attractive city for recreation and culture. These are some of the essential elements for a strong entrepreneurial ecosystem and therefore one where knowledgeable participants were able to be recruited for this study (Isenberg, 2010).

Theoretical Framework

The theoretical framework used for this dissertation is naturalistic decision-making (NDM) (Klein, 2008). This dissertation sought to understand how Founder-CEOs make operational decisions in the entrepreneurial stage of a new venture. NDM has emerged as a
leading theory of decision-making as it accounts for dynamic situations where problems are not clearly defined, information is incomplete, and there is the pressure of time. NDM recognized and integrated the emerging recognition of expertise and experience in decision-making.

Entrepreneurial stage companies are small, policies and procedures are informal, problems and opportunities for decisions are often novel, and the vulnerability to management error is high. For these reasons, NDM was the best theory to be applied in this study. Founder-CEOs typically will be operating in markets that are developing and evolving concurrently with the company. Founder-CEOs do not have the luxury of time nor the staff support for extensive information-gathering. For a young company and a Founder-CEO, the history, experience, policies, and practices for decision-making are not present. For the Founder-CEOs, the process to follow entails drawing on their expertise and experience in arriving at their decision. For these reasons, NDM was selected as the most appropriate theoretical model and was used in this study.

Figure 1 is a decision diagram using a Recognition Primed Model (RPM) of NDM. The model begins with an awareness of the situation and the assessment of whether this situation is familiar. The decision-maker mentally evaluates the situation and uncovers problems and, if determines the reaction will work, implements. If not, the decision-maker will reevaluate. As the situation evolves, the decision-maker will continue to evaluate whether the reaction is working and, if not, will go back and adjust or change the reaction.
Definitions

For the purposes of this discussion, clarification, and precision is needed to define common terminology that will be used throughout this study including; Founder-CEO, entrepreneur, entrepreneurial stage organization, and entrepreneurial stage companies. There have been many definitions offered in academic research and in common usage, so clarity demands that definitions be specified.

1. **Founder-CEO**- The Founder-CEO is the individual who is a founder or co-founder of the company and serves as the chief executive officer (CEO). There is no commonly
accepted definition of the term “entrepreneur” to describe an individual who pursues the practice of “entrepreneurship”; in fact, some suggest that researchers must specify their definition (Carland, et al, 2002).

2. **Entrepreneur**- For the purposes of this study, an entrepreneur is defined as an individual who engages in activities to identify opportunities and creates innovations, assembles resources, and forms organizations to exploit the opportunities.

3. **Entrepreneurial Stage Companies** - Entrepreneurial stage companies are those companies that balance their entrepreneurial spirit, innovative nature, and creativity with the long-term business success of a profit-oriented firm that can sustain a competitive advantage within their market niche (Lydon, 2001). Entrepreneurial stage companies are new ventures focused on product development, defining markets and expansion and growth (Flamholz & Randle, 2007).

**Summary**

This chapter served as an introduction and overview of this dissertation. The statement of problem and purpose were presented and the research questions were discussed. The theoretical framework was identified and discussed as to the relevance and appropriateness for the purpose of the study. Key definitions were presented to ensure a consistent understanding of the language used throughout this dissertation. The following chapter is an overview of the literature reviewed, with attention given specifically to the literature that developed NDM as a theoretical framework.
CHAPTER 2: LITERATURE REVIEW

This dissertation builds on the current state of research to explore how Founder-CEOs practice and experience decision-making in the formative years of their organization. Emerging new ventures are nascent organizations that operate with a high degree of uncertainty (Lichtenstein, Carter, Dooley, & Gartner, 2007). Such organizations do not have the history, culture, and norms, or policies and procedures to guide decision-making in practice. Founder-CEOs come with a variety of experience in leadership roles and in business that may influence and guide their leadership and decision-making practices.

This study emerges from three paths: entrepreneurship, leadership, and decision making as a management skill. This literature review lays the foundation of this study with a discussion of key research in entrepreneurship and leadership. Emerging from these two streams is a unified and distinct concept of the entrepreneur-leader. This study focuses on a subset of entrepreneur-leaders: the founder-CEO, who are either (1) a founder or co-founder of the company and (2) function as CEO. This literature review will then examine the evolution of research in decision-making as this relates to the focus of this dissertation. The classic model is the foundation – a model that is based on a sequential path to a decision. Later researchers recognized that most decision making does not follow such a path and that humans rely on their experiences and cognitive abilities as reflected in research examining heuristics, biases, and intuition. More recently, Naturalistic Decision-Making (NDM) has emerged as a comprehensive theory that is evolving in terms of application.
Entrepreneur-Leader

Research has indicated that entrepreneur-leaders are distinct from leaders in large organizations (He, Standen, & Coetzer, 2017). Entrepreneurial organizations are different from established organizations, so the formality of their structure and operating practices, such as the process and rules for making decisions, will differ. For this study, the organizations that were examined are smaller, and the founder-CEO exhibited substantial control and influence on how the organization functions. In the early stages, many if not most decisions establish a precedent for future decisions and may have important operational and even strategic implications. Entrepreneurial organizations operate in new markets with new products and services, thereby creating an environment of high uncertainty (Burch, Batchelor, & Humphrey, 2013).

Decision Making

Decision-making is still an unsettled field and continues to be a subject of intense interest in several fields, including business, economics, and psychology (Zsambok & Klein, 2014). Classic decision-making theory assumes that humans are rational and identify, examine, and choose among multiple options for actions. Naturalistic decision-making has emerged over the past 30 years as a descriptive approach that studies and describes how people actually make decisions in real-world settings (Zsambok & Klein, 2014).

This study examined decision making in entrepreneurial organizations by examining the actions and choices of a Founder-CEO in making operational decisions. In their review article, Shepherd et al. (2015) cited the need for research in entrepreneur decisions, specifically research that takes a process perspective. A study of the process is a descriptive analysis, a
method that tells what is and influences the application of NDM as the theoretical framework enabling an understanding of the why and how for the decisions of the process and the final decision (Kahneman & Tversky, 1984).

NDM emerged as the study and understanding of decision-making evolved. The NDM approach is that decision-making emphasizes the situation and then proceeds to action, identifying one option as good enough, and recognizes that decisions are integral to the larger set of tasks and responsibilities of the decision-maker (Orasanu & Connelly, 1993). In the following sections, a discussion of the key decision theories that NDM is built on is presented. They include Classic Decision-Making (CDM), Biases and Heuristics, and System 1 and System 2.

**Classic Decision-Making (CDM) Theory**

All human action is a result of a human choice (March, 1982). How people make decisions in their lives has been an important topic of research in several fields, particularly economics. Historically, the common view was that decisions were purely rational. In the rational model, decision making is viewed as an intentional action emerging from an intentional process; that is, a procedure or process is followed in making the decision (March, 1991). This conceptual “rational man” has the relevant knowledge, is possessed with clear and stable preferences, and has the cognitive capability to identify and assess alternatives to identify the one that will be best suited for him (Simon, 1955). The process would begin by defining the problem, identifying causes, developing alternative solutions, and then deciding by selecting the best choice (Simon, 1955; Mintzberg & Westley, 2001). The difficulty for the decision maker is that all information is not available and that the implications of the alternatives and
how the affected parties will react to the decision are but a guess and that rules are not always followed (March, 1978).

Underlying the CDM is the economic concept that people are rational. In this model, people are assumed to have perfect information, identify and analyze all alternatives, and will make choices in their actions that will maximize their satisfaction. CDM is a prescriptive model that addresses the question of making decisions correctly. However, following the right procedure does not necessarily lead to the correct decision. Classic theory has been the subject of substantial research and has been shown that human behavior is not consistent with the theory (Beach & Lipshitz, 1993). In the seminal paper, Simon (1955) persuasively argued that this concept has to be expanded: rational behavior has constraints. The rational model must be refined to one that accounts for the constraints on access to information and the analytical capabilities of humans in their environment. Humans have psychological limits on their ability to identify, gather and analyze information, and in the ability to predict the consequences of current actions, including actions taken in response by other actors.

This view has been expanded to consider the context and role of uncertainty and ambiguity (March, 1991). Rationality is viewed as bounded by the knowledge that the decision maker may or may not have the limits on their ability to foresee consequences and imagine options for action, and the impact of competing wants and opinions within their organization, and the environment in which they are operating (Simon, 2000).

**Biases and Heuristics**

Research into decision-making has evolved to move from the theoretical to descriptive studies of how decision-making occurs in real-world settings. A critical factor in decision
making by entrepreneur leaders is the reliance on biases and heuristics. Heuristics are the procedures for problem solving whereby the decision maker recognizes a pattern in the situation faced and applies rules of thumb to the problem solving. Heuristics are substitutes for information searches, analysis, and calculated decision making (March, 1994).

When compared to managers in large organizations, entrepreneur leaders rely on the simplifying strategies of biases and heuristics to yield acceptable, albeit imperfect, decisions in an environment of uncertainty and complexity. Biases and heuristics are applied by individuals in decision making and explain the deviation from the concept of pure rationality. These can include decision rules, experiences, cognitive mechanisms, and intuition (Busenitz & Barney, 1997).

**System 1 and System 2**

Kahneman (2003) took a broad look at current thinking on choice and decision-making for which he was awarded the 2002 Nobel Prize in Economic Sciences. He popularized the concepts of System 1 and System 2 thinking in his 2011 book *Thinking Fast and Slow*. The two-system concept represents two modes of cognitive thinking. System 1 is the intuitive mode as it operates quickly, implicit (without introspection), and governed by habit. System 2 is a controlled mode, which is slow, requires mental effort, and is consciously monitored and associated with subjective experiences. System 2 is a more conscious process and bears a resemblance to the Classic Model of the rational individual. Because the capacity for mental effort has limits, System 2 processes can disrupt each other, slowing response. Further, System 2 monitors System 1 and can serve as a check against impulsive action (Kahneman, 2011).
Intuition

Intuitive thinking can be powerful and accurate when associated with high skills and experience. Intuition is a function of accessibility – the thoughts that come to mind spontaneously under the appropriate circumstances, such as a stimulus. This is the mental process that is occurring when people speak of making judgments based upon their gut or intuition. The quality of an intuitive decision – how good a decision it is – is associated with high-level skills that are acquired through practice. That is, the more experience one has, the higher their skill level and the more accurate and effective is the individual’s intuition (Dane, Rockman, & Pratt, 2012). Highly skilled individuals perceive certain attributes of a situation and organize information in a productive way to evaluate. Some of the attributes include physical perspective, size, sound, and similarity to experiences (Kahneman, 2003).

