2019

Business Sustainability Strategies of Small Technology Companies

Eric Smith
Walden University

Walden University

College of Management and Technology

This is to certify that the doctoral study by

Eric L. Smith

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee
Dr. Gregory Washington, Committee Chairperson, Doctor of Business Administration Faculty

Dr. Beverly Muhammad, Committee Member, Doctor of Business Administration Faculty

Dr. Kim Critchlow, University Reviewer, Doctor of Business Administration Faculty

Chief Academic Officer
Eric Riedel, Ph.D.

Walden University
2019

Abstract

Business Sustainability Strategies of Small Technology Companies

by

Eric L. Smith

MBA, Cleary University, 2012

BBA, Knoxville College, 1992

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

August 2019

Abstract

Each year, almost 12% of small technology companies fail to survive, and the risks associated with high-tech startups are high for business failure due to the introduction of new technology, similar competitor technology, and the short product life cycle of new products. The purpose of this multiple case study was to explore the business sustainability strategies that some owners of small technology companies used to remain in operation longer than 5 years. The population for the study was the owners of 5 small technology companies located in the southeast region of the United States. The general systems theory was the conceptual framework for the study. Data were collected through semistructured interviews and review of company documents, 10K report, cash flow, and profit and loss statements. Methodological triangulation and member checking were used to help ensure reliability of the study. The analysis and data management process included an examination of the data for themes, trends, redundancy and common denominators. Four themes emerged during the research: prior serial entrepreneurial success, willingness to stay the course, ability to raise sufficient capital to meet obligations and driven and passionate owners. The implications of this study for positive social change include the potential to improve business practices through educating small business owners, first time owners of small businesses, minority and women entrepreneurs, governments, and small business incubators that have a stake in business creation and entrepreneurial development in local communities, on sustainability strategies.

Business Sustainability Strategies of Small Technology Companies

by

Eric L. Smith

MBA, Cleary University, 2012

BBA, Knoxville College, 1992

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

August 2019

Dedication

To Father God, for equipping me, empowering me and enabling me to complete the requirements for this doctoral study successfully. I am thankful for your wisdom, knowledge, and understanding, and even in the face of the many challenges and setbacks on my graduate journey, I am eternally grateful for every moment, and I dedicate this work. To Jenee', JoSiah and Jo'Sef, thank you for your support, encouragement, and understanding throughout this process, and I dedicate this study. To my father and mother Rickie (deceased) and Marcia Smith, for supporting me and encouraging me to continue with my education, I also dedicate this study. To my brothers and sisters, family and friends, I am thankful for your support and dedicate this study.

Acknowledgments

Pursuing a doctoral degree was not an individual pursuit but rather a journey that I undertook with my family and friends in mind. Many people played a role in my degree journey and for their support, I am genuinely thankful. Special thanks to my committee chairmen, Dr. Greg Washington and Dr. Matthew Gonzalez for supporting me on my journey and encouraging me through this learning experience. I also thank my second chair methodologist, Dr. Beverly Carolann Muhammad for her detailed review and for pushing to get my information right, and Dr. Krista Laursen, Dr. Kim Critchlow and Dr. Julia East for your valuable feedback and guidance.

Table of Contents

List of Tables

Section 1: Foundation of the Study

The rise of globalization has contributed to the increase of technology companies to link people and business both domestically and abroad. Technology companies have made a significant impact on the way that companies do business in the marketplace. Owners of some small technology companies increase their business sustainability strategies through attracting and hiring differentiated high performing employees offering higher than average salaries, job autonomy, and innovative technical skills development (Davis, 2017; National Science Board, 2016; Office of Advocacy, 2014). Owners of some small technology companies cannot retain employees, losing them to competitors or other startup opportunities, requiring the introduction of crisis management for the managing of necessary strategic change (Leavy, 2014). Strategic change within a company impacts the business sustainability for some owners of small technology companies over a prolonged period resulting in the loss of human resources, productivity and opportunity cost (Leavy, 2014). While technology companies contribute significantly to sectors of every industry, the competitive landscape still makes some companies vulnerable to business failures. When owners of small technology companies operate with a business sustainability perspective, the company has industry characteristics that do not appear in the operations of competitors, that allows the business owners to operate in a better manner than other industry participants (Lasalewo, Masruroh, Subagyo, Hartono, & Yuniarto, 2016).

Background of the Problem

Companies that had a business sustainability strategy as a core competency before the 2009 Great Recession gained the opportunity to increase their market performance and workforce while other enterprises failed to capitalize due to inadequate or mismanagement (SBA, 2013). While new small business launches are on the rise in the United States, 50% of new businesses fail within the first five years (Wagner, 2013). For technology companies, 90% of startup companies fail (Patel, 2015). There are more than 13,000 technology companies in South region of the United States, which is also the home of 25 of America's largest corporations (Metro Atlanta Chamber, 2016). According to the U.S. SBA, Office of Advocacy, 80% of the small businesses in the State of Georgia employ less than 20 employees (U.S. Small Business Administration, 2014).

Qualitative multiple case study allows for the exploration of business sustainability strategies (Gandy, 2015). The study could be of value to owners of small technology companies due to the high failure rate. There is a need to solve this applied business problem because small business owners need strategies to survive (Frazer, 2015). I studied the phenomenon of business sustainability through the lens of general systems theory using case study. My research focused on the applied business problem as the business failure rate remains high. The results of my study contain participants' insights that provide strategies for community transformation and bringing about sustainable social change. I have provided the background to the business problem, and now the focus transitions to the problem statement.

Problem Statement

Each year, almost 12% of companies fail to survive (Mousa, Bierly & Wales, 2014; Office of Advocacy, 2014). The risks associated with high-tech startups is high for business failure, due to the introduction of new technology, similar competitor technology, and the short product life cycle of new products. Some startup technology company owners skip critical sustainability steps in the initial stages of the company that could accelerate the business failure rate exponentially (Salamzadeh & Kirby, 2017). The general business problem is that some small business owners lack adequate sustainability strategies for remaining competitive as a small business beyond five years. The specific business problem is some owners of small technology companies lack business sustainability strategies to remain in business beyond five years.

Purpose Statement

The purpose of this qualitative multiple case study was to explore the strategies some owners of small technology companies use for business sustainability and profitability beyond five years. The population for this multiple case study was the owners of five small technology companies located in the Southeast region of the United States that are profitable in their business beyond five years. The social change benefit might be that owners of small technology companies use these business sustainability strategies to help increase profitability in business beyond five years. This contribution to social change could cause small business owners to generate financial stability for the community.

Nature of the Study

A qualitative research methodology is useful in exploring the underlying reasons that occurred in an experience, gathering information and motivations from the participants in the experience and identifying any corresponding documentation (Bernard, 2013). I proposed utilizing a qualitative multiple case study method that contained guidance on the usage of methodological triangulation. To achieve data triangulation, the data collection sources for this study included company-related documents and semistructured interviews. I used the qualitative research method to understand the research question of small technology companies' business sustainability strategies beyond five years. The qualitative research method is a means for discovering and attaining a better understanding of experiences (Yin, 2014). The researcher, using a quantitative research method, can examine variables, relationships, and differences in answering research questions (Yang, 2013). The researcher utilizing a mixed methodology combines qualitative and quantitative methods in other designs (Yin, 2014). While quantitative and mixed methods are valid approaches for researchers to examine business phenomena, I proposed the qualitative method as a means for small business owners to discover and attain strategies that could help increase sustainability beyond five years.

Yin (2014) stated case study design is a primary research method appropriate for qualitative research. Two other suitable qualitative approaches for research are phenomenology and ethnography (Bernard, 2013). Researchers use phenomenology when exploring lived experiences and researchers employ ethnography when exploring feelings and meanings of customs and relationships in culture (Bernard, 2013). I did not select the phenomenological or ethnographic designs for the proposed study, as no exploration of the lived experiences, beliefs, or culture will take place. Researchers use case study approaches to explore complex issues of businesses or events and to gain understanding through contextual analysis (Yin, 2014). I used the case study method for my study.

Research Question

The overarching research question is: What business sustainability strategies do some owners of small technology companies use to remain profitability beyond five years?

Interview Questions

The overarching research question provided the foundation for obtaining information from the interviews. The interview questions allowed me the chance to gain details about the business sustainability strategies some owners of small technology companies located in the Southeast region of the United States used to remain profitable beyond five years. I focused the qualitative multiple case study with question 1 as the initial probe question, questions 2-8 to answer the overarching research question, and question 9 as the wrap-up question (see Appendix A). The following interview questions were the focus of the qualitative multiple case study accordingly:

1. What business sustainability strategies did you use to ensure profitability beyond five years?
2. What business sustainability strategies did you use to grow your business in a competitive market?
3. How did you implement your business sustainability strategies?
4. What financial strategies did you use to remain competitive?
5. What challenges to strategy implementation were present that affected your business sustainability?
6. How were the challenges to the business sustainability strategies addressed?
7. How were the successes of the strategies measured?
8. What weaknesses, threats, and opportunities affected your business' sustainability strategies?
9. What additional strategies would you like to provide that helped you remain profitable in business beyond five years?

Conceptual Framework

The conceptual framework for the study is the context and prism through which to view the meaning and understanding of the research (Galea, 2012). The term *general systems theory* (GST) originated widely in the late 1920's through the writings of biologist von Bertalanffy and had its origins in the natural sciences (von Bertalanffy, 1972). Von Bertalanffy (2009) determined that the use of a system to illustrate the connections and interconnections between its mechanisms and workings, as well as the nonlinearity of the interactions and exchanges is valid in understanding cycles and relationships. Since the findings of von Bertalanffy (1972), there is a widespread acceptance of the GST constructs which includes: (1) system-environment boundary, (2) input, (3) output, (4) process equilibrium, (5) state, (6) hierarchy, (7) goal-directedness, and (8) information (Senge, Smith, Kruschwitz, Laur & Schley, 2010). The applications of the general systems theory are typical to the different components of the day-to-day business operations, including launch experiences Senge et al. (2010), profitability equilibrium von Bertalanffy (2009), and how each business element interacts with others (von Bertalanffy, 1972).

