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Decision-Making Strategies of Venture Capitalists for Risky Startups

Antonio Wendill McClain
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Walden University

College of Management and Technology

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Antonio McClain

has been found to be complete and satisfactory in all respects,
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Walden University
2017

Abstract

Decision-Making Strategies of Venture Capitalists for Risky Startups

by

Antonio McClain

MS, Southern Polytechnic State University, 1998

BS, DeVry Institute of Technology, 1993

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

August 2017

Abstract

In 2014, venture capitalist (VC) investments were as high as \$87 billion for startup companies. Furthermore, although more than 50% of venture-backed startups failed, return on investment came from only 10% of the investee companies. The high VC investment dollars and the low number of profitable VC-backed startups suggest challenges that VCs might experience in identifying profitable startups. Using a real options theory conceptual framework, the purpose of this multiple case study was to explore strategies VCs in the southeastern United States use to identify profitable startups. Data collection included observation and archival document reviews and involved semistructured interviews of 11 VC participants in 8 firms who participated in assessing startups that led to an initial public offering or buyout within the past 5 years. Data analysis involved a coding technique for extrapolating themes. Several themes emerged including due diligence and investor involvement, reduction of information asymmetry, human capital management, environment and market forces, startup experience matching investor strategy, trust building, investment timing, and VC market dynamics. Findings from this study might contribute to positive social change by assisting VCs, entrepreneurs, and capital investors in identifying startups that lead to sustainable and profitable businesses. Sustainable and profitable businesses may result in stable jobs in the local community. Beneficiaries of this research include VCs, entrepreneurs, and capital investors.

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Dedication

I dedicate this research to my best friend and wife, Nelida, who remained by my side through the challenging times, and who was a continual source of encouragement while pursuing this higher education. I also dedicate this research to my children, Antonio and Samantha, who sacrificed time with Daddy so that I could complete my studies. My wife and children are a daily inspiration, and they are a constant reminder of the blessings in my life. Finally, I dedicate this research to my parents, Arthur and Bertie, who raised me to have the heart for people, to never give up on my dreams, and to always work hard and never take the easy path. I am blessed to have parents who helped me become who I am today. In the years to come, my hope is that this doctoral achievement might become evident to my family and others of the boundless possibilities of one's capabilities when you set your heart and mind on a goal and never let go of your dreams.

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Section 1: Foundation of the Study

The U.S. economy is full of risk and uncertainty for venture capitalists (VCs) seeking investment opportunities from innovative startups (Bhagat, 2014). Thomas (2014) described an environment as turbulent when frequent and unpredictable markets exist and technological changes occur. Risk and uncertainty make it difficult for VCs to identify sustainable and profitable investment opportunities in innovative startups (Gerasymenko & Arthurs, 2014). When VCs invest in sustainable and profitable companies, their investment brings value to investors, entrepreneurs, and society (Rosenbusch, Brinckmann, & Müller, 2013). Entrepreneurial, market, and economic uncertainties might influence VCs to become risk averse toward innovative startups (Smith & Cordina, 2014). Owing to the performance uncertainty of innovative startups, VCs have trouble identifying startups that lead to sustainable economic growth (Lukas, Mölls, & Welling, 2016). This research is an exploration of how VCs identify profitable startups in the midst of risk and uncertainty.

Background of the Problem

The U.S. economy relies on entrepreneurs to spur economic growth through innovation (Lee, Peng, & Song, 2013). Lee et al. argued that society should encourage risk-taking and promote entrepreneurship through maximizing upside gains while minimizing losses associated with entrepreneurial initiatives. The high-growth and high-variance potential of entrepreneurial ventures could serve as a driver for economic growth and a catalyst for new industry development (Lee et al., 2013). However, startups require funding to pursue innovative opportunities (Van Rensburg, 2012). Some

entrepreneurs seeking innovative opportunities have risky business models that require funding from VCs (Lee, Sameen, & Cowling, 2015). VCs tend to reject most of the business plans from startup entrepreneurs (de Treville, Petty, & Wager, 2014). When VCs reject a majority of business plans from startups, they may become an impediment to spurring economic growth through innovation (de Treville et al., 2014).

A challenge regarding VCs' willingness to invest in nascent entrepreneurs includes the homogeneous decision-making approach of some VC firms throughout the United States (Terjesen, Patel, Fiet, & D'Souze, 2013). Within the VC environment, uncertainty avoidance attributes to low tolerances for risk-taking within investment activities of formal institutions (Khavul & Deeds, 2016). Risk-averse investment practices within the United States enable other fast-growing economies to gain on the United States in terms of innovation (Hausman & Johnston, 2014). Therefore, to facilitate improvements in identifying sustainable and profitable startup investments, VCs may need better assessment strategies that could deviate from traditional decision-making approaches.

Problem Statement

VCs face challenges in identifying entrepreneurial startups that lead to investor return on investment (ROI) because of information asymmetry and environmental uncertainty (Meglio, Mocciano Li Destri, & Capasso, 2016). More than 50% of venture-backed startups fail, whereas 85% of the investment returns come from only 10% of the investee companies (Nanda & Rhodes-Kropf, 2013). The general business problem that I addressed in this study was that many VCs invest in startups either fail or result in a little

ROI. The specific business problem that I addressed in this study was that VCs often have limited strategies for determining which businesses would become profitable when investing in startups.

Purpose Statement

The purpose of this qualitative multicase study was to explore strategies that VCs use in determining which businesses would become profitable when investing in startups. Eleven participants from eight VC firms located in the southeastern United States participated in interviews to share their entrepreneur selection experiences. The findings from this study may result in positive social change by illuminating VC strategies that investors could use to lead startup businesses to profitability. Sustainable and profitable startup businesses might contribute to positive social change by propelling the global economy forward through job creation and investor ROI.

Nature of the Study

The qualitative method is appropriate for exploring a textual account of the complex interaction between human beings and their environment (Erlingsson & Brysiewicz, 2013). The qualitative method was suitable for this study because the purpose of the research was to explore textual accounts of the complex interaction between VCs and their environment as they identify startups that might lead to sustainability, profitability, and investor ROI. Conversely, the quantitative method is necessary when the research intent is to support or refute a hypothesis by establishing testable relationships based on a statistical framework (Hanson, Balmer, & Giardino, 2011). Because the purpose of the study was not to test a hypothesis, the quantitative

method was not appropriate. The mixed-methods approach is useful for combining qualitative and quantitative methods in a sequential or concurrent fashion to address exploratory and confirmatory questions within the same research inquiry (Venkatesh, Brown, & Bala, 2013). However, the framework of the research inquiry in this study was focusing on addressing an exploratory question as opposed to addressing both exploratory and confirmatory questions. Therefore, the mixed-methods approach was not appropriate.

The case study is an empirical inquiry that is useful for addressing *how* and *why* open-ended research questions that constitute a contemporary phenomenon within a complex environment (Yin, 2014). According to Woolcock (2013), the application of case studies is flexible enough to address a broad range of research inquiries within the context of *how* and *why* questions. I selected a case study because the purpose of the research was to explore how VCs identify startups that lead to profitability, sustainability, investor ROI, and a successful VC exit as VCs interact with external and internal forces within a complex environment. Conversely, ethnography is a research design for capturing social meanings of individuals within their natural setting (Erlingsson & Brysiewicz, 2012). Ethnography was an inappropriate design because my objective was to address the research question by identifying strategies that VCs might use toward investing in profitable startups, and not the cultural behaviors of individuals in their natural settings. The narrative design includes storytelling the life of an individual based on the individual's perception of reality (Petty, 2016). The narrative design was unsuitable for this research because the foundation of this study was a broad distribution

of VCs with different worldviews toward identifying profitable startups, and not on the worldview of a single individual.

Grounded theory is a research design that includes an association of a contemporary phenomenon to a theory (Ebrashi, 2013). The purpose of this doctoral study was to explore strategies that VCs use in determining which businesses would become profitable when investing in startups, and not associate a contemporary phenomenon with a theory. Therefore, grounded theory was incompatible with this research. Phenomenology is a research design that enables a deeper understanding of a problem by describing human lived experiences around a phenomenon (Petty, Thomson, & Stew, 2012). Phenomenology was an unfitting design because the goal of this research was to explore strategies for identifying profitable startups, and not to address problems relating to the lived experiences of individuals and failed startups.

Research Question

What strategies do VCs use to determine which startup businesses would become profitable when investing in startups?

Interview Questions

Each participant responded to the following open-ended questions during the interview process:

1. Why is it difficult for VCs to identify profitable startups?
2. How do you evaluate startups for initial investment?
3. How do you evaluate follow on investment options for startups?

4. How do you know when a startup will lead to a successful IPO or a successful buyout?
5. How do you decide to manage a startup to an IPO or a buyout?
6. What techniques do you believe VCs should include when assessing startups?
7. What other information can you share concerning your experiences in investing in startups?

Conceptual Framework

Myers first proposed the notion of real options theory (ROT) outside of the financial industry domain in 1977 for addressing projects with high uncertainty (Zeng & Zhang, 2011). Myers based ROT on the original works of Black and Scholes financial options pricing from 1973 (Andalraft-Chacur, Ali, & Salazar, 2011). ROT means the right but not the obligation of an investor to act on an investment option (Van Reedt Dortland, Voordijk, & Dewulf, 2014). The application of ROT occurs in high-tech industries for addressing risk and uncertainty during the investment evaluation phase of project assessment (Van Reedt Dortland et al., 2014). Van Reedt Dortland et al. (2014) applied ROT in a high-tech industry because of the inherent flexibility when making course corrections to address uncertainty in changing environmental conditions. ROT could be useful for decision-makers to implement course corrections as uncertainty reduces in time (Baduns, 2013). ROT is useful for addressing investments with an uncertain outcome.

ROT is an applicable conceptual framework for studies involving decision-making strategies of VCs (Lauterbach, Hass, & Schweizer, 2014). Zeng and Zhang (2011) indicated that the broad application of ROT links to modern VC evaluation

practices. The foundation of ROT includes concepts aligning with decision-making strategies VCs might use when investing in startups (Haeussler, Harhoff, & Mueller, 2014). Furthermore, Chung, Lee, Beamish, Southam, and Nam (2013) showed the effectiveness of ROT in decision-making strategies that involve risk and uncertainty. Cheng, Lo, and Lin (2011) conducted a study demonstrating how ROT extends beyond the bounds of financial indicators into industries that use VC investments. VCs tend to fund startups in high-tech industries, and they could use ROT to align investment decisions to fund projects (Knockaert & Vanacker, 2013). As the conceptual framework, contents of this study include ROT because ROT was appropriate for evaluating decision-making strategies of VCs who operate in complex, risky, and uncertain environments.

Operational Definitions

Information asymmetry: Information asymmetry is a gap in information and knowledge that exists between two or more parties (Smith & Cordina, 2014).

Real options: Real options represent a right, but not an obligation, to act on an option (Van Reedt Dortland et al., 2014).

Uncertainty: Uncertainty is the lack of information due to the random nature of environmental influences that create complexity in predicting the outcome of a situation (Townsend & Busenitz, 2015).

Assumptions, Limitations, and Delimitations

Assumptions

In research, inferences based on the logical reasoning in the absence of conclusive evidence are the basis for assumptions (Yin, 2014). I had five assumptions in this study.

The first assumption was that all participants had the sufficient industry experience to provide insight into investment strategies that could contribute to the goal the study. The second assumption was that participants would respond to the interview questions honestly and accurately the best of their abilities. The third assumption was that ROT was the most suitable theory for identifying decision-making strategies while dealing with investment uncertainty. The fourth assumption was that entrepreneurial startups create discontinuous innovations that might lead to job creation and investor ROI. The final assumption was that data collected from at least five VC firms within the southeastern United States would lead to themes and insights into investment strategies that could benefit VCs, investors, and entrepreneurs.

Limitations

Limitations of the study are boundaries that are beyond the control of the researcher and constrain the extent of generalization (Hyett, Kenny, & Dickson-Swift, 2014). There are three salient limitations in this study. The first limitation is that responses from participants in the southeastern United States might not represent VCs in other regions of the country. The second limitation is that the study does not show detailed relationships with syndicates or other VC networks that could influence decision-making strategies of VCs. The last limitation is that the short time limit for the study may have imposed temporal constraints that otherwise are not prevalent in longitudinal studies.

Delimitations

Delimitations are the constraints based on the researcher's decisions that could limit the extent of generalization of the study (Yin, 2014). The delimitation of the study was an exploration of strategies that VCs need for identifying and investing in sustainable and profitable startups bound by geographic location. The analysis of the data gathered through interviewing VCs might enhance the understanding of common themes surrounding profitable startups in the midst of risk and uncertainty. The delimitation of this research focused on VC firms in the southeastern United States and the sole application of ROT as the conceptual framework for the study.

Significance of the Study

Contribution to Venture Capital Assessment

Elevated levels of risk and uncertainty in entrepreneurial startups could cause VCs to experience difficulty identifying sustainable and profitable companies that might result in an ROI for investors. When VC-backed startups are sustainable and profitable, value is created for investors and the economy (Terjesen et al., 2013). However, partly owing to risk and uncertainty, VC firms fund only 0.5% to 1.0% of entrepreneur business plans because most startup ventures fail (Nanda & Rhodes-Kropf, 2013). Of the VC-backed startups, half of the companies exit with a non-zero value, and 85% of the returns come from only 10% of the funded companies (Nanda & Rhodes-Kroft, 2013). Consequently, if some VCs reject most entrepreneur business plans, yet the majority of the funded startups have a high probability of failure, an opportunity exists for deeper exploration in investigating this phenomenon (Xun, Hwee, Wilson, & Zhenyu, 2013).

The opportunity that I had in this study was to identify VC assessment strategies, which might result in sustainable and profitable startups that eventually enable the VC to exit successfully through an IPO or a buyout.

Some VC firms leverage syndication as a means of risk distribution (Khavul & Deeds, 2016). Nonetheless, even with syndications the risk and uncertainty in startup businesses continue to exist (Khavul & Deeds, 2016). Therefore, for syndicated and nonsyndicated VCs, the outcome of this research might provide valuable contributions toward identifying startup assessment strategies that result in sustainable and profitable businesses, which could lead to a positive ROI for investors.

Value to Entrepreneurial Business Development

A rapidly changing world requires a new understanding of VCs' evaluation, selection, and monitoring tactics of entrepreneurial startups. Business leaders, large and small, continually face the challenge of innovating toward a sustainable future (Soken & Barnes, 2014). Through innovation, the integration of information and technology continuously evolves (Nagy, Schuessler, & Dubinsky, 2016). In this evolution, new opportunities surface for the astute entrepreneur (Jennings, Edwards, Jennings, & Delbridge, 2015). However, alongside these opportunities for innovation, there exist risk and uncertainty from multiple sources that threaten the viability of a startup (Autio, Kenney, Mustar, Siegel, & Wright, 2014).

Like all companies, entrepreneurial businesses require funding to pursue innovative opportunities (Henry, 2016). Some entrepreneurs pursue funding for high-risk ventures from VCs. These VCs evaluate these fund-seeking entrepreneurs based on risk

assessment tactics as part of the VC's entrepreneur selection strategy (Andrieu, 2013). The idiosyncratic factors that influence these VC selection strategies include intuition, industry experience, investment experience, and educational background (Woike, Hoffrage, & Petty, 2015). Furthermore, King (2013) asserted that business models change with time because of innovation. These innovation-based changes might derive from the evolution of new ideas or the development and exploitation of new ideas (Ostendorf, Mouzas, & Chakrabarti, 2014). Consequently, the traditional VC assessment tactics used to evaluate modern business models might create impediments to entrepreneurial innovation because of missed funding opportunities. These impediments to entrepreneurial innovation could result in missed opportunities for investors, VCs, and society because of unrealized ROI and job creation. Therefore, the outcome of this study might provide insight for startup entrepreneurs as they prepare business models and execution strategies that take advantage of future opportunities.

Implications for Social Change

The challenge for VCs is to identify investment opportunities that align with investor goals and expectations (King, 2013). In 2010, small and medium-sized enterprises (SMEs) constituted 99.7% of businesses that handled 64% of new private sector jobs created in the United States (Organisation for Economic Cooperation and Development, 2015). VC-backed startup and nascent entrepreneurs create SMEs (Li, Cao, & Feng, 2016). The data compiled for this study could provide leaders with strategies that enable VCs to increase the percentage of startups that lead to a successful exit through an IPO or a buyout. The findings from this study may result in positive

social change by illuminating VC strategies that investment leaders could use to lead startup businesses to profitability.

A Review of the Professional and Academic Literature

The exploration of the literature constitutes peer-reviewed articles, relevant business books, and seminal works relating to the business problem of the study. The sources of these reference materials come from various resources including, Google, Google Scholar, Emerald Management Journals, Science Direct, ABI/Inform Complete, Sage, and Business Source Complete. Various word and phrase combinations were useful for identifying scholarly materials and seminal works for formulating the foundation of the review of the literature. Keyword and phrase searches included *nascent entrepreneurs, entrepreneurs, real options, real options theory, venture capitalists, venture capital, failed startups, business failure, venture capitalists assessment, entrepreneur strategy, venture capital strategy, business models, entrepreneurial innovation, competitive advantage, startup uncertainty, venture capital uncertainty, evaluating uncertainty, and investment practices*. The keyword and phrase searches in varying combinations resulted in 129 references used throughout this review of the literature. There were 126 peer-reviewed references (97.6%), three non-peer-reviewed references (2.3%), and two business books (1.5%) included in this review of the literature. Based on the number of references, 88% of the sources derive from references between 2013 and 2017.

The purpose of this qualitative multicase study was to explore strategies that VCs use when investing in profitable startups. The review of the literature includes

information that supports the underlying theme of VC assessment strategies. The three main sections of the review of the literature include innovative nascent entrepreneurs, VC firms, and ROT. The first section includes an overview of innovative nascent entrepreneurs, triggers of entrepreneurial innovation, effect on society, challenges of funding, funding sources, and determining factors that tend to lead entrepreneurs to pursue VC funding. The second section concerning VC firms provides a scholarly-based overview of the definition and types of VCs, purpose of VCs, investor relations, and syndications.

The second section also includes an overview of VC assessment strategies focusing on current assessment practices, success and failure statistics, signals, and the effectiveness of accurately predicting profitable startups based on decision-making tactics for evaluating startups. The third section in the review of the literature is on ROT. The ROT section starts with a scholarly-based overview and history of ROT and the relevance to financial theory. The ROT section extends into a discussion on the application of ROT relating to VC decision-making strategies during the startup assessment process. Following the conclusion of the ROT section, the formulation of a gap in the literature will extend the collection of information presented throughout the three sections of the review. The identification of a gap in the literature represented the basis for this research study.

Innovative Nascent Entrepreneurs

Reasons that some individuals become motivated to start a business is to gain independence, make money, and achieve job satisfaction (Albort-Morant & Oghazi,

2016). Businesses in the startup phase are highly complex and require significant attention and support (Van Rensburg, 2012), and some entrepreneurs start businesses with a “born-to-be-sold” strategy (Becker, Clement, & Nöth, 2016). Ehret, Kashyap, and Wirtz (2013) indicated that experienced-backed entrepreneurs are poised to transform uncertainty into value-adding and profitable business solutions. Furthermore, Cassar (2014) indicated that entrepreneurial business experience increases the likelihood of a profitable business venture that leads to a buyout or an IPO. Oe and Mitsuhashi (2013) made a similar assertion when they indicated that the experience of founders led to a faster break-even. Mayer-Haug, Read, Brinckmann, Dew, and Grichnik (2013) also found that entrepreneurial talent has a strong link to business performance, particularly in developing economies. Probert, Dissel, Farrukh, Mortara, Thorn, and Phaal (2013) supported the value of an entrepreneur’s skills when they found that intangible technologies, which relate to know-how or unrealized technologies, created a strong business base when the technology is closer to the market. However, Kim and Longest (2014) found that the greater the founder’s business experience, the less likely the founder will involve others in startup efforts. However, DeTienne, McKelvie, and Chandler (2015) found evidence linking industry experience to higher levels of IPO and acquisition intentions. In a rapidly moving economy, motivators for starting a business are insufficient without other essential skills for driving a profitable business (Vogel, Puhan, Shehu, Kliger, & Beese, 2014). Fisher, Maritz, and Lobo (2014) described that an entrepreneur’s success could attribute from the entrepreneur’s perspective on the business

opportunity. Success factors for innovative nascent entrepreneurs include motivation and both tangible and intangible capabilities to drive the business.

Triggers of Innovation

The effect of entrepreneurial innovation influences the progression of society. This influence comes from the notion that innovation can transform societal sustainability issues into opportunities for entrepreneurial businesses that result in creating value for societies (Spitzeck, Boechat, & Leão, 2013). Companies that commit to innovation and customer knowledge play a dominant role in social capital and innovation performance (Tsai, Joe, Ding, & Lin, 2013). Spitzeck et al. (2013) conducted a case study concerning how Odebrecht, a company with a culture of social entrepreneurship, brought value into societies in Santo Antonio in Porto Velho and Peru. Although Phillips, Tracey, and Karra (2013) linked social entrepreneurs to individuals possessing characteristics of benevolence and homophily thereby serving those in need. The intrinsic value of entrepreneurial innovation resulted in building alliances and responding to the needs of society members thereby having a positive influence on society. Furthermore, Meyskens and Carsrud (2013) established a call for social innovators to align innovation towards a globally sustainable market. Social innovation could be a catalyst for entrepreneurial innovation.

Triggers of social innovation. The recognition of social innovation has become prevalent in the social sciences (Cajaiba-Santana, 2014). Drucker (1987) explained that social innovation has become the task of the manager. These managers are individuals who are capable of aligning other people to a common purpose (Drucker, 1987). Drucker

indicated that less emphasis on social innovation should rest on science and technology, and more emphasis should focus on management as an agent of social change. Phillips (2011) used the term *social change* synonymously with *social innovation*. Phillips argued that, to the detriment of society, social change is occurring faster than technological innovation. Phillips reasoned that the slow-down of technological innovation is occurring because of (a) various combinations of incentives that detract from innovation, (b) continual use of obsolete business models in a changing world, and (c) changes in political economies that reduce measures for funding innovation. Cajaiba-Santana (2014) indicated that social innovation is an organic process with a dyadic relationship between actor and structure. Cajaiba-Santana argued that individuals should develop analytic skills, foster creativity, and encourage collaboration with others to drive social innovation. Innovation has social properties that operate within a bricolage of complex influences that could bring value to those who recognize and then take advantage of the opportunity to drive innovation. The attributes of social innovation show some similarities characteristic with entrepreneurial innovation.

Drivers of entrepreneurial innovation. Regarding entrepreneurship, there exist drivers of innovation. Autio et al. (2014) indicated that drivers of innovation within the national innovation system are research and development (R&D), technology, and invention. The driver of innovation within entrepreneurship is entrepreneurial cognition, learning, opportunity recognition, and creation (Autio et al., 2014). The driver of innovation within entrepreneurial innovation is cocreation and evolution within the ecosystem (Autio et al., 2014). Entrepreneurs might drive innovation by linking critical

milestones and capital needs to their underlying approach to manage risk and accelerate value (Sammut, 2012). In addition, Day and Schoemaker (2011) indicated that timing is an important component of driving innovation. In this context, drivers of innovation stem from the timely recognition of an opportunity to improve value-adding products, services, and situations.

Triggers of innovation through market opportunities. The recognition of market opportunities might be a reason that individuals become nascent entrepreneurs and pursue ventures. Franco, de Fátima Santos, Ramalho, and Nunes (2014) described that entrepreneurs tend to take charge of the business and make all decision regarding marketing. Edelman and Yli-Renko (2010), in a study of 114 entrepreneurs from the National Panel Study of Entrepreneurial Dynamics, found that entrepreneurial perception of market opportunity significantly relates to entrepreneurs' efforts toward pursuing ventures. Renko (2013), in a study of nascent entrepreneurs building companies with socially beneficial intent, found that entrepreneurs who focus on creating imitative products over innovative solutions are more likely to meet key milestones when building an organization. In addition, Renko established that nascent entrepreneurs with innovative ideas should focus on establishing legitimacy and stakeholder support early. Innovation and market opportunities might trigger entrepreneurs to build startup companies.

In contrast, according to Goel and Göktepe-Hultén (2013) identifying data sets that focus on the nexus between nascent entrepreneurs and inventive activity is difficult. Using survey data from Max Planck Society (MPS) in Germany, Goel and Göktepe-

Hultén study on nascent entrepreneurs found a positive and statistically significant effect on inventive activities. The MPS dataset included 2,604 participants with a response rate of 33.35%. Nascent entrepreneurs with a patent had a higher probability of procuring equity-based financing than other nascent entrepreneurs (Goel & Göktepe-Hultén, 2013). In addition, Goel and Göktepe-Hultén found a complex relationship in the nexus between nascent entrepreneurs and invention because the direction of causality is not always clear. Toft-Kehler, Wennberg, and Kim (2014) described a perspective that nascent entrepreneurs with industry experience could have greater challenges in venture performance owing to their lack of founder experience. However, recognition of opportunities can influence individuals to become nascent entrepreneurs. Legitimacy and stakeholder support early with prototypes can increase the likelihood of procuring funding for the venture. Kazadi, Lievens, and Mahr (2016) confirmed this assertion by indicating that stakeholders are playing an active role in the value creation activities of organizations. Creating innovative solutions include managing people towards working together to create innovation (Liedtka, 2014). However, in a competitive environment, a nascent entrepreneur might need a high-caliber management team to create an attractive business model for equity-based financing.

Innovation and entrepreneurial team. In a competitive industry, the management team of the nascent entrepreneurs influences the success or failure of the venture. Dubocage and Galindo (2014) mentioned that the condition of a company's distress extends beyond the management skills of the founder-CEO, but into the execution skills of the management team and dynamics of the market conditions.

Although Liao, Lu, and Wang (2013) indicated that agency problems that cause company distress relate to conflicts of interest between the company's management team and investors. However, Townsend and Busenitz (2015) showed that capabilities of the management team influence equity-based funding decisions. Townsend and Busenitz (2015) also found that high-quality management teams are essential to early-stage ventures in overcoming challenges of market innovation and navigating the competitive industry. The capabilities of the entrepreneur and the management team are necessary for creating a sustainable and profitable business (Kremljak & Tekavcic, 2014). However, the reliance on the sole capabilities of the entrepreneur and the management team is not sufficient for creating a profitable business (Colombo & Dawid, 2016). Early-stage and startup-stage ventures require capital funding to establish a position in the market and create a competitive organization.

Financing innovations. Entrepreneurs often face challenges procuring equity-based funding to finance high-risk ventures. These challenges are prevalent because most equity-based startup ventures fail, or fail to meet, expected returns (Nanda & Rhodes-Kropf, 2013). In general, entrepreneurs have greater challenges compared with established companies in terms of combining activities for acquiring resources in an effective and efficient manner that creates a sustainable company (Malmström, 2014). For this reason, entrepreneurs face the challenge of convincing VCs that the entrepreneur's project is worthy of equity-based financing. Some VCs recognize that some entrepreneurs continue to commit financial resources towards investments that might result in failure because of the entrepreneur's emotional connection to the venture

(Brundin & Gustafsson, 2013). Although Staniewski, Szopiński, and Awruk (2016) found that entrepreneurs who invest significant amounts of personal funds into a venture send a positive signal that helps convince VCs of the viability of the prospect for financing. The positive signal from the entrepreneur is because of the notion of sharing risk between the investor and the founder who commits capital (Miettinen & Niskanen, 2015). Conversely, Henry (2016) suggested that entrepreneurs who come across shy or introverted negatively affect the VCs' judgment to fund the innovation. Furthermore, Mollick (2014) indicated that entrepreneur's preparedness increases the chances of funding. Therefore, the task for VCs is to distinguish between risky and worse investments (Nanda & Rhodes-Kropf, 2013). From this vantage point, the entrepreneur's task of convincing VCs to invest into the startup includes but also extends beyond boundaries of the entrepreneur's control.