The concept of System 1 and System 2 and intuition set the stage for NDM. The original research that led to the development of NDM was with fire department commanders, where time is of the essence and the commanders that only one option came to mind and was executed. When interviewed, the commanders all insisted that only one option came to mind and they adjusted tactics while fighting the fire (Kahneman, 2003).

Naturalistic Decision-Making (NDM) Theory

NDM is a step in the evolution of our understanding of decision-making. The critique of the classic model is that decisions are not made in isolation, such as in a research lab setting. Naturalistic decision-making (NDM) has emerged as a leading model and theory since the first organized conference in 1989. Klein (2008) reviewed the development of NDM as a descriptive model that focuses on humans who use their experience and knowledge in decision-making.
and recognizes that the setting of the decision and decision-maker impact the decision-maker. Researchers found that, in actual situations, people were relying on their prior experience to categorize a situation and choose a course of action (Klein, 2008). NDM indicates that decision-making is driven by the individual’s experience and knowledge in making decisions.

Orasanu and Connelly (1993) made a significant contribution to the development of NDM by identifying eight factors that characterize decision-making in a naturalistic setting: ill-structured problems, uncertain dynamic environments, shifting and ill-defined or competing goals, action/feedback loops, time stress, multiple players and organizational goals and norms. When analyzing a situation from an NDM perspective, their factors are a valuable tool.

Klein, Klein, Lande, Borders, & Whitacre (2015) conducted research under a U.S. Army contract to look at decision making by experienced decision-makers under conditions of extreme time pressure and where lives and property were at high risk. This project studied fire department commanders and was the basis for what was named the recognition-primed decision model (RPD). For this study, the protocols of urban fire ground commanders were obtained through detailed interviews of the actions by the commanders (Klein et al., 2015). The accounts of the 32 cases presented a decision-making framework that relies on the commander’s prior experience in making and modifying decisions. In most of the decision points of the cases, the commanders insisted that they were not generating options and finding an optimal choice. Rather, they would classify the situation and order a prototype response, modifying as needed for the specifics of a situation (Klein et al., 2015). The RPD model relies on (1) situation awareness, (2) satisficing rather than an “optimal” decision, and (3) serial simulations and evaluations of options by experienced decision-makers to determine what will
work (Klein, 1993, p. 144). In the initial study, the commanders reported that decisions were being made in as little as 30 seconds (Klein, 1993).

The RPD model (Klein, 1993) was of particular interest for this dissertation research study. The decisions examined were not time urgent nor impacting life or property safety. The supposition going into the study was that Founder-CEOs would seek more information and counsel to compensate for gaps in their experience. In fact, the participants reported that they did not do wide exploration but gathered information quickly and made a decision.

NDM goes beyond heuristics and biases by providing rich insights that help to understand the complexities of human decision making. The research has evolved in several areas, including exploring the impact of complexity on decision making and how experts use cues from situational contexts (Gore, Flin, Stanton, & Wong, 2015). NDM is typically employed in situations where problems are not well structured, conditions are uncertain and dynamic, multiple players are involved, and the situation – and the problem – may be evolving as the decision and decisions are being made (Shattuck & Miller, 2006).

NDM emerged out of the desire to describe how people use their experience and expertise to actually make decisions in real-world settings and situations. Classic theory and its derivatives sought to describe and prescribe optimal decision-making paths. NDM goes beyond heuristics and biases and intuition by providing rich insights that help to understand the complexities of human decision making (Klein, 2008). The research has evolved in several areas, including exploring the impact of complexity on decision making and how experts use cues from situational contexts. (Gore et al., 2015).
Leadership competencies develop over time, and career experiences help in this development as the individual encounters more complex and novel problems (Katz, 1974; Kempster & Cope, 2010; Mumford, Zaccaro, Harding, Jacobs, & Fleishman, 2000). As people move through their careers, conceptual skills become more important. Confronting and overcoming challenges and problems that are novel and non-routinized are a rich source of learning, and entrepreneurs have said that there have been seminal learning periods that significantly influenced their personal development (Cope, 2005).

Earlier NDM research examined people who were expert as they operate under conditions of extreme stress and where the outcome impacts lives and property. The seminal paper studied the decisions made by 26 fire ground commanders in urban fire departments whose experience ranged from 12 to 37 years (Klein, Calderwood & Clinton-Cirocco, 1986). In their interviews, the commanders insisted that they recognized the situation as similar to something they had experienced before and acted without a conscious process of identifying and selecting alternatives. In their findings, the researchers suggested that the commanders possessed a high level of situational awareness which enabled them to recognize and categorize a situation, and an appropriate response (Klein et al., 1986).

There have been initial attempts to apply NDM concepts in other situations where expertise and experience influence improved decision-making, particularly in situations of uncertainty, unclear goals, and dynamic environments, including: law enforcement, aviation, healthcare and other fields. Nara (2010) presented a dissertation that explored how chief airline cabin crew members made decisions on the spot when they had unexpected problems. The participants all stated that upon realizing that there was a problem the first solution they
identified was successful in solving the problem. This pattern is consistent with NDM theory in that there is recognition of the problem, a solution comes to mind quickly and is implemented. Here, too, experience leads to better decision-making – chief cabin crew members would have experience and training which would be drawn on in their decision-making. Klein et al. (2015) conducted a study to understand why and how police officers and military personnel can interact with civilians to gain goodwill and reduce antagonism. The researchers conducted critical decision method interviews with police and military personnel who had been identified as Good Strangers to try to understand what enabled them to work well with civilians. The RPD model was then applied, which postulates that recognizing a situation involves four aspects: Cues to monitor, expectancies, plausible goals, and potential courses of action. Klein et al. (2015) suggested that there is a Good Stranger (GS) framework that seeks to build trust. Warfighters and police officers with this frame seem to interpret situations differently than those who lack the GS frame and will notice different cues, form different expectancies, generate different goals, and consider different courses of action than those who lack or do not use a GS frame. A follow-on study was able to train the Good Strangers mindset and claimed a 20 percent improvement in trust. The researchers were exploring ways to apply their research and provide training to military and police personnel (Klein, 2015).

Computer-based simulations were used in the Good Stranger training, and this tool holds promise in developing and improving expertise that is fundamental to NDM decision-making theory. Hall (2010) established a correlation between a computer-based simulation training program and a positive effect in the proficiency of decision making of fire ground
incident commanders in the simulated environment. A simulated environment is attractive because firefighters are not exposed to the dangers of fire training exercises.

NDM has been applied in other studies of police officers and the use of force. Situations where police officers use force evolve in rapid, dynamic and stressful situations, a setting which fits well into the NDM framework. Using role-played training scenarios in the use of force, researchers found that the trainees exhibited a reliance on intuitive decision-making; however, the trainees also exhibited recognizing patterns and other characteristics of recognition-primed decision-making model, which is at the core of NDM (Hine, Porter, Westera, Alpert & Allen, 2018). The trainees who participated in this study were deemed to have moderate expertise, as they had completed all of their formal training but did not yet have the field experience. The researcher’s conclusions, which added evidence from other studies, was that intuitive and analytical thinking was going on in parallel. In the scenarios enacted in the research, the trainees were using an intuitive decision-making style. One important finding was that scenario-based training and debriefing in a safe environment is an aid in developing expertise in decision-making in use of force situations. This kind of training helps to develop the memories of patterns that individuals remember and apply in new situations – the more experience, the more patterns that are stored and can be applied - i.e. recognized – and relied on in decision-making.

Okoli, Weller and Watt (2016) enhanced the Recognition-Primed Model in their study of firefighters by developing the “information filtering and intuitive decision model (IIFD)”. The intuitive and analytic modes of thinking function in parallel. The intuitive mode ensures that operators have good awareness of their surrounding environment providing important
informational cues for the analytical mode which consumes more mental energy and is described as “slow” thinking (Kahneman, 2011). This information search mode is a fast assessment of the situation generating multiple cues that are being filtered to consider the more crucial cues that impact the decision. For example, the fire commander is seeking information on what is burning, has the fire spread, type of construction, are people in danger or in need or rescue, is sufficient and the correct apparatus on scene, and so on. An important contribution of this model is showing how in making rapid decisions the decision-maker distinguishes between additional information that will impact the decisions and actions and information that is not relevant.

NDM was applied in a study of anesthetists in Great Britain and examined how and when they would use their expertise to break rules (Phipps & Parker, 2014). In certain situations, the anesthetists would break a rule if they believed that the course of action was the right thing to do. From the perspective of NDM, these rules deviations were an informed choice in response to a work situation. The researchers identified a set of values that guided the decision-making that might not align with the rules. The anesthetists saw themselves as professionals with the expertise to apply in relying on or deviating under certain conditions, such as to ensure the best interests of their patients (Phipps & Parker, 2014).

Future paths for study in NDM could involve researchers looking at how individuals progress from novice to apprentice to journeymen to expert. This area is critical for training and development programs that accelerate this process as companies are pushing the responsibility for quick and accurate decision making down the hierarchy (Dane et al., 2012). A related area of study is mentoring, such as identifying individuals who could become good
mentors and those who have the potential to become experts. The third area for further exploration is examining NDM in other cultures (Hoffman & Klein, 2017).

Entrepreneurship and Founder-CEO

The field of modern entrepreneurial thought traces back to Schumpeter (1939) who viewed entrepreneurs as individuals who were involved in innovation. Research into entrepreneurs paralleled leadership research by examining personality characteristics such as traits, attitudes, and behaviors. The focus on the individual expanded as early research looked at biographical and psychological factors such as education, managerial and prior entrepreneurial experiences, and the entrepreneur’s need for control and for achievement. Much as in studies of leadership, the studies were not conclusive or did not demonstrate correlations.

Scholars have wrestled with creating a definition of entrepreneurship. The common element is the entrepreneur, who may be an individual or may be a small group. Approaching the field from a psychological perspective, Shaver and Scott (2002) proposed that the essential ingredient in studying any phenomenon is the emphasis on the individual person. Two aspects of the person are examined: the contents of the mind, defined as the process of an individual interacting with the world and the exercise of free choice. In sum: person, process, and choice.

Stevenson and Jarillo (1990) proposed to define entrepreneurship as “a process by which individuals – either on their own or inside organizations – pursue opportunities without regard to the resources that they currently control” (p. 23). Within an organization, the attitude of the individual is the critical factor in determining the level of entrepreneurial behavior and the rate of success.
In their seminal article, Shane and Venkataraman (2000) brought the concepts of the individual and the ability to pursue opportunities together by suggesting that entrepreneurship represents the intersection of two paths: (1) the presence of attractive and potentially lucrative opportunities, and (2) the individuals with the willingness and capability to pursue and exploit them. The capability to effectuate the individual decision to exploit an opportunity involves gathering the resources needed, such as access to financial capital, strong ties to resource providers for the acquisition of needed resources and possessing useful information from previous employment.