The many expectations and decisions of launching a small business can affect future profits. The carrying out of daily activities and strategies of small business owners affects their profit opportunities. Business sustainability strategy is a core principle of small business owners, and some strategies lead to business survival while other decisions cause a business to fail. The application of the general systems theory can help users of the critical constructs conclude that business functions are in a changing environment and that open systems require adjustments for survival (von Bertalanffy, 1972).

Operational Definitions

I used the following business terms and definitions to help provide meaning to words and phrases used in this study:

Business failure: A business venture that is no longer in operation (SBA, 2014).

Business success: For this research study, business success refers to business operations with profitability and sustainability beyond five years (SBA, 2014).

Business survival: Business survival is a business that is currently profitable where failing occurred previously. (Tundui & Tundui, 2012).

SBA: The United States Small Business Administration is an independent agency of the federal government that gives assistance, guidance and protection for the interests of small businesses (SBA, 2014).

Serial entrepreneurial: A serial entrepreneur is a person who starts several businesses over time prior to the current company they lead (Sharma, 2018).

Small Business: The U.S. SBA has defined a small business as an entity having fewer than 500 employees (SBA, 2014).

Sustainability strategy: The strategy of increasing the capability to persist in business instead of failing (Parrilla, 2013).

Assumptions, Limitations, and Delimitations

I used assumptions, limitations, and delimitations in the study. Assumptions are facts that assume truth, but without evidence or proof (Marshall & Rossman, 2016). Limitations are potential weaknesses and vulnerabilities that may limit the scope, reach, and effectiveness of the study (Marshall & Rossman, 2016). Delimitations are controllable by the researcher and provide boundaries for the study as to what the study will and will not do (Marshall & Rossman, 2016).

Assumptions

Vardi (2016) explained that researchers should address assumptions to avoid any misrepresentations of their studies. The first assumption was that the study participants would be open and honest in their responses to the interview questions. The second assumption was that the study participants would provide unbiased insight into strategies that owners of small technology companies can use to remain profitable.

Limitations

Taylor-Robinson (2014) offered that understanding the potential weaknesses and limitations in doctoral study strengthens research effectiveness. A limitation may exist by the amount of time available to conduct the research. A limitation may exist by the number of owners of small technology companies located in the Southeastregion of the United States willing to respond to interviews and questionnaires honestly. A limitation may exist by the number of small technology companies that have remained profitable in business beyond five years. Focusing on owners of small technology companies located in the Southeastregion of the United States might limit the transferability of the study's conclusions.

Delimitations

Salaev and Masharipova (2015) presented the importance of setting boundaries with the establishing of delimitations in business. Delimitations are restrictions that help the researcher focus on the scope of the study. The study only included owners of small technology companies located in the Southeastregion of the United States who have operated for 5 or more years. The study did not include small technology companies with less than two employees nor greater than 20 employees.

Significance of the Study

Contribution to Business Practice

A qualitative multiple case study could be of value to business owners because there is a significantly high rate of business failure for small businesses in the United States, and business owners need strategies to survive (Frazer, 2015). Since the decisions that owners of small technology companies aid in establishing a business sustainability strategy, some long-term strategies could provide solutions for companies that currently struggle to remain relevant. The small business owners' strategies could contain best practices transferable to other small business owners resulting in improvements in business practices. Additionally, this multiple case study potentially may contain participants' insights that fill knowledge gaps for developing strategies for business sustainability beyond five years.

Implications for Social Change

The results of this qualitative multiple case study might contain descriptions of sustainability strategies and skills that small business owners can use to achieve profitability beyond five years of operations. Additionally, this multiple case study potentially may contain participants' insights that provide strategies for the transformation of communities through increased business sustainability for small technology companies, expansion of small business ownership and the reduction of the small business failure rate. The findings of the research may also be of interest to first-time small business owners, minority and women entrepreneurs, governments, and small business incubators that have a stake in business creation and entrepreneurial development in local communities.

A Review of the Professional and Academic Literature

I reviewed professional and academic literature to acquire an understanding of the topic of business sustainability strategies of small technology companies. The literature review contains a critical analysis of current journals with 85% of the total sources from peer-reviewed articles and peer-reviewed sources. Additionally, 85% of the total sources have publication date five years or less from my anticipated completion date of Spring 2019. I began the review of the professional and academic literature review with a discussion on competitive advantage, followed by a discussion of general systems theory. I then followed with a consideration of small business planning. I discuss how the success and failure of a small business, small business strategy, and profitability affect sustainability and finally conduct a critical analysis of the state of technology company profitability.

Competitive Advantage

A company's sustainability strategy links to its competitive advantage as the unique quality that sets the company apart from all other company in the same industry. Porter (1985) defines competitive advantage as the procuring of a distinctive positioning that allows the separating of one business in relationship to competitors that results in the outperforming of another entity in sales, profits, and influence. While owners form businesses for remaining in operation for a long time, some companies are prone to do a better job in daily practices that arise as a competitive advantage. Porter (1985) holds that competition fosters superior outcomes and determines whether a firm is outperforming or underperforming when compared to the industry average. Not every company operates in a way that results in longevity and posterity. Business owners launch companies, start organizations and create new entities to generate profits that provide a competitive advantage in the marketplace for the long run. Porter (1985) contends that competitive advantage takes on two distinct forms: low-cost competitive advantage and differentiation. While business owners in different industries operate in different manners, differentiation is the key to distinguishing one business from the other. Business owners usually choose one form of competitive advantage that gives their company a unique positioning through offering higher quality at a lower price or a niche product that competitors cannot imitate.

Capo, Brunetta, and Boccardelli (2014) suggested that geographical concentration, technological advancement, and regulatory constraints have caused some companies to complement each other even though each company occupies a different space along the development and implantation spectrum. Competition causes adaptation in companies that are looking for competitive ways to increase market space and innovative business practices that link with others in the same industry (Capo, Brunetta, & Boccardelli, 2014). With an increase in international and domestic competition, organizations need a competitive advantage in place that provides sustainability and stability during turbulent times. Both small and large entities face the prospect of business failure without the adoption of strategies that enable a competitive edge. Chawinga and Chipeta (2017) found corporations are facing a higher intensity of competition and survival in the business market demands changing the internal strategy of all business activities while incorporating complex external activities. The knowledge management and competitive intelligence of a company provide a competitive advantage. Matejun (2014) noted that an organizations flexibility in change implementation and rapid assimilation to internal and external constraints provide a strategic framework for competitive advantage. Some companies are slow to respond to the rapidly changing external business environment. When companies can exploit short planning horizons that result in promptly reacting to satisfy client expectations or introduce an advanced delivery method increases an entities competitiveness (Matejun, 2014). It is not always evident that a strategy will have the outcomes that are necessary for sustained growth; however, actions taken that meet or exceed the expectations of customers have the potential to keep customers loyal (Matejun, 2014).

Competitive advantage determines survival or failure for some industries, and the choices that decision makers make affect some companies more favorable than others. Where a company has been in the past can often provide a blueprint for future opportunities without having to merge with other entities. Aaltonen et al. (2015) argued that sustainable competitive advantage derives from enterprise cultural heritage that builds upon past victories and achievements to create innovation and creative ways to reinvent the company from the inside out. Histories for companies provide a wealth of opportunity to exploit tangible and intangible assets of the company for future ventures, innovations and creative concepts (Aaltonen et al., 2015). While Bilgihan and Wang (2016) expounded that companies that are early adopters of new technologies do so to exploit strategic opportunities to differentiate between competitors thus forming a competitive advantage. Sustainable competitive advantages require a strategy that incorporates unique positioning based upon the will to outperform competitors at every turn using IT-enabled strategies (Bilgihan & Wang, 2016). Conversely, slow adopters limit the competitive advantage that materializes due to a reactive stance that mimics what other companies have taken the time to develop and implement. A competitive advantage only exists in a company outperforms expectations and other business entities (Bilgihan & Wang, 2016).

Competitiveness strategy among small and medium companies is necessary to adapt to changing market demands. Proactiveness and risk combine when organizations are challenging to remain relevant beyond a few years. Dhliwayo (2014) argued that an intersection exists between business strategy and entrepreneurship that gives a company a competitive advantage through shifting priorities and repositioning of resources. The strategy that a business operates by is the key to successful business transactions and sales and the entrepreneurial pursuit. While creation is a by-product of entrepreneurship and strategy focuses on business performance, both concepts working in combination provide the framework by which organizations survive through enhancement of company competitiveness (Dhliwayo, 2014). Brem, Maier, and Wimschneider (2016) conversely defended that notion that a company's attention to innovation, as a business strategy is an ongoing competitive advantage that propels, accelerates and creates because it is part of the corporate core competency. As a company explores and develops its core competencies, the process paths created to allow for value creation thus designing a competitive advantage because the discovery is an active act driven by competition (Brem, Maier, & Wimschneider, 2016).

The notion that a company needs an aggressive strategy to be competitive is not a universally held concept. Andrevski and Ferrier (2016) implied that the competitive aggression of an organization could drain financial resources and reduce corporate performance as companies strive to implement competitive actions that require time to develop and execute with the desired effect. The more aggressive the business strategy, the more intensified the applied pressure to meet the time constraints necessary to carry out the competitive actions for optimal results (Andrevski & Ferrier, 2016). Alternatively, Schulz and Flanigan (2016) maintained that competitiveness creates value for stakeholders and suggests that small to medium-sized business entity owners identify openings that expose entrances to gain competitive advantage through the integration of the triple bottom line method and traditional opportunities of competitive advantage. Schulz and Flanigan (2016) further maintained that small business owners might exploit their relationships to influence vendors, suppliers, customers and employees through frequent engagement that is deliberate and proactive. The relationship deepens giving companies entrance and influence and ultimately a competitive advantage over other competitors in the same industry. While other authors have argued from a sound point of view their perspective on competitive advantage, Euchner (2015) stated that companies that engage in great transparency uniquely poise the company for a sustainable competitive advantage. Euchner (2015) went on to suggest that imagination combined with transparency in business creates a new customer intimacy that brings customers into the business process and creates customer value when they know the ins-and-outs of a product.