There are controllable and uncontrollable forces that influence entrepreneurs and these forces can create funding challenges and dampen the opportunities for equity-based funding. Nanda and Rhodes-Kropf (2013) found a higher probability of company failure when firms receive funding during hot markets; however, companies can also result in higher returns if profitable and sustainable. The consideration of market dynamics influences the decision-making strategies of VCs in emerging markets that are risky (Nanda & Rhodes-Kropf, 2013). Li, Tan, Wilson, and Wu (2013) found that the limiting factor of funding risky ventures is the VC's level of risk aversion. Townsend and Busenitz (2015) indicated that information asymmetry provides the basis of VC risk aversion. Information asymmetry directly relates to risk and results in higher costs of

raising capital (Miettinen & Niskanen, 2015). Information asymmetry creates resource allocation challenges for VCs (Lahr & Mina, 2016). However, Muzychenko and Liesch (2015) suggested self-efficacy could reduce information asymmetry between the entrepreneur and the investor. Market conditions and risk aversion can influence the funding decisions of VCs.

In the wake of the financial crisis, innovation is important towards ensuring economic resilience and recovery (Hausman & Johnston, 2014). Hausman and Johnston performed an analysis of the effect of innovation on the United States following the global financial crisis. According to Hausman and Johnston, innovation (a) positively relates to job creation, (b) positively relates to increased profitability, (c) positively relates to discontinuous innovation through economic stability, and (d) provides a method for recovery during the economic downturn. Hausman and Johnston found that since the global financial crisis, there is a negative slope of technological innovation deriving from the United States. As such, the global financial crisis results in an increase in risk aversion and a decrease of innovation in the United States. Market uncertainty and investor expectations contribute to risk averse attributes that might influence the decisions of VCs to invest in risky startups. These decisions reside in a complicated domain of analysis. Li et al. (2013) reflected on complexities in entrepreneurial finance that complicated decision-making activities characterized by the assessor's inability to describe the complex phenomenon in a linear model. However, Franklin and Diallo (2013) found evidence of using geometric Brownian motion, Poisson decay process, and real options to model investment decisions with uncertainty in a regulated industry. The

affect of complexities surrounding the decision-making tactics of VCs are partly a result of the global financial crisis. For this reason, VCs attempt to have as much information as possible before making investment decisions. When the information available to the VC is asymmetric from the information of the investee, then risk increases.

Essence of innovation. The essence of innovation is discovering value-creating opportunities that internal and external influences on the organization triggered. There is a complex interconnection between innovation, technology, and business models (Baden-Fuller & Haefliger, 2013). Owing to this complex interconnection, pursuers of innovation must exercise creativity to establish a competitive advantage (Baden-Fuller & Haefliger, 2013). Regarding creativity, discovery and creation are modes of model development that drive how entrepreneurs pursue innovative ventures (Edelman & Yli-Renko, 2010). King (2013) supported these modes of innovative pursuit by identifying a tinker management style that supports making constant course adjustments and thrives in volatile, risky, and uncertain environments. Dorner, Fryges, and Schopen (2017) found that startups that use R&D to create innovation improve their prospective earnings. Creativity is a trigger of innovation in entrepreneurial business model development (Baden-Fuller & Morgan, 2010). Liedtka (2014) indicated that a problem-solving approach similar to design-thinking concepts could lead to innovation. Innovative entrepreneurs are creative individuals capable of building business models pursuant to their innovative goals.

Impediments to VCs funding innovations. Although innovative entrepreneurs are creative individuals, information asymmetry has implications on the decision of VCs investing in entrepreneurial ventures. There are important issues and challenges that

entrepreneurs face in financing a business. The notion of information asymmetry relates to some of the challenges of entrepreneurial financing. Information asymmetry occurs when there exist disconnects between the knowledge of the investee and the knowledge of the investor (Tong & Crosno, 2016). Information asymmetry increases the cost for new ventures to raise external funding because lenders tend to pursue higher interest rates or greater equity to compensate for the risk (Miettinen & Niskanen, 2015). Information asymmetry between the investee and the investor increases uncertainty and risk, which results in a higher cost of capital. Smith and Cordina (2014) found that essential elements for reducing information asymmetry derive from an evaluation of the personal qualities of the management team and their experience of bringing a venture to market. In addition, Smith and Cordina (2014) indicated that some VCs use documents including financial statements, business plans, executive summaries, and any disclosures about future expectations as a method for reducing information asymmetry. Although, Goel and Göktepe-Hultén (2013) indicated a patent and a product prototype reduces information asymmetry by resolving the problem of uncertainty about the outcome of the venture. These signals are useful for reducing information asymmetry (Goel & Göktepe-Hultén, 2013). Butler and Goktan (2013) suggested that smaller companies and inexperienced VCs might work together to obtain better information. In essence, entrepreneurs face challenges in obtaining equity-based financing and must manage the perception of risk and uncertainty through decreasing information asymmetry between the entrepreneur and VC.

Minimizing information asymmetry between the entrepreneur and the VC does not ensure that the VC will approve the equity-based funding opportunity. Other factors could trigger a VC to reject the entrepreneurial funding opportunity. Bengtsson and Wang (2010) indicated that a misalignment in the expectations between the entrepreneur and the VC could result in VC rejection. Henry (2016) highlighted a consequence of a startup with the wrong entrepreneurial management team could result in high risk for the VC with low benefit from the startup. De Treville et al. (2014) mentioned that VC resource limitations or internal resource constraints might result in a rejection of equity-based funding opportunities. Heughebaert and Manigart (2012) found that VC rejection could be indicative of a strategic misalignment between the entrepreneur and the VC. When VCs reject the funding request of an entrepreneur, then the entrepreneur must seek alternative sources of financing for the venture. Therefore, understanding alternative funding options for entrepreneurs is important for VCs and entrepreneurs (Staniewski et al., 2016). Understanding alternative financing options provide a richer perspective concerning strategies that VCs might use to identify profitable startups. Identifying financing options available to entrepreneurs may lead to VCs understanding when and why an entrepreneur would pursue equity financing.

Entrepreneur Financing Options

There is an array of funding sources and options available to entrepreneurs. Rupeika-Apoga (2014) defined finance types that include (a) formal equity, (b) formal loan, (c) informal investment, (d) overdraft, and (e) grants. In addition, Rupeika-Apoga mentioned that sources of startup financing include (a) VCs, (b) personal funds, (c)

business partners, (d) loan guarantee, (e) banks, (f) family and friends, and (g) grants. Rupeika-Apoga's references to the types and sources of funding are not all encompassing of available funding options. Sometimes, depending on the type and stage of the business, entrepreneurs might elect to finance a startup business through personal financing: These methods include bootstrap methods, debt financing, crowdfunding, or equity financing. Croce, D'Adda, and Ughetto (2015) found that VC firms provide better support for entrepreneurs while bank-affiliated firms have fewer constraints regarding additional rounds of funding. Malmström (2014) discussed that bootstrapping is another method for funding ventures. The bootstrapping method involves using creativity and imagination to garner or control resources that benefit the business (Belleflamme, Lambert, & Schwiendbacher, 2014). The creative and imaginative methods of bootstrap financing include family, friends, arrangements for delayed payments to suppliers, or advanced payment from customers (Malmström, 2014). According to Malmström, risk is the most important motivating factor of bootstrap finance. Zheng, Li, Wu, and Xu (2014) provided another alternative method of funding businesses through crowdfunding. Crowdfunding is an Internet-based method for obtaining capital to fund a project or business (Zheng et al., 2014). Crowdfunding is a newer concept for obtaining capital and use social networks of individuals who contribute small amounts of money to the venture (Zheng et al., 2014). Crowdfunding is not a replacement for VCs because the funding method does not provide the magnitude of capital compared to VC funding (Zheng et al., 2014). Also, Autio et al. (2014) discussed funding programs that the United States government uses to spur innovation from entrepreneurs. These programs include the Small Business

Administration (SBA), Small Business Innovation Research (SBIR), and Small Business Technology Transfer (STTR). These government programs are available for providing funding for seed-stage and early-stage startups. These various funding options are available to entrepreneurs for financing their business venture.

Financially literate entrepreneurs. Alternative funding methods could reduce the need for the entrepreneur to pursue funding options that might result in elevated costs of capital. However, regardless of the viability of a project, entrepreneurs face a plethora of challenges starting a business and one of the greatest challenges for entrepreneurs is capital procurement. Entrepreneurs who are literate in funding options are poised to make suitable choices regarding financing ventures. Depending on the venture, some sources of funding are more appropriate than other sources of funding options. Dahmen & Rodríguez (2014) found that financially literate entrepreneurs perform better than entrepreneurs who are not financially literate. Dahmen and Rodríguez indicated that financial literacy contributes to generating higher levels of cash flow management from a broader spectrum of funding sources. Understanding the sources of capital funding is an essential criterion for entrepreneurs (Staniewski et al., 2016). However, since the overall scope of this research is on the decision-making strategies of VCs, then the focus of most of the review of the literature will center on VCs. The focus is specific types of entrepreneurs who require equity-based funding from VCs as a criterion for business development (Colombo & Dawid, 2016).

VCs finance entrepreneurial innovations. The assessment strategies for funding risky ventures could influence the interaction between VCs and entrepreneurs. Innovation

is vital to the success and sustainability of organizations. Typically, entrepreneurs in the United States who are seeking VC funding are pursuing high-tech and innovative ventures (Knockaert & Vanacker, 2013). For this reason, sustainable companies must constantly innovate to remain relevant (Hausman & Johnston, 2014). Conversely, nascent entrepreneurs must innovate to become relevant (Renko, 2013). The concept of innovation goes beyond the state of the moment and includes the process of change (Cajaiba-Santana, 2014). Innovation brings new ideas and a different way of thinking (Cajaiba-Santana, 2014). Innovation can also derive from the interaction with others (Wang & Hsu, 2014). Sustainable businesses exist because these businesses continually meet the changing needs of the customer by providing value-adding solutions through innovation (Choi & Majumdar, 2014). Consequently, meeting the needs of customers infer an interaction with others to create new value. For this reason, innovation can happen regardless of economic conditions; however, the financial crisis tends to make investors of innovation more risk averse.

A role of the VC includes managing the funding and relationship with the entrepreneur and managing relationships with investors who might be risk averse. The goal of the VC includes obtaining a successful exit within an acceptable cost and timeframe (Eldridge, Van Iwaarden, Van Der Wiele, & Williams, 2013). High-tech innovation ventures are, by nature, risky and uncertain (Knockaert & Vanacker, 2013). Risk relates to uncertainty, which results from information asymmetry among all parties (Townsend & Busenitz, 2015). As indicated earlier, innovation results from creating value for those who take advantage of the innovation and the opportunity to be

innovative. Some entrepreneurs might pursue VC funding to help finance an innovation (Goel & Göktepe-Hultén, 2013). However, funding an innovation does not always result in a positive return for investors or entrepreneur (Turan, 2015). Therefore, VCs may have a challenge in determining suitable investments into entrepreneurial businesses that are acceptable for the risk tolerance of investors. VCs might need to balance their entrepreneurial business assessment strategies with the risk tolerance of the investors.

Entrepreneurial Business Models

Entrepreneurial business models should align with the business environment that the model applies (Huang, 2013). DaSilva and Trkman (2014) described the role of a business model is to synchronize company resources with customer transactions to create value for both customers and the organization. An entrepreneurial business model is important because the model (a) captures components of the business plan, (b) depicts what the business does and method for generating profit, and (c) shows how the business will create wealth (Huang, 2013). However, the concept of one-size-fits-all models is an ineffective entrepreneurial business model in complex and risky business environments (Ehret et al., 2013). To create competitive advantage, the design of an effective entrepreneurial business model will establish links between technology, development, and business performance while accounting for market dynamics (Baden-Fuller & Haefliger, 2013). Entrepreneurs should develop a logical progression of salient success factors while demonstrating the linkage using a project plan that links activities, resources, and required funding to the goals of the business (Sammut, 2012). Therefore, entrepreneurs must remain alert to recognize and take advantage of rising opportunities

and adjust their business strategy to the opportunity (Jennings et al., 2015). Through this alertness, entrepreneurs can meet the needs of customers through innovation while achieving competitive advantage in the market (Probert et al., 2013). In addition, through alertness, entrepreneurs can recognize and respond to the changing conditions of the environment. Correctly aligning entrepreneurial models with the relevant business environment is essential for competitive advantage.

Regarding innovation and funding, the pace of change creates opportunities for evaluating and understanding VC evaluation, selection, and monitoring tactics of entrepreneurial startups. Business leaders, large and small, continually face the challenge of innovating towards a sustainable future (Soken & Barnes, 2014). Through innovation, the integration of information and technology constantly evolves. In this evolution, new opportunities surface for the astute entrepreneur (Jennings et al., 2015). Adjacent to these opportunities for innovation are elements of risk and uncertainty from multiple sources that threaten the viability of a startup (Lee et al., 2013). Consequently, entrepreneurs need funding to pursue innovative opportunities (Colombo & Dawid, 2016). Entrepreneurs who are pursuing high-risk ventures might decide to leverage VCs for funding innovations (Eldridge et al., 2013).

Venture Capital Firms

VCs are equity investors with access to pools of capital to invest in companies with high growth potential within a limited timeframe (Gordon, 2014). VC firms in the United States have a positive contribution towards economic development, job creation, and innovation. VC firms contributed to over 12 million jobs in 2004 and \$2.9 trillion in

revenue (Andrieu, 2013). The United States has the largest and most successful VC presence in the world (Tykvová & Schertler, 2014). In 2014, VCs invested \$87 billion in startup companies; 58 percent more than 2013 (Lukas et al., 2016). High-risk technology-based industries are typical for VC investors (Lehoux, Daudelin, Williams-Jones, Denis, & Longo, 2014). Thus, VC contribution permeates into the domains of economic development, job creation, and innovation by investing in companies through providing funding and other services that increase the likelihood of a successful VC exit. Many scholars define a successful VC exit as a merger and acquisition (M&A), Initial Public Offering (IPO), or buyout (Cassar, 2014; Gerasymenko & Arthurs, 2014; Liao et al., 2013, Nanda & Rhodes-Kropf, 2013; Rosenbush, Brinckmann & Müller, 2013). The strategies and discussions used in this research will adopt similar VC success criteria regarding an IPO and buyout.

VCs are investment brokers. VCs are individuals who invest capital funds and other resources in investee companies. Wonglimpiyarat (2013) provided a model linking capital providers to investees brokered through the VC firm. In this model, VC firms establish general partner relationships with capital fund providers in the form of limited partnership relationships (Wonglimpiyarat, 2013). These limited partners represent pension funds, banks, individuals, corporations, and insurance companies (Wonglimpiyarat, 2013). Limited partners provide capital funds to the VC firm that in turn invests the capital in (a) seed capital, (b) startup capital, (c) early-stage capital, (d) expansion-stage startup, or (e) late-stage entrepreneurial companies (Khavul & Deeds, 2016). In exchange for capital investment, the entrepreneurial company will relinquish a

percentage of ownership of the company to a VC firm in the form of equity-based ownership (Galloway, Miller, Sahaym, & Arthurs, 2017). The VC retains this equity-based ownership until the time of exit (Wonglimpiyarat, 2013). While the VC retains ownership, a member representing the VC interests might sit on the Board of Directors of the VC-backed company. The compensation for VCs includes a percentage of the capital funds to manage the investment capital (Wonglimpiyarat, 2013). Compensation of independent VC (IVC) comes from fixed management fees (e.g., 2% of investment capital) and performance fees (e.g., 20% of profits; Heughebaert & Manigart, 2012). The type of VC firms has an influence on the type of ventures the VC will pursue.

Types of VCs. VC firms have an important function towards propelling entrepreneurs towards success. VCs are important towards creating sustainable startups (Liao et al., 2013). Li et al. (2016) indicated that a VC is an essential component of innovation and entrepreneurship. However, all VC firms are not created equal. Differences in VC type could have an effect on the funding opportunity extended to an entrepreneur. As such, there are differences in the strategic objectives of a VC depending on VC type. Andrieu (2013) identified different types of VC firms that include (a) independent VC firms, (b) bank affiliated VC firms, and (c) corporate VC firms. When Heughebaert and Manigart (2012) studied the types of VC investors and bargaining power, they included the types of VC firms as (a) corporate VC, (b) University VC, (c) government VC, and (d) independent VC. Although Bertoni, Colombo, and Grilli (2013) identified independent venture capitalists (IVC) and corporate venture capitalists (CVC) as relevant for technology-based firms. The common types of VC that persist throughout

many studies are IVCs and CVCs. The type of VC firms is characteristic of the investment strategies that they might pursue. IVC investors prefer larger firms than CVC investors (Bertoni et al., 2013). Both IVC and CVC investments have a long-term positive effect on the growth rate of technology-based firms (Bertoni et al., 2013). Also, both IVC and CVC investments increase the employment growth following the first round VC financing (Bertoni et al., 2013). IVC firms tend to leverage outsourcing in substitution of hiring a large number of employees to support sales growth (Bertoni et al., 2013). IVC investors have an incentive to grandstand to spur sales growth of the portfolio, particularly when the IVC is young and needs to build a positive reputation with investors (Bertoni et al., 2013). The grandstanding results from investors relying on VC track record when making an investment decision to commit funds (Kollmann, Kuckertz, & Middelberg, 2014). Bartkus, Hassan, and Ngene (2013) made a similar assertion when they found that inexperienced VCs might bring a company to IPO quicker than experienced VCs to build a reputation. Conversely, CVC requires no grandstanding as a means of facilitating reputation building because CVC tends to invest in ventures that strategically align with the parent organization (Bertoni et al., 2013). For this reason, differences in types of VC organizations have different incentives for fueling growth through startup development and funding opportunities.

Purpose of VCs

The purpose of VCs is to create value for investment shareholders by financing high-growth, high-potential companies that result in ROI for both VC and investment shareholders (De Treville et al., 2014). VCs will distribute resources and management

activities across a portfolio of investee companies with the intent of generating ROI. In the distribution of these VC resources, Tykvová and Schertler (2014) indicated that the geographic location of the investee company in the proximity of the VC is important towards investment decisions and performance. Manigart and Wright (2013) concurred with Tykvová and Schertler when they indicated that VC investment strategies might lead to (a) restricted industry, (b) geographic niche, (c) range of portfolio companies, and (d) investment approach. Hsu (2013) made a similar conclusion after indicating that young firms in high-tech industries are more likely to receive VC financing in locations like California or Massachusetts. Butler and Goktan (2013) indicated that cultural distance might have a statistically significant negative effect on company performance.

Ultimately, VCs invest in companies hoping for a favorable exit (Ozmel, Robinson, & Stuart, 2013). To achieve the goal of a favorable exit, VCs have a leading role in equity-based financing for early-stage startups (Galloway et al., 2017). Also, VCs use bargaining power to negotiate higher equity from entrepreneurial startups to generate higher returns (Heughebaert & Manigart, 2012). This bargaining power includes the value that the VC brings to the relationship. The value that VCs bring to the relationship with the startup include (a) screening, (b) advising, (c) monitoring, (d) certification, and (e) exercise control (Flor & Grell, 2013). Heughebaert and Manigart (2012) supported this position when they indicated that reputable VCs might attribute better entrepreneurial companies to better VC screening mechanisms. Entrepreneurs' preference is to associate themselves with reputable investors (Heughebaert & Manigart, 2012). Entrepreneurial success is a result of meeting the objectives of the shareholders (Gomezelj & Kuace, 2013). This

frontend relationship between the VC and the entrepreneur must also align with the performance expectations in the backend relationship between the VC and investors.

Relationship between VC and investor. Investors are an important component of the VC process for funding entrepreneurial companies. Also, investors may exert pressure on VCs to invest capital (Lauterbach et al., 2014). Investors provide the capital funding to VCs who in turn manage and distribute the funds to portfolio companies (Wonglimpiyarat, 2013). VCs aim to protect their investment with trade secrets and patents (Castellaneta et al., 2016). Nunes, Gomes Santana, and Pacheco Pires (2014) indicated that one of the most important criteria for evaluating entrepreneurs include honesty, integrity, and a long-term vision. However, investors can extend beyond the bounds of capital funding. Lehoux et al. (2014) found interrelationships between technology design and business model development when involving investors, which could compete with visions of the stakeholders and shareholders. In support of competing visions, Knockaert and Vanacker (2013) indicated that financial investors are confident in selecting ventures but have less influence on the value adding activities. However, when investors monitor VC performance, then the perception of the investor matters. From the perspective of the investor, VC performance has a positive influence on the VC reputation (Manigart & Wright, 2013). The investor's perception of the VC can trigger VC behavior towards pursuing an IPO or a faster exit (Bertoni et al., 2013). Parhankangas and Ehrlich (2014) discussed impression management between nascent entrepreneurs and angel investors, and the notion of impression management might extend into VC and investor. Although, Dutta and Folta (2016) found that VCs tend to

offer superior value-added services to the investment when compared to angel investors. VCs act as a broker between investors and portfolio companies. To meet the timely return on the investment goals of investors, VCs might pursue high-risk, high-return ventures while attempting to minimize financial loss resulting from pursuing risky ventures.

Relationship between VC and entrepreneur. VC firms can provide a source of funding for risky entrepreneurial companies. VCs often use proprietary procedures for discovering and managing entrepreneurs (Khanin & Mahto, 2013). Andrieu (2013) stated that VCs mostly specialize in seeding and development stages of the business development cycle. Manigart and Wright (2013) noted the homogeneous effects of VC selection of startups in high-risk industries. Croce et al. (2015) found that VC firms might offer better deals to entrepreneurs for high-risk technology ventures that have no tangibles. As venture uncertainty increases, VCs are likely to provide more frequent funding with a lesser dollar amount based on the entrepreneur meeting milestones (Andrieu, 2013). In this context, there exist multiple dimensions of risk regarding VC investment. Risk might include risk related to the liability of newness, risky industry, risky technology, and risky markets. Risk relates to information asymmetry.

As mentioned earlier, information asymmetry is the discontinuity between the knowledge of the investee and the knowledge of the VC investor. However, information asymmetry extends into other domains beyond investee-VC relationships. VCs must consider the complexity of these other domains while evaluating startup companies. Information asymmetry increases the risk of the VC and entrepreneur failing to obtain the anticipated ROI. Hausman and Johnston (2014) inferred a need for new measures to

account for innovation in risky environments. This new measure comes following the global financial crisis that created impediments to US-based innovation because of an unbalanced focus on short-term financial results over the long-term consequences (Hausman & Johnston, 2014). Nanda and Rhodes-Kropf (2013) studied the times that VC investors are willing to invest in novel companies with greater risk during hot periods in the market. Nanda and Rhodes-Kropf go on to clarify the distinction between risky and worse investments. In this context, risk can be acceptable regarding an anticipation of an ROI. This risk-acceptance becomes clear when Nanda and Rhodes-Kropf revealed that risky firms could result in greater ROI if the company becomes profitable through an acquisition or an IPO. VCs do not invest in gamblers; VCs will invest in individuals knowledgeable of the market and capable of managing or minimizing risk (Pollack & Bosse, 2014; Fisher, Kuratko, Bloodgood, & Hornsby, 2017). Furthermore, Li et al. (2013) attempted to define a mathematical formulation linking the volatility of the market and investee performance to a point in time to sell the investee company. Given the complex dynamics that VCs face while investing in companies, VCs might distribute risk and reduce negative financial effect through the act of syndication.

VC syndicates. Forming a syndicate is a means for VC and capital investors to reduce the effect of loss resulting from risk and uncertainty. Khavul and Deeds (2016) indicated that the most pervasive reason that syndicates exist is that syndicates are an efficient way to share risk among VC partners, as well as an effective screening process. VCs might use syndicates and portfolio of investment firms to spread risk and to reduce uncertainty (Terjesen et al., 2013). However, even with syndicates, risk and uncertainty

in startup businesses continue to exist (Khavul & Deeds). Also, Khavul and Deeds rationalized that the VC, who is the lead in the syndicate, provides the majority of the financing. For this reason, to hedge against the risk related to uncertainty, VCs leverage diversification and syndication in their investment portfolio (Rosenbusch et al., 2013). Exercising syndication is another channel for risk distribution among other VCs and investors to reduce the effect of loss to a single VC. Syndicates are not only a means for risk reduction and diversification, but also syndicates are useful for bringing value to investment partners.

VC syndicates can have influences on the VC's entrepreneurial assessment activities. Heughebaert and Manigart (2012) indicated that young VCs might establish themselves with a syndicate to build themselves in the market. Furthermore, Terjesen et al. (2013) indicated that VCs who belong to syndicates and other social associations tend to exhibit homogeneous decision-making behaviors. For this reason, syndicates have an influence on common evaluation behaviors and expectations of VC performance. Through these behaviors and expectations, Khavul and Deeds (2016) indicated that syndicates have a greater demand for due diligence, monitoring, and information. Li, Vertinsky, and Li (2014) found that the VC's past success and the VC's association with a syndicate could improve the success rate of investors. The social interaction of VCs with syndications can improve the success rate of investee companies while distributing risk across all the syndicated VC partners. Although distributing the risk of investment across all VC collaborates through syndication reduces the positive returns to the primary

investors. Therefore, VCs must identify the best investment method for their strategic objectives.

Challenges of VCs assessing entrepreneurs. Distinguishing between good entrepreneurial investments and poor entrepreneurial investments is difficult for VCs. Flor and Grell (2013) outlined the difficulty in assessing entrepreneurial investments because the VC does not fully determine an entrepreneur's intent until post investment. Li et al. (2016) found that VCs invest in entrepreneurs who are proven high quality during the first stage output when a reduction in uncertainty and a reduction in information asymmetry exist. Furthermore, Muzychenko and Liesch (2015) suggested that entrepreneur self-efficacy has a positive influence on signaling the execution of business opportunities. Muzychenko and Liesch inferred that entrepreneurs with high self-efficacy had high confidence in paying back the debt. Wood, Bradley, and Artz (2015) made a similar finding when they indicated that entrepreneurs who exhibit optimism could lead to business growth. Therefore, entrepreneur self-efficacy in debt financing synthesizes into the notion that entrepreneurs with high self-efficacy have high confidence of success and passion in the venture. Henry (2016) suggested that an entrepreneur's preparedness supersedes the entrepreneur's passion in terms of the funding decision-making tactics of VCs. Brundin and Gustafsson (2013) argued that positive emotions from the entrepreneur increase the propensity for the VC to invest in the entrepreneur when uncertainty is high. Conversely, Monika and Sharma (2015) described some challenges with the VC decision-making process that includes bias and heuristics. Therefore, subjective displays of entrepreneurial preparedness, passion, and emotion might suggest the challenge of

computerizing all VC decision-making initiatives. Consequently, entrepreneurs having strong emotional ties to their venture could have an unwillingness to terminate the continuation of poor investments. For this reason, given the notion of preparedness, passion, emotions, and self-efficacy, none of these attributes illuminates any specific patterns that VCs might link into strategies for identifying profitable ventures. VCs must develop strategies for assessing entrepreneurial companies in complex environments to identify those with the highest probability of success.

When VCs have all the necessary information, then they can make the best decision to identify and invest in successful startups (Rosenbusch et al., 2013). The definition of a successful startup includes a VC exit through an IPO or a buyout (Nanda & Rhodes-Kropf, 2013; Cassar, 2014). However, because of information asymmetry, VCs must operate in a world of less than ideal conditions when making decisions to invest in startups (Vogel et al., 2014). Information asymmetry creates risk and uncertainty that could affect decisions of the VC to invest in entrepreneurial startups (De Treville et al., 2014). Information asymmetry and interaction between the VC and investors, combined with the interaction between the VC and the entrepreneur influences investment decisions of the VC (De Treville et al., 2014). Endogenous and exogenous factors also influence the assessment strategies of VCs (Li et al., 2016). Some factors directly influence the assessment strategies of VCs, while other factors are beyond VC control (Tykvová & Schertler, 2014). Exogenous factors like market conditions, location, and econometric indicators integrate into the decision of the VC to invest in a startup (Tykvová & Schertler, 2014). Endogenous limitations, capabilities, and timing of the VC

firm influence the decision to invest in a startup (De Treville et al., 2014). These factors coincide in a manner that could drive the VC to decide to accept or to reject the entrepreneurial investment opportunity. VCs must regularly make assessment decisions about startups based on incomplete information that stems from a world of less than ideal conditions (Trigeorgis, 1996). Most often, the decision to invest in a startup results in a company that fails to meet the expectation of shareholders (Nanda & Rhodes-Kropf, 2013). Investigating the pervasive nature of these factors above alongside the interactions between the VC and the entrepreneur requires a deeper understanding of decision-making strategies of VCs. Understanding the decision-making strategies of VCs roots with the goal of identifying how VCs identify profitable startups in the southeastern United States.