Organizations are the mechanism to exploit an opportunity. Organizations can create conditions for individuals to coordinate and integrate knowledge and effort to produce products and services. When the individual-opportunity intersection has occurred, the individual – the entrepreneur – will then create the organization to apply knowledge to effectuate a response that will serve the discovered need in the market (Grant, 1996).

For this study, the definition of entrepreneurial leadership offered by Renko, El Tarabishy, Carsrud, and Brännback (2015) is used: “entrepreneurial leadership entails influencing and directing the performance of group members towards the achievement of organizational goals that involve recognizing and exploiting entrepreneurial opportunities” (p. 55). This statement brings together the concepts of opportunity recognition, opportunity exploitation (which includes gathering resources), and leadership as an influence into a succinct concept that can be understood and applied.
Entrepreneurship and Leadership

Researchers have looked at the common threads between entrepreneurship and leadership. Cogliser and Brigham (2004) focused on the process of influence as leadership and proposed that there is a theoretical and empirical overlap between leadership and entrepreneurship in four specific behavioral areas: vision, influence, leading in the context of creativity and innovation, and planning.

Entrepreneurial leadership is a differentiated leadership style that is exemplified by the focus on practicing and promoting the entrepreneurial behaviors of opportunity recognition and exploitation (Renko et al., 2015). Gupta, MacMillan, and Surie (2004) characterized the same approach as scenario enactment and cast enactment. Scenario enactment is the leadership challenge of envisioning possible opportunities and cast enactment entails gathering people with the resources to exploit the opportunity. Scenario enactment is expressed through the business plan, goals, and path of the business and cast enactment is expressed as the people and skills that are recruited and hired (or contracted) for the business.

Leadership Practice

This study examined decision making as a leadership practice that a leader will take as part of their role and position as CEO of an organization.

Mumford, Zaccaro, Harding, Jacobs, and Fleishman (2000) advanced the concept that organizational leadership involves problem solving. Leadership problem solving differ from other types of problem solving in that the complexity, conflict and change characterization of organizations ensure that the problems presented are ill-defined and ambiguous. The problems are often novel, being a new type of problem for the organization and perhaps the
leader. In their decision making, leaders are often in situations where time is short, so deeper analysis is foregone in order to resolve the situation presented to them in a short time frame.

The Mumford et al. (2000) study was based on a project for the U.S. Army and the Department of Defense to test and develop a comprehensive theory of leadership based on problem-solving skills in organizations. The study sample was over 1,800 Army officers holding rank from second lieutenant to colonel. The skills-based model of leadership relates to the leader’s knowledge and skills to the leader’s performance (Northouse, 2013; Mumford et al., 2000).

Organizational leadership is a cognitive model that leadership depends on the leader’s ability to formulate and solve complex, novel, and ambiguous social problems. The model has five components: competencies, individual attributes, leadership outcomes, career experiences, and environmental influence (Mumford et al., 2000). Katz (1974), Kempster and Cope (2010), and Mumford et al. (2000) all suggested that leadership competencies develop over time and that career experiences help in this development as the individual encounters more complex and novel problems. As people move through their careers, conceptual skills become more important. Confronting and overcoming challenges and problems that are novel and non-routinized are a rich source of learning and entrepreneurs have said that there have been seminal learning periods that significantly influenced their personal development (Cope, 2005).

**Decision Making as a Leadership Practice**

Fundamental to the practice of leadership is making good and timely decisions. Understanding how decisions are made in an organization – the process, or rules – is central to
understanding the behavior of organizations (Vroom & Jago, 1974). By understanding the process, we can understand how decisions are made.

Mintzberg (1973) studied a small number of CEOs and identified three primary and common role categories: interpersonal, informational and decisional, and within each category a set of roles. In the decision-making role, the leader has the formal authority and the major role in decision making. The leader has access to information that others do not and has the authority to commit to strategy and action. For an entrepreneurial organization, this capability and authority determine the fate of the organization, as resources and resiliency are limited.

An organization is brought to life by the behavior and actions of its leaders and managers. Gartner (1988) offered a pivotal paper that reviewed prior research and argued that the better question for researchers was to look at what entrepreneurs do. In Gartner’s (1988) view, the primary phenomena of entrepreneurship are the creation of a venture and the individual is viewed in terms of activities undertaken to enable the organization to come into existence. For this study, associates encompass anyone whom the leader consults or speaks with, formally and informally, in decision making, including top management team, employees, investors, and formal advisors. Only decisions that were not delegated were examined.

Decision Making and the Entrepreneur

Decision making is the most practiced function of a leader and is both strategic and tactical, ranging from hiring to sales to product development. In the entrepreneurship phase, the organization is characterized by a smaller staff, a loose division of labor and simple structure, and has leadership and power centered on the founder. The relationship between
the founder and the followers is personal, as the founder will be more involved in day-to-day operations (Mintzberg, 1989).

In an entrepreneurial organization, decision making is often new ground, as a young firm lacks established practices (policies and procedures) and there is no taken-as-given environment (Shepard, 2011). These decision processes are unstructured in that the process is not predetermined, such as by formal policies and procedures or by precedent and are in a form that may not have been encountered before within the organization (Mintzberg, Raisinghani, & Theoret, 1976). The decision-makers try to act in a rational manner but operate with limited information and in ambiguous situations. The uncertainties may be lessened by gathering additional information (March, 1991). Information gathering may include seeking advice and insights from others inside and external to the organization. This kind of information gathering was an important question and focus for the participant interviews.

Vroom and Jago (1974) viewed decision-making as an information processing activity. Most importantly, decision-making was viewed as a social process that takes place among people rather than within one person. When presented with a significant decision, the decision maker has several options as to how to proceed in defining the problem and possible solutions. When choosing the degree of involvement of others in a decision, Vroom and Jago (1974) described this action as an autocratic or participative behavior rather than a leadership style. In a situation where the decision is viewed as highly structured and subordinates are likely not to oppose the decision, managers are more likely to make the decision individually. Where others may have information to share or where acceptance is not assured is where the manager is likely to exhibit participative behavior.
Vroom (2003) built on prior research to look more closely at the decision-making process, specifically the role and involvement of the leader’s subordinates. Five decision styles were identified ranging on a scale from deciding by themselves to the opposite end of the scale by delegating the decision-making task. The five styles are; decide, consult individually, consult group, facilitate, and delegate. To decide individually, the decision-maker believes that they possess sufficient information or where consultation is difficult or not possible. At the other extreme is delegating, where the group makes a decision within some prescribed limits. In the middle is consulting the group, where there are significant decisions to be made, where disagreement is possible, and where both the individual and the group possess knowledge. In a consult group style, the problem is presented to the group for their suggestions and judgment, but the decision is made by the leader.

**Decision Making in Practice**

Decision making is a core function of management; in fact, by understanding the decision-making process, one can understand the behavior of the firm. The framework for this study emerges from three streams: decision theory, the nature of entrepreneurship, and the nature of the entrepreneur-founder. Here, decision theory is placed in the context of the operating environment of an entrepreneurial stage organization (Flamholtz & Randle, 2012). The characteristics of a founder who is the leader and CEO of the organization lead to differences in the decision-making process that would be found in other organizations.

The attention devoted to a particular decision is dependent upon many factors: other claims on the time and attention of the decision maker and the perceived impact of a decision on other areas of the individual or the organization (March, 1991). The decision-making
process is often about many things that are not related to the decision. The process is symbolic, by involving people in a decision, their thinking and analysis, and concerns are considered. Further, the decisions matter to the organization. Often the process is more significant than the outcome (March, 1991).

One critical modification of the classic decision theory is that decisions are the means for an organization to enact a choice among competing objectives and preferences. When decision making is examined from the perspective of an organization, the decision-making process becomes more complex. Organizations are but a congregation of individuals within a structured framework to achieve a purpose. These individuals may have differing objectives and priorities and the decision-making process is the means of resolving the conflict. The individual actors use information as a means of affecting the decision and an actor who is viewed as trustworthy enhances the value placed on the information that they bring forward to influence and persuade a decision. The trustworthiness is reflective of the relationships among the actors, which are a function of the hierarchy and the network of relationships (March, 1991).

Decision makers experience continuous learning as they gain experience as individuals and as part of the organization. Decision makers learn from others, so rules can develop within an organization and develop into rules and a normative behavior among decision makers (March, 1991). Decision-making theory views the entrepreneur as a rational actor, by which they interpret their experiences and the situation to predict future consequences from their decision (March, 1994). In an entrepreneur stage organization, authority and decision making
will be concentrated in the CEO. Decision making will be flexible, more personal, and at a rapid response (Mintzberg, 1989).

Expanded decision-making theory considers the uncertain situation and the biases and heuristics of the decision maker in their process (Simon, 1955). Entrepreneur founders are making decisions for their organization within this context. Entrepreneurs operate in a novel setting and are using heuristics to reach decisions (Shepherd, 2011).

**Entrepreneurial Stage**

The entrepreneurial stage organization is in the first two of the four stages of organizational growth and is characterized by “informality, lack of systems, and a free-spirited nature” (Flamholtz & Randle, 2012, p. 39). An entrepreneurial organization is one that is pursuing new opportunities, regardless of the resources controlled (Stevenson & Jarillo, 1990). The level of uncertainty is high, as the organization and the market lack history, market information, and performance information. The product or service is new to the market and may represent an innovation that is disruptive. (Busenitz & Barney, 1997).

**Deficiencies in Evidence**

This proposed study is grounded on two streams and the integration of the two: (1) entrepreneurial leadership and (2) decision-making theory.

Entrepreneurial leadership remains an under-researched field (Cogliser & Brigham, 2004). From an academic teaching perspective, there are no textbooks focused on leadership during the post-launch to a 5-year milestone. Individual Founder-CEOs start their businesses with variations in their mix and weighting of skills and competencies. As their businesses mature and grow, their expertise will develop, presumably at different rates depending upon
the specific experiences and learning of the business; thus, a research question would be to look at the development of knowledge and skills as a new venture passes through the entrepreneurial stage. At the time of this writing, a team from Harvard Business School (HBS) have launched a study of Harvard Business School alumni to look at the skills and behaviors of entrepreneur leaders, based upon self-assessments by the entrepreneurs and those around them (HBS Working Knowledge, 2016).