Ambition costs and has rewards for those who are proactive instead of reactive. Primc and Carter (2015) asserted the proactivity of a company provides the company with a competitive positioning as opposed to fluctuations in the business marketplace. A further argument made is that the innovative stage of the organizational life cycle produces the optimal opportunity for a firm to exploit new concepts and strategies that prolong product life, customer satisfaction, and growth (Primc & Carter, 2015). Forward-thinking business owners and managers ensure that every decision focus on activities that intentionally create spaces for further exploration and exploitation opportunities for the company, thus designing proactively for a competitive advantage (Primc & Carter, 2015). Sigalas (2015) formulated the definition that competitive advantage takes on two different forms, one a performance and profitability focused, and the other as source and resource driven. Both focuses of competitive advantage provide owners with a direction by which to direct the energies of the stakeholders resulting in giving the company an advantage over other competitors in cost savings, product performance, and market dominance (Sigalas, 2015).

Competitive advantage is observable in many forms. While organizational characteristics contribute to the survival of firms, other environmental and financial attributes add to company performance and corporate mortality rates (Lin, 2014). While no two organizations share the exact characteristics, Lin (2014) determined that organization survival pared with employee ownership provide a competitive edge when company owners actively distribute equity in the company to non-management employees. Employee compensation attracts potential employees, motivates existing employees, is instrumental in retaining top talent for building a competitive advantage (Lin, 2014).

Rivera-Ruiz and Ferrer-Moreno (2015) suggested that there exists a direct correlation with the relationship between strategic leadership, internal infrastructure, and company performance. Remaining competitive in the global market space is a high priority successful organizations and company leaders that anticipate their organization expanding into other markets align their business strategy, organizational strategy and information strategy (Rivera-Ruiz & Ferrer-Moreno, 2015). The aligning of the before stated entities represents a competitive advantage over organizations that are one-dimensional in their approach to leveraging the company assets to gain the advantage over other companies in the industry (Rivera-Ruiz & Ferrer-Moreno, 2015). The strategic leadership that business owners exercise through training, skill enhancement, human capital acquisition, technology infrastructure, and financial prudence increase the future potential of the organization.

If the owners of small or medium-sized firms plan on succeeding in business, alignment of resources increases in importance. Price and Stoica (2015) also found that human resources, organizational resources, knowledge-based resources, and social capital each provide critical components for increasing an organizations performance. Accurately predicting the commercial performance of an organization increases a company's competitive advantage exponentially in premium positioning in the marketplace to capitalize on current trends, concepts and innovations (Price & Stoica, 2015). Entrepreneur opportunity should drive firm performance and decisions on the utilization of human, knowledge, organizational and social resources to capitalize on the organization's predisposition towards succeeding in business (Price & Stoica, 2015). Stagnation and traditional thinking hinder the performance and prolong a competitive disadvantage through a lack of alignment. Organizations that lack alignment of the resources run the risk of business failure and closure. Whichever stream a business owner chooses to navigate the company through to gain a competitive advantage, differentiating the company from others and reducing costs is the key to the business survival. Some business owners maximize their position and financial gains while others exit the business due to a lack of strategy to compete.

General Systems Theory

The term *general systems theory* (GST) originated widely in the late 1920's through the writings of biologist von Bertalanffy and had its origins in the natural sciences (von Bertalanffy, 1972). Von Bertalanffy determined that the use of a system to illustrate the connections and exchanges between its mechanisms and workings, as well as the nonlinearity of the interactions and exchanges is similar in living and nonliving organisms. Since the findings of von Bertalanffy (1972), there is a widespread acceptance of the general systems theory amongst researchers, academic professionals, and business management.

In comparison to the general systems theory (GST), Jamshid Gharajedagahi (1984) advanced the theory of modeling systems thinking (TMST) that focused on the third generation of systems thinking (design) as a company's ability manage growth through interdependency, self-organization, and choice (Gharajedagahi & Ackoff, 1984). The third generation of systems thinking (design) supports the general systems theory of von Bertalanffy. Additionally, Gharajedagahi theorized that business architecture theory (BAT) allows success in business from a self-renewing capability by spontaneously creating structures, systems, and functions that fit the moment (Gharajedaghi, 2011). The use of the TMST and BAT could have been used instead of the GST to support how small technology companies and other small businesses use connectivity and interexchange to create, innovate and maintain business sustainability.

In another comparison to the GST, Edith Penrose (1959) posited the theory of the growth of the firm TGF that suggested the growth of a company links to the effort of a group attempting to accomplish something and that business growth occurs when there are limitations administrative restraints, thus allowing a rapid growth process. Since business is an open system that flourishes when individuals or groups engage to remain profitable, this theory could be appropriate for fostering the notion of sustainability strategy and comparable to GST. While the business architecture theory BAT, third generation systems thinking the design, and the theory of the growth of the firm TGF support von Bertalanffy general systems theory, contrasting the GST is Fredrick Taylors' (1910) scientific management theory (SMT). The SMT holds that improvements in financial market efficiencies and labor productivity come through workflow efficiencies. The scientific management theory suggests that businesses with improved efficiencies improve success, that worker selection works best when scientifically based selections occur, that management and labor cooperation increase productivity and that all training requires a scientific approach (Whitaker, & Nelson, 1981). Both the GST and SMT provide insights, which when applied to business, enable the small business owner the opportunity to increase profitability systematically.

Bruderl and Schussler (1990) discussed Stinchcombe's (1965) liability of newness theory as it relates to organizational survival rates of new firms compared to well-established firms and how the risk of failure increases with younger the company. While there is a definite relationship observed when organizational characteristics develop over time, new organization mortality rates link in a u-shape based on ecological business conditions due to the newness of the company (Bruderl and Schussler, 1990). The liability of newness theory Stinchcombe (1965) positively links with the GST as the interaction with different business functions such as time and age affect the survival rate and sustainability strategy that business owners need to for business survival.

The applications of the general systems theory are germane to the different components of the day-to-day business operations, including launch experiences, sustainability strategy, profitability components, and how each business element interacts with others (von Bertalanffy, 1972). Brnjas (2014) theorized that GST provides a framework to recognize the systems that are in operation around specific events and acknowledge that there is a correlation that exists between achieving goals and the degree that a user of an entity prepares for competition. The many expectations and decisions of launching a small business can affect the business sustainability strategy and future profits.

The application of the general systems theory can help users of the critical constructs conclude that business functions are in a continually changing environment and that open systems require adjustments for survival (von Bertalanffy, 1972). Kitto (2014) reported that whenever you have a system, it is possible to detach the system from the environment it surrounds and examines each component and its relationship to the next element. Arnold and Wade (2015) suggest that system thinking is cumulative thought by which analysis connects a system's parts. Utilizing the systems theory is an appropriate conceptual framework for business phenomenon study because it allows for connections and exchanges as a means of discovering profitability strategies.

Small Business Planning

If a small business is to have a sustainability strategy, the management of the company should have a strategy of not only starting a business but a strategy of how to maintain the advantage as well. Fader (2015) communicated that in some countries like Australia and the United States, small businesses represent the most significant employer; however, unlike the U.S., less than 50% of the small businesses are incorporated entities. A search of the literature showed that small business planning is an intricate part of business survival. Planning is the key to having a sustainability strategy as a business. For example, Raymond, Marchand, St-Pierre, Cadieux, and Labelle (2013) indicated that small business owners conceive their businesses performance as personal performance, and it goes beyond the single financial performance of the company.

While Soomro and Shah (2015) described the attitudes and intentions of individuals towards small business ownership and entrepreneurship, the findings contain conclusions that the concept of self-employment is spreading and increasing participation in the marketplace. Chwolka and Raith (2012) stressed that there is value in business planning and suggested that profitability planning before an entrepreneurial startup affects the survival of the company. Chwolka and Raith also suggested that an entrepreneur who identifies with societal needs and personal results such as creativity, high self-worth, and ingenuity often take the opportunity to plan for success beyond the initial launch of her or his company.

When small business owners have the competency to allow creativity to flow throughout the organization, its sustainability strategy materializes through creating profit value. When an entrepreneur has the mindset to remain profitable in business beyond five years from the start, planning for contingencies can serve as a guide for new small business owners' success. Kalnins and Williams (2014) explored the effects of social constructionism and feminist theory to determine if women-owned businesses out survive male-owned businesses. Expectations of business survival differed between the genders, and the research of Kalnins and Williams confirmed that women-owned businesses outperform traditional counterparts in urban settings. Kalnins and Williams further determined that there be several industries and geographic areas where women-owned businesses out survive male-owned businesses. If women-owned businesses possess instinctive strategies that may benefit other entrepreneur groups before launching, the strategies may aid in the planning for more profitable businesses and fewer failures.

Tervo (2014) described that the role of self-employment later in life often provides greater entrepreneurial success because of the ability to finance the decision to launch a business. Soomro and Shah (2015) suggested entrepreneurship intention is significant and had a positive relationship with startup companies when business owners had a forward-thinking attitude towards behavior and a negative correlation when the entrepreneurs were not innovative in his or her thinking and behavior. Chwolka and Raith

(2012) stated that business planning by an entrepreneur before launching involves considering alternative actions to avoid launch mistakes to mitigate failure in startups. Sustainability planning should be a part of the conversation. When there are mistakes with the launch of a company, this may be a leading indicator of other problems that may affect long-term profitability.

Moreover, Haltiwanger, Jarmin, and Miranda (2013) found that if companies remained small after six months, it occurred due to poor planning and noted that there are internal and external market factors that affect the age and growth of the business. Small business planning has the potential to increase the size of new small businesses thus becoming a forecasting tool to help small business owners. The interaction between a company's core competencies, resources, and planning for business sustainability, provide the opportunity for a company to maintain its sustainability strategy.