Holistically, the interaction between VCs and entrepreneurs centers on the assessment strategies of funding risky ventures. Typically, entrepreneurs in the United States seeking VC funding are pursuing innovative high-tech ventures (Knockaert & Vanacker, 2013). High-tech innovation ventures are risky and uncertain (Knockaert & Vanacker, 2013). Risk relates to uncertainty because of information asymmetry among VCs and entrepreneurs.

VCs prefer to invest in startups that have members representing diverse backgrounds and skills (Kakarika, 2013). Also, VCs invest more time in businesses that they feel might result in a higher likelihood of an IPO (Gerasymenko & Arthurs, 2014). Therefore, continuous monitoring of the startup is essential to the VC (Hirsch & Walz, 2013). For startups, negative outcomes of conflict stemming from excessive diversity lead to unrecoverable conflicts and impediments to progression (Kakarika, 2013). Too

little diversity leads to a business that fails to innovate because of the narrow focus among the team members (Kakarika, 2013). For this reason, extremely high and extremely low levels of diverse opinions are destructive to a startup (Kakarika, 2013). Entrepreneurial team diversity includes (a) diversity of opinion, (b) diversity of expertise, and (c) diversity of power (Kakarika, 2013). The author suggests that business founders should build teams of maximum diversity while minimizing maximum power (Kakarika, 2013). There must be a balance between diversity and similarity in team members (Kakarika, 2013). VCs evaluate these entrepreneurs and include risk assessment tactics as part of their entrepreneur selection strategy (Andrieu, 2013). Conversely, Guinn (2013) found that methods for evaluating good people could include systems for measuring thinking skills, team orientation, adaptability, leadership, and change management capabilities. However, generally accepted business assessment and monitoring tactics that were sufficient in the past might not remain tolerant for future organizational performance and design (DaSilva & Trkman, 2014). However, regardless of the type of VC, monitoring is essential (Hirsch & Walz, 2013). For this reason, traditional VC entrepreneurial assessment tactics that might have an inclination to protect shareholder interests through risk aversion might present roadblocks that stifle entrepreneurial innovation. The consequence of these roadblocks might have a rippling effect because of unrealized or missed opportunities for shareholders, VCs, entrepreneurs, and society through unrealized ROI and job creation. The manner in which VCs assess entrepreneurs becomes essential for identifying the most promising companies that could lead to a successful IPO or a successful buyout exit.

Many VCs tend to leverage methods for evaluating entrepreneurial startups by using tactics similar to corporate project evaluation practices (Zeng & Zhang, 2011). Net Present Value (NPV) and Discounted Cash Flow (DCF) are popular financial instruments for determining whether the project or venture, is worthy of investment (Zeng & Zhang, 2011). The basic premise for the NPV calculation derives from the sign of the result; if the sign is positive, then the project or venture is worthy of investment. Conversely, if the sign of NPV is negative, then the venture is not worthy of investment. However, Zeng and Zhang (2011) indicated that NPV could lead to the wrong investment decisions because of the mantra accept or never accept criteria underlying the foundation of the method. Also, Zeng and Zhang mentioned the limitations and misuse of DCF because of assessors' assumptions of estimated future cash flows deriving from certainties while not accounting for an uncertain future. A shortcoming of traditional DCF methods is the inability to recognize the value of active management in adapting to changing market conditions (Trigeorgis, 1996). These shortcomings become clear upon the inspection of failure rate statistics of VC-backed companies.

High levels of risk and uncertainty in entrepreneurial startups could cause VCs to have a difficult time identifying sustainable and profitable companies that might result in a strong ROI. When VC-backed startups are sustainable and profitable, then the results include creating value for investors and the economy (Terjesen et al., 2013). However, partly due to risk and uncertainty, VC firms fund only 0.5% to 1.0% of entrepreneurial business plans because most startup ventures fail (Nanda & Rhodes-Kropf, 2013). Conversely, Vogel et al. (2014) studied the decision-making tactics of VCs investing in

seed-stage startups. They mentioned that 20% of business proposals continued beyond the assessment of the VC investors. De Treville et al. (2014) indicated that VCs spend about 33% of their time on the entrepreneur evaluation and assessment process. Chen and Chang (2013) indicated that VCs reject 9% of entrepreneur startups because of the lack of VC resource capacity to evaluate each company. However, out of the VC-funded startups, half of the companies exit with a non-zero value, and 85% of the returns come from only 10% of the funded companies (Nanda & Rhodes-Kropf, 2013). Additionally, Nanda and Rhodes-Kropf (2013) in a study of VCs experimenting with riskier than usual investments found a 27% probability of bankruptcy in risky industries that include biotechnology, healthcare, and financial services. Arcot (2014) pointed that VCs on average own 36.6% of the firm before the IPO. In a study of VC-backed companies from 23 French VCs, 10% of the companies resulted in an IPO, while 64% of the companies resulted in a sale and 24% was some other exit type (Gerasymenko & Arthurs, 2014). Since some VCs reject high percentages of entrepreneurial business plans while most of the 1% of the funded startups have a high probability of failure, then there exist an opportunity for further inquiry. Soken and Barnes (2014) corroborated this statement when they indicated that the results of a McKinsey survey showed that 65% of executives are disappointed in their ability to promote innovation. The situation of disappointing returns becomes exasperated because, since the dot-com era, there are fewer IPOs and many VCs are transitioning towards mergers and acquisitions as an alternative to IPO (Waite & Jamison, 2013).

VCs experience the challenges of evaluating entrepreneurs with limited information. This limited information is information asymmetry (He & Wan, 2013). As a method of evaluating investment startups, VCs use signals as part of the assessment practices. Guinn (2013) indicated that some strategies that VCs might use to evaluate an entrepreneur are by observing signals that could identify whether or not the entrepreneur might be a good candidate for investment. However, Flor and Grell (2013) mentioned the difficulty of differentiating between a good and a bad entrepreneur occurs following the initial investment. Eldridge et al. (2013) cautioned that in environments of high uncertainty, signals are unreliable in predicting technological and market behaviors. Although, Goel and Göktepe-Hultén (2013) suggested that patents and prototypes could send a positive signal to VCs in the same markets. Haeussler et al. (2014) drew a similar conclusion when they indicated that companies that demonstrate a larger set of technological capabilities receive VC financing faster.

Influence of signals in making investment decisions. Signals are useful for informing the market by extending the notion of VC assessment into environmental dynamics. In this context, the investment market might use signals to base the decision of a forthcoming IPO. Spitzeck et al. (2013) indicated that organizations should establish signals of sustainability to attract an IPO or a buyout. Also, Arcot (2014) discussed signals that VCs send to the market when converting stocks. Ecer and Khalid (2013) postulated that VCs with high industry experience tend to increase their investments the most when the public markets' signals are favorable. Vogel et al. (2014) cautioned the use of signals for VCs investing in foreign cultures that might not persist in the United

States cultures. Inmaculada and Francisco (2013) supported a similar perspective when they indicated that some country cultural values led to higher entrepreneurial intention. Signals could mislead investors regarding entrepreneurial performance in market dynamics. Therefore, VCs tend to leverage decision-making strategies as a means to base decisions to invest in entrepreneurial companies (Nanda & Rhodes-Kropf, 2013). There exist salient strategies that VCs might use to assess entrepreneurial startups (Hsu, 2013). As mentioned earlier, Terjesen et al. (2013) indicated a homogeneous decision-making effect that occurs with VCs affiliated with a syndicate. Kremljak and Tekavcic (2014) presented a decision-making support system based on real options theory – a discussion of real options theory would come later in the review of the literature. The Kremljak and Tekavcic's model incorporates risk management and uncertainty. Although, Kremljak and Tekavcic also indicated that corporate politics influences the execution of decision-making strategies. Daming et al. (2014) conducted a decision-making analysis that described a corporation's decision to innovate when confronted with the challenges of uncertainty. Simón-Moya and Revuelto-Taboada (2016) used a mathematical model that identifies entrepreneurs' characteristics relating to education, experience, and motivation as important factors to firm survival. Daming et al. (2014) created a model that identified innovative technological trajectories leading to the entrepreneurial decision to invest in a venture. These models above may synthesize to decisions that VCs might use when assessing an entrepreneurial company. However, Li et al. (2013) reflected on the complexities of equity-based entrepreneurial financing which creates decision-making challenges because of an inability to describe the complex phenomenon in a linear model.

Pauwels et al. (2013) indicated that there are too many parameters lost in the translation of the variables to derive real-world knowledge into well-defined information structure. The loss in translation is because humans with multiple perspectives are unable to calculate all possible actions in which economists assume because the complexities of the world, the volume of information, and the cognitive abilities of humans are too limited to allow (Rodríguez, Martínez, & Herrera, 2013). From an accounting practice perspective, Smith and Cordina (2014) evaluated the effectiveness of accounting practices in high-tech investment. Smith and Cordina indicated that some VCs use financial statements as a starting point while other VCs do not consider financial statements a major component of the entrepreneur assessment process. Smith and Cordina continued by mentioning that some VCs use various documents including financial statements, business plans, executive summaries, and any disclosures about future expectations as a method of assessment before investment. Also, Smith and Cordina found that important characteristics that VCs use to evaluate entrepreneurial ventures include the personal qualities of the team or management and the experience in bringing projects to market. Smith and Cordina reflected on the absence of an explicit formula that can determine the value of an investment. As such, the literature provides little reflection on a holistically viable collection of decision-making strategies that VCs use that result in identifying profitable startups.

Complexities of VC investment decisions. Since VCs are typically unable to rely on syndicates, innovation trajectory models, traditional finance theories, financial statements, nor any other explicit formula holistically to identify profitable investments,

then some VCs might base their investment decisions on the human capital of the investee company (Smith & Cordina, 2014). Internal factors of human capital from the entrepreneur and the entrepreneurial team could affect the assessment of the VC funding decision and the effectiveness of establishing a competitive business (Townsend & Busenitz, 2015). Probert et al. (2013) indicated that know-how creates a strong business base, particularly when the underlying technology is closer to the market. Huarng (2013) described the effectiveness of the entrepreneur's business model when operating a profitable business. For this reason, the business model and internal factors of human capital that make up the talents and skills of the entrepreneurial team are important to VCs for meeting the goals of finding a profitable startup and mitigating risk. However, in changing environments of high-risk and uncertainty, VCs need methods and strategies for assessing and better identifying startups that will likely result in a successful VC exit.

Real Options Theory

ROT was the conceptual framework for this study. Trigeorgis (1996), described, all things being equal, the average investor is risk averse while operating in a world of business where the existence of risk and uncertainty is unavoidable. Management teams use methods like NPV and diversification to manage risk (Trigeorgis, 1996). Traditional NPV results in a decision to either invest or abandon a project (Trigeorgis, 1996). Diversification spreads risk in an offsetting manner across the portfolio (Trigeorgis, 1996). However, diversification does not directly address the shortcomings of traditional NPV methods because the result of NPV is the decision to either invest or not invest in a

project. The real options theory is a framework for connecting diversification with hedging against risk and uncertainty.

History of ROT. ROT started in the financial investment industry. However, ROT has advantages in other industries where investors and stakeholders must address risk and uncertainty. Black and Sholes (1973) derived a mathematical formulation within the investment industry for modeling and addressing risk and uncertainty. The formulation represents a set of differential equations for aiding investors in hedging against risk and uncertainty within a portfolio of investments (Black & Sholes, 1973). The hedging occurs by presenting investors with an option to buy or sell a security within a specified timeframe (Black & Sholes, 1973). The Black and Sholes differential equations for hedging against risk and uncertainty are real options (Fernandes, Cunha, & Ferreira, 2011). ROT derives from the Black and Scholes differential equations and relates to a decision-tree analysis that supports decision-making strategies of investors by allowing course adjustments as uncertainty reduces over time (Baduns, 2013). Real options have applications that extend beyond the investment industry and into a broad scope of other industries where investors must make investment decisions with risk and uncertainty (Trigeorgis, 1996; Mun, 2006; Cheng et al., 2011; Peng, Lee, & Hong, 2014). The advantage of real options over traditional assessment methods is that real options provides investors the option to continue, abandon, or switch an investment (Fernandes, Cunha, & Ferreira, 2011). The real options theory is useful for assessing ventures that have uncertainty (Cheng et al., 2011). The nature of entrepreneurial startups is risky and uncertain because of information asymmetry between the entrepreneur and the VC.

Therefore, the real options theory could provide a suitable conceptual framework for describing some strategies that VCs might use when investing in profitable startups.

Flexibility of ROT. The use of ROT provides a VC the option to assess and reassess the value of the venture throughout a finite lifespan of the investment. Therefore, ROT is the right, but not the obligation to invest or continue investing (Cheng et al., 2011). The option to invest in a venture provides an advantage over traditional financial assessment tactics that consist of all or nothing investment mentality (Cheng et al., 2011). Decision-makers have the option to make course corrections as information asymmetry and uncertainty reduces over time (Mun, 2006). Mun (2006) described several types of options that include the option to (a) switch, (b) abandon, (c) expand, and (d) contract. Options provide an investor the ability to make profitable decisions in the midst of risk, uncertainty, and information asymmetry.

Through the lens of ROT, the conceptual framework of this study for VCs assessing entrepreneurial startups in uncertain and risky environmental and market conditions exist. The application of ROT has advantages of optimizing investment decisions to increase the likelihood of venture success. Mun (2006) described that real options are useful for identifying and navigating investment decision pathways and strategic decision pathways in the midst of uncertainty. Mun also indicated that real options are appropriate for prioritizing and timing the execution of investment decisions to increase the likelihood of venture success.

Applications of ROT. The notion of real options has existed in the academic literature for decades (Zeng & Zhang, 2011). Zeng and Zhang (2011) indicated that the

concept of real options dated back to Myers in 1977 in relation to the similarities between real options and financial options. However, Nobel Prize laureates Merton, Myron, and Black identified that the formula for financial investment options applies to real options (Haeussler et al., 2014). Therefore, the concept of ROT has roots in financial call options. Financial call options center on the notion that investors have the right to buy or sell an asset at a pre-specified price for a pre-specified length of time (Fernandes et al., 2011). The idea of ROT is to give managers the flexibility to decide to invest in an asset today with the option to abandon or continue with the investment in the future (Fernandes et al., 2011). Chung et al. (2013) indicated that although ROT was historically criticized for perceived lack of real world applicability, ROT was comparable to risk diversification theory. For this reason, the basis of financial options creates the underlying pattern to transition the same concept of financial options into other applications.

Some scholars described the effectiveness of ROT (Fernandes et al., 2011; Chung et al., 2013). ROT provides a decision-making mechanism for investing in a venture that would otherwise result in investment rejection when using traditional NPV and DCF financial evaluation methods as the determinant. When demand is uncertain, then there is an opportunity cost for deciding to invest with the risk of losing the option as new information becomes available (Bertoni et al., 2013). ROT is a method for addressing uncertainty in changing conditions (Podoyntsyna, Song, Van Der Bij, & Weggeman, 2013). ROT is a method for expanding on traditional financial instruments as a means of evaluating risky ventures. Through ROT, VCs can assess entrepreneurial startups in the midst of uncertain conditions.

In the context of finance, ROT has advantages over traditional assessment methods. Zeng and Zhang (2011) discussed the advantage of real options over the traditional NPV and DCF instruments. Fernandes et al. (2011) supported this position when they referred to a study of renewable energy sources (RES) where ROT provided superior performance although DCF was negative. For this reason, limitations and misuse of DCF come from the assessors' assumptions of estimated future cash flows deriving from certainties that do not account for an uncertain future (Zeng & Zhang, 2011). However, Mun (2006) explained that real options are not a substitute for NPV and DCF; real options complement NPV and DCF because NPV is for seeding the binomial lattice. Also, Zeng and Zhang (2011) showed a robust flow of literature history describing the broad application of real options in various industry segments. Real options provide a suitable method for managing uncertainty in high-risk projects (Zeng & Zhang, 2011). ROT provides a method for VCs to base decision-making strategies of entrepreneurs in high-risk ventures.

Decision-making systems that support a ROT framework provide a means for evaluating entrepreneurial startups. Kremljak and Tekavcic (2014) created a model for supporting a decision-making support system based on ROT. Kremljak and Tekavcic found that when organizations buy options for the future, coinciding with the greater the uncertainty of the business, then the greater the organizational system gains. De Magalhães Ozorio, de Lamare Bastian-Pinto, Nanda Baidya, and Teixeira Brandão (2013) submitted that ROT is an adequate tool when making decisions with high uncertainty. Fernandes et al. (2011) showed methods of application of ROT in terms of

partial differential equation approach, dynamic programming, and simulation to support the option to invest. The basic premise of the partial differential equation approach is to express the value of an option in mathematical terms with boundary conditions (Fernandes et al., 2011). The partial differential equation approach is useful for developing a model for determining the optimal time to invest in technologies and for identifying key parameters that could affect the investment decision (Fernandes et al., 2011). Applying ROT using a method of dynamic programming is useful for optimizing decisions on future payoffs (Fernandes et al., 2011). Applying ROT through Monte Carlo simulations is effective for modeling real life scenarios with complex relationships between variables and complicated business rules (Fernandes et al., 2011). However, from the perspective of computer simulations, Trigeorgis (1996) noted that although investors and managers can adapt to changing conditions, computer-simulated models do not adapt to changing conditions in the same manner. For this reason, decision-making strategies in industries of high uncertainty, as seen through the eyes of scholars, suggest that real options are a means for addressing the high uncertainty that accompanies risky ventures.

From a strategic approach, ROT provides a decision-making mechanism for investing in a venture that would otherwise be rejected using traditional financial evaluation methods as determinant in NPV and DCF instruments. ROT is a method for expanding on traditional financial instruments as a means of evaluating and predicting entrepreneurs' performance. Through the framework of ROT, VCs can assess entrepreneurial startups in the midst of uncertain conditions. Fernandes et al. (2011)

argued that ROT is useful for evaluating ventures with high initial costs, high financial risk, and uncertainties. Considering the uncertainty that accompanies high-risk ventures, in addition to the shortcomings of pure NPV and DCF represents an opportunity for further inquiry. The assessment strategies that VCs could use to evaluate risky ventures while predicting profitable ventures become the focus of this research.

ROT and game theory. A supporting theory to ROT is game theory. Game theory is the study of strategic decision-making patterns in competitive and risky environments (Azevedo & Paxson, 2014). Some scholars use game theory and ROT to explain decision-making patterns of investors who operate in competitive environments of risk, uncertainty, and information asymmetry (Azevedo & Paxson, 2014; Daming et al., 2014). Daming et al. (2014), in a quantitative study, described a mathematical model that incorporated Poisson, ROT, and game theory to predict trajectories of innovation in risky and competitive markets. The mathematical model could be a strategic tool for VCs to identify profitable startups by aiding in predicting the market dynamics of innovations. Azevedo & Paxon (2014) combined the concepts of ROT and game theory to create a model of investment analysis that is suitable for addressing risk and uncertainty in a competitive environment. According to Azevedo and Paxon, their model provided advantages over classical investment evaluation methods that derive from unrealistic assumptions. Also, ROT may be limited in addressing the external influences of competition that could trigger changes in market dynamics through discontinuous innovations. The use of game theory could provide an alternative conceptual framework for describing how VCs identify profitable startups. The game theory could include

information that highlights the competitive dimension of VCs in identifying profitable startups in a manner that supports ROT.

Alternative explanations to ROT. There may be alternative explanations to ROT that could provide contrasting conceptual frameworks in the study of VC strategies for identifying profitable startups. Contrasting explanations to ROT include investors making risky investment decisions within the domain of economic theory. Virlics (2013) used economic theory to describe the behavior of VCs in making investment decisions that include risk, uncertainty, and information asymmetry. Virlics observed that VC investment decisions are subjective, and influences of VC decisions include past performance, the perception of risk, expected cost of investment, while not devoid of emotional responses of VC behavior. In addition, Brundin and Gustafsson (2013) found that uncertainty is a strong moderator in the relationship between emotions and the propensity to continue investing in projects. The economic theory contrasts ROT by illuminating the subjective and the emotional components of VC investment strategies within a conceptual framework that might be less prevalent in the application of ROT. In particular, the application of ROT shows less emphasis on the emotional attributes of VC behavior whereas economic theory could incorporate VC emotional attributes as a critical component in evaluating risky investments. The subjective and emotional responses of VCs could influence investment decisions that lead to identifying profitable startups.

Another alternative explanation that could explain the influence of VC strategies in identifying profitable startups is behavioral and legitimacy theories. Petkova, Wadhwa, Yao, and Jain (2014) applied behavioral and legitimacy theories to study the role of VC

reputation when evaluating investments that include risk, uncertainty, and information asymmetry. Petkova et al. found that VC firms with higher reputations tend to emphasize risk reduction strategies to maintain a high reputation and legitimacy among investors. Renko (2013) offered a parallel view of legitimacy from the perspective of entrepreneurs. Renko indicated that nascent entrepreneurs should focus on establishing legitimacy with VCs early to decrease the perception of risk and uncertainty. Establishing and maintaining VC reputation and legitimacy among investors could influence VC selection strategies of risky ventures. Based on the conceptual framework of behavioral and legitimacy theories, VCs might place greater emphasis on maintaining a high reputation and legitimacy with investors over the merits of the investee firm. Therefore, VC reputation and legitimacy could be a modulator to an investment strategy as oppose to the result of an investment strategy. Behavioral and legitimacy theories might provide a viable alternative to ROT regarding VC investment strategies for identifying profitable startups.

The collection of resources that constitutes this review of the literature shows a broad array of ideas regarding strategies that VCs use for identifying startups that could result in a successful VC exit. Some scholars demonstrate decision-making complexities in human interactions in a manner that might generalize to identifying profitable startups (Rodríguez et al., 2013). Other scholars believe that under certain conditions, there is the possibility of identifying profitable startups through mathematical modeling techniques (Kremljak & Tekavcic, 2014; Fernandes et al., 2011). Still, some scholars have indicated that signals from various sources are useful for identifying profitable startups (Guinn,

2013; Spitzbeck et al., 2013). Still, other scholars assert that the experience of the VC and the entrepreneur are key factors for identifying profitable startups (Ecer & Khalid, 2013; Smith & Cordina, 2014). Considering the various scholarly perspectives, ROT was a suitable conceptual framework that enables the convergence of the different VC assessment strategies toward consistent themes of identifying profitable startups. Based on the information in the review of the literature, there were no clear strategies emerging that identify reliable methods for assessing startup entrepreneurs in a manner that predicts a successful VC exit. The previous assertion is evident in the high number VC-backed companies that fail to meet investment performance expectations (Nanda & Rhodes-Kropf, 2013). For this reason, there is an opportunity to begin addressing a gap in the literature by qualitatively exploring the techniques that VCs use in assessing startups in the southeastern United States. Based on the qualitative study, concepts became clear that could provide direction for both inexperienced VCs and experienced VCs operating in the domain of funding high-risk, high-return entrepreneurial startup companies. Also, the results of the qualitative study could illuminate strategies for nascent entrepreneurs to make better decisions regarding ideas of novelty. The results of this study could lead to positive social change by enabling better supply-side and demand-side investment decisions from both VCs and startup entrepreneurs.

Transition

Section 1 was an introduction to the framework of the research. The framework of the research includes the problem statement, the purpose statement, the research question, the nature of the study, the conceptual framework, the operational definitions, the

significance of the study, and the review of the literature. Section 1 also included information highlighting the focus of the study by centering on the challenges that VCs face when evaluating startups that could result in a successful VC exit. The challenges of risk and uncertainty that VCs face set the context of the research question and the foundation for selecting ROT as the basis for the conceptual framework.

Section 2 includes the role of the researcher, the method for identifying participants, the selection of qualitative methodology, the selection of a case study design strategy, the focus on conducting ethical research, the focus on validity and reliability, the data collection method, the method for analyzing the data, and the organization of the data. Section 3 contains the presentation of the findings derived from the research data. The presentation of the findings includes an application to professional practice, the implications for social change, recommendations for action, recommendations for further study, and reflection.

Section 2: The Project

The purpose of Section 2 is to provide a description of the research design strategy and the rationale for the design selection. This research study was a qualitative method using a case study design strategy. Section 2 includes discussion on the (a) purpose statement, (b) role of the researcher, (c) participant selection, (d) research method, (e) research design, (f) population and sampling, (g) ethical research, (h) data collection instrument, (i) data collection technique, (j) data organization techniques, and (k) reliability and validity. Section 2 also includes a description of the tactical approach to addressing the research question, which centers on strategies that VCs could use for identifying and investing in profitable startups.

Purpose Statement

The purpose of this qualitative multicase study was to explore strategies that VCs use in determining which businesses would become profitable when investing in startups. Eleven VCs from eight firms located in the southeastern United States participated in interviews to share their entrepreneur selection experiences. The findings from this study may result in a positive social change by illuminating VC strategies that investors could use to lead startup businesses to profitability. Sustainable and profitable startup businesses might contribute to positive social change by propelling the global economy forward through job creation and investor ROI.

Role of the Researcher

The role of the researcher includes conducting an honest study with the highest ethical standards while striving for ensuring credibility and accepting responsibility for

the research work (Yin, 2014). As the researcher, my role in the data collection process included conducting interviews with VC participants while triangulating findings with archival documents, field notes, and reflexive journal entries using methodological triangulation. Qu and Dumay (2011) indicated that interviewers try to remain open to new ideas during participant interviews while avoiding imposing the interviewer's preconceived notions. As the researcher, I focused on each participant's interview question responses and remained open and receptive to new ideas while adhering to the ethical standards of the university.

Twining, Heller, Nussbaum, and Tsai (2016) described how epistemological and ontological views integrate with the researcher-participant experiences to richly describe a phenomenon and contribute to the validity of the research. Vogel et al. (2014) showed that members of a VC firm possessing diverse experience in fields including management, engineering, and information technology are capable of identifying profitable startups. I brought more than 20 years of practitioner experience from the fields of management, engineering, and information technology into this research. My only interaction with VCs related to pursuing startup capital for a biotechnology venture in early 2000. Therefore, I had neither personal nor professional contact with VCs who participated in this study.

Ensuring ethical integrity includes integrating principals outlined in the Belmont Report protocol under the authority of the U.S. Department of Health and Human Services as a strategy for ethical compliance (U.S. Department of Health and Human Services, 1979). I completed the Protecting Human Research Participant training by the

National Institutes of Health (NIH) Office of Extramural Research (Certification No. 1322814). Using the Belmont Report and NIH training, I proactively anticipated and addressed any potential ethical issues that could compromise the confidentiality of the participants and their organization.

Mitigating biases in research include being sensitive to alternative explanations from participants (Yin, 2014). To mitigate researcher bias, I established confirmability by implementing techniques of auditing, triangulation, member checking, and reflexive journaling for data collection. Lincoln and Guba (1985) asserted that auditing, triangulation, member checking, and reflexive journals are techniques for mitigating researcher bias while supporting the notion of viewing the data through a personal lens.

The design of this qualitative research included semistructured interviews as part of the data collection strategy. Moustakas (1994) indicated that conducting research on humans requires a method that is systematic, orderly, disciplined, and executed with care and rigor. Lincoln and Guba (1985) mentioned that interviewers should follow established steps and guidelines executed in a systematic manner when interviewing participants. An interview protocol is useful for guiding the interaction with participants in a systematic and orderly manner (Kokka, 2016). Therefore, I used an interview protocol (Appendix A) that included the interview questions, the procedure for executing the interview, and scripts used before, during, and after the interview with each participant. The integration of the interview protocol within the case study design establishes the foundation for a credible study (Yin, 2014).