Decision making has been a topic of research in several fields. Much of this research explores decision making under conditions of uncertainty. Decision theory has evolved over the past several decades to account for the cognitive limitations of humans, to account for risk and uncertainty, and to recognize the importance and criticality of experience and expertise in decision-making. Topics have examined if entrepreneurs think differently, the impact of an ambiguous context, and organization impact decision making (Shepherd, Williams, & Patzelt, 2015). Much research has examined the decision to engage in entrepreneurship, typically by starting a new venture. Further, strategic decision making at later stages of a company is similar to the decision to initiate a venture (Gibcus, Vermeulen, & Radulova, 2008). The tone of the research presumes that when examining decision making by entrepreneurs the decisions are strategic in nature. This researcher for this dissertation made no such assumption; rather, the researcher examined decision-making by Founder-CEOs as they pursued the growth of the company they were leading.

Underlying the classic decision-making model is the economic concept that people are rational”. In this model, people are assumed to have perfect information, identify and analyze all alternatives, and will make choices in their actions that will maximize their satisfaction.
Classical theory is a prescriptive model that addresses the question of making decisions correctly. However, following the right procedure does not necessarily lead to the correct decision (Beach & Lipshitz, 1993).

Classic decision-making theory has been the subject of substantial research and has indicated that human behavior is not consistent with the theory (Beach & Lipshitz, 1993). Simon (1955) presented a seminal paper proposing significant revisions and expansion of the model that recognized that humans have limitations and do not behave in a manner that is consistent with the perfection of rational. The most significant constraint is that humans have physiological and psychological limitations on their ability to gather and analyze information. Humans cannot and do not identify all possible alternatives, as to analyze each alternative would exceed the capabilities of the individual. Further, Simon (1955) suggested that real-world problems need not follow the prescriptive model of classic theory but can be tackled sequentially and the decision maker can draw on their experience (Lipshitz, Klein, Orasanu, & Salas, 2001).

In their review article, Shepherd et al. (2015) cited the need for research in entrepreneur decisions, specifically research that takes a process perspective. The purpose of the study is to explore how Founder-CEOs experience decision making in entrepreneurial organizations as in the entrepreneurial stage of development. The study is a descriptive study that lays the foundation for further study of decision-making among Founder-CEOs and for working with Founder-CEOs and leaders to improve decision-making processes in fledgling companies.
Summary

This chapter presented a discussion of the literature that supported the research, analyses, and conclusions for this study. The focus of this dissertation is decision-making and the principal theories that evolved into the NDM theory that served as the theoretical framework. The key literature tracing the evolution of decision-making theory from classic theory to NDM is presented and discussed as to how the recognition of expertise and experience has influenced our understanding of decision-making and the application of NDM as the theoretical framework. The following chapter will present the methodologies used for this research study.
CHAPTER 3: METHODOLOGY

The methodology for this dissertation is a qualitative study using a narrative research approach. Eight Founder-CEOs in the Southeastern United States were interviewed to tell their story of specific experiences related to decision making as the Founder-CEO of their emerging companies.

Narrative research is a research methodology that represents and interprets the experiences of others. The study explored the recollections of a significant operating decision made by the study participants. In the open-ended, guided question format of the participant interviews, the researcher had the opportunity to ask follow-up questions to attempt to minimize or account for certain problems in recall questioning. By asking open-ended and follow-up questions, the interviewer is engaged with the participant in telling the story, interpreting, and constructing meaning (Riessman, 1993). In this study, interviews were introduced as and conducted as a conversation as opposed to a strict question and answer interview. With this method, topics and events that added context and enhanced the richness of the story were explored.

Narrative research has been applied in entrepreneurship research; in fact, a 2007 special issue of the Journal of Business Venturing was devoted to this methodology (Gartner, 2007). Gartner (2007) suggested that narratives are a powerful tool for what entrepreneurs “say about what they do” (P. 616). In academic settings, narratives are shared to demonstrate the why and, arguably, the how of entrepreneurship. Through the narrative research methodology, we can examine the effects of entrepreneurship and theorize beyond the story – that is, elicit lessons that readers of the story learn from and integrate into their own thinking, behaviors,
and activities (Fletcher, 2007). By telling their stories, entrepreneurs learn and enable a richer understanding of what they do, how they relate to others and gain experience. (Johansson, 2004).

Research Design

The researcher utilized an inductive research design for this study. The participant sample elicited the perspectives of a group who hold similar positions and functions of their common job responsibilities as founder and CEO of an entrepreneurial stage organization. The experiences being examined were tied to a specific organization but is, in effect, the larger unit of analysis that as a research practice may mitigate the problem of relying on one source, i.e. one company. In this study, a group of eight individuals and their companies comprised a larger group for analysis. The study looked for patterns and commonalities across the participants, each of whom is in a different company, each representing a different source for data (Podsakoff & Organ, 1986).

Sample Design - The Region

The Southeast region of the United States has continued to grow as lower wages, relatively inexpensive land and housing, and weather attracted companies and jobs and workers followed. Several smaller cities in this region are also home to small, but thriving entrepreneurial communities, attracted by low business and living costs, relative ease of getting around, and ease of communication with larger markets for investment and customers. These cities include Raleigh-Durham and Charlotte, NC, Greenville, Columbia, and Charleston, SC, and the large city of Atlanta, GA. Leading research universities such as Duke, Emory, University of North Carolina – Chapel Hill, and the University of South Carolina provide some of the
intellectual power and companies such as Boeing, BMW, Bank of America, Delta, Coca-Cola, and others are major employers.

The selected MSA has a population of approximately 750,000 and is home to an estimated 280-300 tech-related companies, including several which are publicly traded. The center city government houses a 20-year old economic development project that supports tech companies, there are several incubator and accelerator locations and programs, several angel investor groups, and several entrepreneurial networking groups such as Startup Grind, 1 Million Cups and Tech After 5, The MSA is frequently designated as an attractive city for recreation and culture. There is an entrepreneurship center in one of the liberal arts colleges in the MSA, three MBA programs and programs in computer science. However, none of the higher ed institutions are general research universities of the kind that are found in the Silicon Valley, New York, Boston and Austin centers. These are some of the essential elements for a strong entrepreneurial ecosystem and therefore one where knowledgeable participants were able to be recruited for this study (Isenberg, 2010).

**Participant Selection Criteria**

A purposive sampling strategy was used. In order to offer information that would contribute to an understanding of the research topic, the interview subjects possessed sufficient education, business experience, and self-awareness to recall events and details in a manner that would comprise a rich story for analysis and findings.

The sample size is appropriate for what is a first deep exploration of this topic from a process perspective. For this study, eight participants were ultimately interviewed. The participants were:
1. Founder or co-founder of an entrepreneurial, technology-enabled company with a product on the market.

2. Currently, CEO of the organization that they founded or co-founded.

3. The company was headquartered in the Southeastern United States.

Recruitment

In the planning stage for this study, the researcher compiled a list of potential participants, based upon his own relationships and his knowledge of participants whose companies and products appeared to be interesting. Web searches were conducted for these potential participants. The researcher prioritized the list to those he knew, at least casually, or believed could obtain an introduction. The researcher initially approached potential participants through their own network of people that they knew or were aware of. This method elicited about half of the participants. At a meeting of an entrepreneur community group, the organizer (1) offered to be interviewed and (2) introduced the researcher to two people who were on the potential participant’s list. All three became participants.

Potential participants were approached in person or through an email that offered a succinct description of the purpose of the study and the participant’s role. Once the individual indicated that they were receptive to participating, a follow-on email was sent that constituted the formal invitation to participate. In almost all cases, scheduling interviews were handled through email and the participant’s calendar software.

Participants

All eight participants met the criteria discussed above. In one case, an individual functioned as the CEO alongside their business partner who held the formal title. Seven of the
participants were male and one was female. Two were in their 20s, four in their thirties and forties, and two were approximately 50 years old. All had post-secondary education and only one participant reported significant corporate business experience. In Chapter 4, a description of the companies is presented as part of the contextual analysis.

**Data Collection**

All but one interview was conducted in a private setting at the participant’s office; for one, a conference room was borrowed. All interviews were recorded and transcribed using Rev.com. The contents of the interviews remain confidential and are not disclosed in an identifiable manner. There were no identifiable ethical or human subject protection issues.

**Methods**

The methodology for this dissertation is a qualitative study using a narrative research approach. Several tools were used to gather data for this study including document review, observational field notes, semi-structured interviews, and triangulation. The following sections present information on each data collection tool that was utilized in this study.

**Document Review**

The companies associated with the participants are private, closely held companies, and as such, there is little public information generally available. The researcher did conduct an Internet search for each participant and their company, reviewed their Linkedin profile if available, and specifically searched the TechCrunch and Bloomberg databases for accessible information. A document review helps to provide a backdrop for the setting in which the participants were operating and provides background information on the company, the
products, and leadership (Watkins, 2012). The document review also helped to inform the contextual analysis presented later in Chapter 4.

**Observational Field Notes**

Observational field notes were captured when the researcher met with each participant. Factors observed included the overall office location and setup and Founder-CEOs interactions. These informal observations also inform the contextual analysis which provides a broad overview of the features of the city where the participants were located (Ritchie & Spencer, 2002).

**Semi-Structured Interviews**

An open-ended, semi-structured interview protocol and guide were used for interviews that were conversational in tone and experience. Semi-structured interviews are beneficial to qualitative researchers that need to prepare ahead of time. Semi-structured interviews can provide the researcher with qualitative data that is comparable and reliable (Cohen & Crabtree, 2006). For this study, the researcher had a list of probes to explore as the participant’s organically shared their stories.

**Triangulation**

According to Flick (2004), “triangulation of data combines data drawn from different sources and at different times, in different places or from different people” (p. 178). For this study, each participant was independent of the others, even when there were social and business relationships that brought them together. Thus, the interviews provided eight different perspectives and stories that were analyzed to identify common themes. As represented in the themes identified in the inductive analyses of the interviews, there was a
high degree of consistency in the participant’s stories and observations, further lending validity to the study.

**Data Analysis**

The interviews were recorded using the app from Rev.com and immediately saved and uploaded for transcription. The researcher read the interview transcripts at least once and made hand notes related to initial impressions of what was important to the participant in telling their story and the researcher identified key words relating to potential themes and codes. As necessary, the recording would be reviewed. At the conclusion of the interview phase of the study, when all eight transcripts were delivered, the researcher re-read all transcripts several times and continued to add and refine keywords for application as themes and categories. The next stage, based upon the multiple readings and notes and coding, was to write the narratives for each participant and the emerging themes table that is presented in Chapter 4.

**Trustworthiness**

Trustworthiness was initially established in the selection of participants, which was accomplished by a combination of the researcher’s knowledge and introductions made by known leaders in the entrepreneur community. Prior to the interview, the researcher reviewed the participant’s LinkedIn profile, conducted a web search for any articles about the participant and their company, and reviewed the company’s website, if available.