The Success or Failure of a Small Business

To illustrate sustainability strategy decisions that align a company for success within an industry, Karim, Carroll, and Long (2016) observed how decision makers avert making realignment moves until external constraints stabilize and the industry environment allows for structural changes that maintain the status quo or provide growth opportunities. Haltiwanger, Jarmin, and Miranda (2013) concluded that new business startups are essential to new job creation in the United States; however, having a favorable business operating environment impacts the success of small business through providing a skilled workforce, and a legislative environment conducive to growth. When the financial markets perform well, a small business can utilize its resources to outperform its competitors for a lengthier time frame creating actual sustainability practices.

Besser and Miller (2013) suggested that both the experience and education for small business owners were leading indicators to the success rate of the new rural small businesses. Besser and Miller also found other leading indicators included the motivation and business networks as critical to the survival rates of small businesses. Both education and business networks impact the success rates of small businesses. Positive financial growth impacts small businesses and is suitable as a strategy because a company that can extend its advantage is a company that can capture more of the market share and grows.

Zafar and Khan (2014) conducted a case study to understand the role of selected influences that contribute toward the success of entrepreneurs; and found that education levels, family, and cultural norms; along with a desire to succeed contributed significantly. While these influences generalize the business size scope, Anderson and Ullah (2014) fostered that owner choice making is the primary reason businesses remain small. Anderson and Ullah concluded that choice making combined with perceptions about owner resources produces a condition of smallness. Hundermark (2014) revealed that blending business management concepts with adult education principles gives insight into developing a small company as a learning organization. Cordeiro (2013) pointed out essential elements that will position a small business to remain profitable including, understanding the financial market environment, threats, and barriers; focusing resources on specific goals and not thinking broadly; maintaining and improving the competitive position by monitoring competitors and preparing for future environments. Besser and Miller (2013) supported those essential elements and concluded that that education and age of businesses did not significantly relate to the perceived success while years of experience, the number of employees, and business revenue did relate.

Zafar and Khan (2014) concluded that male and female entrepreneurs differed significantly on years of formal education completed and their reasons for success, especially about God-gifted qualities and hard work being the main reasons for success. Sarasvathy, Menon, and Kuechle (2013) stated that there are three conditions necessary for a serial entrepreneur including, the company failure rate should be less than 100%, firm failure should not necessarily imply entrepreneurial failure, and a certain number of successes out of several attempts should suffice to ensure entrepreneurial success. Webb, Bruton, Tihanyi, and Ireland (2013) observed that even the nontraditional business marketplace consists of commercial activities that are not bound by traditional institutional boundaries; and there are similarities between the formal and informal economies such as opportunity recognition, opportunity exploitation, and entrepreneurial outcomes that are instrumental to small business success.

Baumol (2014) noted that successful business owners form strategies ahead of time to support financial decisions that protect the interests of the public, investors, as well as other social responsibility practices. Baumol (2014) suggested that entrepreneurs that have the mindset of doing well by doing the best good possible tend to remain in business longer than those companies that merely launch for financial gain. Richtner and Lofsten (2014) researched the resources used to create resilience in organizations and how each of those resources related to organizational creativity and posited that cognitive, emotional, and structural resources are essential resources for profitability. Resilience is the key to sustainability and Richtner, and Lofsten (2014) argued that resilient organizations could maintain a positive adjustment under challenging conditions and thrive at betterment in part because they have faced and overcome severe challenges.

While the relationship between the business marketplace and technology industry weaves itself together, technological changes have continued to contribute to the profitability of tech companies in a way that attributable to the beneficial impact of the tech companies on the business marketplace. Companies that have not flourished but instead failed is due to not having a business model that can take advantage of competition generated by a robust business environment. Foreign competition, low technology industries, and technological innovation have caused some small businesses to fail. Small business failure is a naturally occurring event just like small business births and launches are an occurring natural phenomenon. When businesses start up there is often much celebration but far too little is known about why small businesses fail and what if anything business owners can do to mitigate the occurrence.

Frazer (2015) discussed as much as 60% of small businesses fail within the first five years and how the owners of those failed companies had startup costs that they did not include in their taxes because they failed to launch. Alsaaty (2012) claimed there is a uniqueness to small businesses in birth cycle rates and associated external factors and management competency as leading indicators for failure. Alsaaty (2012) further provided several factors that could cause business failure including poor management, competition, and the business operating environment. Frazer (2015) discussed the assistance that the Internal Revenue Service can provide to sole proprietors when their companies fail, and how differentiating startup costs from organizational, and operational costs, along with the tax benefits for small businesses can mitigate business failure. Karahan (2013) suggested that the relatively low availability of suitable matching jobs in smaller places is a failure of the size of the marketplace to keep businesses profitable. Karahan (2013) also found that more densely populated places provide a more significant number of opportunities for good matching jobs, especially for people with specialized skills that could increase the potential for making a profit to remain open for business.

Coad (2013) extended the discourse concerning failed businesses and suggested that there is some bias that closed businesses are not necessarily failures but merely opportunities for entrepreneurs to learn what does not work in business. However, business exits negatively impact the idea that entrepreneurship always leads to success and supports the notion that business death is a part of the natural life cycle of going into business (Coad, 2013). Van Rooij (2014) conducted a case study of three large technology companies that had three similar causes of business failure and concluded that the reasons apply to other businesses that have fallibility in the leadership, errors in the operation and flaws in the business model. Van Rooij (2014) also discussed the typology of failure associated with adverse actions as in an incomplete task and that the Sisyphean in business provides the constant struggle for not only avoiding the threat of failure but the catalyst for success.

In studies of how small business failures affect future entrepreneurship; Jenkins and McKelvie (2016) conveyed that the perception of small business failure applies to companies as well as individuals in unique ways and how the perceptions of failure have the propensity of both subjective and objective connotations. Karahan (2013) found that the self-employment rate declines with a more significant fraction of the population and that being older, married or highly educated increases the probability of being self-employed for a considerable amount of time. Furthermore, França, de Aragão Gomes, Machado and Russo (2014) stated the main reasons for the failure of the small businesses are high taxes, lack of bank credit, lack of customers, and management failures.

Franca et al. (2014) stated financial problems, operating in the wrong location, low-quality goods and services, an under-trained labor force, and inadequate facilities are reasons for business failure as well. While this point of view has merit, Ogane (2015) targeted small businesses that were within five or ten years of their incorporation date and concluded that competition negatively correlates with businesses that must file bankruptcy and the probability of a small businesses' exit from business changes with the company persisting in business. I found the theme repeated throughout literature and suggests that some authors repackage success stories about small business failures warrant a reevaluation of research outcomes.

Causes of small business failures or exiting from operations are the subject of various case research. DeTienne and Wennberg (2016) determined that limited research persist in entrepreneurial business failures as needed to understand fully the phenomenon behind why small businesses fail or exit early. Hammer (2014) discussed that there are internal and external reasons some entrepreneurs close his or her business, but internal reasons are the predominant cause of failure. Exogenous factors such as recessions, shortage of raw materials, and the appearance of substitution products are not controllable by entrepreneurs (Hammer, 2014). Hamrouni and Akkari (2012) explored links between entrepreneurial failure and factors that underlie companies of different ages by considering the business life cycle. Hamrouni and Akkari (2012) suggested that a company’s age plays a role in the failure rate if the proper attention at each stage of a company cycle receives less consideration than it should.

Nummela, Saarenketo, and Loane (2014) presented a case study that supports the point of view that the strength of the management staff, management expertise and business proficiency precisely, is a driver of some business failure. Although there are studies that seem to contradict one another, Amel and Akkari (2012) indicate that the leading causes of failure of startups are an under-skilled management team and lack of financial literacy and resources; while the failure of older firms is mainly due to financial fraud or mismanagement. Khan, Tang, and Joshi (2014) suggested that nascent entrepreneurs with lower self-efficacy and goal commitment to establishing the new business could be particularly susceptible to disengagement from the startup process and affect the viability of business survival. Hamrouni and Akkari (2012) further indicated that among the leading causes of failure of startups, a lack of formal management training and a lack of access to financial resources, are the primary causes of young companies to fail well-established companies fail because of poor financial and strategic planning. Mantere, Aula, Schildt, and Vaara (2013) used the narrative theory to understand the context of failure in entrepreneurial ventures by focusing on how employees attribute to the causes of failure of the organization. Mantere et al.'s (2013) research concluded that employee competency and capacity contributed to in some manner to the small business failure.

Cronin-Gilmore (2012) determined two common reasons noted by Dunn & Bradstreet for contributing to a failed business include poor marketing and vaguely focused vision. Trevor (2014) suggested that those who start a business late in life have some experience with entrepreneurship and are less likely to make the same mistakes as novice entrepreneurs. Trevor (2014) also suggested that since someone who has already been in business startups, the business is more likely to survive based on previous experience. Sarasvathy, Menon, and Kuechle (2013) put forth the notion that the efficacy of serial entrepreneurship if modeled correctly increases the success rates for new businesses and minimized business failures. Forster-Holt (2013) observed that small business owners should research the reasons competitors exited their business, so they can prepare for the exit decision when it is time. Holt and Edwards (2012) provided positive aspects of transitions that include good early-on business opportunities, limited domestic or overseas competition, and a less informed client base as potential constraints to business success. Hammer (2014) identified the possibility for prevention measures for stopping early business departures which include getting financial knowledge, finding partners and investors, reducing costs, learning from other business models, learning to network, and learning from other entrepreneurs. Hundermark (2014) researched the phenomenon of the 90% small business failure of small businesses in South Africa and suggested that if small businesses want to increase survival rates, the owners need to increase their capacity to learn.

Mueller and Shepherd (2014) revealed that failure in business could result in an opportunity to gain knowledge to succeed in the next small business startup or entrepreneur launch. When entrepreneurs start a business, it is not with failure in mind; however, if a failure occurs and the company ceases to exist, having an intuitive opportunity toolset equips the entrepreneur to learn from the failure experience (Mueller & Shepherd, 2014). Transformational learning from business failure perceives the failed business as an opportunity and not as an adverse event. Moreover, business failure learning may offer an effective strategy to remain competitive upon launching a second business venture. Forster-Holt (2013) stated that the exit of business owners falls into the two broad categories of closing operations by choice or by force and consider if the business failed because of a lack of generating revenue or because of the lack of achieving the short-sighted business goal. Forster-Holt (2013) suggest four exit outcomes that occur including an exit by selling off portions of the company, exit by the total liquidation of assets, exit through merger and exit by harvest sale. Mantere, Aula, Schildt, and Vaara (2013) furthered that failure in entrepreneurial ventures has seven types of narrative attributions including catharsis, hubris, betrayal, mechanistic, zeitgeist, nemesis, and fate. Mantere et al. (2013) suggested that entrepreneurs and other stakeholders use strategies of grief recovery and self-justification to make sense of entrepreneurial failures.