Participants

VCs are a specialized group of professionals with unique knowledge and experience evaluating, investing, and supporting startup ventures (Monika & Sharma, 2015). Bartkus et al. (2013) indicated that an identifier of VC experience includes working in a VC firm. Hsu (2013) mentioned that experienced VCs who finance startups are more likely to exit with an IPO. However, Khanin and Mahto (2013) cautioned that VCs with at least 5 years' experience could become ineffective in evaluating startups because they might lose the learner's mindset from their portfolio of companies. The criteria for participant eligibility included at least 5 years of VC experience evaluating funding rounds for startups. The selection of participants with at least 5 years VC experience may ensure that each participant has sufficient experience to address the research question.

The source for identifying participants for this study was the Dow Jones VentureSource database. VentureSource is a semipublic database that is accessible through a user subscription (Nanda & Rhodes-Kropf, 2013). Townsend and Busenitz (2015) indicated that VentureSource is a major database for identifying the performance profile and locations of VC firms. Lutz, Bender, Achleitner, and Kaserer (2013) established that VentureSource is largely unbiased from the perspective of industry and performance of VCs. Furthermore, Nanda and Rhodes-Kropf (2013) asserted that VentureSource is a popular database for many academic papers on VCs. Therefore, data from the VentureSource database was useful for identifying VC firms that meet the performance criteria and the geographic location of the case study population.

Following access to the VentureSource database, I searched for VC firms meeting the IPO performance criteria. Using VentureSource, the search criteria for identifying VC firms having an IPO within the past 5 years include:

1. Select the investment round type option as IPO.
2. Set the finance completion-date range between January 2012 and January 2016.
3. Set the investor type option to VC.
4. Select southeastern United States as the investor region.

The search results included a list of investee companies with an IPO within the past five years. A review of each investee company from the search results showed the investor VC firm located within the southeastern United States meeting the search criteria. Selecting the option for additional information showed demographic information including the name, address, email, and phone number of a representative of the investing VC firm.

An additional type of search from VentureSource™ was appropriate for identifying VC firms in the southeastern United States having an investee buyout within the past five years. The search criteria for identifying VC firms having an investee buyout within the past five years include:

1. Select the investor type option as VC.
2. Set the round preference option to buyout.
3. Set the finance completion-date range between January 2012 and January 2016.
4. Select southeastern United States as the investor region.

Using the search results for identifying investee buyouts, the steps for accessing the VC firm contact information from the IPO procedure also apply to the buyout procedure. The combination of the IPO search results and the buyout search results provided the list of VC firms that are eligible for the study. The final list included eligible VC firms in alphabetical order with duplicate firms removed from the list. The list of VC firms contained the information to send an introduction email letter and a request for participation form to an authorized representative of each VC firm.

Gaining access and establishing a working relationship with participants included sending an email to an authorized representative of the VC firm. After identifying eligible VC firms and contacts, I sent an introduction email containing the letter of cooperation and the consent form to an authorized representative of the firm. Orser, Elliott, and Leck (2011) used a combination of email distribution and purposive selection to identify participants to engage in an interview-based study. Leonard et al. (2014) showed how email distribution provides a conduit for identifying and engaging knowledgeable participants who are relevant for a specific purpose. Moreover, Khanin and Mahto (2013) leveraged email distribution for identifying and recruiting VCs to participate in a study that reflected on biases of VCs continuing to invest in follow-on funding. Furthermore, Hadidi, Lindquist, Treat-Jacobson, and Swanson (2013) indicated that an interactive consent process, which might include emails, could prevent or resolve issues of participant withdrawal. Email distribution is an appropriate method for identifying and inviting participants suitable for addressing the research question (Orser, Elliot, & Leck, 2011).

The emailed introduction letter, Letter of Cooperation, and Consent Form included my name, affiliation with Walden University, and the purpose of the study. If the authorized representative did not respond to the initial request for participation email within seven calendar days, then I sent a second follow-up email. Following Orser, Elliot, and Leck (2011), if there was no response to the second follow-up email within another seven calendar days, then I sent a final email. The removal of the candidate VC firm from further consideration occurred if there was no contact with a firm representative after seven days following the third follow-up email. Table 1 shows the distribution and response dynamics of the initial email and follow-up emails sent to VC firms throughout the southeastern United States.

Table 1

Email Request for Study Participation

Description	Number of emails sent	Number of email replies	Number of no response	Request for conversation	Accept interview	Decline interview
Initial email	94	8	86	1	1	7
Follow-up 1	86	33	53	6	7	26
Follow-up 2	53	2	51	0	0	2
Final follow-up	51	0	0	0	0	51

The number of emails sent column shows the count of emails sent to each VC firm. The number of email replies column shows the number of responses received from a VC firm. The number of no response column shows the number of emails that had no response or a failed delivery message from the mail server. The request for conversation column shows the number of VC firm representatives requesting phone conversations to

gain a better understanding of the research as well as to introduce eligible participants from the firm. These introductory phone conversations provided an opportunity to elaborate on the study as well as build a working relationship and rapport with potential participants of the study. The accept interview column shows the number of VC firms with participants willing to participate in the study. The decline interview column shows the number of VC firms with representatives who chose not to participate in the study.

Research Method and Design

Investigating strategies that VCs could use toward identifying profitable startups was a qualitative case study. Muijs (2011) suggested that researchers whose worldview underlies subjectivists or pragmatism use the qualitative framework in social science studies. Hanson et al.(2011) indicated that the qualitative case study is appropriate for describing unexplored complex behaviors, processes, and systems. Furthermore, the case study is a research design associated with qualitative methodology (Yin, 2014). Yin (2013) described case study design as suitable for evaluating a phenomenon with complex relationships or complexity in intention. The case study design was appropriate for deepening the understanding of the complex phenomenon that tends to influence VCs' strategies for identifying profitable startups (Gerasymenko & Arthurs, 2014). This research was a study of how complex phenomena may influence strategies that result in sustainable startups.

Research Method

Quantitative, qualitative, and mixed methods approach are approaches for conducting a research study (Yin, 2014). The selection of a suitable methodology derives

from the goal of the research and not the researcher's preferences (Jaffe, 2014; Boblin, Ireland, Kirkpatrick, & Robertson, 2013; Yin, 2014). The researcher should identify a suitable methodological approach that addresses the research question while considering the exogenous and the endogenous factors that limit the scope of the study (Robinson, 2014; Sánchez-Algarra & Anguera, 2013).

Mixed methods research includes the methodological combination of quantitative and qualitative methods in a manner that addresses the research question from multiple worldviews (Venkatesh et al., 2013). Muijs (2011) indicated that mixed methods approach is suitable for evaluating both breadth and depth, or causality and meaning of a phenomenon. The mixed methods approach combines the strengths of qualitative and quantitative approach and increases the overall strength of the study conclusions (Östlund, Kidd, Wengström, & Rowa-Dewar, 2011). Practitioners of the mixed methods approach, either sequentially or concurrently, leverage the combination of quantitative and qualitative to meet the goal of the research and reduce mono-method variance (Venkatesh et al., 2013). Practitioners use the mixed methods approach to complement, expand, corroborate, compensate, diversify, develop, and complete the findings from the other research method (Venkatesh et al., 2013). Fuhse and Mützel (2011) indicated that qualitative research could enrich quantitative analysis in mixed methods designs. Integrating quantitative and qualitative philosophies enable researchers to consider aspects of the natural world, the conceptual effect of quantitative research, the influence of human experience, and the conceptual focus of qualitative research integrated together to formulate inferential conclusions (Östlund et al., 2011). Venkatesh et al. (2013)

recommended selecting the mixed methods approach when the intent of the research is to provide a holistic understanding of a phenomenon for which existing research is incomplete. Therefore, selecting the mixed methods approach depends principally on the research question (Petticrew et al., 2013). Venkatesh et al. (2013) showed that the mixed methods approach is appropriate when the goal of the research is to address both confirmatory and exploratory research questions within the same inquiry. In this study, the central focus of the research question was to explore how VCs evaluate startups in a complex environment, which does not include the causality of VC strategies in a confirmatory manner. Therefore, the mixed methods approach was inappropriate for addressing the research question in this study.

Practitioners of quantitative research tend to work towards linking concepts of integrated human experiences with processes by gathering, validating, and numerically analyzing data (Polit & Beck, 2010). Quantitative research is an empirical analysis of observable phenomena built on a mathematical foundation with intent to discover, validate, or identify symmetrical or asymmetrical relationships among concepts derived from a theoretical framework to support or refute a hypothesis (Hanson et al., 2011). The notion of quantitative research emphasizes objective techniques that include extracting measurements through mathematical, statistical, or numerical analysis through data collection instruments including polls, surveys, questionnaires, or pre-existing statistical data using computational techniques (Jaffe, 2014). The quantitative research is suitable for establishing relationships between measurable quantities and variables in a deductive manner (Baduns, 2013). Exploring participants' perspective within a complex

environment that has unknown variables is not testable within a mathematical context (Hanson et al., 2011). Therefore, the quantitative research method was inappropriate because the exploratory nature of this study indicated a population of unknown variables as new themes and concepts became exposed throughout the research inquiry.

The qualitative method is an inductive bottom-up design approach that illuminates on textual accounts of the participant's experiences (Erlingsson & Brysiewicz, 2013). The qualitative method is appropriate for understanding human being behaviors as they interact with one another within their environment (Sánchez-Algarra & Anguera, 2013). Through the lens of qualitative research, the researcher seeks an understanding of true reality from a perspective beyond their worldview (Erlingsson & Brysiewicz, 2013). The qualitative method is useful for describing complex interactions that can affect outcomes that are not easily explainable or identified through mathematical derivation (Petticrew et al., 2013). Sánchez-Algarra and Anguera (2013) indicated that the qualitative method is a rigorous contextual description of a phenomenon that represents an account of the complexity of humans interacting with their environment where multiple forces can influence decisions. Hanson et al. (2011) mentioned that qualitative method is useful for understanding a phenomenon based on the evidence within the data as oppose to using models or theories to predict dynamics of the data. Also, Hanson et al. (2011) showed the inherent flexibility of qualitative method to accommodate unanticipated, yet important, findings that might emerge throughout the research inquiry. Therefore, a qualitative framework was useful for exploring complex interactions between VCs and their

environment where resonating themes could emerge that explains tradeoffs and options that VCs use to identify profitable startups (Vilkkumaa, Salo, Liesiö, & Siddiqui, 2015).

Research Design

Qualitative methodological research holistically supports a vast array of research design strategies (Petty et al., 2012). The five commonly used qualitative research designs are (a) case study, (b) ethnography, (c) grounded theory, (d) narrative, and (e) phenomenology (Petty et al., 2012). Yin (2013) indicated that the case study design is appropriate for addressing complex scenarios. The case study design includes a framework in a real-world scenario to extrapolate rich contextual information suitable for the exploratory nature of the design (Yin, 2014). Maine, Soh, and Santos (2015) used the case study design to explore complexities in decisions to invest and pursue ventures with high risk and high uncertainty. Similar to Maine et al., this research included the case study design to establish a foundation for exploring the complex decision-making strategies of VCs when pursuing ventures with high risk and high uncertainty.

There are two main distinctions between case study designs, which are single-case study and multiple-case study (Yin, 2014). The single-case study is analogous to a single experiment that focuses on a critical, unusual, common, revelatory, or longitudinal case (Yin, 2014). Multiple-case study establishes the mechanism to compare and contrast views on multiple cases (Yin, 2014). Multiple-case study is useful for comparing similar results among cases or comparing contrasting results for anticipated reasons among cases (Yin, 2014). Orser et al. (2011) used a multiple-case design to explore the complex nature of successful feminist entrepreneurs. Probert et al. (2013) selected a multiple-case design

to explore the complexities associated with marketing and consultative selling for persuading investment into new technologies. I selected a multiple-case design for this research because of the complex interactions that may exist among VCs, investors, and entrepreneurs. These complex interactions among VCs and entrepreneurs within the investment environment could illuminate themes that lead to common strategies for identifying and investing in profitable startups.

Ethnography is a strategy of inquiry for the researcher to understand the behavior of a culture in a natural setting (Liberati et al., 2015). Ethnography is the study of a group through the examination of shared behaviors that influence culture (Petty et al., 2012). Erlingsson and Brysiewicz (2012) described ethnography as a means to capture participants' social meanings in a natural setting. The focus of this study was not the cultural behavior of people. Instead, this study was exploratory based on the complex and the dynamic influences from various conditions that might influence salient strategies of VC assessment practices. For this reason, ethnography was inappropriate for this study.

Grounded theory includes the formulation of an inquiry linked to the derivation of a theory. The grounded theory includes data based on the interaction between the participant and the phenomenon to develop a theory associated with a social concept (Petty et al., 2012). Hanson et al. (2011) described how researchers immerse themselves into the data to create a testable theory. Ebrashi (2013) used grounded theory to link the behavior and intention of social entrepreneurs to behavioral theory. The purpose of this study was to explore strategies that VCs use in determining which businesses would

become profitable when investing in startups; not to bind VC strategies to a theory.

Therefore, grounded theory was inappropriate for this study.

Narrative research is a study method of telling the story of the life of an individual or a small group of people (Petty et al., 2012). Petty (2016) described narrative research as an ordered description of an individual's experiences in the form of storytelling. Stephens and Breheny (2013) mentioned that narrative research has particular value in research areas of health and family where participants interact with complex constructs that include physical, moral, and cultural influences. The study of VC assessment strategies did not focus on the storytelling of a single individual or the storytelling of a small group of individuals. Instead, the study of VC assessment strategies was on exploring salient characteristics among VCs to understand how they identify profitable startups. Therefore, the narrative research was inappropriate for this study.

Phenomenology is a strategy of inquiry that describes the human essence of a phenomenon through lived experiences. Moustakas (1994) described phenomenology as the study of *things themselves*. Phenomenology is the study method that describes human lived experiences around a phenomenon to gain deeper insight into a problem (Petty et al., 2012). Hanson et al. (2011) described phenomenology as the goal to understand someone's experience. Phenomenology was inappropriate because the objective of the study was to understand VC assessment strategies of startups and not the transcendental understanding of individuals' lived experiences in a VC environment.

Data saturation occurs when the analysis of the data provides no new discovery or revelation, and any additional analysis becomes counter-productive (Mason, 2010). Elo et

al. (2014) indicated that data saturation becomes easier to recognize when the collection and the analysis of the data are done at the same time. O'Reilly and Parker (2012) mentioned that data saturation is a quality indicator that identifies the limits of the study. Furthermore, O'Reilly and Parker noted that a study that does not meet full saturation does not suggest an invalid study but that the phenomenon has not been fully explored. For this study, data saturation occurred following the rigorous analysis and re-analysis of the collected data until no new ideas or themes emerged. Massey, Chaboyer, and Aitken (2014) achieved data saturation by using an inductive approach that involved two levels of data interpretation. The first level of data interpretation included the continuous review of the data to discover new and emerging themes (Massey et al., 2014). The second level data interpretation included the repeated immersion of analyzing the data alongside the preliminary themes until each theme converged into a single concept (Massey et al., 2014). Massey et al. (2014) indicated data saturation occurred when no new themes emerged following the rigorous analysis of data. Following Massey et al., this study included a similar inductive approach. Following member checking with each participant, I became immersed in the data to discover new and emerging themes. Data saturation was met after interviewing 10 participants. However, I interviewed 11 participants to ensure no new information was discovered. I continuously reinterpreted the themes with broad and descriptive names to capture salient ideas from each participant. Afterward, I repeated the analysis of the data with the preliminary themes until each theme converged into a single concept. Interviews continued until participants no longer provide any new information.

Population and Sampling

The sample population was derived from a purposive selection of VCs with experience assessing startup ventures. Purposive selection is a method for identifying and selecting potential participants that could best illuminate the propositions of the study (Yin, 2014). Some scholars use the term *purposive sampling* to define the same purposive selection method for identifying participants suitable for illuminating the propositions of the study (Williams, Burton, & Rycroft-Malone, 2013; Orser et al., 2011; Parlalis, 2011). However, Yin (2014) indicated that the term *sampling* could mislead readers into believing that the purposive sampling of participants has a statistical connotation taken from a larger population of case studies. Therefore, this study included purposive selection.

Purposive selection is suitable for qualitative studies when the objective includes using informants with the best knowledge to address the research question (Elo et al., 2014). Williams et al. (2013) used purposive selection to identify professionals with relevant skills and organizational responsibilities appropriate for addressing the research question. Petty et al. (2012) indicated that purposive selection is effective for gaining a deeper understanding of the phenomenon, and purposive selection is effective for seeking out variations among participants. Parlalis (2011) used purposive selection because the study required individuals with in-depth knowledge of practices relevant to the study. Parlalis (2011) rationalized that purposive selection is necessary for identifying industry professionals with the appropriate knowledge to aid in the investigation. Purposive selection limits the generalizability of findings to a specific group of participants (Orser

et al., 2011). To address the overarching research question for this study, purposive selection was the method for identifying VCs with the knowledge and the experience in startup assessment strategies.

VCs with experience assessing startup firms are suitable for addressing research questions that focus on initial startup investment opportunities (Bartkus et al., 2013). Monika and Sharma (2015) mentioned that many studies on VC decision-making techniques for assessing startups use interviews as a method of data collection. The sampling universe for this study was the southeastern United States. The criteria for VC firm selection were firms having either a successful IPO or a successful buyout within the last five years. This study comprised of 11 participants from eight VC firms located in the southeastern United States. The data collection started with interviewing at least 10 participants from at least five VC firms. Although data saturation occurred following 10 interviews, 11 participants were interviewed to ensure no new information became apparent. This minimum quota sampling technique ensures inclusion of key participants while providing flexibility for achieving data saturation (Robinson, 2014). Although at least 10 interviews from at least five VC firms was an arbitrary starting point for this exploratory study, Galvin (2015) indicated that 8 to 17 interviews are most common for exploratory studies. Robinson (2014) mentioned that 3 to 16 interviews are common for achieving data saturation in exploratory case studies. Moreover, Hanson et al. (2011) indicated that a range of 10 to 20 participants could illuminate themes in qualitative studies. Furthermore, Schenkel, Corhran, Carter-Thomas, Churchman, and Linton (2013) selected 11 VC participants between the United States and China to explore perceptions

of necessary management skills that lead to successful exits. Also, Haeussler et al. (2014) achieved data saturation using five interviews with VCs to complement a study on understanding the influence of patents on the VC's decision to invest in startups. Therefore, using past scholarly studies of similar nature as a starting point, this study began with the goal of interviewing at least 10 participants from at least five VC firms. Following each interview, a rigorous evaluation of the data provided the means for identifying the recurrence of existing themes and the emergence of new themes. After interviewing 11 participants from eight VC firms, no new themes emerged following a rigorous analysis of the data.

Data saturation occurs when there is no new discovery or revelation resulting from analyzing the information collected from interviews (O'Reilly & Parker, 2012). Furthermore, data saturation occurs when continuous analysis of the data provides no new discovery or revelation (Mason, 2010). Also, Fusch and Ness (2015) supports the notion that there is no one size fits all concept of data saturation, and many scholars have different views on the interpretation of data saturation. Polit and Beck (2010) cautioned against prematurely closing the study because of revelation or convenience rather than the attainment of data saturation. In alignment with the perspective of Elo et al. (2014) in recognizing data saturation, the analysis of the data around the time of data collection enables easier recognition of data saturation. Therefore, as interviews with the participants were completed then the timely analysis of the data collected during the interviews improved the identification of common themes and the recognition of data saturation. Also, Galvin (2015) indicated that an insufficient exploration of the research

question exists if there is at least one unique idea or theme from at least one participant in comparison to all other participants. I assumed the attainment of data saturation when no new themes, ideas, or revelations occurred after analyzing the data. No new themes, ideas, or revelations occurred following data collection from 11 participants with eight VC firms. Data saturation occurred with 10 participants, however, as a confirmatory method of no new themes, ideas, or revelations, I interviewed 11 participants from eight VC firms. O'Reilly and Parker (2012) supports the notion that data saturation is never fully attained because life constantly changes. However, Galvin (2015) noted that many qualitative studies use the exhaustion of themes from the participants as a strategy for recognizing data saturation. Following 11 interviews, the manifestation of no new ideas or themes was apparent. Therefore, data saturation for this study occurred with 11 participant interviews from eight VC firms.

For this study, VentureSource™ database was the instrument for identifying firms that meet the VC firm selection criteria. Following the identification of suitable VC firms as well as the attainment of the letter of cooperation from each firm's representative, then I proceeded with selecting participants to interview. Using Yin's one-phase approach, participants participated in an independent interview from VC firms. A criterion for participation included each participant must possess experience assessing early-stage startups. Yin (2014) described the one-phase approach as a screening procedure that consists of querying people who are knowledgeable about the skills of the interview candidate. Furthermore, Yin indicated that the one-phase approach is suitable for a small number of cases. Stern and Chur-Hansen (2013) indicated that screening is important for

not only ensuring consent for study participation but also to ensure that the participant is appropriate for addressing the research question. Furthermore, Befort et al. (2014) showed that screening is useful for ensuring a minimum quota sampling for a qualitative study. This study included leveraging Yin's one-phase approach for screening and selecting participants suitable for addressing the research question. This study included 11 participant face-to-face interviews.

Face-to-face interviews with participants were on-premise at each firm in an environment free from noise and distraction. Williams et al. (2013) found that face-to-face onsite interviews obtained richer contextual information through direct interaction with the participants than telephone interviews. Dubocage and Galindo (2014) observed that onsite semistructured interviews were effective for understanding critical reasons VCs replace founder-CEOs. Erlingsson and Brysiewicz (2013) indicated that face-to-face interviews are vehicles for data extrapolation from the participants of the study. Yin (2014) mentioned that the salient value of the case study is in the interaction with participants within the context of their environment. Conversely, Musteen (2016) found phone interviews an effective method for data collection when participants are in disparate locations. Shirazipour, Latimer-Cheung, and Arbour-Nicitopoulos (2015) indicated that phone interviews enable researchers to accommodate participants' schedules better. Furthermore, the mitigation of phone-interview limitations occurs with the careful selection of participants with relevant knowledge of the subject (Hahn & Gold, 2014). However, Yu, Abdullah, and Saat (2014) argued the importance of responding to the unique context of the study and the research environment to provide a

complete investigation of the research question. The objective of this study was to address the research question by engaging with participants concerning their experiences assessing startups. Face-to-face interviews provide closer engagement with participants than phone interviews. Therefore, face-to-face interviews were the technique for collecting data to address the research question.

Interviews are useful to the researcher for obtaining information about the participant's feelings, thoughts, and experiences (Hanson et al., 2011). Information from each participant flowed from open-ended questions using a semistructured interview format. Therefore, the development of rapport between the participant and the interviewer becomes important to encourage the free flow of information (Qu & Dumay, 2011). Furthermore, Williams et al. (2013) described the effectiveness of onsite interviews for extrapolating contextual information from participants. However, Shirazipour et al. (2015) also indicated that phone interviews could be an effective technique for the free flow of information because participants might talk more freely due to increased anonymity and privacy. For this study, all interviews were face-to-face within the environment of the VC firm. A casual introduction is appropriate for building trust, informing the participant about the purpose of the interview, and for building rapport (Qu & Dumay, 2011). The strategy for establishing a working relationship with the participant was to start each interview with a casual introduction, an explanation of the purpose of the study, and an explanation concerning the importance of the study. Selecting participants that meet the eligibility criteria ensures alignment with the overarching research question (Paradkar, Knight, & Hansen, 2015).

Each participant provided feedback from onsite semistructured interviews in a conversational manner. Semistructured interviews facilitate interview questions based on a pre-established theme that elicit feedback from the participant (Qu & Dumay, 2011). Semistructured interviews with open-ended questions provide formative inquiry into the complex interaction between the participant and their environment (Suddaby, Bruton, & Si, 2015). Singh, Corner, and Pavlovich (2015) used semistructured interviews with open-ended questions to gain an in-depth understanding of venture failures. Therefore, an onsite semistructured interview with each participant using open-ended questions maximized an understanding of the complex decision-making strategies that VCs use to identify profitable startups. Purposive selection and semistructured onsite interviews were suitable for eliciting elaborate responses from participants for addressing the research question. Interviews with each VC participant provide a rich source of information for describing the participant's interaction with their environment (Erlingsson & Brysiewicz, 2013). Purposive sampling was the tool for identifying eligible participants for this study. Eleven participants with at least five years' experience assessing startups participated in face-to-face interviews. These interviews occurred using a semistructured interview format with open-ended questions.

Ethical Research

Walden University's Institutional Review Board (IRB) procedures were the guidelines for this study. These IRB guidelines include the informed consent process that conforms to all ethical and legal requirements of the University standards for ensuring the protection of all participants (Atwater, Mumford, Schriesheim, & Yammarino, 2014).

The informed consent process included the requirement that all participants must sign a consent form. The consent form includes full disclosure of the nature of the study, purpose, participant rights, and the request for participation (Moustakas, 1994). Before pursuing any interaction with participants, I obtained an approval number from the IRB to proceed with the study. After receiving the IRB approval number 04-01-16-0376053, I proceeded by sending the consent form and the request for participation form to VC firms with participants eligible to participate in the study. Scheduling of an interview occurred after I receive a signed copy of the completed consent form from the participant. The consent form included the written authorization for audio recording the interview.

Interviewers should inform participants their rights to withdraw from the study (Qu & Dumay, 2011). Once member checking was complete, participants had an opportunity to withdraw from the study without penalty by notifying me via email. Participants did not receive incentives for participating in this study.

Ethical research is the obligation of the researcher to behave in a manner that emphasizes human rights, and the principles of protecting participants of the study from exposure to any harm (Qu & Dumay, 2011). Hanson et al. (2011) indicated the importance of qualitative researchers to be aware of any ethical concerns that might occur as the researcher interacts with participants. Concerns include acknowledging bias, building rapport, respecting individual's privacy and confidentiality, and avoiding exploitation (Hanson et al., 2011). Therefore, measures are necessary to remove any personal identifiers linking the participant and the VC firm to the research and to ensure the confidentiality of each participant throughout the research (Moustakas, 1994). Some

measures included avoiding disclosure of any data that could lead to identifying the participants of the study and avoiding disclosure of trade secrets or knowingly falsifying data. The research data remained securely in my possession to protect the confidentiality of the participants. Furthermore, a professional transcription service transcribed the audio-recorded interviews into text. Burton, Halpern-Felsher, Rehm, Rankin, and Humphreys (2013) used a professional transcriptionist, under a confidentiality agreement, to maintain the protection of participants for a qualitative study. The transcriptionist service signed a confidentiality agreement (Appendix B) before transcribing the interview recordings. The confidentiality agreement included additional measures to assure that the ethical protection of the participants was adequate. Unique identifiers replaced participants' names and VC firms' names as a strategy for masking identity. Gerdtz, et al. (2013) ensured anonymity of participants by replacing participant names with unique identifiers.

The confidentiality of each participant will persist for the life of the research and follow the destruction of the research data after a 5-year period. Atwater et al. (2014) described the importance for scholarly authors to follow the American Psychological Association (APA) 5-year data retention policy to mitigate the risk of refraction. To ensure the confidentiality of each participant, the collection of study data remains in my possession within a fireproof lockbox throughout the 5-year lifecycle of the research.

Data Collection Instruments

Sánchez-Algarra and Anguera (2013) indicated that qualitative research method is appropriate for describing human behavior in complex surroundings. Through the lens of

qualitative research method, the human instrument is a data collection tool that has an advantage over nonhuman data collection tools (Lincoln & Guba, 1985). Human instruments are useful in qualitative research because humans are highly adaptive to changes in the environment that might lead to addressing the research question (Lincoln & Guba, 1985). This adaptiveness enables the human instrument to be effective in responding to unanticipated and complex responses from the interviewee during the data collection phase of the research (Lincoln & Guba, 1985). Conversely, nonhuman data collection tools found in quantitative studies has an inherent cause and effect relationship, which are less suitable for complex studies with undefined variables (Muijs, 2011). Since this qualitative study was an exploration of strategies that VCs use to identify profitable startups, a data collection instrument that is flexible enough to accommodate unanticipated and complex responses from the interviewee was appropriate. Regarding a human instrument, I was the primary data collection instrument for this study.