Interviews were planned for one hour in length, which ultimately turned out to be more than sufficient time. The interview settings were comfortable for the participant and free from distractions. All interviews were recorded and transcribed using Rev.com and participants were
offered the opportunity to review the transcription for accuracy. As warranted, notes were made during and after an interview. An outside expert reviewed a transcript for the coding and emerging themes.

The interviews were guided using a guided, open-response interview method. The interviewer sought to remain neutral in demeanor, and probed as deemed necessary to understand the process, the parties involved, and why certain actions were taken during the decision-making process.

Data Storage

The audio recordings and digital transcripts of the interviews are stored on a flash drive. Any hard copies of transcripts, notes, and such that are being retained is placed in a folder and together with the flash drive are stored in a file cabinet in the researcher’s home.

Protection of Human Subjects

Participation was voluntary and confidential to the study. IRB approval was obtained, all participants were asked to review and sign the IRB approved informed consent form and were given a copy.

Role of the Researcher

There are three considerations in my positionality: Personal demographics, business experience, and entrepreneurial experience. My personal demographic is a minimal source of bias as the participants have similar backgrounds in terms of class and education. I grew up in a suburb of New York City in a middle-class family and community. I have been married for 31 years and have two grown children. My undergraduate degree is from NYU and my MBA and MPH degrees are from Columbia University. My parents are both deceased: my father was a
retired CPA for a one-time Fortune 250 company and my mother was a beautician, later a full-time mother and then a religious school teacher. I am the youngest of four boys; All three brothers have been involved in the tech industry in different capacities and cities. One nephew is a successful entrepreneur who appeared on the “Shark Tank” television show.

For the past 24 years, I have not held a regular, full-time job. Whether these factors could significantly affect my work is unknown; however, I am very much aware of it. Since 2000, my career focus has been as an instructor in business and entrepreneurship for several colleges; I am a Professor of the Practice at Northeastern University and frequently teach as an adjunct instructor at Washington State University, the College of Charleston (SC), and Gratz College. Of specific relevance are the courses that I have taught in entrepreneurship and management, and I developed and teach a course in entrepreneurial leadership. Currently, I am Senior Advisor for Recruitment Partners, LLC (RP) and I am CEO of the company that is the 50% partner. In this role, I actively participate in strategic and key decision making with the organization’s CEO. My business background includes leadership positions in mid-sized but complex organizations such as hospitals and a Big 4 accounting and consulting firm. In these and other positions, I have been a decision-maker and have advised leadership on strategy and other critical decisions.

As an instructor, I have studied and taught decision making as a part of courses in leadership and organizational behavior, so I have a perspective as to how a decision-making process should work. As a consultant, I have conducted hundreds of focused, structured interviews as part of the data gathering process of client strategic plans. My experiences as a scholar were helpful in framing questions and in probing participants when interviewing them;
at the same time, I recognized the need to be cognizant of possible biases in analyzing responses.

To control for researcher bias, several steps were put in place as discussed under the section on trustworthiness. Given that the researcher has a background and interest in entrepreneurs and teaches courses in this field, the researcher intentionally designed the interview protocol which enabled the stories of the participants to emerge rather than using a structural model approach.

Limitations/Delimiters

This study was delimited by focusing on one small geographic region in the United States, by focusing on startups with Founder-CEOs, by focusing on a recent and signification operational decision, and by interviewing only eight such Founder-CEOs during the 2-month period of December 18, 2018 to February 19, 2019. For this study, the limitations are that the interviews represent one point in time, occurred at the end of year holiday period, and involved only a small group of startups and Founder-CEOs in one region.

Summary

This chapter discussed the narrative research methodology used in this study. A purposive sampling strategy was used to recruit eight Founder-CEOs of technology-enabled companies located in smaller cities in the Southeastern, United States. The participants were interviewed in private, confidential settings and a guided, open-response interview method was used. All interviews were recorded, transcribed, and subsequently analyzed. A document review and field notes were used as part of the data analysis process. Transcripts were hand-
coded and codes and themes were identified. In the next chapter, the researcher presents the findings from the study.
CHAPTER 4: FINDINGS

The purpose of this dissertation research study was to understand how founder-CEOs experience decision making as they transform from “founder with an idea” to “leader of a growing company” during the entrepreneurial phase of venture development. This chapter presents the results of an iterative analysis process based primarily on interviews with eight Founder-CEOs (participants) of tech-enabled startup companies (2-10 years in operation) from the Southeastern region of the United States, along with any documents and notes taken.

This chapter is organized into four major sub-sections; first, a contextual analysis of the regional situation for the entrepreneurial activity explored; second is the entrepreneurial narratives crafted from the initial analysis process; third is the reporting of the key themes developed from an iterative coding and cluster process, and forth is the chapter summary.

Contextual Analysis for the Entrepreneurial Activity

This subsection reports on a descriptive analysis of the contextual analysis based on document review and informal observations. The eight entrepreneurs studied in this dissertation are situated in one city in the southeast region of the United States and all have a technology aspect to their business. The following sub-section reports on features of the region, features of the technology aspect, and features of the business arrangements of the CEO.

Outside of the startup centers of Silicon Valley, Boston, and New York, there are several cities where entrepreneurial communities are developing. In the southeastern United States, cities and regions such as the Research Triangle in North Carolina (representing Raleigh, Durham, and Chapel Hill), Atlanta, Charlotte, Columbia, and Charleston, South Carolina have
seen the growth of entrepreneurial companies. The metaphor “ecosystem” has been borrowed from biology to describe the set of interconnected and interdependent actors that are expressed as new and sustainable ventures. Research into entrepreneurial ecosystem is evolving and generating interest (Alwedalen & Boschma, 2017). The MSA selected for this study has a sufficient concentration of the essential elements of an entrepreneurial ecosystem to serve as the locale, as the participants were concentrated in or close to the central city. There is an existing cohort of entrepreneurs, government has invested in supporting and enabling entrepreneurs, angel investors are present and are investing in the region, and there are a number of formal and informal groups that link the entrepreneurs, including the Google-sponsored Startup Grind and 1Million Cups.

All eight companies are technology related in that technology was an important component or platform for their product. Six of the companies were aged four to five years; one was two years old, and one was less than a year old, a spinoff from an older company led by participant Baker. Three companies have Software as a Service (SaaS) products, one was a drone-based video production company, one a training and consulting firm that used online services to support and partially delivery their services, one helps non-technical founders build tech products, one relies on technology to manage its outsourced functions and for an online store, and one is a contract software developer.

All of the companies were small, with between four and about fifteen employees and contractors, both local and remote. One had a branch office in another city. Offices were open floorplan, most with no private offices. All had funding at varying levels in addition to the founder(s); only one had sought professional venture capital investments while others were
funded by individual and angel investors, the state government’s startup investment arm, and family. The companies tended to be less formal in their structure and operating functions, such as minimal if any formal policy and procedures.

Overall, these eight participants have similar contextual features that help unify an exploration of their decision-making experiences as they seek to transform from start-up to growth. The following sub-section reports on the individual narratives of each entrepreneur.

**Founder-CEO Narratives**

The following sub-sections report on the output from the initial descriptive analysis process involving transcript review, re-listening to audio-tapes, document review, and review of any notes captured during or following the interviews.

1. **Serial Sam:** Serial Sam is a serial entrepreneur and startup investor who has also been very active in the startup and business community. The office area is open with one private conference room. Serial Sam’s newest company, which was the focus of the interview, was launched as a spin-off from an existing company in which Serial Sam was an investor. Participant Spinoff Sam is both a partner and investor in Serial Sam’s new company and Founder-CEO of the existing company. Serial Sam has frameworks for decisions, whether for the business or private investments. Serial Sam’s style is very much oriented towards speed - making decisions quickly, whether on things that Serial Sam knows about or is informed by others or delegating where others are more knowledgeable. The preferred communication method is verbal, and data is helpful. Serial Sam emphasized that if others are affected by a decision then Serial Sam will seek their opinion or buy-in. The decision under discussion was, given the current and
projected workload, whether to hire an addition programmer as an employee rather than continuing to use contractors. This was a critical decision for the growth of the company. While clearly the decision-maker, the decision to hire was based upon “building consensus among the other people that might have judgment there and striking very quickly.” “I have a saying which is ‘make a problem.’” The need was demonstrated, and it was felt that the current contractor was the right person to be hired.

2. **Spinoff Sarah**: This is Spinoff Sarah’s first startup company. Spinoff Sarah has prior corporate and foreign experience as Spinoff Sarah led a team of 600 developers in Costa Rica for a United States-based Information Technology (IT) consulting and development company. The company produces a Software as a Service program for nonprofit organizations. The presenting issue was cash flow issues, which Spinoff Sarah noted was in large part driven by staff salaries. The decision was to spin-off the software development employees into a new company. The problem identification, discussion, and decision emerged from a series of informal discussions that occurs every day between Serial Sam and Spinoff Sarah as business partners in the company. Spinoff Sarah mirrored Serial Sam’s style in that “We don’t have lots of debate and meetings typically about things...so, this is a good idea, let’s try it and we usually just do.” Spinoff Sarah and Serial Sam work in a common open office area about 10 feet apart, so discussion and decision-making are unstructured and informal. “We usually just kind of are brainstorming all day long about everything.” Regarding this company, Spinoff
Sarah stated that “I see my path and I know exactly how to get there and that’s what we’re gonna do but I want to show you that path and have you go, ‘yeah, I see it.’”

3. *Organic Olivia:* This is Organic Olivia’s first startup. Organic Olivia’s background is as a freelance photographer and as a media buyer for a large New York ad agency. This company produces a specialized food product that is sold through the company’s website and through retailers. Organic Olivia works out of a single room office and the contractors work remotely, including Organic Olivia’s spouse. The decision was whether to hire their first employee. “We’re now in that precipice of the time where we’re planning our budgets for 2020, adding in salaried employees.” Organic Olivia consulted with the three-key people in the organization, including during their weekly virtual meetings. Organic Olivia is clearly the sole decision maker; “I’m definitely collaborative with my [spouse].” Organic Olivia will solicit thought from the team, but in the end, including to Organic Olivia’s spouse, “I hear you, but this is what we’re going to do.”

4. *Marketing Millie:* This is Marketing Millie’s second startup. This company provides B2B consulting service by offering technology-enabled software and services. Marketing Millie has a partner, one employee, and is hiring another. Marketing Millie works in an open plan office setting within the office space of their first company. The decision discussed centered on a change in approach in marketing from based on networking to Linkedin based sales. Marketing Millie relies on a lot of metrics and daily *standup* meetings. One member brought up the idea to experiment with Linkedin, the data quickly showed that this was much more effective in generating leads and business, and Marketing Millie announced at a staff meeting that the transition would start to the new
method. “Yes, it is collaborative...I always am cautious of my own blind spots. And so I’m eager to get the input of other people.”