Dalborg (2015) stated that cooperation, organized network meetings and a better infrastructure had increasing importance in the business life cycle for women entrepreneurs who must have the opportunity to devote as much time to their companies as men. Dalborg's (2015) research indicated that many women entrepreneurs still belong to the same qualitative growth platform after three years and that it seemed difficult to establish and secure the building blocks required for business growth. The small business owners and the management team that runs the company influences the direction that a company takes. Some owners are toxic to the organization and accelerate the failure of the company. However, some leaders influence the company for the better. For example, Kendall (2014) studied the role the leadership team of large technology companies has that enables the organizations to survive when sales slump and growth stalls. Kendall (2014) furthered the evidence that leadership competency and emotional and social capital help sustain small business recovery and generate momentum after strenuous business activities. There are multiple reasons that small businesses cease operations and not every scenario is the same. As small business owners focus on strategies that provide their company with a competitive edge over other industry organizations, new tactics for confronting the challenges associated with business stagnation and slow growth emerge for failure rate mitigation (Frazer, 2015).

Business Sustainability Strategy

A business sustainability strategy is a strategy that is valuable to a company that plans to be successful. Technology allows a company to stake out new areas of competitiveness from any product breakthrough from its collection if activities (Hashai & Buckley, 2014). When a company owner engages in value activities derived from linking the business activities to differentiate its costs, physical products, and human capital competency, the owners position the company sustainability and survivability (Calandro, 2015). Companies that strive for success adopt strategies that help with competing for positioning in shrinking markets. Caputo, Marzi, and Pellegrini (2016) conceptualized that the highly competitive nature of business leads to the competition for market share, increasing challenges exponentially as technology forces changes in how transactions occur. Compressed product life cycles, sophisticated payment exchanges, faster logistic routings, and global expansions drive technology integration needs to meet future demands (Caputo, Marzi & Pellegrini, 2016). It is not enough for companies to merely compete for current customers. Instead, innovation for company survival is a business strategy that is unavoidable due to the rapid need to compete for future demands (Caputo, Marzi & Pellegrini, 2016).

The favorable business environment facilitates the tech industry by providing the platform for the exploitation of technological innovation across broad sectors, leading to increased sustainability and competitive positioning. Having a sustainability strategy is strategically beneficial to the success and profitability of a company. The strategy that some small business owners take to remain profitable provides the reason some businesses succeed while others fail or remain stagnant (Blackburn, Hart, and Wainwright, 2013). Passion in pursuing goals, coupled with favorable inherited and learned values, and the possession of exceptional personality influence positively the successful entrepreneurs' aspirations to endure the challenges and unpredictable failures. Cordeiro (2013) discussed that no matter the size of the organization, strategic planning is vital to the survival of the business. Every business must deal with finances, production, marketing and strategic planning principles needed throughout the business operation, even with time and finance constraints (Cordeiro, 2013). Lofstrom, Bates, and Parker (2014) researched college graduates and discovered that there are traits of potential entrepreneurs that draw him or her toward some types of new ventures and away from others. Lofstrom, Bates, and Parker (2014) further discussed how high personal wealth sometimes predicts entrepreneurial entry and that college graduate traits negatively predicts entry into many lines of small business.

Having a long-term sustainability strategy on how to remain profitable to stay in business should be a priority for any small business owner. Often, business owners exert much energy in starting a business, and once it is up and running; the business needs a sustainability strategy on how to remain profitable in business for the long term. Taneja and Toombs (2014) suggested that social media is a catalyst to learning for small businesses and that networking with others increases the viability and visibility of the business and survival rates. Taneja and Toombs (2014) stated that social media is enabling small and medium-sized businesses to reach broader masses of customers, and traditional methods of media cannot compete with getting the message out.

Organizations that can communicate their message through social media have an advantage by the ability to harness mass collaborations, but they have a disadvantage of a scarcity of the workforce (Taneja & Toombs, 2014). Hundermark (2014) revealed an exciting blend of a business management concept with adult education principles that gave insight into developing the small company as a learning organization. Senge's (1990) model of a learning organization States that sustainability occurs where organization members learn and expand their potential through broad patterns of thinking (Senge, 1990). Senge's (1990) principles can apply to the profitability capability of a small business as well through the application of small business owners expanding him or herself to broaden the business profitability.

Alstete (2014) found that the reduction in the high failure rates of small businesses is possible if potential entrepreneurs were more informed about alternatives and considered combination strategies or flexible, innovative approaches in new business endeavors. Bello and Ivanov (2014) researched growth strategies for small entrepreneurship in other industries. Marom and Lussier (2014) asserted that there is a vast inconsistency on the variables that accurately predict the success or failure of every business and that the only theory that has been proven valid throughout the world is the

Lussier business success versus failure prediction model. Marom and Lussier (2014) further theorized that the model specifically proved successful in the United States and Israel and suggests that current and future small business companies should focus on variables that keep the businesses solvent and decrease failure rates in both nations.

Not all business sustainability strategies of activity are the same and what may work for one small business may not work for another. The sustainability strategy of a business should be to outperform the expectation of the market and investors, so businesses will fail if there is not a strategy to survive. Dessi, Ng, Floris, and Cabras (2014) described the process of managing long-term customer relationships through face-to-face interaction with their clients that they already know; and suggested that small retailers may compete in markets that they know well by signaling their business strengths to customers. Dessi, Ng, Floris, and Cabras (2014) demonstrated that specific business strengths that suit their tastes reveal how anticipating the needs of clients on a personal level can increase the length of a company being in business.

Cordeiro (2013) proposed that benefits exist for strategic planning for all organizations, and if applied to the day-to-day operations, every company can move towards profitability. Bello and Ivanov (2014) discovered how the lack of innovation hinders the growth of a company. Cordeiro (2013) observed that successful companies planned for the change in the market environment and failed when the business plan did not take into consideration the change that the business would have to face brought on by increased competition. Alstete (2014) provided support regarding combination strategies and advanced innovation-oriented strategies that seek to create new market space by creating value innovation and free-form creative thinking to succeed against competition from their peers and broader competitors with more resources.

Hechavarría, Matthews, and Reynolds (2015) promoted that some small business owners can recover from financial turmoil and launch new companies quicker than other entrepreneurs. The startup capital structure of some businesses may help to predict the outcome of business ventures and create opportunities for companies to diversify operations to remain in business while others close. Hechavarría, Matthews, and Reynolds (2015) found that ventures that engage investors as owners of the company and not merely outside entities can rely on additional streams of income when cash flow slows. Business sustainability strategies help small business owners navigate some of the pitfalls of doing business and perhaps maintain a strategy to persist in business while other businesses struggle to survive.

Hatak, Fink, Rauch, and Baranyi (2014) espoused the American dream materializes as small businesses create new jobs, technology innovations, and profit growth that contributes to the financial recovery of the United States and the communities where the businesses operate. The stability and longevity of the small businesses require tremendous sacrifice on the part of the entrepreneur and creativity to avoid early burnout to maintain the businesses' success (Hatak et al., 2014). Kozan and Akdeniz (2014) furthered that having strong relationships within the business markets has a positive effect on business growth because financial support is not difficult to come by from inner-circles. Advice from inner-circles becomes critical when in small business when an entrepreneur considers funding beyond startup. These networks make it easy to trade for resources and services that may be costly to an organization during the launch level.

When entrepreneurs have a business sustainability strategy constructed for how the company will remain profitable, even in turbulent times, it is essential that the management team remain focused on the core issues that are required to maintain the strategy (Chwolka & Raith, 2012). Business sustainability strategies can provide investors critical information for growth that targets towards growing the size of the company rapidly to have the highest impact and facilitates impacting a sector. If a company struggles to remain profitable, it increases the likelihood that the company will have difficulties sustaining in business and heightens the possibility of business failure.

Moreno-Moya and Munuera-Aleman (2015) inferred that those small business owners that adapt to emerging and changing markets rapidly and remain innovative at an accelerated rate increase their business sustainability and thus their young companies would likely remain profitable. Sanchez, Maniam, and Leavell (2015) specified that the impact that small businesses have in the United States is significant as small and medium-sized business shore up the foundations of the business operating environment and perform a vital role in the stability of the country. Sanchez, Maniam, and Leavell (2015) additionally suggested that technological innovation has continued to allow small businesses to dominate in the marketplace and continues to serve as a driver to grow profits for shareholders where traditional business sectors have struggled to remain competitive.

Profitability continues as the key to small business survival rates as a company cannot persist in business if there is not a significant revenue stream to support the business model. Federico and Capelleras (2014) reminded that the research into the linkage between profitability and growth of younger small businesses expands if there are high profits within the first three years of business. The findings of Federico and Capelleras (2014) would suggest that companies that remain profitable are those that quickly adapt to the changing demands of customers and rapidly adjust their business model to continue competitively.

Although heterogeneity can make it challenging to generalize business for every customer base, Federico and Capelleras (2014) speculated even further that the complexity of understanding relationships between profits and growth, the impact on profits is evident by the increased number of companies into the market. Svaleryd (2014) further supported the notion that the economic growth in a local region directly intensifies the economic opportunities for small businesses to launch other businesses and encourages other entrepreneurs to launch new companies. However, Svaleryd (2014) suggests that not every individual has the human capital that fosters the entrepreneurial pull into self- employment and the capacity to build initial profits may vary from region to region.