Case study designs include participant interviews as a technique for data collection. Da Mota Pedrosa, Näslund, and Jasmand (2011) found that many case studies include some form of participant interview strategy. Dubocage and Galindo (2014) used semistructured interviews in a case study design to facilitate a deeper understanding of why VCs replace founder-CEOs. Schenkel et al. (2013) incorporated semistructured interviews in a case study design to identify salient management characteristics that VCs look for in entrepreneurs. Khanin and Mahto (2013) selected semistructured interviews to identify biases of VCs towards continuing to invest in ventures. This research was a study of VCs' behaviors within complex environments as they implement strategies for

identifying profitable startups. Therefore, the semistructured interview was an appropriate data collection technique for understanding VCs' behaviors in complex environments. A semistructured interview was the data collection instrument for this study because the instrument aligns with other scholarly sources within a similar context of inquiry. Semistructured interviews provide a means for making additional inquiries as the interview unfolds for deeper exploration of the phenomenon under investigation (Moustakas, 1994). Also, semistructured interviews provide a robust data collection instrument for addressing the research question (Lincoln & Guba, 1985).

Open-ended questions in a semistructured interview format can provide a robust structure for ensuring that participants answer interview questions relevant to the central research question (Hanson et al., 2011). Furthermore, integrating open-ended questions in a semistructured interview format within an interview protocol could amplify the findings from the study (Windler, Jüttner, Michel, Maklan, & Macdonald, 2017). Therefore, the data collection instrument for this case study was an interview protocol with open-ended questions in a semistructured interview format.

De Ceunynck, Kusumastuti, Hannes, Janssens, and Wets (2013) described the interview protocol as a technique for eliciting participant's unique perspectives of the phenomenon under investigation. Shapka, Domene, Khan, and Yang (2016) found the effectiveness of using an interview protocol to extract more detail from participant interviews than without an interview protocol. Also, an interview protocol is useful for providing consistency in the interaction between the interviewer and participant (Ramthum & Matkin, 2014). Therefore, an interview protocol was the method for

guiding the interviews in the exploration of strategies that VCs might use to invest in startups. Using the interview protocol as the guide, the participants responded to seven open-ended interview questions (see Appendix C). The interview protocol was the guide to ensure all participant interviews occurred in a consistent manner.

Interviews with subject matter experts provided the process for capturing participants' perceptions of strategies that VCs use toward identifying profitable startups. Twining et al. (2016) described that experience derives from one's interaction with the environment whereas knowledge deals with various aspects that experience describes. Lincoln and Guba (1985) established that human instruments in an indeterminate situation use interviews, archival documents, notes, member checking, and other cues as a manner of addressing the research question. Capturing the full richness of data by applying multiple and diverse methods can improve data collection from multiple sources, and result in a richer understanding of humans in complex surroundings (Twining et al., 2016). The illumination of concepts and themes from the data collection instrument derive from the quality of textual data, experiences of participants, and the interpretation of the data collected from the participants (Yin, 2014). A review of archival documents provided augmentation and triangulation of data collected from interviews.

Reviewing archival documents is a method for augmenting the data collected from participants, which results in adding precision to the information gathered during participant interviews (Sutheewasinnon, Hoque, & Nyamori, 2016). Feldman and Lowe (2015) added that reviewing archival documents could lead to a detailed and a contextual understanding of the data, which could substantiate the researcher's interpretation of

information gathered from participant interviews. Jennings et al. (2015) described sources of archival documents include publicly available materials about the company or industry, excerpts from books, and industry specific periodicals. For this study, types of archival documents were VentureSource™ database, VC firm website, startup website, and startup brochures. Following Feldman and Lowe (2015), I used the information gathered from archival documents to substantiate the interpretation of findings during each interview and to gain a contextual understanding of the data.

The data collection process included member checking as a technique for enhancing the validity and reliability of the study data. Lincoln and Guba (1985) indicated that member checking following the interview is appropriate for ensuring the validity of the study. Petty et al. (2012) included member checking as a strategy for objectivity and neutrality as well as establishing the validity of the study. Furthermore, Erlingsson and Brysiewicz (2013) showed that member checking is useful for securing the trustworthiness and the validity of the study data. The technique of member checking includes post-interview verification of data collected for determining the accuracy of the researcher's interpretation of the data (Bromley, 2014). Member checking was part of the interview protocol (see Appendix A). Member checking included sending an emailed copy of a synopsis of my interpretation of the interview question responses to each participant. After the participants had received an emailed copy of the synopsis, then they made additional annotations, edits, elaborations, and any other feedback they felt was appropriate. If the participant replied to the email with additional feedback, then another synopsis of my interpretation that integrates the participant's feedback was sent in an

email to the participant. This iterative process between the participant and the researcher continued until the participant signified that the researcher had correctly interpreted the responses to the interview questions. Once member checking was complete, then data analysis continued until data saturation was met. Data saturation occurs when no new information emerges after spending time immersed in the phenomena (Houghton et al., 2013). I recognized data saturation when no new themes or ideas emerged from the member-checked synopsis after constantly reviewing and then coding the themes and ideas into Nvivo™.

Data Collection Technique

This study included multiple techniques of data collection to address the research question. Using an interview protocol, techniques for data collection included audio-recorded participant interviews, personal field notes, reflexive journal entries, reviewing the VentureSource™ database, reviewing the VC firm's website, reviewing the startup's website, and reviewing the startup's brochures. Using a combination of multiple data collection techniques assisted in capturing rich contextual information between the participant and the researcher, which led to addressing the research question. Lincoln and Guba (1985) described how multiple techniques of data collection might help establish an audit trail that simultaneously improves the dependability and the confirmability of a study. Erlingsson and Brysiewicz (2013) indicated that multiple techniques like interviews and field notes are vehicles for extrapolating rich contextual data from participants. Hanson et al. (2011) mentioned that various techniques including interviews, field notes, and transcribed audio recordings are useful for exploring complex behaviors,

processes, relationships, settings, and systems. Therefore, using multiple data collection techniques established a suitable framework for understanding how VCs interact within complex environments to identify profitable startups.

The steps for the data collection technique included conducting semistructured interviews with 11 VC participants from eight VC firms. Paradka et al. (2015) found that interviewing multiple participants for each case was effective in gaining a richer description of how access to multiple types of resources lead to startup success. Ramthun and Matkin (2014) used semistructured interviews with subject matter experts to gain unique perceptions and interpretations to understand the dynamics of leadership in stressful situations. Yin (2014) indicated that participant interviews serve as a catalyst for obtaining insights, views, perceptions, and meaning toward the case study topic. An advantage of conducting participant interviews includes using targeted questions to solicit participant feedback in a manner designed to address the research question (Singh et al., 2015). A disadvantage of conducting participant interviews includes receiving inaccurate participant feedback due to poor recollection (Yin, 2014).

Paradkar et al. (2015) found that interviewing multiple participants from a firm was effective in gaining a multidimensional perspective on the success of an organization. In an exploratory case study, Sjoerdsma and van Weele (2015) interviewed multiple experts within a company to capture a broader scope of data from functional areas to gain a holistic perspective of a phenomenon. Szajnfarber (2014) interviewed multiple experts within an organization to understand complex factors that lead to decisions of transitioning from exploitative innovations to explorative innovations. To

capture a broad scope of data, a maximum of two participants from each VC firm participated in separate interviews. Interviews continued until data saturation occurred. No new themes or ideas occurred after interviewing 10 participants. However, 11 participants were interviewed to confirm the discovery of no new themes or ideas in compliance with the study design.

All interviews were onsite and face-to-face. Paradka et al. (2015) used onsite interviews as a technique for capturing additional data through visual cues, expressions, and non-verbal feedback throughout the interview process. Gerasymenko and Arthurs (2014) used their physical presence at VC firms to capture additional data concerning how VC's time-to-exit strategies affect their decision-making tactics for startups. Christner and Strömsten (2015) used face-to-face interviews to trace the link between accounting practices and technology innovations for VC-backed companies. Furthermore, an advantage of conducting onsite interviews included an opportunity to observe non-verbal cues that might remain elusive in an offsite or remote setting (Paradkar et al., 2015). However, a disadvantage of conducting onsite interviews is the presence of the interviewer could trigger various cues to the participant, which might result in interviewer bias (Nielsen, Kines, Pedersen, Andersen, & Andersen, 2015). For this study, each participant interview was an onsite face-to-face interview.

An interview protocol (Appendix A), which contains open-ended questions, was the instrument for conducting each interview. Darawsheh (2014) described an interview protocol as a guide for directing and managing the interview process with each participant. Brown et al. (2013) found that an interview protocol is effective for obtaining

accurate participant responses from a wide range of questions. Boardman and Ponomariov (2014) demonstrated an interview protocol is effective for maintaining consistency throughout each interview, while flexible enough to explore tangential ideas based on participant's responses to open-ended questions. An advantage of an interview protocol includes systematically establishing a tempo for interviewing each participant and ensuring each interview aligns with the goals of the research (Darawsheh, 2014). A disadvantage of an interview protocol includes the risk of inflexibility to adjust for unexpected responses as participants provide feedback that might deviate from the interview protocol. The interview protocol included (a) a script for starting the interview, (b) the list of interview questions, and (c) a closing script.

The interviews with the VC participants were audio recorded. Audio recording the interviews is the technique for capturing verbatim the participant's responses to the interview questions (Jennings et al., 2015). A transcribed audio recording of the interview between the researcher and the participant is an effective technique for accurately capturing raw data (Lincoln & Guba, 1985). Audio-recorded interviews create high fidelity in the sense that the researcher can reproduce the data in an exact form for later inspection (Lincoln & Guba, 1985). Transcribing audio recordings is a process of converting audio information into text for textual analysis (Yin, 2014). An audio-recorded interview is an effective auditing tool to ensure the researcher captures exactly what the participant meant to articulate (Lincoln & Guba, 1985). A disadvantage of audio-recorded interviews is that some participants are reluctant to be recorded with an audio device (Lincoln & Guba, 1985). Another disadvantage of audio-recorded

interviews is problems with the recording device could interfere with the interview (Lincoln & Guba, 1985). However, a transcribed audio recording of the interview is an effective technique for capturing data from each participant without the risk of losing salient points from the participant (Lincoln & Guba, 1985). An audio recording of each interview occurred by using the audio-recording feature of a tablet computer and freely available audio-recording software called Audacity™.

Following the completion of the interviews, a professional transcription firm transcribed the audio recordings into an electronically formatted text file. Gordon (2014) showed that transcribing audio data into electronically formatted text was an effective technique for analyzing information captured during semistructured interviews with open-ended questions. The transcriptionist from the transcription firm signed a confidentiality agreement before starting the transcription work (see Appendix B). Dubocage and Galindo (2014) used transcribed interviews to understand why VCs replace founder-CEOs. Gordon (2014) used transcribed interviews to extrapolate critical themes of successful entrepreneurs engaging in venture philanthropy activities. An advantage of transcribing interviews includes converting audio data into textual data for detailed analysis (Yin, 2014). A disadvantage of transcribed interviews is the participant may become uncomfortable during member checking (Lincoln & Guba, 1985). After the each transcription was complete, I reread the transcripts and listened to the audio recordings to ensure the accuracy of the transcription service. A method for member checking included sending each participant a synopsis of my interpretation of the interview questions for review. Participants had an opportunity to provide edits and

comments on the synopsis to ensure accurate interpretation of responses to interview questions. After each participant had an opportunity to review the synopsis and provide any feedback, then an analysis of the data and the participant's feedback continued by combining information from other data collection instruments, which included field notes.

Field notes are a data collection technique for the researcher to record his thoughts and insights as part of the verbal and nonverbal interaction with the participant (Lincoln & Guba, 1985). Field notes help the researcher stay engaged and responsive during the data collection process (Lincoln & Guba, 1985). Furthermore, field notes are useful for refreshing the memory of the researcher and the participant (Lincoln & Guba, 1985). Bocken (2015) showed that field notes are useful for corroborating and augmenting data collected from other sources. The field notes captured during the interviews included a unique identifier to ensure that the notes aligned with the correct participant. I maintained possession of all field notes to ensure the confidentiality of the participant and the VC firm. The field notes included visual observations and important points during each participant's response to each interview question. An advantage of using field notes includes documenting salient points, ideas, and themes that emerge during the interview (Jennings et al., 2015). Lincoln and Guba (1985) described a disadvantage of field notes is the difficulty of recollection for the researcher if the handwriting is illegible. Lincoln and Guba discussed another disadvantage of field notes is the influence on the participant to slow the tempo if the researcher is busy or distracted while taking notes (Lincoln & Guba, 1985). If the participant slows the tempo, then there

is a risk that the participant could lose the train of thought (Lincoln & Guba, 1985).

However, field notes are useful because notes enable the researcher to highlight important points for later recall (Lincoln & Guba, 1985). Therefore, while listening to the participant's responses and observing visual or verbal cues during the interviews, creating researcher field notes created an opportunity for additional data collection.

In addition to field notes, a review of archival documents was another technique for data collection and data triangulation. Feldman and Lowe (2015) described the collection of archival documents from sources including company websites, public sources, and quasi-public sources. Jennings et al. (2015) used different sources of archival documents that include book excerpts, media, and industry specific periodicals to augment and triangulate data collected from interviews. Suteewasinnon et al. (2016) leveraged interviews and archival documents to triangulate interviewee comments with archival evidence from the company for adding precision to a study of governmental policy change. Company brochures are another form of archival documents (Sepulveda & Gabrielsson, 2013). Sepulveda and Gabrielsson used a brochure from the study firm as an additional data collection source and data triangulation for understanding how successful firms with global networks grow in complex environments. Yin (2014) indicated that sources of evidence for case studies could derive from multiple sources including company brochures. Company brochures provided an additional source of information useful for complementing and triangulating other archival documents. Therefore, an advantage of using an array of archival documents includes providing additional evidence that might support or refute the data collected from the interviews (Jennings et al., 2015).

Denzin (2009) asserted that archival documents are an applicable data collection technique for methodological triangulation and enhancing the validity of a study. A disadvantage of historical archival documents is a point in time record that may no longer represent the current environment the participant operates (Feldman & Lowe, 2015). For this study, archival documents included source data from (a) VC websites, (b) investee company website, (c) search engine results about the VC firm, (d) company brochure, and (e) journal articles about VCs. Also, before leaving the VC firm, I requested any brochures the participant felt comfortable sharing. The brochures included information for gaining an additional perspective on the types of services that members of the VC firm provide to startups.

Reflexive journal entries were useful for preparing for participant interviews. Lincoln and Guba (1985) indicated that reflexive journal entries are appropriate for (a) maintaining a daily schedule and documenting logistics of the study, (b) maintaining a personal diary for evaluating self throughout the research process, and (c) writing down the rationale for making methodological decisions. Furthermore, Lincoln and Guba (1985) mentioned that reflexive journal entries are appropriate for establishing credibility, transferability, dependability, and confirmability within a study. Petty et al. (2012) showed that reflexive journal entries are a strategy for protecting against researcher bias and for increasing the reliability and validity of the study. Houghton, Casey, Shaw, and Murphy (2013) described an advantage of reflexive journals includes establishing the basis for research transparency while considering the researcher's history, experience, interests, and biases. Houghton et al. (2013) inferred a disadvantage

of reflexive journaling is the requirement for researchers to be objectively aware of their thoughts and feelings to record accurate journal entries. Before arriving at each VC firm, a review of the firm's website provided insight into the business model and the services offered to startups. During the VC website review, creating reflexive journal entries concerning any perceptions, opinions, and potential biases that could distort an objective view of the firm or the participants supported research transparency. For the study, I used reflexive journal entries while reviewing brochures, field notes, and archival documents that pertain to the VC firm and startup.

Member checking was useful for establishing accuracy in data interpretation of the participant's responses to the research questions. Lincoln and Guba (1985) indicated that member checking enables participants an opportunity to confirm that the researcher accurately captures and interprets the interview responses from the participant. Member checking is critical for establishing credibility (Lincoln & Guba, 1985). Erlingsson and Brysiewicz (2013) indicated that member checking is useful for confirming the authenticity of the information captured from the participant. Each participant received an emailed packet containing a synopsis of the researcher's interpretation of the interview responses. The email included directions requesting each participant to review the synopsis. Each participant replied to the email with any edits, clarifications, or elaborations the participant feels was appropriate for ensuring an accurate interpretation of the responses. The iterative process of clarifying the interpretation of the interview responses between the participant and researcher continued until the participant signified a correct interpretation of interview question responses. The participant feedback

provided a technique for member checking, which led to ensuring an accurate interpretation of the data collected from the participants.

Data Organization Technique

Collecting data for case study research results in an accumulation of many documents relevant to the study that requires a large amount of storage space (Yin, 2014). Denzin (2009) described how individual cases become significant following the organization and the classification of data in a manner that reveal patterns and themes. Therefore, a documentation indexing strategy is appropriate for organizing documents for later inspection, perusal, transparency, or cross-referencing with other materials relevant to the study (O'Reilly & Parker, 2012). A database solution is effective for indexing, organizing, and managing data and other materials relevant to the study including field notes, transcripts, archival documents, and reflexive journal entries (Feldman & Lowe, 2015). Lincoln and Guba (1985) discussed that a data management system is appropriate for creating an audit trail to increase the confirmability and dependability of the study. Moustakes (1994) mentioned that the organization of study data should be systematic based on textual descriptions and themes. Therefore, a case study database was the instrument for organizing and tracking data throughout the research process.

For this case study research, I used an indexing strategy to link the data classification, file type, and evidence to a searchable and orderly key. This indexing strategy for managing the data classification, file type, and evidence is called the case study database system (Yin, 2014). The case study database system included a combination of NVivo™, Excel spreadsheet, an organization of files within an electronic

medium, and organization of files based on naming convention. Lincoln and Guba (1985) described a research database system includes an indexing strategy that contains an organization method based on data classification, file type, and evidence. Also, Yin (2014) indicated that the case study database should be an orderly compilation of data from the study. Furthermore, Edwards (2017) noted that a case study database system supports thematic content analysis and increases the study's reliability. The evidence, in the form of raw data, included the audio file from each interview, transcription of the audio file, field notes, reflexive journal entries, and archival documentation.

An external hard drive was the storage device for the collection of data during the study, and NVivo™ was the tool for coding and analyzing the data. NVivo™ is useful for evidence management, coding, and theme extrapolation and analysis (Erlingsson & Brysiewicz, 2013). Houghton et al. (2013) showed that a combination of a file storage strategy and NVivo™ are effective in identifying patterns and themes and for ensuring a rigorous case study research. Meyskens and Carsrud (2013) found that NVivo™ was effective for analyzing, coding, and tracking variables in the data. Orser et al. (2011) used NVivo™ to import and analyze participant interviews for thematic analysis. Using codes to illuminate patterns and themes required a method for identifying and tracking data.

The arrangement and organization of raw evidence in this research included uniquely identifying data associated with each case using a folder-subfolder labeling strategy. Ramthun and Matkin (2014) used a numeric-based labeling strategy for unique identification and data tracking in a case study that explains dynamics of leadership during dangerous situations. Maine et al. (2015) leveraged a prefix and letter labeling

strategy to track participant data in a case study about decision-making modes of founder entrepreneurs. Paradkar et al. (2015) numerically labeled each case and the role of the participant as a strategy for identifying and tracking research data. For this study, the organization of each parent folder label was correlated to each participating VC firm as VC1, VC2, VC3, VC4, VC5, VC6, VC7, and VC8 respectively. Within each parent folder, there were two subfolders called I1 and I2. The I1 and I2 subfolders included evidence about each interview within the VC firm. Included in each parent folder was a copy of archival documents, field notes, and reflexive journal entries. The pattern of the naming convention for each file was *file name-name_data-classification_MMDDYYYY.txt*. A spreadsheet located in the root directory of the external hard-drive included the index of all files contained within each parent folder and the corresponding subfolders. The spreadsheet was useful for cataloging and labeling evidence in the case study database. Each file from the folders and subfolders was imported into NVivo™ for coding and analysis. All evidence from the study will remain on an external hard-drive, and the external hard-drive will remain in a locked container for 5 years.

Data Analysis

This case study included methodological triangulation as the technique for data analysis. Methodological triangulation involves using multiple methods to gather data (Denzin, 2009). Methodological triangulation is useful for ensuring a reliable and a valid study (Tsolou & Margaritis, 2013; Tuncel & Bahtiyar, 2015). Ruiz-López et al. (2015) indicated that establishing methodological triangulation is appropriate during the research

design phase of the study to develop data collection strategies suitable for the goals of the research. Koc and Boz (2014) described triangulation as a strategy for providing stronger evidence to draw better conclusions in the research. Therefore, multiple data collection techniques provided a framework that led to addressing the reliability and the validity of the case study.

Methodological triangulation was a suitable technique for interrogating data in complex environments. Denzin (2009) indicated that methodological triangulation is appropriate for a broad range of tasks including participant interviews and self-reflection. Tuan (2012) used methodological triangulation by employing multiple methods of data capture through interviews, site visits, and analysis of documents for augmenting the study of high-performance hospitals operating in complex environments. Feldman and Lowe (2015) used methodological triangulation by combining interviews and archival documents to map temporal dynamics of documents to study the effect of entrepreneurial success over time within a localized region. This research study included methodological triangulation to explore strategies that VCs might use to identify profitable startups.

The process for data analysis included a rigorous review of data collected from participant interviews from each VC firm. Denzin (2009) mentioned that a strategy for methodological triangulation includes triangulating information between participants within the same environment. Christner and Strömsten (2015) interviewed multiple participants within the same environment to understand the role of accounting on decision-making strategies that effect scientists' and VCs' ability to innovate. Paradkar, et al. (2015) included a strategy for analyzing data from multiple participants from startup

firms to explore how different types of resources influence the success of early-stage startups. The process of analyzing the data included the analysis of data from participants from each VC firm using NVivo™ to identify themes.

I used NVivo™ for coding and theme extrapolation of the evidence collected during the research. NVivo™ is useful for analyzing data from interviews (Orser et al., 2011). NVivo™ is also appropriate for the content analysis of data and useful for coding and tracking themes (Meyskens & Carsrud, 2013). Gordon (2014) suggested that NVivo™ might provide the support for the coding and the theme extrapolation process that will integrate within the conceptual framework. Therefore, the process for using NVivo™ for theme extrapolation included importing the data from each interview into NVivo™. Data entered into NVivo™ provide a method for remaining close to the data (Parlalis, 2011). NVivo™ includes features for querying the data and extrapolating themes from narrative-based data (Orser et al., 2011). Furthermore, NVivo™ supports a method for uploading raw data from transcribed interviews for coding and cross-referencing to facilitate organizing the data in an easily retrievable format (Erlingsson & Brysiewicz, 2012). After importing the participant data into NVivo™, an analysis of the data included identifying common words, ideas, and phrases. Methodological triangulation was incorporated into the data analysis by importing field notes, reflexive journal entries, and archival documents into NVivo™. The archival documents included information from the VC website, investee company website, information from VentureSource™, and brochures collected from the participants. Following the

importation of field notes, journal entries, and archival documents, an analysis of the documents continued with the identification of common words, themes, and phrases.

The conceptual plan included a bottom-up approach starting with the analysis of participants from each VC firm using NVivo™ for identifying themes. Smith and Cordina (2014) used a bottom-up approach for conducting data analysis when exploring the effectiveness of accounting practices in high-tech VC investments. Pardkar et al. (2015) described a bottom-up data analysis approach when they identified themes among multiple startups within a case study. Huang and Wilkinson (2013) incorporated a bottom-up approach to explore the dynamics and evolution of trust in business relations within a complex environment. Therefore, after analyzing the data from participants within the each VC firm, another level of analyzing the data occurred between the populations of participants across all participating VC firms. The intent of analyzing data across all participants was to identify common themes that might emerge across the entire population of VC firms.

Coding Process

Using NVivo™, an open coding method was used to identify key themes during data analysis. The open coding method is useful for analyzing qualitative data and for identifying emergent themes based on frequencies of occurrence from the interview (Soykan, Gunduz, & Tezer, 2015). In a qualitative study, Ozcan and Kotek (2015) used an open coding method to integrate similar ideas into major themes. Furthermore, Witkamp, Droger, Janssens, Van Zuylen, and Van Der Heide (2016) used an open coding method to code data across all interview questions from multiple interview participants.

In this qualitative study, the open coding method was appropriate for coding the feedback from VC participants to identify major themes.

Erlingsson and Brysiewicz (2013) indicated that NVivo™ could aid in compiling data captured as part of the study design and provide easy access to important information. Meyskens and Carsrud (2013) used NVivo™ to perform content analysis, coding, and tracking of variables in a study of understanding the complex and diverse influences of nascent green technology ventures. Orser et al. (2011) used NVivo™ to analyze transcribed audio-recorded interviews in a case study to gain a deeper understanding of feminist entrepreneurs operating in complex environments. Therefore, using NVivo™, common words, ideas, and phrases were identified with the same code. Also, a color-coding scheme highlighted red (important), green (possibly important), and blue (not important) to facilitate a hierarchal structure. Themes that were identified in the study and reflected in the literature had a unique code. STRAT was the code for strategies for identifying profitable startups. BVI was the code for successful buyouts versus successful IPO. INFL was the code for salient influences of VC success. TECHQ was the code for techniques for driving successful exits. RSUC was the code for recurrence of VC success. Since the nature of this study was exploratory, then new codes emerged during the coding while looking for relationships among data categories. Following the completion of the coding process across the entire population of participants, themes emerged through the rigorous data interrogation process.

Themes

The open coding method was used to identify and correlate key themes with archival documents, field notes, and reflexive journal entries. In a case study, Yildirim and Dinçer (2016) used an open coding method with NVivo™ to identify themes in addressing the complex debate between corporate social responsibility and strategic corporate intent. Erlingsson and Brysiewicz (2013) mentioned that one role of the researcher is to immerse himself in the data and to code sections of the text in a way that results in categories and themes. Researchers should remain open and flexible throughout the data analysis and coding process to discover themes from the study that might otherwise remain elusive (Hanson et al., 2011). Maine et al. (2015) used a coding process to identify key themes related to entrepreneurial decision-making strategies during opportunity recognition. Jennings et al. (2015) incorporated a coding process to identify key themes relating to the influence of emotions on entrepreneurial outcomes. This study pertained to decision-making patterns of VCs in the southeastern United States. Therefore, a continuous review and importation of archival documents from recent scholarly sources on VC behaviors into NVivo™ provided additional insight into the decision-making strategies of VCs. After importing new scholarly sources into NVivo™, key themes from scholarly sources were correlated to key themes that emerge during the data analysis and coding process. Salient themes emerged that show critical strategies that VCs need for investing in startups in the southeastern United States. Similar to Bocken (2015), themes also emerged from the study that include (a) entrepreneurial business model innovation, (b) collaboration between startup and VC, and (c) a strong

business case. An identification of key themes linked into the conceptual framework of the study.

Framework

The conceptual framework of this study was ROT. ROT is an entitlement that indicates the right, but not the obligation to invest or to continue investing in a project (Zeng & Zhang, 2011). This entitlement could provide the flexibility for VCs to identify profitable startups. Vilkkumaa et al. (2015) based a mathematical model using a ROT framework to map an optimal funding decision-making strategy to identify successful products. Haeussler et al. (2014) used a ROT framework to explore VC assessment strategies of entrepreneurs. Mun (2006) indicated that ROT is useful for VCs to identify successful investee companies. Using ROT as the conceptual framework provides a method for risk management and uncertainty management in changing conditions that are facilitated through lifelong learning and experiences of VCs (Kremljak & Tekavic, 2014). These lifelong learning and experiences from assessing investee companies influence the decision-making strategies of VCs (Kremljak & Tekavic, 2014). Linking themes into the ROT conceptual framework illuminated how VCs might decide to either abandon a startup after the initial investment or continue investing into the startup. The results of the study could provide VCs in the southeastern United States with key strategies necessary for identifying and investing in startups that might lead to higher probability of success. This higher probability of success is regarding a VC ROI and a sustainable startup that results in an IPO or a buyout.