5. *Changing Chad:* This is Changing Chad’s first startup. Changing Chad holds the title of President and the co-founder holds the title of CEO. This company sells a managed service product to nonprofit organizations. There are two angel funds and about five individual angel investors in the company. There were a series of decisions in 2018 that led to focusing the product and hiring. One decision was to retain an overseas firm for development work. The key decision was to hire a full-time employee who is managing the daily business. This will free up time for the two partners to work on strategic issues. Changing Chad observed that his partner is “the most strategic leadership-driven individual I’ve ever met in my life.... [Partner] is just naturally talented.” “I’m the opposite. I thrive on the ground, running as quickly as possible. Collectively we’re an excellent team. [Partner] is always top-down, I’m bottom-up. We’re able to meet in the middle and figure things out.”

6. *Creative Carol:* This is Creative Carol’s second startup. The company is a video content creation service offering video only and drone-based video. There was a second partner who decided to relocate and left in early 2017, leaving Creative Carol in a solo position as owner. A contractor joined Creative Carol in 2018 to handle lower budget work. This company is now profitable, and Foxtrot made the decision to hire the first full-time person to free up time to devote to more interesting projects and to handle personal projects that are more creative. The new hire is primarily focused on outbound sales and their incentives support that task.
7. *Hiring Hailey*: Hiring Hailey is the youngest of the participants and is a co-founder of the company that helps non-technical founders build tech products. The office is a small open plan with a small private meeting area. Hiring Hailey’s narrative explored how the company was running parallel changes; getting their finances in order (including managing cash flow), pushing sales, and managing staff. The decision discussed was whether to hire one or two additional developers to meet the demands of new projects that had been sold. Decisions were made by the three partners together, usually beginning as a conversation between the two primary partners. They have developed their own spreadsheets to track new projects and the workload and timeline if a sale closes. For this and future hires, they wanted to be deliberate in their process and seek to hire outside of their personal networks, including writing a job description, putting the word out, and going through a more formal interview process. “This was a pretty major decision that had a lot of repercussions.” The decision represented a key step in growing the business and implementing a more disciplined process of financial planning, sales, and workload projections, and their hiring process.

8. *Boardroom Bob*: As an experienced serial entrepreneur, Boardroom Bob’s organization is larger in terms of staff, has more venture capital, and appears to have a more aggressive plan to scale and grow. Boardroom Bob’s narrative covers his interactions with venture capitalists, customers, his board, and his team – all whom he leverages as sources for his decision-making. The centerpiece of his current situation is around the decision to again seek outside funding necessary to “of course we’re growing…. it’s just a matter of how we’re going to do this.” Working with the board, the choice was
whether to scale down or to seek the needed funding to continue to scale up and grow
the company. Boardroom Bob described the daily morning meetings with the small
team of seven who “sit-around a table”, discussing various issues. It was in these
meetings that Boardroom Bob shared the funding goals relative to the scalability of their
software product. The hardest challenge was in working with the board and articulating
the potential for the company and the product. The board emphatically wanted
Boardroom Bob and the company to focus on the one product that is scaling and has a
“huge market.” “It doesn’t matter how much data you give...how much experience they
have.... they can give you ideas.” “People who are in it every day are the only ones who
really know the potential, who really, really know the market. And sometimes you can
verbalize it and you can quantify it.” “It’s sometimes hard to articulate that experience
up to a board or investor or someone who’s come from the outside.”

Emerging Decision-Making Themes

The following sub-sections report out on the key themes developed from an iterative
coding process from the individual transcripts and then a cross-source analysis to identify
emerging themes around the Founder-CEO decision-making experiences.

Founder-CEOs in these entrepreneurial stage companies led with an informal, loosely
structured management style. Most relied on frequent, informal stand-up meetings, often
once a day, as a tool to share information from and with staff. Working in open space,
information flows readily, so staff is at least aware of the company’s sales and financial health.
The participants were focused on a fairly narrow goal and decisions were made in that context.
For the decisions examined in the interviews, the precipitating event was often the current and projected workload and cash flow leading to the decision making.

Table 1 displays the output from the analysis. Each theme represents a blend of conceptual similarity of the codes and frequency when looked across each of the eight participants’ transcripts.

### Table 1

**Key Themes Developed from an Iterative Coding Process**

<table>
<thead>
<tr>
<th>Individual Codes</th>
<th>Themes</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decision point</td>
<td>Ongoing, free flowing ideas, discussion and action</td>
<td>“We usually just kind of are brainstorming all day long about everything”</td>
</tr>
<tr>
<td>Self-confidence</td>
<td></td>
<td>“For me...an idea pops in my head and I think it’s a good idea and I can see a path to the end of it, I’ll go do it.”</td>
</tr>
<tr>
<td>Focus</td>
<td></td>
<td>“we see what needs to be done and we get it done”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“we decided to focus on that problem set, and to really go back into customer discovery mode”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“when we recognize an issue, need for funding or overwork, then we explore options”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“The way we typically make decisions is collaborative, but we’re typically aligned in the vision” (referring to partner)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“Operationally day in and day out what we ... we're in such a make it or break it stage in the business that we just act. We don't strategize. We see that has to be done and we get it done.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“in the beginning we just put a finger in the air. And then as we just kind of grew, we started to understand our history and that's what we've done now”</td>
</tr>
<tr>
<td>Deliberate</td>
<td>Consultation and speed in the process</td>
<td>“Building consensus among people that might have a judgment here and then striking very quickly “</td>
</tr>
<tr>
<td>Quick</td>
<td></td>
<td>“The peers of that person need to have some buy-in” ....”</td>
</tr>
<tr>
<td>Informal</td>
<td></td>
<td>Running it by them is good, but not for permission, just for getting feedback”</td>
</tr>
<tr>
<td>Consultative;</td>
<td></td>
<td>“Make the problem”</td>
</tr>
</tbody>
</table>
Inform, communicate
affected parties
Team, employees, daily meetings, informal

“We have a number of key performance metrics that we review weekly”

“You wanna work with people that have strong convictions that are loosely held. Which means you stand for something, but you're open to being challenged, and changing perspective if you agree that there’s a better way.”

“We literally yell across the room”

“I always am cautious of my own blind spots. And so, I'm always very eager to get the input of other people. I am hypersensitive to the fact that I'm missing something, and you might be the one who sees that.”

“it is collaborative.”

“verbal, very verbal”

“Make lots of small decisions every single day”

“Daily morning meetings around a table”

“We have standups”

“a daily standup meeting”

Growth drives decisions

“Growth will be entirely tied up in adding new developers and quality ones” ... “critical for growth”

“I'm learning, and we actually did a really good job of it this time around with the company, actually putting together a plan. Going through that customer discovery process. Really sharpening that ax before we went to market.”

“It's the experience, or the training to make the decision, but within the left and right limits of what everyone's working towards. You've got the guardrails, you've got the purpose of the mission directionally, like we're all going to the same place”

“One, we were seeing enough signs, me, the board, that we have something that is scalable, that can be scaled. This, if you throw more gas on it, it will go somewhere. So, that was the decision point number one. Decision point number two is we were at the trajectory where we had at that point we were going to run out of money. So, can we scale sales fast enough to make, account for that? Do we cut staff which we could have but ...? Or cut costs in some sort in some fashion or do we raise more money?”

“Decision critical for the growth of the company”

Board, partners, advisors, mentors
Confer for advice and decision choice

“Amazing board---great connections...”
“The toughest part is people who have not done this specifically in the past. It’s hard to articulate back to them some facts”

“I am constantly cultivating mentors and advisors”

“I have informal mentors, I’d say. Small group of peers. It’s almost like a mastermind group but it’s two of my friends basically who are entrepreneurs as well and we meet for coffee every week and talk about our problems and a lot of the time we have similar problems that we need different applications for them.

“it was mostly me. Board member helped a lot with ...lots of introductions.”

### Cash flow

| Workload | Cashflow and workload are precipitating problem/issue |

“In a service-based company, sales are going to drive production”

“it’s managing that and so large part of that for us and I imagine most startups is salaries so in looking for ways to alleviate that so that we could make decisions not based on cash flow pressure, but based on what we wanted to do and where we wanted to go”

“We’re now in that precipice of the time where we’re planning our budgets”

The following sub-section expands the discussion on the emerging themes by blending together the findings from the inductive analysis and insights from the contextual analysis.

**Theme 1: Ongoing, Free-Flowing Ideas, Discussion, and Action**

This theme was evident in both the output from the inductive interview analysis and supported by the contextual analysis. As early-stage companies, the workforce is small and offices were open spaces with sometimes one private area. In such settings, there is a general awareness of sales and workload and the general state of the company. Participants reported that they held frequent, if not daily, informal meetings with all staff sharing and gathering information and input from employees. Further, the management and leadership styles are
informal befitting a young company. The following quote exemplifies this: “When we recognize an issue, need for funding or overwork, then we explore options.”

**Theme 2: Consultation and Speed in the Process**

This theme was evident both in output from the inductive interview analysis and is supported by the contextual analysis. All participants reported that they sought ideas, thoughts, and opinions from their staff through the many informal meetings that characterize these companies. For the situations examined in this study, the decision-making process may have been relatively fast and not formal, but there typically was a deliberate process beginning when the problem/issue was recognized, formal data and staff input was sought in the decision and implementation. The data gathering was also informal eschewing formal reports and presentations for verbal discussion and supporting work. The following quote exemplifies this: “Building consensus among people that might have a judgment here and then striking very quickly “and “Running it by them is good, but not for permission, just for getting feedback.”

**Theme 3: Growth Drives Decisions**

This theme was evident both in output from the inductive interview analysis and is supported by the contextual analysis. All participants expressed the goal of growing their company. All of the decisions were related to this overarching goal, and therefore decisions to hire additional staff revolved around the workload and cash flow to enable a hire, as opposed to using a freelancer on an as needed basis. The following quote exemplifies this, “One, we were seeing enough signs, me, the board, that we have something that is scalable, that can be scaled. Thus, if you throw more gas on it, it will go somewhere.”
Theme 4: Confer for Advice and Decision Choice

This theme was evident both in output from the inductive interview analysis and is supported by the contextual analysis. To some degree, all the participants worked with business partners, most with outside investors and a formal board, and/or had peers, informal advisors, and mentors. These formal and informal relationships were a frequent theme, as these individuals were a business partner in starting and running the company, a source and sounding board for ideas, and/or an investor and board member with the legal governing authority of the company. The following quote exemplifies this, “I am constantly cultivating mentors and advisors.”