Startup companies launch every day, but not all locations attract business growth at the same rate. For example, Atta Panin (2015) found that when the technology industry and other industries concentrate growth in specific geographical locations, profits of those companies and the region tend to increase and positively encourage more companies to start up. Company size and market share intersect with the ability of firms to make a profit, which is the primary responsibility of every company (Atta Panin, 2015). Generating profits encourages investments in goods and services and stimulates spending with other businesses. Conversely, Gschwandtner, and Cuaresma (2013) mounted that debates continue as to whether businesses that focus on maximizing profits are inadvertently producing consequences for society that could end up costing those businesses in the long run.

The findings of Conversely, Gschwandtner, and Cuaresma (2013) further reflect growing concern from some in academia and policy circles that some businesses strive for profitability at any cost to satisfy investors and owners. Lazonicka, Mazzucatoc, and Tulumb (2013) found that when companies can scale up quickly, they can become profitable at a rapid rate and stockholders can recoup their investments sooner than anticipated. For example, Apple computer took the risk of launching at an unprecedented pace and could generate profits rapidly recouping taxpayer and employee investments, who generated the real value for the company (Lazonicka, Mazzucatoc & Tulumb, 2013). When there are profits from increased sales, small businesses can sustain in the market when other businesses fail from a lack of resources.

The State of Technology Company Profitability

Metcalf and Pendleton (2016) reported on the rise of technology companies, and the growth of the Internet is directly related to the contribution that the integrated business environment places in utilizing the services and products produced by tech companies creating technology billionaires. Economic growth has caused companies to rely on technology to conduct business transactions. Thus, the financial markets respond favorably to companies that facilitate efficient business practices (Huang, Dyerson & Harindranath, 2015). The integration of technological innovation into business function increases profits and provides a strategy that is sustainable through superior positioning in the market (Huang et al., 2015). Ghani and Zakaria (2013) explained that success in business has heightened since the usage of IT has become an essential business process. As a business function, IT has enabled companies to realize profits that were unattainable several years ago, and while coping with the changing business landscape, operating a company without IT could hamper profits, growth and operating efficiency (Ghani & Zakaria, 2013). The financial markets favor the acceptance of new technologies and are less tolerant towards business that does not adopt or only seek temporary gains (Huang et al., 2015).

Bilgihan and Wang (2016) forwarded the notion that when companies utilize technology as a business sustainability strategy, it is best to integrate IT throughout the organization creating harmony, synergy, and resource allocation effectiveness. Bilgihan and Wang (2016) further found that technology-induced strategy is the means through which some companies differentiate from other competitors in the industry and give business owners a strategic edge through speed and agility. Some organizations use IT only as an operating platform but fail to integrate forming a cohesive operation entirely. Capitalizing on human and knowledge resources, as well as the proper use of sophisticated technology capabilities puts some organizations at an advantage over similar businesses due to the effective and efficient use of technology to compete (Bilgihan & Wang, 2016). Alternatively, Briggs, Yang, Harmon-Kizer, and Arnold (2016) found that consumer and community engagement offered a competitive edge to retailers who engaged in long-term strategies for philanthropic activities and partnerships that build identity and satisfaction. Customers respond positively or negatively to the activities of an organization consequently affecting the competitive trust that a company brand portrays and determining the position the company has in a community (Briggs, Yang, Harmon-Kizer & Arnold, 2016).

Cassar (2014) explained that the experiences held by an industry enable an entrepreneur to manage the expectations of generating profits, and this a prevailing notion in the high-technology sector where a highly uncertain landscape exists. Furthermore, high-technology company startups are more likely to improve entrepreneurial decision-making in forecasting profits with the typical industry experiences (Cassar, 2014). Although the entrepreneur’s contribution to the communities they exist in has had both a positive and negative, most operate as a complex open system that allows for the adaptation to any business environment to generate profits.

Investment in technology companies is critical for business survival. If a company cannot generate enough interest in the developed technologies, there is a high probability that the company will also struggle to generate profits once the technology goes to market. For example, Connell, Mina, and Probert (2015) found that there are several methods for technology companies, including the ‘soft company’ business model, that allows for conducting exploratory technology development to generate revenue and investment for high-risk technologies other than the Silicon Valley model. The investment model that Silicon Valley offers has traction in several geographic locations with some successes and failures. Other models have mixed results as well, for example, Kohler and Baumann (2015) discovered when new startups launch there is a liability to the newness of the venture that sometimes is difficult to overcome to generate profits. Startup business owners who use the company builder incubator model have access to services and other resources in a factory-like manner from the assembly of the critical structural components of the business through rapid scale-up (Kohler & Baumann, 2015).

With high-technology innovation and creation comes the high-risk of failure of the new venture. Wilson and Altanlar (2013) posited that internally tracking the risk related to small businesses would provide specifically tailored data for the specific company and aid the company in managing corporate risk through modeling. Although new startup business owners consider the characteristics for modeling risk and data from the incorporation date to the first transactions and accounts, a vast majority of these companies fail and file for bankruptcy. Wilson and Altanlar further argued that there be early negative indicators that leaders can use to assist in determining failure risks such as the make-up of the board and other non-financial sources such as the type of business. Scholars often examine history to predict whether a company has the possibility of failing. For example, Bhandari and Iyer (2013) reported that during an economic downturn such as the 2008 recession, cash flow statements provided data that allowed for analyzing and comparing business failure variables against non-failed businesses to determine the causes of business failure.

Riain (2013) explained that the software technology industry is highly volatile and attractive to entrepreneurs, designers, and coders who share above average aspirations of success. Riain suggested that the unsettled industry contains commonalities in operational cultures that individuals use to establish bonds across high-tech company boundaries that form a community of support. When small business owners have support from outside companies that share interaction linkages, it is possible to glean best practices that support reasons for business success. Rezaee (2016) explains that there is a definite relationship between market share and sustainable business strategy.

The rapid rise of the tech industry has produced some entrepreneur millionaires after launching successful businesses. Some of the businesses have weathered financial turbulence over the past few years and have remained profitable while others failed. While social networks help gain insight into market trends, predicting business failure gives a strategic advantage to those considering starting a business. Hilston Kenner (2013) suggests that data supports industry failure predictors and may suggest why small business failure rates are high and why other businesses are thriving. Hilston Keener also speculated using financial data in the prediction of business failure presents accuracy when applied to other financial and bankruptcy data. Primarily, the data Hilston Keener obtained on the retail industry for predicting massive chain failures could be used to determine if the data applies to smaller companies and other industries.

Arasti, Zandi, and Bahmani (2014) suggested that studying how small and medium-sized businesses fail will give small business owners a competitive edge beyond innovation and creativity. Although growth depends on the type of business and the entrepreneur, there are other requirements worth addressing to preventing failure of the business. Arasti et al. (2014) proposed that the point of view that a small business owner takes towards the local business environment, general financial landscape and business policy dictate the factors that lead to the small business failing or succeeding.

The use of various models to determine whether a business survives or fails to benefit investors and lending institutions are critically important as a determinate to assist entrepreneurs financially or not to assist them. Pereira (2014) furthered the notation that financial market turmoil requires financial entities to identify the best tools for failure forecasting. Both the hazard rate and the survival analysis prove useful in predicting corporate bankruptcies and determining the probability of business success. Byrne (2014) implied that when businesses fail, it is an emotional time for the entrepreneur. Post business failure reveals evidence that failed businesses pass through four stages of the grieving process, and when businesses fail, it is not all at once (Byrne, 2014). Byrne

(2014) includes the expiration of the business, the decision to close the business, the process of closing the business, and the small business owners' recovery from the loss of the business. Not all businesses fail the same, but all business owners experience some aspect of the grieving process when the determination to close the business occurs. The recovery stage is necessary so that the small business owner can launch again or move on with other opportunities.

Transition

Section 1 contained the problem statement and purpose statement, as well as the nature of the study that justified using a qualitative method and multiple case study design. Section 1 also included the (a) interview questions, in addition to the (b) conceptual framework, (c) assumptions, (d) limitations, and (e) delimitations of the study. Section 1 concluded with the significance of the study and a review of the professional and academic literature. The literature review included a focus on previous literature relating to the following sections and subsections (a) competitive advantage, (b) systems theory, (c) small business planning, (d) the success or failure of a small business, (e) small business sustainability strategy and profitability, (f) and a critical analysis of the state of technology company profitability.

Section 2, contains the purpose statement of the research study, the role of the researcher, the selection criteria of participants, and details of the research methodology and research design; a description of the (a) population and sampling method; (b) ethical research; (c) data collection instruments, techniques, and organization; (d) data analysis;

and (d) the reliability and validity of my study. In Section 3, I will introduce the section and present (a) the study findings, (b) application to professional practice, (c) implications for social change, (d) recommendations for action, (e) recommendations for further research, (f) researcher reflections, and (g) a conclusion.

Section 2: The Project

There are business sustainability strategies that some owners of small technology company's use because of the positive influence of the business marketplace, to remain competitive. There may be a linkage between strategies that some owners of small technology companies use and the company they own surviving in business beyond five years. Section 2, includes an opening introduction to the project and contains the purpose statement of the research study, addresses the role of the researcher, discusses the selection of participants, and describes the research methodology and research design. Additionally, Section 2 describes the (a) population and sampling method; (b) ethical research; (c) data collection instruments, techniques, and organization; (d) data analysis; and (d) the reliability and validity of my study.

Purpose Statement

The purpose of this qualitative multiple case study was to explore the strategies of some owners of small technology companies use for business sustainability for profitability beyond five years. The population for this multiple case study is an owner of a small technology company located in the Southeast region of the United States that is profitable in their business beyond five years. The social change benefit might be that owners of small technology companies use the strategies to help increase their sustainability in business beyond five years. This contribution to social change could cause small business owners to generate competitive stability in the community.

Role of the Researcher

I am not currently a small business owner, and I have not worked for a small business or technology company, but small business sustainability is of interest to me for future endeavors. I served as the data collection instrument for the study. A researcher is responsible for gathering data from the research participants through observations, questionnaires, face-to-face interviews or personal involvement in the activity (Whiteley, 2012). Trafimow (2013) identified digital, audio, narrative, text, photographic, stories, and film as methods of capturing the experiences of people for qualitative research data. In my role as the researcher for the study, I selected the methodology, interview study participants, collected and analyzed data.