Reliability and Validity

Reliability

Reliability is a precondition for research validity because a study has to be reliable to be valid (Lincoln & Guba, 1985). A study is reliable when the conclusions drawn from the study include quality attributes of consistency, dependability, and predictability (Lincoln & Guba, 1985). These quality attributes are necessary for building a framework of research rigor that leads to the trustworthiness of the study (Petty et al., 2012). Furthermore, a study is trustworthy when the reader has confidence in the research findings (Petty et al., 2012). Lincoln and Guba (1985) described the criteria for establishing the trustworthiness of the study as dependability, creditability, transferability, and confirmability. Reliability derives from the rigorous processes designed to test the merits of the qualitative research (Erlingsson & Brysiewicz, 2012). Creating a reliable study includes a focus on building a trustworthy study (Lincoln & Guba, 1985). This section includes the steps taken to increase the reliability and the validity of the research by building a trustworthy study. These steps include a pragmatic approach to addressing the four criteria of trustworthiness. This section concludes with the description of the steps taken to outline how data saturation occurred.

Dependability. Moon et al. (2013) described dependability as the extent to which the reader can ascertain the consistency between the interpretations of the findings and the data collected for the study. The responsibility is on the researcher to provide enough detail in the study so readers can determine the extent that the interpretations of the findings are consistent with the data collected (Moon et al., 2013). Strategies for

achieving dependability include creating an audit trail of processes and procedures, and the implementation of triangulation techniques (Petty et al., 2012). Houghton et al. (2013) increased dependability using NVivo™ for managing data and for creating an audit trail throughout the research process. Another strategy for ensuring the dependability of the study is through member checking (Jennings et al., 2015). Yin (2014) indicated that a strategy for increasing the reliability of the study includes using a case study protocol that comprises of processes and procedures for executing the study. A case study protocol, which comprises of an interview protocol, increased the reliability and the dependability of the study. The case study protocol included guidelines for creating an audit trail of processes and procedures. Following Yin (2014), the case study protocol included (a) the overview of the case study, (b) the data collection procedures, (c) the interview protocol, and (d) the guide for the case study report. Furthermore, the incorporation of member checking addressed the dependability of this study. Harvey (2015) indicated that member checking is important for ensuring participants verify the accuracy of data interpretation. Houghton et al. (2013) mentioned that member checking should occur after transcription and before data analysis. Jennings et al. (2015) found that member checking was effective for supporting an explanation for their research model. For this study, member checking included emailing the participants a synopsis of the interview question responses. Each participant had an opportunity to reply to the email with any edits, expansions, omissions, elaborations, or agreements with the interpretation of the information before data analysis. The combination of the participant's feedback, field

notes, and reflexive journal entries were instruments for guiding the interpretation of the data.

Validity

Establishing the validity of research is necessary for determining the trustworthiness of a study (Lincoln & Guba, 1985). For a study to be valid, Ebrashi (2013) indicated that data collected from various research sources should derive from the same perspective of the overall study. Erlingsson and Brysiewicz (2013) elaborated on validity by indicating that qualitative studies must have consistent data collection methods administered to participants to be valid and establish trustworthiness. This section includes the steps taken to increase the validity of the research to establish a trustworthy study. This section includes the approach used to ensure the creditability, transferability, confirmability, and data saturation of the research.

Credibility. Moon et al. (2013) described credibility as the extent to which the findings of the study are trustworthy and believable by the participants. Lincoln and Guba (1985) indicated two criteria for a credible study include executing the research in a manner that produces credible results and having confirmation of results by individuals who provide input to the study. Petty et al. (2012) listed some strategies for achieving the credibility of a study that include member checking and triangulation. The execution of member checking includes engaging closely with the participants during the interview to ensure the interpretation of their responses accurately reflects the participant's intended meaning (Moon et al., 2013). The same technique of member checking described in the dependability section also increased the credibility of the study. Also, reviewing the

transcripts from the transcription service while listening to the audio recording to ensure the transcriptionist accurately transcribed the recording was a method for addressing the credibility of the study. Adams, Bailey, Anderson, and Thygeson (2013) ensured the accuracy of a qualitative study by enabling a researcher to verify the transcripts with the audio-recorded interview. Dionne-Odom, Willis, Bakitas, Crandall, and Grace (2015) independently verified the accuracy of a professional transcriptionist before importing text into a data analysis package to ensure the credibility of their study. Turner, Brownstein, Cole, Karasz, and Kirchhoff (2015) demonstrated the effectiveness of verifying transcribed interviews before thematic analysis to increase the credibility of the study.

Denzin (2009) mentioned that a study is credible when the triangulation of independent sources of evidence corroborates the assertions of the study. Yin (2013) indicated that triangulation strengthens the validity and credibility of case studies. Tuan (2012) indicated that methodological triangulation includes using several methods to triangulate the data. These methods of capturing data include interviews and archival documents (Tuan, 2012). Importing data from interviews, archival documents, field notes, and reflexive journal entries into NVivo™ and analyzing the data using multiple methods was a technique of methodological triangulation. This methodological triangulation technique was appropriate for addressing the credibility of the study. Following the importation of the data into NVivo™, I conducted a thematic analysis of the data to identify themes that were appropriate for addressing the research question.

Transferability. Tsang (2014) indicated that the ontological and epistemological perspective of the researcher influences the generalization and transferability of a study. Moon et al. (2013) described transferability in terms of the extent that the findings from the research are useful in similar contextual situations. Transferability is contingent on credibility (Petty et al., 2012). Lincoln and Guba (1985) mentioned that transferability is the responsibility of the reader to decide whether the results of the study fit into a given context. Lincoln and Guba also mentioned the responsibility of the researcher to ensure that a rich description of the data provides sufficient information to the reader for making a proper assessment concerning the transferability of the results. Moon et al. (2013) agreed with Lincoln and Guba when they indicated that the researcher should provide sufficient information so that the reader might determine if the interpretations of the findings are consistent with the data. Petty et al. (2012) suggested strategies for meeting transferability includes purposive selection, reflexive journal entries, and thick descriptions. Lincoln and Guba (1985) said that the researcher should maintain a database so that judgments concerning transferability are available. Yin (2014) agreed with Lincoln and Guba by highlighting that a case study database is suitable for organizing data to support the reliability and the validity of the study, which aligns with the transferability of the study. Purposive selection, as described in the Population and Sampling section of this dissertation, provided a method for addressing the transferability of this study. Furthermore, this study included a rich description of themes that emerged during the data analysis process in a manner that supports the transferability of the study. Also, a participant labeling strategy that abstracts away any participant identifiers in a

manner that does not jeopardize any ethical boundaries of the participants supported the transferability of the study. Finally, highlighting the limitations and boundaries of this study provided direction for possible applications of the study findings for VCs, investors, and entrepreneurs as well as provided possible avenues for future studies.

Confirmability. Moon et al. (2013) described confirmability as the extent to which the results of the study are neutral and free from researcher bias. Lincoln and Guba (1985) indicated that researchers could achieve confirmability through auditing, triangulation, and reflexive journal entries. Petty et al. (2012) listed strategies of confirmability that include an audit trail, triangulation, member checking, and reflexive journal entries. Creating an audit trail includes defining a systematic procedure for mapping the course of the research (Erlingsson & Brysiewicz, 2013). Houghton et al. (2013) showed that audit trails and reflexivity are strategies for confirmability. Moon et al. (2013) described how the process of reflexivity could ensure the researcher disclose any potential biases that could influence the confirmability of the study. Using techniques of an audit trail, triangulation, member checking, and reflexive journal entries addressed the confirmability of the study. The case study protocol was included to establish the standard for an audit trail of activities for the study. In addition, methodological triangulation for triangulating data from other sources established a technique for supporting or refuting any themes that led to addressing the research question. Exercising member checking with each participant after the interview supported study confirmability. I used reflexive journal entries to ensure an objective and neutral

perspective by disclosing any potential biases throughout the research process and by documenting the rationale for making decisions concerning the research.

Data Saturation. O'Reilly and Parker (2012) described the debate within the scholarly community concerning the evolving definition of data saturation. However, Houghton et al. (2013) said data saturation is evident when no new information emerges after spending sufficient time immersed in the phenomena. Lincoln and Guba (1985) mentioned that in qualitative research, the researcher should sample data continually until information redundancy occurs. Elo et al. (2014) indicated that data saturation becomes easier to recognize when data collection and data analysis occur at the same time. Massy et al. (2014) described a pragmatic inductive approach for achieving data saturation. Following Massey et al., this study leveraged an inductive approach involving two levels of data evaluation to achieve data saturation. The study design included the solicitation of at least 10 participants from at least five VC firms to participate in interviews. However, 11 participants from eight VC firms participated in interviews for this study. Following member checking, NVivo™ was the tool for importing and analyzing data from the interviews, field notes, reflexive journal entries, and archival documents. NVivo™ was appropriate for coding and identifying new themes, and emerging themes based on interviews. Also, NVivo™ was helpful for triangulating themes from the interviews to field notes, archival documents, and reflexive journal entries. If at least one new idea existed in at least one participant, then data saturation had not occurred for this study. After 11 participant interviews, no further solicitation of additional participants from a new VC firm was necessary. No new ideas or themes emerged from the population of

interviewees. For this study, the convergence of ideas and themes existed when at least one participant did not have a unique idea or theme when compared to all other participants. Therefore, identifying repetitive themes from successive participants warranted the conclusion of interview activity. The second stage of this inductive approach was the continuous reinterpretation of themes with broad and descriptive names for capturing salient ideas from each participant. A repetitive analysis of the data with the preliminary themes continued until each theme converged into a single concept. Concepts identified in this study formed the basis for addressing the research question concerning strategies that VCs might use to identify successful startups.

Transition and Summary

Section 2 included the review of the research method and the study design as well as the rationale for selecting the qualitative method with a case study design over alternative methods. Data collection techniques and data organization techniques included using open-ended questions with a semistructured interview format and NVivo™ as part of the methods of collecting and organizing data within the study. The information in Section 2 disclosed detail identifying the primary data collection instrument and the role of the researcher. Furthermore, Section 2 included decisions highlighting the participant selection process and the population sample size. Using purposive selection techniques, these highlights included 11 participants from eight VC firms participated in the study. Section 2 included information that described the plan for ensuring the study maintains high standards of ethics and ensuring the participants are safe and assurances of participant confidentiality. Section 2 also showed measures for

ensuring reliability and validity through rigorous analysis of the data, triangulation, member checking, and a method for ensuring data saturation, auditing, and using an interview protocol. The goal of these previously mentioned points was to produce a research study that is acceptable in the academic community.

Section 3 includes a report on the findings and the results of the study. Section 3 also includes the presentation of the findings that reflect on salient themes from the data analysis and other materials from the study. Following the identification of themes, Section 3 shows information about the application of the results of professional practice, implications for social change, recommendations for action, recommendations for further research, and reflection. At the conclusion of Section 3, the intent is to provide VCs, entrepreneurs, and investors with a clear understanding of strategies that VCs might use to identify profitable startups.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of this qualitative multicase study was to explore strategies that VCs use in determining which businesses would become profitable when investing in startups. Using purposive selection, 11 VC participants from eight firms located in the southeastern United States participated in semistructured interviews to share their entrepreneur selection experiences. The findings of the study were a result of analyzing and triangulating interviews and archival documents. The analysis of archival documents included the VentureSource database, VC firm website, startup website, and VC firm brochures. I used field notes and reflexive journal entries to ensure researcher bias did not interfere with the findings of the research.

The findings of the study centered on eight themes. The first theme is due diligence and investor involvement. The second theme is reduction of information asymmetry. The third theme is human capital management. The fourth theme is environmental and market forces. The fifth theme is startup experience matching investor strategy. The sixth theme is building trust. The seventh theme is investment timing. The last theme is VC market dynamics.

Presentation of the Findings

This study had one overarching research question: What strategies do VCs use to determine which startup businesses would become profitable when investing in startups? Investment motives for VCs center on their exit strategy (Ozmel et al., 2013). The findings of this study are a result of interview responses from 11 participants within eight

VC firms in the southeastern United States. Although data saturation occurred after interviewing 10 participants, 11 participants were interviewed to ensure no new data became apparent. In this study, nine participants participated in the assessment of startups that led to a success VC exit through a buyout. Two participants participated in the assessment of startups that led to a success VC exit through an IPO. Table 2 shows the distribution of participant interviews to VC firm. This study included a maximum of two VC participants interviews per VC firm. The first participant interviewee and the second interviewee from each firm are denoted by Interview A and Interview B, respectively. In cases of one participant interview from a VC firm, Table 1 shows the column for Interview A populated with the relevant interview participant number. As denoted in Table 1, three VC firms included two participant interviews, and five VC firms included one participant interview. There was no difference in triangulating data from firms with two participant interviews and firms that included one participant interview. Data triangulated across all participant interviews, which led to consistent themes among the population of participants.

Table 2

Distribution of Participants to Venture Capital Firm

VC firm	Interview A	Interview B
VC1	I1	I2
VC2	I3	I4
VC3	I5	
VC4	I6	
VC5	I7	
VC6	I8	
VC7	I9	I10
VC8	I11	

Note. VC, venture capital.

Each participant interview included seven interview questions. The member-checked summary of the responses to the interview questions was coded in NVivo™ using an open coding method. Witkamp et al. (2016) described the effectiveness an open coding method for theme extrapolation when multiple participants respond to interview questions. Furthermore, Soykan et al. (2015) mentioned the open coding method uses frequencies of occurrence from interview question responses to aid in illuminating themes.

Archival documents include the VentureSource database, VC firm website, startup website, and VC brochures were triangulated with responses to the interview questions. Before visiting each firm, I reviewed the VC firm's website and noted products and services offered by the VC firm. I also reviewed the VC firm "About Us" page and noted important points about the leadership team, partners, and customers. Also, I reviewed the "About Us" page on the startups' websites and noted important points

about the leadership team and investors. I imported my notes from the VC firm website and startup website into NVivo™. The VC firms that were able to provide a brochure, I reviewed the brochure and noted important points about the VC firm's products and services. My notes from the VC firm's brochure were imported into NVivo™ for further analysis and triangulation with participant interviews.

The findings from this study related to the conceptual framework of real options theory. Assessment strategies expressed by participants was options for continued investment or options to abandon the venture in alignment with the VC's objectives. These investment and abandonment options were the basis for minimizing information asymmetry for VCs to make better strategic decisions about the startup. Furthermore, participants described concepts of real options in how their strategic options might change as the startup's market environment changes. Changing strategic options was mentioned by Baduns (2013), who described that businesses might use a real options framework to hedge against risk due to uncertain climatic conditions in the market. Therefore, based on participant responses to interview questions, option identification and recognition were part of VC's startup assessment and analysis. In this study, VC participants used investment or abandonment options to decide whether to continue investing in the startup and whether to pursue an IPO or buyout at the most suitable time.

The themes from this study attribute to strategies that VCs use to determine which startups will become profitable. Derivation of these themes was triangulated and supported with the review of archival documents. The themes of this study included (a) due diligence and investor involvement, (b) reduction of information asymmetry, (c)

human capital management, (d) environmental and market forces, (e) startup experience matching investor strategy, (f) trust building, (g) investment timing, and (h) VC market dynamics. Derivation of these aforementioned themes was triangulated and supported with the review of archival documents. The themes relate to the finding of the study. The findings of the study were used to address the overarching research question.

Theme 1: Due Diligence and Investor Involvement

Due diligence is a process that VCs use to prepare, plan, analyze, and monitor an investment (Gerasymenko & Arthurs, 2014). Strategically preparing and planning business activities are important to VCs for identifying companies that lead to profitability and a successful investor exit (Teker & Teker, 2016). Monika and Sharma (2015) emphasized that VCs spend time monitoring their investment portfolio of investee companies and making course adjustments throughout the investment process to maximize VC success rate. Maximizing VC success rate includes various criteria for making investment decisions (Monika & Sharma, 2015). Consistent with Monika and Sharma, the interview participants highlighted various criteria they use while making investment decisions when describing strategies for identifying profitable startups. However, regardless of the investment criteria or strategies VCs discussed, the participants converged on a similar theme: due diligence and investor involvement are important for identifying profitable startups and a successful investor exit. Table 3 shows the questions and the frequency of participants discussing strategies that include due diligence and investor involvement with the entrepreneur leads to profitable companies and a successful VC exit. I used the archival documents, which include imported data

from VC websites, entrepreneur websites, and VC brochures, to triangulate with participant responses to illuminate the theme of due diligence and investor involvement.

Table 3

Due Diligence and Investor Involvement (Frequency)

Participant	Interview questions	Total number of references
I1	2, 4, 5, 6	7
I2	2, 6, 7	5
I3	2, 3, 4, 5	7
I4	2, 3, 5	4
I5	2, 4, 6, 7	5
I6	3, 4, 7	4
I7	2, 3, 6, 7	8
I8	4, 7	3
I9	2, 4, 6, 7	6
I10	3, 5, 6, 7	6
I11	2, 3, 7	4

Pursuing buyout versus IPO. Six participants (55%) described the rationale for buyers to invest in a startup may include (a) generating additional revenue for the buyer's business or (b) integrating a technology difficult to develop in-house. However, four participants (36%) indicated that managing a business strictly toward an IPO is rare. IPO is costly for VCs to pursue (Arcot, 2014). Three participants (27%) highlighted that unless an IPO is important to the entrepreneur, CEO, and the management team, very few companies explicitly focus on an IPO. Eleven participants (100%) made an assertion that managing a startup to an IPO or a buyout starts with preparation and a long-term vision.

Four participants (36%) described the long-term vision includes leveraging the investment in a manner that drives success and knowing that following a period, favorable options exist. Nunes et al. (2014) indicated that one of the most important criteria that VCs use to evaluate entrepreneurs relates to not only a long-term vision but also honesty and integrity. Nine participants (82%) discussed evaluating a startup as a formidable investment vehicle to become attractive to buyers or lead to an IPO requires preparation in support of the long-term vision.

Assessing investee companies. Three participants (27%) indicated that identifying profitability from a startup is a straightforward process. However, the initial assessment of the startup can be difficult; overcoming this difficulty requires preparation. Seven participants (64%) made similar assertions when indicating that preparation comprises of elements of due diligence that VCs might use when assessing startups. Gerasymenko and Arthurs (2014) said that VCs predict the performance of the investment by analyzing the business plan, technology, and management team during the due diligence process. VCs may conduct a detailed analysis of the startup to ensure the business is a viable investment. Five participants (45%) indicated that due diligence is operational in nature and includes a detailed review of sales, legal status, customer information, contracts, business model, industry, and internal/external forces. However, Sammut (2012) said that due diligence is more an art than a science. Conducting due diligence includes leveraging people with expertise in specific areas who can quickly assess if the investment is the correct path for meeting the goals and objectives of the VC (Kollmann et al., 2014).

Ten participants (91%) emphasized that to minimize risk, preparing for investment might include the entrepreneur and VC conducting all the quality work upfront. Eight participants (73%) indicated that the entrepreneur, VC, and any other investment stakeholders require a plan, template, and an approach suitable for all investment participants. Three participants (27%) indicated that preparation should be conducive with how the startup business is structured. Seven participants (64%) suggested that preparing a plan is important but equally important is following the plan through moments when the business performance may be under stress. VCs prefer entrepreneurs who demonstrate capabilities of managing risk and preparing for things that might not go according to plan (Khavul & Deeds, 2016). Two participants (18%) indicated that failure sometimes occurs when people deviate from their plan and start to move away from how they made money in the past and how they managed risk in the past.

Ten participants (91%) indicated that preparing and provisioning for a buyout are easier than preparing for an IPO. Eight participants (73%) elaborated on provisioning for a buyout. These eight participants (73%) indicated that strategically preparing for a buyout does not exclude the need for conducting market analysis and competitor analysis because there is a rare situation when someone might attack a market never seen before by any entrepreneur. Eight participants (73%) indicated that startups with a clear value proposition are attractive to the market. Five participants (45%) described that market attractiveness provides feedback signals by the number of people looking at the company from a buyer's perspective. These signals, according to three participants (27%), could

include inquiries from investor bankers or other companies interested in acquiring or expanding into the technologies the startup possess. Four participants (36%) talked about positive investment signals that trigger a buyout because of market traction from the investee company. When startups gain traction in the marketplace, then people might be interested in the startup's activities. Two participants (18%) indicated that market interest could attract upper bench buyers and creates a buzz in the marketplace centering on the startup.

Nine participants (82%) indicated that risk-averse entrepreneurs and VCs should perform a rigorous analysis of the competition to understand why the competition might not attack the market. Furthermore, five participants (45%) indicated that evaluating a startup's idea from the perspective of why other players who have been in the industry for a number of years can see the same idea but they are not attacking the market. According to these five participants (45%), fundamental competitive and market analysis can address such questions. Three participants (27%) elaborated on market analysis by indicating some competitors might have capital constraints, too much leverage, or a focus on a different strategy. The competitive analysis may lead to an understanding of why the timing may be suitable for the entrepreneur to enter the market. Eldridge et al. (2013) discussed the complexities of developing and delivering products better, quicker, and cheaper than the competition. Three participants (27%) indicated that some people view entrepreneurs as wildcatters who prefer to take the risk. However, six participants (55%) explained that good quality entrepreneurs focus on managing risk. They indicated that preparation derives from the market analysis so that when the entrepreneur is ready to

attack a market with the VC investment, then the entrepreneur and other stakeholders feel confident about the startup's position. Therefore, strategic techniques for assessing startups include analyzing the startup's capabilities and the startup's preparation through rigorous upfront analysis of the market and the competition.

Eight participants (73%) indicated that the VC's and entrepreneur's ability to recognize the potential future market is important for planning. Five participants (45%) suggested that this planning coupled with the ability to maximize profits becomes a driver for a successful business. Mayer-Haug et al. (2013) found that planning and profit are not as strong as the link between network and profit or experience and profit. However, Ecer and Khalid (2013) found that VCs support the growth of startups with hands-on involvement that includes management, marketing, and planning activities. Furthermore, seven participants (64%) highlighted some factors for determining the most suitable course of action might include recognizing the potential for expanding the business into other continents, or the need for outsourcing. These factors influence the assessment activities, planning, preparation, and the decision to manage the investment business to profitability and a successful VC exit.

Eight participants (73%) discussed planning the business execution path includes evaluating and assessing the transferability of the product. This transferability is to determine whether the product is highly customized for a unique client base or if the product is transferable and scalable to a general population of clients. Five participants (45%) described this assessment should include understanding the extent and effort for additional product modifications to enable the product to become multitenant and capable

of servicing a broader scope of clients. Eight participants (73%) discussed selling a product, and how VCs strategically evaluate how the product generates revenue. Five participants (45%) discussed selling products based on a licensing structure, which becomes difficult to grow revenue on a consistent basis when startups sell licenses. Three participants (27%) mentioned an attractive long-term revenue-generating model is to sell products as a service comprising of monthly fees with long-term contracts. VCs should plan and analyze how the startup's product links into the financial objective and performance of the company to determine if the financial performance aligns with the expectations of the VC (Lahr & Mina, 2016).

Six participants (55%) indicated during early phases of the business, uncertainty in the market and market forces could affect the business and create difficulty in knowing whether a VC should cash out or make a multimillion-dollar investment and continue growing the company. However, two participants (18%) noted that although some VCs prefer a buyout in today's market, there are certain elements that could make a business more IPO-able versus being a private sale. Four participants (36%) highlighted that some VCs may plan a dual track option while filing for an IPO. According to these participants, a dual track option could elicit buyer interest. The VC, entrepreneur, and the startup team may be satisfied going public if the opportunity presents itself. However, with the dual track option, the option is to weigh going public with the inbound interest from potential buyers of the business. With a dual-track option, decision makers become indifferent to either outcome of an IPO or a buyout. Therefore, according to six participants (55%), if the VC and entrepreneur get a great offer to sell the business, then

the business is sold. Five participants (45%) suggested that if little buyer interest exists, then taking the business public and continue growing the company is an alternative option for a profitable VC exit. Leveraging strategies for pursuing an IPO or a buyout depends on entrepreneurial orientation.

Entrepreneurial orientation. The entrepreneurial orientation creates strategic VC options in the midst of market and economic uncertainty. These strategic options help the VC and the entrepreneur determine suitable action plans for competitive strategies and performance expectations. Linton and Kask (2017) characterized entrepreneurial orientation as (a) business being proactive, (b) containing traits of risk-taking, and (c) being innovative. Ten participants (91%) indicated that VCs and entrepreneurs strategically map the structure of the company within the market, and they determine how this structure might change over time. Seven participants (64%) described the need to understand how customers view the startup's products and the sustainability of labor requirements aligned with production output. Ten participants (91%) indicated that deciding to manage a startup to a successful VC exit includes strategically evaluating the sustainability of the product, market size, and customers in alignment with the entrepreneurial orientation. Seven participants (64%) highlighted that when someone considers buying the startup, assessors may evaluate forecast models, budget, profitability, and human capital. Three participants (27%) indicated the purpose of this evaluation is to determine the requirements to achieve the next strategic milestone or stage of the company. One participant (9%) further elaborated by indicating if some of these business components are weak, then there is the option to share the risk through

partnerships for the next few years. According to this participant (9%), if the partnership is successful, then the startup and buyer might fully integrate through a merger or buyout.

All participants (100%) agreed that entrepreneurs should understand the reasonable growth in the market as well as their business model. Nine participants (82%) indicated that this understanding should include a multiyear plan that effectively describes how the company will lead to a successful VC exit. Evaluating the reasonability of the entrepreneurial business model constitutes a series of metrics and performance indicators that are measurable, understandable, reasonable, and rational (Rosenbusch et al., 2013). Parlalis (2011) described how some business models from early-stage startups take a top-down approach. One participant (9%) indicated when an entrepreneur is attacking an industrial area the entrepreneur must have real operations and knowledge to understand the factory floor. The consensus from all participants (100%) is entrepreneurs must understand the team, the product, the market, customers, and possess necessary strategic and tactical skills to design a business model capable of meeting milestones and moving the business towards profitability.

All participants (100%) agreed that meeting milestones are critical for follow-on investment options and profitability because, during each stage of the business lifecycle, such milestones provide validation of the business model and the team's ability to execute. Therefore, ongoing monitoring of early-stage startups is essential for a successful VC exit (Hirsch & Walz, 2013). Sammut (2012) found that entrepreneurs should link critical milestones and capital needs to the underlying approach to managing risk and accelerate value. All participants (100%) indicated that as the entrepreneurial the

team meeting business milestones, and the justification for continuous investment into subsequent rounds of funding becomes merited. These milestones might include metrics for monitoring the startup (Hausman & Johnston, 2014). Metrics are useful for monitoring (a) the performance of the company, (b) changes in the market, and (c) the dynamics of the industry (Hausman & Johnston, 2014). Three participants (27%) indicated the importance of using metrics when they noted significant market fluctuations might damage the startup's ability to continue investing alongside the VC when the company loses money. According to these three participants (27%), high market variability might signal caution for startups because if there are insufficient funds to continue investing in the company through a turbulent market, then follow-on investment options could lead to the option for the VC to strategically abandon the venture.

Follow-on investment. Six participants (55%) discussed how forces outside of market conditions could affect VC follow-on investment options. According to these six (55%) participants, forces include the direct or indirect influence of regulatory and government decisions on the industry, market, or entrepreneurial business. Lee et al. (2013) corroborate the influence of governmental involvement with entrepreneurial performance. Ehret (2013) described the unpredictability of external forces acting on a business or an industry in a manner that influences performance. These external forces are sometimes hidden and could influence the performance of the investment, and these forces might delay investment yields (Ehret, 2013). External forces could influence not only the initial investment but also follow-on investment options (Ehret, 2013). Therefore, actionable strategies for evaluating follow-on investment for profitable

startups includes understanding the entrepreneurial business expansion plan while operating in the existing market context and contending against real or perceived headwinds that might derive from external and unpredictable forces.