Theme 5: Cash Flow and Workload are a Precipitating Problem/Issue

This theme was evident both in output from the inductive interview analysis and is supported by the contextual analysis. For entrepreneurial stage companies, growth is paramount, and cash is always tight and cash flow uncertain. Entrepreneurial stage companies grow by making investments in hiring staff to keep pace with the current and forecast workload and to grow capacity to be able to handle increasing sales. Increasing sales drove the workload demands and were noted frequently as the precipitating event that drove the decisions to hire additional staff and to seek additional investment capital. The following quote exemplifies this, “In a service-based company, sales are going to drive production.”

Overall, the inductive analysis and contextual analysis revealed some common features of the decision-making experiences of the Founder-CEOs. The participants were all working to grow their companies and the decisions examined in the interviews were being made to enable the company to expand capacity, increase marketing and sales, and continue to grow. All
participants reported that they had clear goals and a focus, so the precipitating events represented achievements that demanded that the company act to support continued growth. In several instances, for example, the sales projections drove the workload projections which drove the staffing needs and the company had to decide whether to hire a staff person.

The next sub-section provides a summary of the chapter.

Summary

This chapter reported the results of an iterative analysis process based primarily on interviews with eight Founder-CEOs (participants) of tech-oriented startup companies (two to ten years in operation) from the Southeastern region of United States, along with any documents and notes taken by the researcher. The primary research question guiding this dissertation focused on the operational decision-making experiences of Founder-CEOs as they transform from “founder with an idea” to “leader of a growing company” during the entrepreneurial phase of venture development. Five themes emerged from the coding process: Ongoing, free-flowing ideas, discussion and action, consultation and speed in the process, Growth drives decisions, Confer for advice and decision choice, and cash flow and workloads are a precipitating problem/issue.

All of the participants led early-stage companies that were small, pursuing strong growth. Action was a common theme, as participants spoke of moving quickly and keeping focused on the path to their goals. The common leadership style was open and informal, reflecting the small size of the companies and the open office and virtual work settings where relationships and interaction are close and constant. Decision-making was deliberate yet moved quickly and engaged the business partners and board, and employees were at least
aware of the situation and their knowledge and thoughts were welcome. When a problem or issue needing a decision was recognized, supporting data and staff opinions were gathered, often on a more informal basis, verbal as opposed to a memo or presentation. While decisions and actions may have come quickly, decisions were not made purely on intuition but resulted from deliberate steps to gather data and information, consult with others, consider options (if present) before making the decision. A common practice reported was to hold frequent if not daily Stand-Up meetings – short, informal meetings of the entire staff to share information and raise and discuss issues, problems/challenges, successes and so on. The small staff and close working quarters bred more informal sharing and an atmosphere where everyone is at least viscerally aware of the fortunes of the company i.e. How busy are we? Is there new business?
CHAPTER 5: INTERPRETATIONS, CONCLUSIONS, IMPLICATIONS

This chapter is a discussion of the findings from this dissertation study to address the research question: How do Founding CEOs of new ventures experience decision making as they transform from “founder with an idea” to “leader of a growing company” during the entrepreneurial phase of venture development? In this study, eight Founder-CEOs were interviewed in depth to examine one significant operational decision. In this chapter, conclusions that were derived from the interviews and analyses are discussed. From these conclusions, implications for practice as a scholar-practitioner are discussed in this chapter. Finally, a discussion of future research is offered. The final paragraph will be a summary and conclusion for this chapter.

Overall, the conclusions from this study reflected the application of the theoretical framework and literature for decision-making. The theoretical framework is Naturalistic Decision-Making (NDM), which is a descriptive model that focuses on the individual who uses their experience and knowledge in decision-making and recognizes that the setting of the decision and decision-maker impact the decision-maker. The field research was finding that, in actual situations, people were relying on their prior experience to categorize a situation and choose a course of action (Klein, 2008).

As discussed in Chapter 2, the supposition going into the study was that Founder-CEOs would seek more information and counsel to compensate for gaps in their experience. In fact, the participants did not do wide exploration but did pursue a deliberate process of gathering information quickly and making a decision. In the following pages, each of the themes identified in Chapter 4 will be analyzed in relation to the theoretical framework.
Concluding Statements for Entrepreneurial Decision-Making Founder-CEOs

The next subsection discusses the five concluding statements that emerged during the interpretation phase. These statements reflect insights captured across the various analysis outputs and connected with the theoretical framework and other relevant literature. For each concluding statement, a summary of the interpretive insight is shared and then followed by the connection with scholarship.

Concluding Statement 1

Founder-CEO decision-making process was quick but deliberate. The experience of the participants varied. Several were serial entrepreneurs, two had no management experience, and most had no corporate experience. Boardroom Bob, the one participant who had extensive corporate and leadership experience, was also the one who had more formal venture capital backing and a more formal board. This researcher’s perception was that Boardroom Bob was more disciplined in their approach to the organization while maintaining an open and consultative relationship with the company’s staff. Partners were consulted in all situations where they were involved with the business. In the case of raising investment capital, approval by the board and/or other investors would typically be required under the terms of the investment and the corporate charter.

A quick but deliberate decision-making process is supported by NDM in that the participant evaluates the situation and generates a single option that will satisfy the problem. Then the identified option is evaluated. Other theories, notably CDM, focus on defining the problem, while in NDM the focus is on the complexity and dynamics of the situation (Orasanu & Connelly, 1993). In all of the interviews, the participants appeared to want to share the
background story of their company so that the researcher would better understand the
dynamics, complexity, and history that preceded the decision point that was the focus of the interview.

Concluding Statement 2

Founder CEOs fostered informal, open relationships. All the companies were in the early stages of development and did not possess a framework of formal policies and processes for decision-making. As Boardroom Bob and other participants observed, working in a startup situation entails a degree of risk as the companies are in a continual mode of sales, managing workload and staff, and at times seeking additional investment capital (Orasanu & Connelly, 1993). These companies do not have the depth of continuing customer and cash flow to insulate against downturns and business cycles.

Several factors defining NDM support this concluding statement. NDM recognizes that information is incomplete and imperfect. While the decision-maker may have some or even most of the information, others may as well. This can include employees, and certainly partners and board members. For many of the participants, hiring was the significant operational decision they selected, and they discussed how important the hiring decision was to meet the growth and workload of the company and the impact of a new hire on the cash needs of the organization.

Concluding Statement 3

Growth and achieving goals were paramount for all Founder-CEOs’ operating decisions. For all participants, the decision to be made was precipitated by the situation and the goal of sustainable growth for the company. Applying a Recognition-Primed Decision Model (RPD)
(Klein, 1993), the participants recognized the situation they were in, such as more workload than the current staff could handle, and an obvious reaction, that being to either hire an additional person or contract with a freelancer.

The participants all operate in situations which are uncertain and dynamic. The participants spoke of the primary goal of growing the organization; however, the specific goals to achieve growth may well be competing, such as where to invest resources, such as marketing or new product development. Here, too, multiple players are involved. Boardroom Bob discussed how the key investors and board members aligned with a strategic choice to focus and scale one product, which Boardroom Bob and perhaps others may have a competing goal to develop a related product as a growth strategy.

**Concluding Statement 4**

Startup partners served as a key advisory source for Founder-CEOs. The business partners and board members were consulted on significant decisions such as the decisions that were examined for this study. Such consultations are typically prescriptive; that is, the terms of an investment or ownership would require that certain decisions must be approved by these individuals and/or by the board. An example of such a decision would be to seek additional funding that would impact the current shareholders. All participants reported that to varying degrees, they would discuss the situation and decision with their small number of employees. Serial Sam and Spinoff Sarah both discussed their professional and personal relationship, and how they would informally share and discuss ideas and rapidly implement good ideas.

Interestingly, for the specific decision examined for this study, none of the participants reported that they consulted expert advisors such as accountants and attorneys in making the
final decision. To implement their decision, Hiring Hailey consulted with an attorney to review the employment agreement that Hiring Hailey had developed.

NDM is typically employed in situations where problems are not well structured, conditions are uncertain and dynamic, multiple players are involved, and the situation – and the problem – may be evolving as the decision and decisions are being made (Shattuck & Miller, 2006). The uncertainties may be lessened by gathering additional information (March, 1991). Information gathering may include seeking advice and insights from others inside and external to the organization. Several participants discussed the expertise and experience that their business partner brought to the company.

**Concluding statement 5**

Precipitating problem issues are inherent in entrepreneurial stage companies. This theme is a contextual and represents the situation that the decision-maker confronts in their decision-making process. This emerged as a theme because it was the precipitating event to the need for a decision. The context, however, should be viewed more broadly as that of an entrepreneurial stage company, one that is striving for growth and has a product/service that is on the market.

This Concluding Statement is supported by NDM because the precipitating problems and the decision points examined in the interviews were one point in the continuum of the company executing its purpose and plan to achieve certain goals. The specific decision is one of many decisions, significant and otherwise, that the participant and the organization’s members make every day. The precipitating problem relates to the organization’s goals and, given the
size and development stage, frequently will be a very important decision with wide impact in
the organization (Orasanu & Connelly, 1993).

**Implications for Practice**

The conclusions from this study can be applied in teaching and coaching aspiring and
current Founder-CEOs. Many larger companies invest in structured, progressive development
programs that combine formal training with rotational assignments. A number of universities
and private companies offer training programs. The needs and financial capacity of
entrepreneurial stage companies are different leaving a potential market opportunity.

In many communities there are training programs, accelerators, mentor groups, and the
like to assist entrepreneurs start and grow their ventures. Based on the premise that all human
action is based upon a decision (March, 1991), a training program designed to teach theory and
include practice in decision-making likely would find a market, particularly if designed for the
experiences and decisions that Founder-CEOs would confront. In-box exercises, opportunity-
seeking and case studies are some of the teaching tools that could be effectively used.

Several of the participants had little or no management or significant leadership
backgrounds. All reported that they had business partners, formal and informal advisors, and
peers whom they turn to for learning and support and enhance the decisions that they were
making. Two participants reported, unprompted, that they read a lot as part of their role (see
Future Research discussion below). The business world of the 21st century is complex and
dynamic leaving small margins for management error. Employees at lower levels of a hierarchy
are assuming more authority and decision-making. Employees with strong functional skills may
not possess the broader business acumen in product development, marketing, logistics, IT and
such that empower them with the insights and expertise to execute their responsibilities. Here, again, universities are natural setting to develop and offer such program both directly and in partnership with the other elements in the entrepreneurial ecosystem.