Doody and Noonan (2013) concluded that qualitative research utilizes structured, unstructured, and semistructured interview formats. Foley and O'Conner (2013) advanced that qualitative researchers rely on interview protocols to ensure the reliability and consistency within the interview process. I used semistructured interviews to gain an understanding of the sustainability strategies used by small business owners. I focused the qualitative multiple case study with question 1 as the initial probe question, questions 2-8 to answer the overarching research question, and question 9 as the wrap-up question (see Appendix A). I used an interview protocol to guide the interview process. Qualitative researchers use interview protocols to add consistency, strengthen the reliability and provide a process to the study (Foley & O'Conner, 2013).

In 1979, the Belmont Report contained summarization of the ethical principles initially written by The National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research Subjects of Research. The Belmont Report (1979) contains guidance for ethically collecting data that protects human rights and contains the distinction between practice and research and the application of (a) justice, (b) beneficence, and (c) respect of persons. I followed these principles and mitigated bias throughout the data collection process. I followed the policies and procedures for conducting ethical research and purposefully selected participants that aligned with eliminating those identified as vulnerable by the Belmont Report. I established an interview protocol for conducting the face-to-face interviews (see Appendix C). I assured that the identity of the participants is strictly confidential and strengthen confidentiality by being the only one to read transcripts and listen to audio recordings. Keeping the names and other identifiers confidential protects the privacy of participants (Beskow, Check & Ammarell, 2014). The rationale for the open-ended interview protocol is to mitigate bias, and a means for a standardized method of questioning, worded to participants in a manner that elicits responses that are open-ended (Turner, 2010). The openness of the interview questions permits unhindered and detailed responses from participants and allows for probing follow-up questions from the researcher (Turner, 2010). I avoided applying my personal bias during data collection and analysis through mitigation. Sokolowski (2008) and Moustakas (1994) suggested that a research bracket personal bias through writing notes in a journal during data collection as a means of mitigating bias in a study.

Participants

I used a qualitative multiple case study to explore the business sustainability strategies of some small business owners of technology companies to understand how they create strategies for profitability beyond the first five years. Yin (2014) suggested that qualitative case studies require participants with experience of the phenomenon of interest. Marshall, Cardon, Poddar, and Fontenot (2013) determined that for case studies effectiveness, researchers should have a minimum of three interviewees based upon the data saturation principle. The purposeful sampling approach allows researchers the flexibility of selecting research participants that meet the parameters of the study (Leedy & Ormrod, 2013). A purposeful sampling approach allows a researcher the means for selecting a sample of a population with hopes of yielding information pertinent to the research question (Sokolowski, 2008). Prendergast and Maggie (2013) support the use of purposeful sampling as an approach to understanding the experiences that participants have a subject matter.

The population for this multiple case study was small business owners of technology companies located in the Southeast region of the United States that are profitable in their business beyond five years. A purposeful participant selection for this qualitative study was necessary to explore the strategies some owners of small technology company's use for business sustainability and profitability beyond five years.

The Belmont Report (1979) contains guidance for selecting participants and ethically collecting data. The demographic eligibility criteria for selecting participants must exist for remaining eligible for the study (a) a small business owner as stipulated by the SBA; (b) the small business should be a technology or innovative enterprise (c) and been profitable beyond five years of business; (e) the small business is in the Southeast region of the United States.

Lenters, Cole, and Godoy-Ruiz (2014) suggested using email as a means of recruiting research participants. I contacted the Technology Association of Georgia; located in the Southeastregion of the United States through a phone call; to obtain a list of small businesses they serviced and contacted those companies to determine if they are technology companies. I gained a working relationship with the association and communicated with the companies through a telephone call to determine eligibility and afterward asked the level of interest in participating in the study. Gaining the trust of participants is critical to consenting to participate so the researcher must be honest in all communication about the study (Rubin & Rubin, 2012). Banfield et al. (2013) stated that data ownership and confidentiality is often a deterrent against sharing information, but the honesty of intended study purpose and outcomes builds trust (Rubin & Rubin, 2012).

Research Method and Design

The research method and design form the foundation for exploration of the research subject matter. In this study, the purpose was to explore the strategies some owners of small technology companies use for business sustainability and profitability beyond five years. I reviewed several research designs and selected a qualitative multiple case study as the research approach to address the business problem and research question.

Research Method

Researchers use a qualitative method to explore complex issues of businesses or events and to gain understanding through contextual analysis and participant experiences (Davis, 2013; Moutakas, 1994; Yin, 2014). Qualitative research, quantitative research, and mixed method research methods allow researchers to conduct rigorous scholarly studies (Erlingsson & Brysiewicz, 2013). I used a qualitative research methodology for this proposed doctoral study. A qualitative research methodology is useful in exploring the underlying reasons that occurred in experience, through lived perceptions entrepreneurs encounter in business (Zirima et al., 2013). Qualitative method is useful for gathering information and motivations from the participants in the experience and identifying any corresponding documentation (Bernard, 2013). Qualitative research method presents suitability for a case study because it allows for understanding how the phenomenon of business sustainability strategy occurs, and why it occurs in some small technology companies.

The researcher, using a quantitative research method, can explore variables, relationships, and differences in answering research questions. The use of a quantitative method quantifies numerical data and variable relationships but is not useful to a researcher engaged in acquiring a thorough understanding of the personal experiences of entrepreneurs (Frels & Onwuegbuzie, 2013). The researcher utilizing a mixed methodology combines qualitative and quantitative methods in other designs (Yin, 2014). Mixed method research approaches explore problems rather than the root causes of the problems; which can require more time and resources (Patton, 2015). While quantitative and mixed methods are valid approaches for researchers to study business phenomena, I proposed the qualitative method to explore the business sustainability strategies of some small business owners of technology companies to understand how they created sustainability strategies for profitability beyond five years. I did not use the quantitative method in this study. Cope (2014) found that quantitative methodology tends towards rigor and validity versus confirmability, transferability, and credibility. As the dominant methodology, the use of quantitative method provides correlational findings rather than the embracement of multicultural differences (Cokley & Awad, 2013). While there are distinctive differences between qualitative and quantitative studies, the quantitative method would not take into consideration the lived experiences of the participants, which are necessary for qualitative studies (Allwood, 2012). I did not use the mixed method in this study. Caruth (2013) stated that even though the mixed method provides rich insight, it would require more time to answer additional questions that would arise. Christ (2013) offered that mixed method allows for viewing alternative paradigms in research. Sparkes (2014) suggested that mixed method allows for flexibility and integration choices in research.

Research Design

The research design is the roadmap to determine what research questions to ask, what data is relevant for the study, what data needs collecting and the best way to analyze the results (Yin, 2014). Research design provides guidance and denotes that there is a method for exploring the research questions to conclude linkages, causalities, and effects of a phenomenon (Leedy & Ormrod, 2013). Researchers use case study approaches to explore complex issues of businesses or events, and to gain understanding through contextual analysis (Cronin, 2014; Dasgupta, 2015; Yin, 2014).

The use of a qualitative research methodology permits multiple techniques for conducting investigational research; the qualitative case study design has remained a popular form of analysis (Choi, 2014; Ketokivi & Yin, 2014). The researcher, using the ethnography design, can explore people and cultural groups in real-world settings in answering research questions (Klitmoller & Lauring, 2013). The qualitative ethnographic design would not be appropriate because exploring the culture or community would not address the specific that some small business owners of technology companies lack strategies to create a sustainability strategy for profitability beyond five years. The researcher, using the phenomenological inquiry design, can explore worldview perceptions and lived experiences of others in answering research questions (Bevan, 2014; Leedy & Ormrod, 2013). The qualitative phenomenological design does not provide an in-depth view and would not be appropriate to address the specific business problem. The researcher, using a narrative research method, can explore descriptions, stories, and an individual's life in answering research questions (Cook, Hoas & Joyner, 2013). The qualitative narrative design would not be appropriate to address the specific business problem as the researcher is not exploring the small business owner's life (Leedy & Ormrod, 2013). I proposed utilizing a multiple case study design, which contains guidance on the usage of methodological triangulation.

Flexibility in qualitative research is essential to the multiple case study. Zivkovic (2012) stated that case study allows the researcher adaptability to observe and assess multiple cases to determine noticeable differences. The usage of multiple case study allows the researcher to analyze a case and derive data and evidence for a more compelling study (Ketokivi & Choi, 2014; Hyett, Kenny & Dickson-Swift; 2014). Yin (2014) stated case study design is a primary research method appropriate for qualitative research. There are three types of case study research, (a) descriptive, (b) explanatory, and (c) exploratory (Ketokivi & Choi, 2014; Hyett, Kenny & Dickson-Swift; 2014; Yin, 2014). I have selected to use a multiple descriptive case study design for this qualitative research study because the design allows for the investigation of contemporary events in the context of real-life occurrences (Leedy & Ormrod, 2013; Cronin, 2014; Dasgupta, 2015). The descriptive case study is applicable when clarifying activities and events in a precise context (Leedy & Ormrod, 2013; Cronin, 2014; Dasgupta, 2015). The explanatory case study is appropriate when investigating causalities and linkages that connect occurrences with effects (Yin, 2014). An exploratory case study is appropriate for defining research questions (Yin, 2014).

Morse (2015) posited that when researchers achieve saturation, it establishes a guarantee of qualitative rigor and the significant characteristics of the research category are for understanding the phenomenon. Fusch and Ness (2015) suggested that when researchers fail in reaching data saturation, there is an impact on the research quality and research replication. I ensured I reached data saturation using useful data from the interviews, and adequate and appropriate sampling of small technology companies. Data saturation is the structuring of rich data throughout the research process, by providing scope and replication (Morse, 2015). When using semistructured interviews, saturation is limited to the number of participants, which focuses on the scope of the research (Morse, 2015). As part of the data saturation process, I used member checking. Member check is the process of ensuring validation and accuracy in qualitative research. Member check allows for scrutiny of data to validate the accuracy of information obtained from the participant's semistructured interview (Koelsch, 2013).