Nine participants (82%) discussed actionable techniques for assessing profitable startups include seeking the truth behind the startup business. Four participants (36%) explicitly discussed the notion of truth regarding looking beyond the flashiness of the presentation into evaluating the reality of the startup's operations. These four participants (36%) indicated the VC might seek to have a clear and concise perspective on the financial state of the company. They described that VCs could thoroughly evaluate the operational performance, run rate, liabilities, expenses, company issues, and how the startup uses their finances to create value in the market. Fisher et al. (2014) linked successful entrepreneurs to monetary performance that result from their decisions and actions. Also, VCs may evaluate the assets at the startup's disposal (Smith & Cordina, 2014). These assets are both tangible and intangible, which includes intellectual property, human capital, software, expertise, and trade secrets (Castellaneta et al., 2016).

Six participants (55%) indicated that before and during the follow-on investment stage of the investment cycle, startups have an opportunity to execute on the initial investment. According to these participants, how startups execute on VC investment provides signals to the investor. Rosenbusch et al. (2013) described measuring firm performance derives from monitoring capital usage and financial indicators that include profitability, growth, and market performance. Therefore, strategically evaluating a company for follow-on, or second round investment, includes determining the quality of

the startup's execution abilities (Rosenbusch et al., 2013). Six participants (55%) indicated that a strategy for identifying profitable startups include the VC assessor reviewing the financial objectives of the company in the language of revenues and profits. VCs might evaluate the controls in place to ensure the company is meeting margin targets (Khanin & Mahto, 2013). The VC might review the company from an operational performance perspective, and determine traction in the marketplace (Manigart & Wright, 2013). This marketplace traction might derive from on-target product launches, quality of customer service, customer loyalty, and recurring customers (Manigart & Wright, 2013). Given the outcome of this evaluation, a determination could become evident to the VC whether to leverage the option to make a full investment or the option to abandon the investment and pull out.

Ten participants (91%) indicated that VCs are risk averse and tend to avoid unnecessarily high-risk investments. Also, VCs face entrepreneurial investment challenges characterized by high risk and strong information asymmetries (Lahr & Mina, 2016). In response to these challenges, three participants (27%) suggested that startups might start on the lower scale and gradually progress based on addressing a distinct need in the market while remaining cognizant of changes in the environment, financial commitment, government regulations, state laws, and how these influences can effect profit. One participant (9%) noted that risk-averse VCs should consider investing in companies for the right reasons. Ten participants (91%) discussed reasons for investment should link into generating an ROI for the VC through business growth and profitability. Two participants (18%) suggested that VCs may avoid investing in companies for

reasons relating to building a portfolio of investee companies for client lists or investing to mimic the behaviors of other competitors in the market for market share. These two participants (18%) agreed that when VCs invest in startups for client lists or for mimicking the behavior of competitors, then there exist risk relating to potentially investing in a company that does not meet the financial expectations of the VC. Failing to meet financial expectations might occur when insufficient preparation, due diligence, and analysis of the startup occur (Gerasymenko & Arthurs, 2014). One participant (9%) shared a result of investing in client lists or mimicking competitors could lead to investing in a company that might be highly leveraged, or the company may depend on a small group of customers that provide the majority of the company's revenue with little opportunity to expand the customer base. Therefore, according to six participants (55%), when investors make the decision to invest in a company, the decision should be rational and explainable. Three participants (27%) indicated that if investors cannot explain their rationale for investing in the company, then the investor becomes at risk of investing in something that might not result in a profitable startup.

VC and entrepreneur objectives. Four participants (36%) discussed a dependency of the investor's objectives and the entrepreneur's objectives in the business when assessing a startup for an IPO or buyout. Gomezelj and Kuace (2013) established that entrepreneurial success lies in meeting the objectives of shareholders. Four participants (36%) indicated that the entrepreneur achieving revenue and profitability milestones within a finite timeframe might trigger the point when it is time to sell the company or pursue an IPO. Furthermore, three participants (27%) described the

recognition of profitable opportunities if strategic buyers decide to buy the startup and the buyer can increase the size of the business by some magnitude. These participants suggested that these buyers may recognize the value of the startup and want to capitalize on it, and they may become willing to pay for it. One participant (9%) discussed a company might require a hundred million in revenue before it can become relevant to a sector and a proof point the company is a sustainable business. Therefore, according to three participants (27%), recognizing if a company will lead to a successful buyout or IPO is case specific although the monetization component usually is not. Two participants (18%) indicated that if the startup has a good idea, a good market, and a good team, then the monetization piece usually works itself out.

Six participants (55%) indicated, from a buyout perspective, VCs might assess the strategic effect the startup might have on competitors thus becoming an attractive investment opportunity for an industry leader to acquire the startup. According to one participant (9%), this situation is a great buyout scenario to consider while building a company. Therefore, strategically, entrepreneurs and VCs should try to recognize the window of opportunity and the point when the startup is most valuable to buyers. One participant (9%) described that if the entrepreneur goes beyond a critical inflection point, then the startup becomes less valuable to the buyers because of the point where the startup builds something that the buyer might have to unbuild. Gordon (2014) indicated that VC exits occur when the investors reach an acceptable increase in share value. VCs bet on the management team, and the team's ability to deliver a plan that generates a positive ROI and a successful VC exit (Townsend & Busenitz, 2015). Therefore, a

strategic indicator of a buyout or an IPO is the startup's ability to become profitable through a timely and strategic execution of the business plan.

After reviewing participant responses and archival documents, strategies VCs use for identifying profitable startups include due diligence and investor involvement. Due diligence includes a combination of preparation, planning, and monitoring. In addition to due diligence, investor involvement with the investee company is important for building a profitable investee company. Therefore, both due diligence and investor involvement could enable VCs to identify profitable startups and lead to a successful VC exit.

Theme 2: Reduction of Information Asymmetry

Van Rensburg (2012) indicated that the entrepreneur and VC relationship could reduce information asymmetry thereby improving the performance of the business. Information asymmetry between the entrepreneur and the VC increases the risk of failing to create a profitable venture (Townsend & Busenitz, 2014). Based on participant feedback, another overarching theme in this study is knowledge and information are important for reducing information asymmetry thereby creating strategic value for identifying profitable startups. Table 4 shows the questions and frequency of participants discussing the reduction of information asymmetry. I used the archival documents, which include imported data from VC websites, entrepreneur websites, and VC brochures, to triangulate with participant responses to illuminate the theme of reducing information asymmetry.

Table 4

Reduction of Information Asymmetry (Frequency)

Participant	Interview questions	Total number of references
I1	2, 6	3
I2	1, 2	4
I3	1, 6, 7	8
I4	1, 2, 6, 7	6
I5	2, 6	3
I6	6	2
I7	1, 2, 7	5
I8	2, 6, 7	4
I9	1, 7	2
I10	1, 2, 6, 7	5
I11	1, 6, 7	3

Six participants (55%) described their top-down approach for assessing startups. These six participants (55%) discussed their approach for identifying large segments of the economy open to disruption while providing less consideration on whether the market segment a startup pursues makes an initial profit. According to these participants, focusing on large segments of the economy requires VCs and entrepreneurs to understand, through information sharing, how the startup fits into the economy. Four participants (45%) described the importance of information sharing because of their mentality of investing money as quickly as possible into the startup. These four participants (45%) indicated they evaluate entrepreneurial business plans to determine the feasibility of faster growth in a shorter timeframe. According to the four participants

(45%), if the business plan does not provide information concerning how to achieve faster growth then information asymmetry between the VC and entrepreneur exists, and the business plan is often rejected. Four participants (45%) highlighted the importance of reducing information asymmetry and the investment timeline since VCs work to maximize their ROI as quickly as possible. Therefore, reducing information asymmetry as quickly as possible becomes important for a strategic VC investment. Four participants (45%) described the reduction of information asymmetry when making startup investment decisions. However, Hsu (2013) suggested that VC exit decisions depend on industry-specific levels of technological changes and the timing of an IPO relates to the incubation period; information asymmetry between the VC and startup effects the incubation period. Whether the VC's approach for profitable exits derives from economic disruption, rapid ROI, technological changes, or incubation period, the correct information made available at the correct time is critical for the VC to make the best decisions (He & Wan, 2013).

According to nine participants (82%), difficulty identifying profitable startups includes the lack of information available to the VC during the time of assessment. Townsend and Busenitz (2014) found that information asymmetry provides the basis of risk aversion in investors. Nine participants (82%) indicated that identifying profitable startups require several dimensions of analysis for reducing information asymmetry. Although, according to the nine participants (82%), these dimensions of analysis create complexity in identifying profitable startups. These dimensions of analysis include the VC, entrepreneur, business, technology, and market (Gerasymenko & Arthurs, 2014).

Monika and Sharma (2015) made a similar assertion after indicating the VC decision-making process includes market potential, management, competition, and product. Six participants (55%) described the interaction of information and knowledge within the domains of VC, startup, technology, and market relates to enhancing the understanding between the entrepreneur and VC to lead to a profitable business. According to eight participants (73%), although identifying profitability in a company might be a straightforward process, the initial assessment of startups is difficult because of information asymmetry. Therefore, reducing information asymmetry between the VC and entrepreneur enables the VC to make a better investment decision, which enables startups to achieve timely profitability and leads to a successful VC exit.

Eleven participants (100%) indicated evaluating startups for initial investment begins with an understanding of the market, the market opportunity, and the entrepreneur's value proposition. Huarng (2013) corroborates this assertion by indicating that important elements of entrepreneurship include an analysis of the market along with the application of innovation, products and services, strategies, and competitive dynamics. Six participants (55%) indicated a good entrepreneurial business plan should include such information (i.e., market opportunity capable of supporting hundreds of millions or billions of dollars annually). Five participants (45%) expounded on the investor's understanding of the market reduces information asymmetry between the investor and the startup as well as positions the investor to make better evaluation decisions. Furthermore, six participants (55%) indicated the VC's understanding of the market reduces the risk of investing in a company that misaligns with the true needs of

the market. This understanding includes looking beyond the existing client base of the startup and into the problem facing the majority of clients in the market (Kollmann et al., 2014). Part of understanding the market includes understanding the localized competition through competitor analysis (Huang, 2013). Four participants (36%) indicated high market entry barriers to new entrants are strategically important to VCs because entry barriers might protect market share. Entry barriers might include intellectual property designed to protect trade secrets, knowledge, or technology from replication (Castellaneta et al., 2016). Intellectual property may ensure the protection of the VC's investment for future use. Castellaneta et al. (2016) described how VCs in some states that support Inevitable Disclosure Doctrine (IDD) for trade secret protection increases investment per startup by approximately 27%. Furthermore, eight participants (73%) indicated VCs might need to assess who else is attacking the same opportunity. Therefore, according to these participants, VCs should strategically evaluate the problem within the market that the startup seeks to solve. Entrepreneurs and VCs could reduce information asymmetry by understanding the market and customer segment.

Challenges exist for VCs because of the lack of information available to the entrepreneur and the VC during the time of assessment (Van Rensburg, 2012). Ten participants (91%) suggested information asymmetry presents an inherent risk in identifying profitable startups because VCs tend to fill in gaps in information with assumptions. Seven participants (64%) described how some VCs reduce information asymmetry by relying on other individuals or sources of information about the startup company; information may relate to opportunity, technology, or market. These seven

participants (64%) indicated the source of information might derive from bankers, financial individuals, or other companies familiar with the market. Although information asymmetry creates challenges for VCs, Peng et al. (2014) found that information asymmetry could create value for entrepreneurs when they can lower searching and monitoring cost through the exploitation of information asymmetry. Conversely, Van Rensburg (2012) indicated that when entrepreneurs establish relationships with VCs, then this relationship could reduce information asymmetry. Wang and Hsu (2014) supported this assertion when they found that the VC and entrepreneur relationships could create mutual benefit for knowledge gain thereby reducing information asymmetry. Four participants (36%) noted the challenge and difficulty that VCs experience when identifying profitable startups includes relying on others to provide critical and authentic information suitable for making decisions. Although VCs cannot eliminate risk, they do manage risk within the boundaries of their risk tolerance levels (Andrieu, 2013). Four participants (36%) indicated VCs experience the risk of knowing if the startup created something ahead of its time, created a niche market, or created something flashy that sounds good but brings little value to the market. These areas of analysis represent challenges for VCs identifying profitable startups.

Five participants (45%) indicated another challenge identifying profitable startups could be attributable to the lack of knowledge that entrepreneurs might possess concerning their available options when pursuing capital for businesses. Colombo and Dawid (2016) showed that successful business discoveries include the ability of the entrepreneur to leverage knowledge and alertness to search and exploit opportunities.

Entrepreneurs without the requisite knowledge of financing options for capital procurement might focus on conventional avenues that include personal finances, credit, and loans (Gomezelj & Kuace, 2013). Two participants (18%) indicated this situation further exasperates the challenge of assessing startups when entrepreneurs mix business expenses, assets, and income with personal finances. According to these two participants (18%), this mixing expenses situation creates impediments when entrepreneurs are unable to raise sufficient capital needed for their startup and create missed opportunities for the VC that might otherwise result in a positive ROI and profitability. Although, Staniewski et al. (2016) inferred that entrepreneurs who invest heavy personal funds into the venture send positive signals that help convince investors of the commitment of the entrepreneur through shared risk. Entrepreneurs with experience, knowledge of the market, and understanding of financial options can reduce information asymmetry thereby create a profitable business (Franco et al., 2014).

Three participants (27%) highlighted that for first-time entrepreneurs, the VC should ensure the entrepreneur understands what it means to get 5% of the market, and includes the startup's plan for obtaining the initial customer to a large enough customer base to achieve profitability. One participant (9%) indicated less knowledgeable and inexperienced entrepreneurs begin to breakdown at this point of evaluation. Kim and Longest (2014) suggested that nascent entrepreneurs are at a greater disadvantage because of the lack of startup experience. According to two participants (18%), less experienced entrepreneurs have a good idea, and they think they know where the

opportunities exist in the market, but these entrepreneurs do not understand the difficulty of penetrating the market or scaling distribution because of lack of knowledge.

Ten participants (91%) indicated VCs choose to invest in markets large enough to support a meaningful business. The VC's understanding of the market is important in identifying profitable startups (Monika & Sharma, 2015). Four participants (36%) indicated VCs with little market understanding is at risk of startups with flashy presentations or serves a small portion of the market triggering an investment response that might elevate investment risk and fail to produce a positive ROI. Therefore, according to these four participants (36%), the evaluation of the startup should align with the VC's area of interest and core knowledge. Six participants (55%) agree that the VC's area of interest includes the market size, anticipated ROI, and assurances that the startup's pitch aligns with the VC's goals. The VC's goals and interests should include the VC's exit strategy (Ozmel et al., 2013). Capitalizing on investor and investee knowledge reduces information asymmetry and leads to profitable startup and successful investor exits.

Theme 3: Human Capital Management

Eleven participants (100%) agree VCs must have a keen eye for people to identify which startups will become profitable. The VC must understand people, their motivations, and their strengths and weaknesses (Arcot, 2014). Table 5 shows the questions and frequency of participants discussing people as important factors for a profitable startup. I used archival documents that comprised of imported data from VC

websites, entrepreneur websites, and VC brochures to triangulate information from participant responses to illuminate the theme: human capital management.

Table 5

Human Capital Management (Frequency)

Participant	Interview questions	Total number of references
I1	1, 4, 6, 7	8
I2	1, 6	5
I3	2, 4, 7	5
I4	1, 6, 7	3
I5	2, 4, 6, 7	6
I6	3, 4, 5, 6	8
I7	1, 2, 4, 7	6
I8	2, 3, 5, 7	7
I9	1, 2, 6, 7	5
I10	2, 5, 6, 7	4
I11	1, 4, 6	4

Liedtka (2014) used the concept of design-thinking implementation to identify the motives of people. The design-thinking approach centers on how people work together to implement solutions (Liedtka, 2014). VCs must understand the leader's ability to assemble the right team, the ability to motivate the team, and the ability to drive execution (Kakarika, 2013). Four participants (36%) indicated that startup assessment includes interviewing key managers. According to these four participants (36%), the purpose of interviewing key managers is to ensure the management team fits the investment profile regarding vision, philosophy, and their ability to execute. Six

participants (55%) described another technique for identifying the right people is to review the company's market position. Seven participants (64%) suggested that VCs must conduct a market analysis, competitive analysis, SWOT, and the other traditional strategic analysis to assess the viability of the business and the team. Four participants (36%) elaborated by indicating that this analysis includes determining market size and entrepreneurial capabilities while understanding whether large markets are growing. Vogel et al. (2014) discussed task-oriented diversity as a skills-based focus on the entrepreneurial team's education, leadership experience, and venture experience. Four participants (36%) indicated VCs must evaluate whether the opportunity is to attack a growing market or the opportunity is to disrupt a large mature market. One participant (9%) highlighted whether attacking a growing market or disrupting a mature market requires different approaches, but both strategies can be attractive, and both involve high growth.

Evaluating startups for initial investment includes ensuring the startup management team has the subsequent knowledge to drive business to success (Kakarika, 2013). Eight participants (73%) described critical areas the VC might consider when assessing the management team is the vision of the team, assurances the company is success-driven, assessing the company's philosophies, and ensuring the company is a well-structured organization. Furthermore, six participants (55%) described that VCs might strategically assess the gaps in entrepreneurial talent within the startup to determine how they might help them succeed. Stephan and Pathak (2016) described entrepreneurial leadership as using social influence to build an environment of co-

creation and design thinking for shaping the trajectory of the business in alignment with organization goals. VCs evaluating startups for the initial investment includes not only assessing the startup's financial sources for conducting business but also evaluating the viability of the startup's technology or product around market appeal (Probert et al., 2013).

According to nine participants (82%), entrepreneurs with proven skills and capabilities to meet or exceed projections are important for evaluating startups for follow-on investment options. Franco et al. (2014) identified entrepreneur experience, motivations for creating a business, skills, and knowledge of marketing are important for the entrepreneur's success. Four participants (36%) mentioned evaluating for follow-on investment options include understanding the capital structure of the entrepreneur. Three participants (27%) added that the capital structure of the entrepreneur could show the investment tolerance of the entrepreneur. Two participants (18%) indicated some entrepreneurs might invest all their personal finances into a risky venture to achieve maximum profit, but these types of investments are prone to risk.

Eight participants (73%) described as part of the startup assessment, VCs may identify where the entrepreneur and startup team fit in the value chain within their investment portfolio. Kakarika (2013) found that by leveraging the perceptions and expectations of the VC, startups could formulate teams that provide the knowledge base that VCs expect in hypercompetitive markets. Nine participants (82%) mentioned the entrepreneur and the startup team are important in the analysis of startups and the key to a successful VC exit. These nine participants (82%) noted VCs must work closely with

startups to lead to profitability. Therefore, as described by five participants (45%), the entrepreneur and the VC must possess shared philosophies. Three participants (27%) elaborated that shared philosophies between the entrepreneur and the VC ensure cohesion between the investor and the investee relationship. Some VCs invest in startups to make a timely and substantial ROI while some entrepreneurs might have different timelines with different objectives (King, 2013). Therefore, according to four participants (36%), difficulty exists when identifying startups with shared philosophies with the VC because building the cohesive relationship requires considerable time, patience, effort, and energy. One participant (9%) indicated the shared philosophies mentality provides a rationale for some VCs to prefer working in geographical proximity of the investee company. Gerasymenko and Arthurs (2014) found that VCs tend to consider geographic proximity as an important decision for making an investment, particularly in early-stage investments. The location is important because it provides opportunities for the VC to provide value-adding services that contribute to profitability (Butler & Goktan, 2013).

Nine participants (82%) indicated the leadership structure of the startup is an important component of a profitable startup. Leadership structure includes the skills and training the entrepreneur and the leadership team possess (Vogel et al., 2014). Six participants (55%) described that entrepreneurs should be aware of their gaps through an analysis of their strengths and weaknesses. Two participants (18%) mentioned some entrepreneurs can generate a great idea, but the VC might need someone different who is capable of scaling the idea. These two participants indicated that the VC must evaluate the entrepreneur while assessing the entrepreneur's understanding of profitability and

becoming profitable. In other words, VCs must assess the capabilities of the entrepreneur to monetize the business.

Ten participants (91%) described that the VC evaluation must include the people in the startup and the technology supporting the investment. Gerasymenko and Arthurs (2014) indicated an approach that VCs use to predict the performance of the investment comes from the analysis of the entrepreneurial business plan, technology, and management team. The VC must determine whether the technology is an emergent technology or an improving technology within the market (Lahr & Mina, 2016). Four participants (36%) highlighted this assessment includes the startup's ability to compete in the existing market, or if the startup can leapfrog over the competition because of modern technology or disruptive innovation.

Six participants (55%) indicated market size is important for some VCs because narrow markets may lead to different investment options than a broad market. Monika and Sharma (2015) included market growth and size as one of the six general criteria for evaluating companies. Consequently, one participant (9%) suggested startups that provide a product to a few clients on the leading edge of technology might be neither representative of the existing market nor the future direction of the market. Therefore, some VCs will strategically attempt to identify startups that address problems that link to a large enough population within the market that might result in profitability and ROI (Ecer & Khalid, 2013). The effective usage of people from investee and investor companies is important to a profitable startup and a successful VC exit.

Theme 4: Environmental and Market Forces

Techniques for assessing startups include reviewing the external and internal forces that might influence the response, behavior, and sustainability of the startup (Ehret, 2013). External forces might create hindrances to the business due to regulations, taxes, competition, and availability of resources needed for manufacturing the product (Lee et al., 2013). These hindrances occur because forces acting on a company are difficult to predict and difficult to forecast (Ehret, 2013). Table 6 shows the questions and frequency of participants discussing how internal and external forces could influence strategic investment decisions. I used archival documents, which included imported data from VC websites, entrepreneur websites, and VC brochures, to triangulate participant responses to identify the theme: environmental and market forces.

Table 6

Environmental and Market Forces (Frequency)

Participant	Interview questions	Total number of references
I1	0	0
I2	2, 6	3
I3	3, 6	2
I4	6	5
I5	5	1
I6	0	0
I7	3	2
I8	2, 3	4
I9	2, 6	3
I10	3	2
I11	5, 6	4

Five participants (45%) indicated VCs must acknowledge and evaluate internal and external forces that could influence the sustainability of the company within an industry. Two participants (18%) elaborated within the context of forces analysis, VCs must assess the basis for the startup's existence and the rationale the leaders of the company might have to sell or pursue an IPO. From the perspective of market forces influencing decisions of entrepreneurs and investors, Becker et al. (2016) discussed the rationale that startups may use when implementing a born-to-be-sold strategy. Five participants (45%) agreed that VCs might consider the strategy of the startup as well as how the product could change the dynamics of the market and how the industry could shape the manner in which the external forces change. One participant (9%) mentioned

VCs should be cognizant of legal issues that might occur due to requirements that startups should be aware. Jiang et al. (2014) corroborated the effect of legal issues when they described that legal protection is important in the assessment of funding a company. Regarding forces acting on a startup, two participants (18%) indicated where gaps in understanding exist, VCs should leverage experts in the field to hedge against lack of knowledge, instead of pretending they have the answers. Furthermore, VCs should evaluate market trends and map these trends to their investment expectations while predicting the trajectory of future expectations based on legislations and global economy (Lee et al., 2013). Four participants (36%) described the goal of identifying the company's market position in the context of internal and external forces is to identify if there is market traction. Market traction occurs if the company is leading the market in its area of focus (Manigart & Wright, 2013). One participant (9%) mentioned identifying market traction could be difficult because investors cannot easily engage existing customers unless, perhaps, the investor is a customer.

Furthermore, two participants (18%) discussed VC assessment includes identifying and evaluating the critical external forces that could affect, alter, or kill an industry. External forces could either kill a business or create strong headwinds that might become an impediment to moving the business forward within the market (Ehret, 2013). Not only analyzing the external forces acting on the startup but also the internal forces of the startup is part of the VC assessment strategy. One participant (9%) described internal forces like labor costs, employee-employer relationship, leadership, compensation plans, and the number of employees comprise of resources that form the

structure of the business. This participant indicated resource allocation in day-to-day business activities defines the effectiveness of the investment, which influences the ability to meet projections and milestones. According to five participants (45%), the creative combination of evaluating and leveraging the external and internal forces in a manner that ensures startup success is part of the VC assessment strategies. Therefore, understanding the effect of external and internal forces is a crucial technique for assessing startups (Ehret, 2013). Strategically leveraging the influence of internal and external forces that work in combination with how relations, technology, and market demand could effect the VC assessment decisions as well as the profitability of startups. Investors should monitor environmental market forces that affect the startup's profitability pre-investment and post-investment.

Theme 5: Startup Experience Matching Investor Strategy

Experienced entrepreneurs try to manage the business toward a monetization event (Oe & Mitsuhashi, 2013). Four participants (36%) indicated monetization events create strategic options for an IPO or a buyout. Table 7 shows the questions and frequency of participants discussing how the entrepreneur's track record supports strategic investment initiatives that could lead to a monetization event. I used archival documents, which included imported data from VC websites, entrepreneur websites, and VC brochures, to triangulate the participant responses and illuminate the theme: startup experience matching investor strategy.

Table 7

Startup Experience Matching Investor Strategy (Frequency)

Participant	Interview questions	Total number of references
I1	2, 5, 6	4
I2	1, 2	3
I3	1, 2, 7	4
I4	2, 7	3
I5	2	2
I6	0	0
I7	2, 6	3
I8	1, 7	2
I9	2, 5, 6, 7	4
I10	1, 2, 5, 7	5
I11	7	2

The right management team in the startup is important for a successful VC exit (Kakarika, 2013). Ten participants (91%) indicated that critical areas of focus might include determining if the management team is executing in a manner to drive the company to a successful VC exit. Furthermore, seven participants (64%) indicated this execution could require the startup management team to be visionaries with the expertise and the ability to execute in a manner that leads to profitable VC exit. Six participants (55%) noted the operational processes within the startup are important because processes govern the ability and the rate at which the startup can scale. These six participants (55%) indicated some VCs prefer to have the startup scale as quickly as possible; therefore, processes must be in place to support rapid scaling. One participant (9%) expounded on

growth by indicating that if growth is important to the startup, then rapid scaling is paramount because scaling mediates growth. One participant (9%) noted, a strategy for identifying profitable startups includes focusing on the entrepreneur's track record for building a team capable of leading to a profitable company.

Managing a startup to a successful VC exit may include managing proprietary technology (Smith & Cordina, 2014). Startups with good ideas may ensure the protection of the idea in the form of intellectual property (Chen & Chang, 2013). Six participants (55%) shared strategies for managing a startup to profitability and a successful VC exit includes balancing a combination of human capital, business structure and processes, the technology, the capital investment, and the value of the company. Smith and Cordina (2014) corroborated the participant's remarks when they found in startups, intangibles relating to human capital, entrepreneur experience, and drive and passion of the entrepreneur are signals that VCs could use during the startup assessment process.

In addition to entrepreneur track record, some VCs look for creditability in the entrepreneur's team (Stephen, Van Iwaarden, Van Der Wiele, & Roger, 2013). Eldridge et al. (2013) indicated that VCs face challenges of trust and creditability with entrepreneurs. Eight participants (73%) indicated entrepreneurs gain credibility when they lead to successful VC exits in the past. Five participants (45%) noted if the entrepreneur has a cycle of building a business and either selling the business or an IPO, then the entrepreneur is credible. One participant (9%) highlighted that some VCs prefer to back a startup team that has experienced the whole lifecycle from birth to monetization of the business. Some VCs realize that entrepreneurs who have built a business before

will have a different mentality than a first-time entrepreneur (Cassar, 2014). Therefore, the track record of the startup company is part of the basis of startup evaluation (Kim & Longest, 2013). Three participants (27%) shared that when no track record for the startup exists, then VCs may make assumptions about how they believe the market will respond to the startup's offerings. Haeussler et al. (2014) indicated the difficulty evaluating startups during first time financing due to the lack of track record indicative of growth potential and time constraints with VCs realizing an ROI. Therefore, a strategy for identifying profitable startups includes determining the creditability of the entrepreneur and the entrepreneurial team based on past performance.