Some companies, such as GE, are known for their management development programs that align with different stages of a career. This concept may have a market in high-growth companies, linking executives to ongoing training aligned with their roles and peer mentoring networks. Universities are well-suited for such a model that would benefit the individuals, their companies, the communities, and provide a setting for ongoing research. University faculty would be an added layer of expertise and discipline to a peer mentoring network enhancing its value to members.

The study of NDM has brought out the need to develop more people with expert level knowledge and skill to improve decision-making. Hoffman and Klein (2017) point out that we do not have a good understanding of how individuals transition from an apprentice to more expert levels, and how such learning could be accelerated to meet the needs of the military and others to train and develop journeyman and expert level competencies. A college or university would be in a strong position to convene and partner with the actors in an entrepreneurial ecosystem to implement the potential applications in practice discussed in this section.

**Future Research**

A Harvard Business School (HBS) research team looked at the skills and behaviors among HBS graduates (HBS Working Knowledge, 2016). Beyond that, however, there are no assessments of the management and leadership skill set of entrepreneurs. One possible future study could examine how investors and outside advisors view specific skill sets common among
leaders and managers. Another potential study would be a longitudinal study of early-stage Founder-CEOs, such as those graduating from an accelerator program. Presumably, skill sets improve over time with experience. The researcher could seek out a key question about skill sets improving to determine if, in fact, they do, and where do gaps remain.

How the Founder-CEOs engage in learning was outside of this study. Some of the participants attend some of the meetups of entrepreneurs in their market, while others do not. Several questions come to mind: How do entrepreneurs learn? What do they read, who are their influencers, whom they know, and do they seek out for advice? As communities seek to build entrepreneurial communities, what actions should – if any – be initiated and fostered by the organized community (government, universities, etc.) and what are the benefits gained? This information can be useful in planning and developing programs for enhancing entrepreneurial skills and in choosing the channels for delivery, e.g. web, books, blogs, and so on.

**Conclusion**

This chapter looked at each of the themes identified in Chapter 4 and examined the relationship to the theoretical framework. Overall, NDM served as a powerful theory in examining and explaining decision-making among Founder-CEOs. NDM describes the individual who uses their experience and knowledge in decision-making and recognizes that the setting of the decision and the impact on the decision-maker. The field research has been finding that, in actual situations, people were relying on their prior experience to categorize a situation and choose a course of action (Klein, 2008). In the decisions examined in this study, this is the path that the Founder-CEOs followed. Most importantly, this nuance is that Founder-CEOs sought
out information and advice from others, both inside and outside of their company, as they came to a decision.
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Appendix 1: Dissertation Interview Script

Welcome & research procedural review before turning on recorder:
Thank you for agreeing to meet with me – I very much appreciate your time. I am a doctoral candidate at Northeastern University and this interview is part of the dissertation research. Some important expectations to review which were covered in the informed consent that you sign. First, your participation is completely voluntary. Second, all information gathered will remain anonymous, any identifiable information will be removed, and pseudonyms will be used. Third, I’ll send you a copy of the transcript for your review and approval before moving into my analysis. Finally, I’ll be storing all recordings in a locked file cabinet where no other individuals will have access. If there are no other questions, I’d like to proceed?----- Turn on recorder -------

My dissertation is exploring operational decision making among Founder-CEOs of entrepreneurial stage companies. I’d like you to reflect on recent operational decisions that you have made in the last year – people, products, financial, office location – we’ll discuss in general and then pick one to examine more closely. Our discussion today is meant to be more of a conversation about your experiences. While I have an interview guide, our discussions may vary or diverge as we’re exploring your experiences.

Set-up: Tell me a little bit about some recent complicated daily operational decisions you made in the last months, such as relating to your people, finances or product
- Can you share any precipitating event that led to recognition your attention was needed and/or a decision may be warranted
- Do you recall who brought the matter to your attention? In what manner (email/memo, phone or in-person conversation?)
- Did they provide any preliminary work, such as a memo, research, a set of decisions, a recommended action?
- Do you recall if/how discussions around a timeline or deadline to make the decision?
- What background information was gathered to inform how the problem or opportunity was presented; e.g. other companies facing similar problem/opportunity
- Who was involved in discussion the problem/opportunity – internally or externally e.g. senior staff, other staff, board member(s), investor(s), someone outside the company
- What options were explored; any discussions about possible consequences of your choice alternative
- Had you dealt with or had exposure to a similar situation before in your career?; and if yes briefly describe: what lesson did you learn from that situation?
- When you made the decision, but before you announced it, did you inform others?
- How has the decision worked out- successful or were there anticipated or unanticipated problems/issues as a result of the decision?

Closing: Okay, those are all my questions. Do you have anything you would like to add?
I will send you a copy of the transcript from this interview for your review in a few days. I want to make sure I have captured your input correctly. Also, if you have anything to add or clarify, please do so. Thank you so much for your time and sharing your story with me.
Informed Consent to Participate in a Research Study

I am inviting you to take part in a research study. The purpose of the study is to gain an understanding of the operational decision-making processes used by Founder-CEOs during the entrepreneurial phase of venture development.

This form will tell you about the study, and I will tell you about the study first. You may ask me any questions that you have at any time. Your participation is completely voluntary, and you do not have to participate if you do not want to. If you decide to participate, I will ask you to sign this statement and will give you a fully signed copy to keep.

Why am I being asked to take part in this research study? You were identified as someone who met the criteria for the study. The principal criteria are:

- Founder-CEO of a tech-oriented company
- [Location redacted]
- The company has existed for 2-7 years
- The company has a product on the market
- All participants must be over the age of 18

Why is this research study being done? The purpose of the study is to understand how Founder-CEOs of entrepreneurial stage companies went about making significant operational decisions. CEOs make decisions that result in actions – actions being the work of the company. The purpose of this study is to understand how the participants went about making the decisions. This study is limited to operational decisions – those day to day decisions of running a company. For example: did they make decisions unilaterally, or did they consult with one or more people internally or externally? To what degree did they rely on their prior experience or “intuition”?

What will I be asked to do? If you decide to take part in this study, we will ask you to meet with the researcher and discuss the questions that will be posed. First, you will ask you to discuss some recent significant operational decisions. The you and the researcher will select one decision and have a deeper discussion of the actions you may have taken, your thinking about the decision problem, and so on.

Where will this take place and how much of my time will it take? The interview session will take place in your office, or if you prefer, in another private location. The interview will take about 75 minutes in total. The interview will be recorded and transcribed. The transcript will be shared with you and you are asked to review it, make any corrections and, if you wish, add explanation and enhancements to your story. You will then either email the document back to me or, if you prefer, mail it in an envelope that I can provide.

Will there be any risk or discomfort to me? Minimal.
Will I benefit by being in this research? There is no anticipated direct benefit to you from participation in this study.

Who will see the information about me? Your part in this study will be confidential. Only the researchers on this study will see the information about you. No reports or publications will use information that can identify you or any individual as being of this project. After the completion of the dissertation, hard copy documents that can be scanned together with computer files will be transferred to a USB drive. This drive and any remaining hard copies that will be needed will be maintained in a secure file cabinet in the student researcher’s residence. Audiotapes and hard copies that have been scanned will be destroyed after the study is complete. All computer files are backed up using a cloud-based service – Carbonite is the service currently used. There may be a rare instance where an authorized organization such as the Northeastern University Institutional Review Board will have a legitimate need to see this information. We will, of course, comply with any legitimate court order.

What will happen if I suffer any harm from this research? No special arrangements will be made for compensation or for payment for treatment solely because of participation in this research.

Can I stop my participation in this study? Your participation in this research is completely voluntary. You do not have to participate if you do not want to and you can refuse to answer any question. Even if you begin the study, you may quit at any time.

Who can I contact if I have questions or problems? At any time if you there is anything you would like to discuss please contact the researcher, Peter Lucash, directly at: Lucash.p@husky.neu.edu or telephone [redacted]. The voicemail is secure and only used by the researcher. You can also contact Margaret Gorman, EdD, the Principal Investigator, at m.kirchoff@northeastern.edu

Who can I contact about my rights as a participant? If you have any questions about your rights in this research, you may contact Nan C. Regina, Director, Human Subject Research Protection, Mail Stop: 560-177, 360 Huntington Avenue, Northeastern University, Boston, MA 02115. Tel: 617.373.4588, Email: n.regina@neu.edu. You may call anonymously if you wish.

Will I be paid for my participation? No

Will it cost me anything to participate? No

Is there anything else I need to know? No

I agree to take part in this research study:

______________________________________  Date:___________________
Signature of person agreeing to take part

________________________________________________________
Printed name of person above

________________________________________________________  Date: ________________
Signature of person who explained the study to the participant above and obtained consent:

____________________________________________
Printed name of person above
1. Recruitment Note for posting on websites:
“Will you help us understand how entrepreneurs make decision? I’m Peter Lucash, an experienced business person and now a doctoral student at Northeastern University, Boston. I’m conducting research on how Founder-CEOs make significant operational decisions. I’m looking to interview volunteers who are a Founder-CEO of a tech-oriented company in the [REDACTED]. ALL discussions are confidential. Interested? Please contact me directly at Lucash.p@husky.neu.edu. I will send you an email invitation. “

2. Recruitment email invitation to specific individual:
(if appropriate) “ (insert name of referrer if appropriate) suggested that I contact you about a research study on entrepreneur decision-making that I am conducting.”

(Copy for all):
I’m Peter Lucash, an experienced business person here in [REDACTED] and a doctoral student at Northeastern University, Boston. I’m conducting research on how Founder-CEOs make significant operational decisions. I’m looking to interview volunteers who are:

• Founder-CEO of a tech-oriented company [REDACTED]
• The company has been in existence for 2-7 years
• The company has a product on the market.

I am asking for about an hour to an hour and a half of your uninterrupted time to discuss recent significant operational decisions that you made in your company. We will then select one decision to discuss in depth. Our discussion is not a critique or consulting project – I am interested in learning how Founder-CEOs make significant operational decisions by you telling about your experience(s). From the discussions, my goal is to develop an understanding of how Founder CEOs work, and what we can all learn to improve our own work.

I will conduct the interview at your office. Our conversation is private and confidential and should take about one hour to an hour and a half. Our conversation will be recorded and transcribed.

Please email me at Lucash.p@husky.neu.edu if you would like to participate or if you have any questions. Once you volunteer, we can schedule a time and place for the interview session. If I do not hear from you, I may call you as a follow-up. If you know you do not wish to be a part of this study, you can reply to this email with “opt-out” in the subject line and you will not be contacted again regarding this research.

Thank you for your time and consideration.

Sincerely,