Two participants (18%) commented that entrepreneurship is not solely for young people; there are a large number of high-quality startups started by people starting second careers. The two participants (18%) highlighted that high-quality startups might include creditable people who had very successful businesses or bigger companies. One participant (9%) shared that executives might get to a certain level within a company, see a gap, but told no, so they go out and fill the gap on their own. Creditable startups need a good technical team to keep costs low and the profit margins high (Spitzeck et al., 2013). Using an entrepreneur's track record is a useful strategy for determining which startup business could become profitable when investing in startups. Investors should invest in startups with experience that aligns with the investor's investment strategy.

Theme 6: Trust Building

Khanin and Mahto (2013) indicated that trust between the entrepreneur and the VC increases knowledge and reduces information asymmetry through information

sharing. Three participants (27%) indicated that options for the VC exist once the business reaches a stage where the VC trusts that the business will scale as a result of the performance from the startup leadership. Some VCs bet on the management team of the startup and the team's ability to execute a plan that leads to a successful VC exit (Stephen et al., 2013). Table 8 shows the questions and frequency of participants discussing the influence of trust regarding strategic assessment activities. I used the archival documents, which include imported data from VC websites, entrepreneur websites, and VC brochures, to triangulate with participant responses to illuminate the theme: trust building.

Table 8

Trust Building (Frequency)

Participant	Interview questions	Total number of references
I1	4, 6	2
I2	0	0
I3	0	0
I4	7	1
I5	4, 7	3
I6	0	0
I7	6, 7	2
I8	7	2
I9	4, 6, 7	4
I10	7	2
I11	0	0

According to one participant (9%), broadly stating whether on day 100 or day 1000 if a company will lead to a successful IPO or buyout is difficult to determine precisely. This one participant (9%) indicated that the market could influence decisions for taking a company to an IPO or a buyout, however, trust in the startup's leaders influences if the VC might take the initial investment risk. Nanda and Rhodes-Kropf (2013) indicated that market dynamics is an important consideration when studying the decision-making strategies of VCs in risky markets. However, Khanin and Mahto (2013) found that successful ventures exist when VC decision-making strategies derive from the foundation of trust between the entrepreneur and the VC. Therefore, the strategic foundation for identifying profitable startups starts with trust between the VC and the entrepreneur.

Trust between the VC and the entrepreneur does not preclude the need for legal protection of both parties. Four participants (36%) indicated that VCs should cover risk through a well thought out contract agreement between the VC and the entrepreneur. Khanin and Mahto (2013) indicated that experienced VCs have greater expertise and access to powerful legal counsel when negotiating contracts. Two participants (18%) discussed strategic planning regarding the VC preparing if the entrepreneur remains in the business for a short term or a long term. These two participants (18%) indicated this preparation might include backup plans in case the entrepreneur fails to meet obligations. According to these two participants (18%), these backup plans should include options for the VC to recover investments or continue growing the business to profitability with a

different entrepreneur partner. Building trust between the VC and entrepreneurs includes the need for legal protection of both parties.

According to three participants (27%), startup leaders sell the company story and the business model to investors. One participant (9%) indicated when leaders within the company are unable to communicate the story effectively, then it becomes difficult to build trust and sell stocks as well as to continue encouraging investors into buying stocks after going public. Therefore, trust in the startup leadership is an important element of VC success (Khanin & Mahto, 2013). Two participants (18%) noted that entrepreneurs who collaborate with VCs must be trustworthy and know the business inside and out. Eldridge et al. (2013) highlighted the importance of investment partner relationships regarding understanding the startup and building trust. Therefore, a strategy for identifying profitable startups includes establishing trust between the entrepreneur and VC.

Startups need strategic partnerships to enable a successful venture (Meyskens & Carsrud, 2013). Knowing whom the entrepreneur can trust and be able to work with people from diverse backgrounds is important (Kakarika, 2013). Entrepreneurs pursuing ventures by themselves might be limited (Huang, 2013). Furthermore, VCs should know and trust their business partners (Stephen et al., 2013). One participant (9%) commented that if the VC cannot trust the entrepreneur partner, then the investor should not strategically risk the investment. Therefore, according to four participants (36%), shared philosophies, shared goals, and shared visions are paramount to establishing a successful VC-startup relationship. According to these participants, with shared visions, companies

might most effectively blend their resources with the discipline and execution needed to do the right thing the right way. Spitzbeck et al. (2013) found the importance of collaborating with stakeholders to create shared values leads to sustainability and success. Bringing a group of people comprising of the right talent mix to take a company to the next phase creates a trust that leads to investment and profitability. Therefore, establishing trust with the right blend of talent between the startup and the VC is a strategy for determining which startup would become profitable. Building trust through sustainable investee-investor relationships leads to profitable startups and successful investor exits.

Theme 7: Investment Timing

Five participants (45%) indicated that some startups may focus on expanding the business and attacking the target market opportunity as quickly as possible. Three participants (27%) elaborated by indicating that this focus could leverage first-mover advantage or create a market edge that could have a long-run advantage. Waite and Jamison (2013) indicated investors are looking for gains through timely returns on the investment. Nanda and Rhodes-Kropt (2013) suggested that market conditions influence the timing for risky entrepreneurial startups. Table 9 shows the questions and frequency of participants discussing the effect of timing on strategic investment decisions. I used the archival documents, which included imported data from VC websites, entrepreneur websites, and VC brochures, to triangulate with participant response to illuminate the theme: investment timing.

Table 9

Investment Timing (Frequency)

Participant	Interview questions	Total number of references
I1	2, 6	4
I2	1	1
I3	1, 2, 4	3
I4	0	0
I5	0	0
I6	1, 6	3
I7	0	0
I8	1, 4	2
I9	0	0
I10	6	1
I11	1, 2	2

Hsu (2013) discussed how technological changes affect the timing of a VC exit and an IPO. Four participants (36%) highlighted that some startups structure the organization for profitability over time, irrespective of the types of product or service the organization offers. However, six participants (55%) mentioned profitable startups could start with a view of the market and the business combined with the entrepreneur's angle in the market. Two participants (18%) described how the VC could determine how the startup's story solves a problem while creating new value in the current or future market. These two participants (18%) went on to indicate part of this evaluation could include evaluating the startup's products and services as well as how either the company addresses an existing problem in the market or a problem the market has not yet

discovered. Six participants (55%) shared that factoring timing in assessment strategies for identifying profitable startups is difficult to predict. These six participants (55%) indicated the timing difficulty and risk in making these types of assessments are whether the product, service, and the story will trigger a market response to buy the startup's solution in sufficient quantities that lead to a profitable startup and an ROI for the VC. If the VC does not perceive the correct timing for the investment due to anticipated market acceptance of the startup's solution, then the investment might be delayed. The timing of startup investment should strategically align with investor objectives.

Theme 8: Venture Capital Market Dynamics

VCS operate in a very competitive market for the best startup opportunities (Khavul & Deeds, 2016). Heughebaert and Manigart (2012) indicated that VCs might target niche markets with low levels of competition from other VC firms as an alternative strategy for increasing bargaining power. Table 10 shows the questions and frequency of participants regarding how the VC market could affect strategic investment decisions. I used the archival documents, which included imported data from VC websites, entrepreneur websites, and VC brochures, to triangulate with participant responses to illuminate the theme: VC market dynamics.

Table 10

Venture Capital Market Dynamics (Frequency)

Participant	Interview questions	Total number of references
I1	6, 7	5
I2	0	0
I3	6	2
I4	0	0
I5	0	0
I6	6	1
I7	7	2
I8	0	0
I9	0	0
I10	0	0
I11	6	2

Two participants (18%) described how the competitiveness of the VC market toward identifying profitable startups is good for entrepreneurs but challenging for the old-line early-stage investors. One participant (9%) noted the reason for the challenge is that for strictly financial VC players, a checkbook has become a financial commodity source. Another participant (9%) highlighted modern VC investment practices are different from 30 years ago. Good VCs might try to identify ways of creating more success among their portfolio of businesses through cross-pollinating relationships (Khavul & Deeds, 2016). They invest in business sectors that link to other business sectors (Khavul & Deeds, 2016). Four participants (36%) indicated that VCs might

search for the kind of market opportunity capable of supporting hundreds of millions or billions of dollars annually.

Two participants (18%) noted that the state of the VC market is important when strategically evaluating the startup for investment. One participant (9%) noted that like many markets, the VC market for startup investing goes through cycles. This participant (9%) shared that less rational VC markets occur when a business plan might indicate the objective of raising hundred million dollars on the basis that other companies are requesting the same amount of money. Lauterbach et al. (2014) corroborate the participant's assertion by indicating that investor pressure might occur when high market growth causes investors to pressure VCs to advantage market dynamics by funding more companies. Consequently, according to the participant (9%), cyclical changes in VC markets can become frustrating for entrepreneurs who might have received an initial round of funding only later to be required to conduct a more thorough analysis for subsequent funding when compared to the initial assessment. Therefore, two participants (18%) suggested that evaluating startups include a self-awareness of the current position within the VC market cycle. One participant (9%) expounded when indicating that this evaluation might lead to options for assessing whether or not the entrepreneur is comfortable making an investment in the current VC market context, or if the entrepreneur would be more comfortable making the investment at a different point in time when the timing might be better.

According to two participants (18%), there are influences in the VC market that are beyond whether the startup becomes profitable in a manner that leads to a successful

IPO. These two participants (18%) indicated that VC market influences make it difficult for a VC to determine when a company may go IPO. One participant (9%) noted that in the IPO domain, there is market risk when the VC market is very frothy for IPOs. According to this participant, a frothy market exists when a VC can take a company public while the company is still losing money. Furthermore, according to this participant, in the frothy market context, the equity market becomes a funding mechanism to obtain profitability. Therefore, VCs could consider the cyclical nature of the VC market when making investment decisions to identify profitable startups. Investors should recognize that VC market conditions influence startup investment decisions.

Applications to Professional Practice

A multicase study design was appropriate for understanding strategies for identifying startups that might result in a profitable VC exit. The purpose of this research was to explore strategies that VCs may use to determine which startup businesses might become profitable when investing in startups. The findings section included evidence from a culmination of responses from interviews, notes, reflective journal entries, and archival documents imported into NVivo™. Supported by participant member checking and augmented with scholarly references, the collection of this evidence provided the data needed to extrapolate themes that might help VCs make better investment decisions when assessing startups. Also, the information from this research could provide insight for entrepreneurs to make better decisions during early planning and development stages of the business. Lukas et al. (2016) described how VCs and entrepreneurs might choose

and abandonment option if the performance of the business does not meet minimal performance thresholds. Additionally, Hsu (2013) suggested that VC exit decisions depend on industry-specific levels of technological changes and the timing of an exit relates to the incubation period. Also, the VC's access to correct and timely information is critical for making the best investment decisions (He & Wan, 2013). Therefore, the information provided in this research might provide additional insight for capital investors when deciding to invest funds into VC firms.

The specific business problem was VCs might have limited strategies for determining which businesses would become profitable when investing in startups. VCs are capable of helping to reduce information asymmetry (Jiang, Cai, Keasey, Wright, & Zhang, 2014). Therefore, VCs might use the information from this research to reduce information asymmetry between themselves and the entrepreneur by ensuring they have a deep understanding of the market, market forces, competitive forces, customers, and the value proposition of the entrepreneur's business offerings. VCs should consider avoiding investments based solely on flashy entrepreneurial presentations or the cyclical nature of the VC market. Instead, VCs may augment their assessment strategies to ensure monetization events by identifying entrepreneurs that share their investment philosophies. Timely monetization events could occur when VCs can match the services they provide to entrepreneurs with the entrepreneurial team's capabilities through shared philosophies. Shared philosophies could create a balance between the VC and the entrepreneur in a manner that could maximize the shared capabilities of the two entities. These shared capabilities could lead to the recognition of robust options that leads to profitability.

Therefore, people are an important factor for profitability and a VC exit through an IPO or a buyout.

Entrepreneurs may benefit from the findings of this research by understanding the expectations of VCs. When entrepreneurs understand the expectations of VCs, then entrepreneurs are capable of reducing information asymmetry between themselves and the VC when presenting their value proposition. Devigne, Manigart, and Wright (2016) described the challenges for VCs to continue investing or discontinue investing in a company when the investment fails to meet initial expectations. Credibility, track record, and trust are important to VCs. Eldridge et al. (2013) suggested that VCs must face challenges of trust and creditability with entrepreneurs. Furthermore, Peng et al. (2014) described how entrepreneurs might use signals to establish their credibility particularly in industries of high uncertainty. Therefore, entrepreneurs might consider enhancing their experience, knowledge, and education in the domain of the target industry as a technique for enhancing their creditability, track record, and building trust. Furthermore, entrepreneurs may consider the capabilities of their executive team. The executive team drives the business through the execution of the business plan. Preparation, planning, monitoring, and action are important to VCs and the success of an organization. Therefore, entrepreneurs might consider the importance of having high-quality individuals representing key roles within the organization to facilitate activities for driving the company forward. Last, entrepreneurs could consider that when a VC rejects an entrepreneur's investment request, the rejection could be due to timing or a misalignment in shared philosophies. Therefore, it is incumbent on the entrepreneurs to

ensure they not only pursue an investment from VCs that aligns with their philosophies but also expand their knowledge of alternative investment options.

Nagendran and Venkateswar (2014) described similar behavioral patterns between VCs and investors when investors make investment decisions in high-risk, volatile, and complex markets. Therefore, investors might benefit from the findings of this research by gaining additional insight into the complex interactions that VCs and entrepreneurs face when pursuing risky ventures. This complexity might also include the dynamics of the interaction between the VC and the entrepreneur as well as changing market conditions and forces that could influence the business. Also, investors might consider the current state of the VC market as part of their investment plan. The current state of the VC market affects the manner in which VCs invest capital funding.

Implications for Social Change

From this research, the implications for social change could include the potential for improving assessment strategies for VCs and startup entrepreneurs. These assessment strategies could enable VCs and startup entrepreneurs to become more efficient in their bidirectional evaluation practices by providing greater symmetry and information flow in the VC-entrepreneur relationship thereby reducing information asymmetry. The reduction of information asymmetry between the VC and the entrepreneur could help VCs make better assessment decisions when evaluating startups. Also, reducing information asymmetry for entrepreneurs might reduce risk and uncertainty of the venture thereby potentially increasing the probability of investment. Reducing information asymmetry early in the assessment process benefits both the VC and the entrepreneur as information

flow becomes efficient as relevant information needed by VCs shortens the due diligence process which enables the VC to make better and quicker investment decisions.

The implication for social change could lead to developing training and education for VCs and entrepreneurs. Training could provide areas of focus tailored to the business segment of the target market. Also, training might provide a foundation for entrepreneurs to create business models that include credible information. Furthermore, training might help entrepreneurs become financially literate as they discover suitable investment avenues designed to address their specific needs. Last, training might help VCs improve their assessment of startups by illuminating other complex exogenous factors that could affect the startup business.

Therefore, I anticipate that knowledge from this study could help VCs in the southeastern United States (a) lead to the development of standard assessment tools that might benefit VC assessment practices, (b) provide insight into VC investment decisions that lead to profitability, and (c) reduce businesses that fail to meet VC ROI. Also, I anticipate that the knowledge from this study could help entrepreneurs (a) become better prepared for driving success with risky ventures, (b) identify critical components needed for supporting VC-backed businesses, and (c) reduce missed opportunities during VC assessment processes. Such knowledge from this study could create VC-backed businesses that lead to profitability, job creation, and sustainable businesses that lead to societal benefit. Society members might benefit from this study through an increase in innovative products and services that might improve the quality of life for a broad scope of individuals.

Recommendations for Action

VCs tend to reject most of the business plans from startup entrepreneurs (de Treville et al., 2014). When VCs reject a majority of business plans from startups, they may become an impediment to spurring economic growth through innovation (de Treville et al., 2014). VCs face challenges identifying entrepreneurial startups that lead to investor ROI because of information asymmetry and environmental uncertainty (Meglio et al., 2016). The purpose of this study was to provide VCs with strategies that might increase the profitability of a startup in a manner that leads to a successful VC exit. VCs might use the information from this study to improve their investment decision-making tactics when assessing startups. Furthermore, VCs may enhance existing techniques or develop new techniques that lead to a unique position within the VC market by improving the ratio of successful exits per investment phase. The participants in this study provided unique insight from various investment perspectives in a manner that encapsulate experience, education, knowledge, and best practices that might be critical for identifying profitable startups in risky markets. Therefore, VCs should pay attention to the results of this research.

Entrepreneurial business models should align with the business environment that the model applies (Huarng, 2013). Creating competitive advantage includes the design of an effective entrepreneurial business model will establish links between technology, development, and business performance while accounting for market dynamics (Baden-Fuller & Haefliger, 2013). Entrepreneurs can meet the needs of customers through innovation while achieving competitive advantage in the market when they are alert to

change market conditions (Probert et al., 2013). The information from this study applies to entrepreneurs in startup companies regarding creating successful and sustainable VC-backed businesses in risky industries. The entrepreneur might gain deeper insight into preparing sustainable business models that create distinct competitive advantage within risky markets. More important, entrepreneurs might enhance the communication of their value proposition to VC investors in a manner that reduces information asymmetry and uncertainty which might further result in VCs making better investment decisions based on complete information. Therefore, entrepreneurs investing in risky startups should pay attention to the results of this research.

The recommendations for action encapsulate the themes from this study in a manner that might benefit current and future startup businesses and VCs assessing such businesses. Based on the research findings, I recommend the following actions:

- VCs should consider the integration of preparation, planning, monitoring, and action to create VC exit options.
- Leaders should recognize that human capital is important for startup profitability and successful VC exit.
- VCs and entrepreneurs should focus on reducing information asymmetry between each other.
- VCs and entrepreneurs should try to predict the effect of environmental and market forces on the startup business.
- Entrepreneurs should realize that timing could delay VC investment.

- Entrepreneurs should establish a successful track record to establish VC creditability.
- VCs and entrepreneurs should establish relations build on mutual trust.
- VCs and entrepreneurs should understand that the VC market can affect VC investment decisions.

The responses from participants indicate the importance of how these recommendations interconnect to form profitable and sustainable businesses. Furthermore, the findings from this study indicate the importance of shared philosophies between VCs and startup entrepreneurs, which might contribute towards a successful VC exit. An essential part of research is writing to dissemination of knowledge in the research community (Kuteeva & Mauranen, 2014). There are several avenues appropriate for disseminating the findings of this study. Disseminating research findings to stakeholders can lead to changes in practice and a guide for future research (Resnick, 2014). These avenues include scholarly journals and business journals that focus on VC investment practices, entrepreneurship, and business management. Also, the dissemination of information from this research could occur through training conferences tailored for VCs and startup entrepreneurs. Workshops and business incubator programs might provide training and insight for prospective entrepreneurs interested in pursuing VC-back funding for starting businesses in high-risk markets.

Recommendations for Further Research

The purpose of this research was to explore strategies that VCs might use to identify profitable startups. The findings from this research indicate common strategies

that some VCs in the southeastern United States use to identify profitable startups, and how they manage these startups to either a buyout or an IPO. Therefore, future opportunities for expanding data from this research into other domains could create new insights and perspectives on how VCs manage startups to profitability and successful exits regarding an IPO or a buyout. Furthermore, future studies might include investigating financially literate entrepreneurs who leverage VC-backed capital as well as other funding sources to lead to profitable VC exits. Also, bridging the findings from this study into other regions of the United States or the world could provide additional insights to prove whether these findings are locally constrained to the southeastern United States or if these findings are transferable to other areas. This research did not focus on syndicates as a critical influence on VC decision-making strategies. Therefore, future studies might include the influence of syndicates on VC startup assessment strategies, and how these assessment decisions could affect profitability or VC-entrepreneur relationships in ways not illuminated in this study. Also, besides the spatial constraints as defined in the geographical limitation of this study, this research was predisposed to temporal constraints too. Therefore, an opportunity to study VCs from a longitudinal perspective might provide additional insight into how common strategies of VCs might change as the environment changes. Such a longitudinal study might provide some insight into strategies VCs use to build a reputation and create competitive advantage within the VC market. Finally, future studies might include consideration for how the cyclical nature of the VC market could influence VC assessments and investments into risky startups.

Reflections

This doctoral journey with Walden University has been an enlightening experience that has provided opportunities for gaining deeper insight into the experiences of VCs in the southeastern United States. The privilege of interviewing participants in the VC industry has resulted in a deep appreciation for the challenges that these VCs face on a daily basis as they attempt to identify and manage startups to profitable exits in the midst of risk and uncertainty. Access to such individuals did not come without challenges. I experienced challenges in identifying participants willing to participate in the study. These challenges were a result of identifying participants interested in participating in the research, challenges in participant availability, and challenges in reassuring participants the underlying intent of the study. Since the research was an exploration of VC assessment strategies, some participants expressed concerns and reluctance sharing any trade secrets that might create a competitive advantage for their firm. Therefore, I constantly reminded participants that the focus of the study is identifying common strategies that lead to profitable startups and successful VC exits as opposed to identifying unique strategies that create a competitive advantage for individual VC firms. I also reassured participants that we could skip any question they do not feel comfortable answering. These reassurances were helpful towards mitigating participant concerns as well as providing a method for building the interviewer-interviewee relationship during the interview.

Despite some of the challenges throughout the interview process, the data collected for this research provided valuable information for not only VCs but also

entrepreneurs and investors. In this research, I was new to the dynamics and specific challenges that VCs face when assessing startup entrepreneurs. The only preconceived notions that I possessed going into this research were only those notions formulated while conducting a literature review. However, during the interview, one method for mitigating any biases from these preconceived notions was to follow the interview protocol for all participant interviews. The interview protocol was the instrument for maintaining a consistent structure for all participant interviews. Also, during the interviews, I remained cognizant of my mannerisms and facial expressions to ensure that I did not suggest or infer greater focus on one question versus another question. As a result of the interviews and the research process, the study enhanced my understanding of the VC assessment process, challenges facing startup businesses in risky industries, and investor relationships with VCs. The outcome of this study has personally stimulated my interest in establishing a VC-backed startup in a risky industry and leading the business to a successful VC exit. Furthermore, I can envision teaching future classes, workshops, and seminars that might help new VCs or new entrepreneurs avoid some of the pitfalls that lead to unprofitable VC-backed startups.

Conclusion

In conclusion, innovative startup businesses are catalysts for economic development and job creation. However, capital funding is necessary to produce innovative products in competitive and risky markets. VCs offer an avenue for startup companies to innovate by providing capital funding and other value-adding services that could lead the startup to sustainability, profitability, and a successful VC exit in the form

of an IPO or a buyout. To achieve this stage of success, it is imperative that the partnership between VCs and startups builds on trust, credibility, and philosophical alignment. A shared philosophy between the VC and the entrepreneur is important for building a functional and sustainable relationship that ensures longevity and success for both parties. Therefore, it is incumbent for entrepreneurs to be knowledgeable of their target market and the expectations of VCs. In addition to knowledge, entrepreneurs should develop the skills and the team capable of creating business models that aligns with expectations of their VC partners while creating competitive advantage in the industry. Therefore, preparation, planning, monitoring, and action are important for developing and implementing business models that are not only attractive to VCs but also lead sustainable businesses and successful VC exit. The relationship between VCs and entrepreneurs are bidirectional. Entrepreneurs and VCs could have greater success when they work towards minimizing information asymmetry between each other. In essence, knowledgeable, creative, and innovative people coupled with VC resources are important to creating sustainable and successful businesses that are profitable and leads to a buyout or an IPO.

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Appendix A: Interview Protocol

Interview Protocol

Interview Preparation:

- Ensure appropriate dress attire for interview (minimize distraction / blend into environment)
- Make sure the computer-based recording device is setup and working – testing 1, 2 and 3 voice playback.
- Make sure the backup recording device is setup and working – testing 1, 2, and 3 playback.
- Make sure computer-based recording device is not active.
- Make sure backup recording device is not active.

AUDIO RECORDING OFF

Begin Intro/Rapport Script:

Hello _____, my name is Antonio McClain. I am a doctoral student with Walden University. Before we start the interview, I would first like to thank you for taking time out of your day to participate in this interview.

Before we begin, could you please read and sign the consent form.

The goal of this study is to identify common strategies that venture capitalists might use to identify profitable startups. The purpose of the interview is to collect some information from you about how venture capitalists assess risky startup businesses.

The outcome of this study may enable venture capitalists to improve assessment decisions toward evaluating risky startup ventures that might result in a successful exit. The outcome of this study may also help entrepreneurs make better decisions when pursuing venture capital funding.

The information that you provide from this interview will be combined with information from other participants and reported in the study. Your name and your affiliation with this organization will remain confidential – known only to myself and certain members of this organization.

In addition, at the end of this interview, I would like to review the notes that I took during the interview to ensure that I have interpreted the information you intend to convey. During this review, if there is anything that you prefer not to disclose, please let me know and I will delete it.

Once the overall study is complete and published, I will provide you and your organization a copy of the study.

As mentioned in the request for participation form, this interview will be audio recorded. However, if you wish to decline to comment on a particular question, or wish to terminate the interview at any time, please feel free to let me know.

Do you have any question about anything that I shared so far?

If 'yes'...address any questions or concerns and repeat the question until the response is 'no.

If no... then say...

I will turn on the audio recording device right now and proceed with the questions.

AUDIO RECORDING ON

“Today is _____. Interviewing participate _____.”

Interview Questions

Each participant responded to the following open-ended questions during the interview process:

1. Why is it difficult for VCs to identify profitable startups?
2. How do you evaluate startups for initial investment?
3. How do you evaluate follow on investment options for startups?
4. How do you know when a startup will lead to a successful IPO or buyout?
5. How do you decide to manage a startup to an IPO or to a buyout?
6. What techniques do you believe VCs should include when assessing startups?
7. What other information can you share concerning your experiences in investing in startups?

[Member checking – review notes]

AUDIO RECORDING OFF

End Script

Again, _____, thank you for taking time to participate in this interview.

If you have any questions later, please feel free to contact me at antonio.mcclain@waldenu.edu.

Appendix B: Confidentiality Agreement

Name of Signer:

During the course of my activity in transcribing data for this research: “Decision-making Strategies of Venture Capitalists for Risky Startups” I will have access to information, which is confidential and should not be disclosed. I acknowledge that the information must remain confidential, and that improper disclosure of confidential information can be damaging to the participant.

By signing this Confidentiality Agreement I acknowledge and agree that:

1. I will not disclose or discuss any confidential information with others, including friends or family.
2. I will not in any way divulge, copy, release, sell, loan, alter or destroy any confidential information except as properly authorized.
3. I will not discuss confidential information where others can overhear the conversation. I understand that it is not acceptable to discuss confidential information even if the participant’s name is not used.
4. I will not make any unauthorized transmissions, inquiries, modification or purging of confidential information.
5. I agree that my obligations under this agreement will continue after termination of the job that I will perform.
6. I understand that violation of this agreement will have legal implications.
7. I will only access or use systems or devices I’m officially authorized to access and I will not demonstrate the operation or function of systems or devices to unauthorized individuals.

Signing this document, I acknowledge that I have read the agreement and I agree to comply with all the terms and conditions stated above.

Signature:

Date:

Appendix C: Interview Questions

1. Why is it difficult for VCs to identify profitable startups?
2. How do you evaluate startups for initial investment?
3. How do you evaluate follow on investment options for startups?
4. How do you know when a startup will lead to a successful IPO or a successful buyout?
5. How do you decide to manage a startup to an IPO or to a buyout?
6. What techniques do you believe VCs should include when assessing startups?
7. What other information can you share concerning your experiences in investing in startups?

Appendix D: NIH Certificate