Population and Sampling

Population sampling for qualitative case study enables researchers the opportunity to acquire participants for providing knowledge and in-depth insight of experiences. According to Robinson (2013), boundaries exist for qualitative studies for specific sample size guidelines because of the different purposes of studies, research questions, and data results, which allow for diversity in research. In qualitative research Robinson found that the population sampling should specify the inclusion and exclusion of participants, determining the sample size, sampling strategy and the source of the samples. Qualitative research conclusions involve having a small sample size that allows for the study of phenomena in a natural setting to gain more detail, boundaries, and context (Njie & Asimiran, 2014).

Omona (2013) conveyed that researchers improve the quality of qualitative study when researchers pay attention to determining the appropriate sample size and sampling design. The procedure for determining the proper sample size suitable for research is purposive sampling (Muralidharan, 2014). Marshall, Cardon, Poddar, and Fontenot (2013) determined that for case study effectiveness, a minimum of three interviewees is enough based upon the data saturation principal.

The population sampling selected for this multiple case study included a sample size of small technology businesses in Southeast region of the United States that are profitable and remained in business beyond five years. A purposeful participant selection for this qualitative study was necessary to discover participants who demonstrate the ability to survive in business as a means of generating business profits to remain in business beyond five years. The demographic eligibility criteria for selecting participants, and for remaining eligible for the study was as follows (a) a small business owner as stipulated by the SBA; (b) the small business should be a technology or innovative enterprise (c) and been profitable beyond five years of business; (e) the small business is in Southern United States.

Guest (2006) concluded that the notion of saturation in qualitative research provides little practical guidance for estimating sample sizes, before data collection.

When the information is redundant, the data saturation point occurs, and study participants no longer provide new information, but begin to repeat themselves (Guest, 2006). To confirm saturation, I explored the population responses to interview questions and concluded interviews when I determined there was no new information. The proposed sample will be representative of small technology businesses. I limited the scope of the study to the Southeast region of the United States. The parameters of the sample consisted of data collected on strategies attributed to the small business' profitability beyond five years. The setting of the interview, instruments and the research questions impacts the method for finding data (Daniel, 2012). I requested that each participant read the consent form and sign it to participate in the research study (Appendix A). When the interview began, I reviewed the consent form with the participant to ensure understanding, nature, and scope of the interview and the study. The interview of the five small business owners of technology companies commenced at a setting that was comfortable, focused and convenient for the participants. The small business owners gave consent to participate in the interviewing process for the study and informed that notes of the company's 10K report, cash flow and profit and loss statements and data transcripts would comprise the data analysis process.

Ethical Research

Researchers should confront ethical dilemmas when determining who and what they are studying and how to adequately protect both the researcher and the participants (Macklin, 2014). I disclosed to the participants the nature of the study and provided the participants with an introduction to the research study via a consent form (Appendix A). The cover letter contained relevant information that clarified the study and its importance, confidentiality protocols, along with who would view the study upon completion. The participants also received a consent form (Appendix A) that contained details concerning risks (i.e., should be no risks) from participating, a confidentiality clause, a right to withdraw from the study, and any other ethical disclosures. The consent form contained the purpose of conducting the study, participant expectations, and the storing of data and findings. I stored the data securely for five years in a locked safe to protect the confidentiality of the participants.

Before collecting data, I submitted my proposal to the Walden University IRB for approval. The Belmont Report (1979) contains guidance for collecting information in an ethical manner that protects human rights and contains the distinction between practice and research and the application of (a) justice, (b) beneficence, and (c) respect of persons. I followed these principles and mitigated against bias throughout the data collection process. There is a right and wrong way to conduct research involving human subjects, so transparent and proper steps should occur while remaining ethical (Alby & Fatigante, 2014). I completed the National Institutes of Health course, Certificate No. 1762984, on "Protecting Human Research Participants" (Appendix B). I assured that the identity of the participants was strictly confidential and that participation in the study was strictly voluntary. At the completion of the study, I stored the data securely and it will remain secured for five years in a locked safe. Morse and Coulehan (2014) recommended that after the 5-year waiting period, all data and corresponding notes be destroyed to ensure the confidentiality of all participants. I will destroy participants' data after five years.

The study is voluntary, and there is no compensation or gifts associated with participating in this voluntary study (Appendix B). I respected the participants' decision to participate or not in the study. Research participants have the right to decide to join the study and reserves the right to change his or her mind and stop the interview at any time, without any repercussions or retaliation (King, Kyando & Massoi, 2014). I informed the participants that they had the right to withdraw from the study by emailing me. I did not use the participants' personal information for any purpose outside of the research project. I did not include the name, the organization's name, or anything else that could identify a participant in the study report. I assigned alphanumeric codes (e.g., T1, T2, T3) to each participant for identification purposes (Appendix A). The use of coding allows the participant identity in the research to remain shielded for privacy (Banfield et al., 2013).

Data Collection Instruments

The ambition for conducting the qualitative study is to explore the strategies three small technology business owners use to sustain their businesses and remain profitable beyond five years. Researchers that act as the primary research instrument contribute the cumulative sum of all experiences, gained knowledge, talents, and abilities to the research and results produced (Chowdhury, 2014). I was the primary data collection instrument utilizing semistructured interview questions, 10K report, cash flow and profit and loss statements, and notes acquired in the field. I used a digital recording device to facilitate the capturing of the experiences of small business owners of technology companies located in the Southeast region of the United States.

Qualitative data collection involves interviews that capture the statements of interviewees, the review of company documentation as the means to understanding opinions, attitudes, and values associated with the identification of consistent themes (Elsawah, Guillaume, Filatova, Rook, & Jakeman, 2015). Interviews and documentation are data collection tools available for multiple case study (Yin, 2012). Using open-ended semistructured interviews, company 10K report, cash flow and profit and loss statements and other documentation to determine strategies that some small business owners use to remain profitable will be the means for capturing data for analysis. I used notes of company 10K report, cash flow and profit and loss statements and transcripts of the interviews to identify themes and underlying patterns and facilitated member checking.

Member checking to enhance reliability is the process of allowing the participant to authenticate and confirm the validity of the interpretation of the interview (Houghton, Casey, Shaw, & Murphy, 2013; Harper & Cole, 2012; Bekhet & Zauszniewski, 2012). The enhancement of the reliability and validity of the research data is critical so that I collected; I used a triangulation of the interview responses and notes, the digital recording and other supporting documents provided by the interviewee. The reliability of the data collection instruments occurs when there is a comparison of the data through triangulation of the interview notes, digital recording, and the data collection process without and contradictions (Foley & O'Conner, 2013; Leedy &Ormond, 2013; Wilson, 2014).

I used semi-structured interview questions to elicit responses for this qualitative case study as described in the interview protocol (see Appendix C). Since the researcher serves as the instrument, Pezalla, Pettigrew, and Miller-Day (2012) determined the instrument provides characteristics that are unique and potentially influence data collection. The interview protocol should contain the topic scope and the study reliability, along with the interview questions. The case study protocol is the instrument I used. The protocol contains the scope of the research and (a) a summary of the case study, (b) data collection processes, (c) the semistructured interview questions, (d) company documents, and (e) guidelines for the case study. Company archival documents were suggested by Yin (2014) as appropriate for a case study design.

Data Collection Technique

In the qualitative case study research, I was responsible for determining the technique for collecting data. I selected to use a descriptive case study design for this qualitative research study because the design allows for the investigation of contemporary events in the context of real-life occurrences (Leedy & Ormrod, 2013; Cronin, 2014; Dasgupta, 2015). Interviews allow for an efficient data collection technique in qualitative research (Moustakas, 1994). The research protocol applied to the qualitative study guides the interview process (see Appendix C). The participant in the semistructured interview is an owner of a small technology company located in the

Southeast region of the United States that is profitable in their business beyond five years. I asked the participant the research questions. Upon approval, I recorded the interview utilizing a digital recording device and take notes throughout the interview. Taking notes is a method to accurately record the answers that participants provide for future recollection purposes (Christie, Bemister, & Dobson, 2015). I also asked for financial archival company documents to support the interview. At the completion of the study, I stored the data securely and will continue to store for five years in a locked safe, and I will destroy participants' data after five years.

The overarching research question provides the foundation for obtaining information from the interviews. The interview questions allowed me to gain details about the sustainability strategies some small business owners of technology companies located in the Southeast region of the United States use to remain profitable in their businesses beyond five years. The following interview questions are the focus of the qualitative multiple case study accordingly: Question (1) is the initial probe question, questions (2-8) are questions to help answer the overarching research question, and question (9) is a wrap-up question (see Appendix C). The data collection instrument consisted of semistructured interviews to explore the strategies of small business owners of technology companies to understand how they create business sustainability strategies for profitability beyond five years. While many researchers prefer the semistructured interview, there are assumptions about the validity of the stand-alone feature of the method (McIntosh & Morse, 2015). Preserving the integrity of the interviews is critical to the reliability of the research (Galvin, 2015). I did not conduct a pilot study. As the instrument for data collection, I developed a standard interview protocol (see Appendix C) that contains the invitation letter to participate in the interview, the scope of the interview process, includes the informed interview consent to interview, the location of interviews, the length of interviews and confidentiality of interviews.

The semistructured interview provides the means of comparable qualitative data and facilitates a two-way conversation with the interviewee, which constitutes an advantage of semistructured interviews (Broadhurst, 2015). The confirmation of the reasons behind the answers to the interview questions adds to the reliability of the answers given (Carduff, Murray & Kendall, 2015). One disadvantage of the semistructured interview method is that if there are no prepared questions ahead of time; the questions could sound prescriptive and not generate the desired data. An advantage of using company financial documents is that it provides insight into how the company budgets and contains costs in support of business sustainability strategies (Cirjevskis, 2016). A disadvantage is that it requires transparency that some business owners may not want to expose and may inhibit data collection efforts (Cirjevskis, 2016). Specific components strengthen the reliability of the qualitative study. Bekhet and Zauszniewski (2012) found the use of member checking to heighten reliability, and with the use of it, the researcher can validate data collection techniques and boost qualitative study credibility. I used member checking to ensure the reliability of my interview data collection.

After the completion of the interviews, I transcribed my interpretation of the participant's responses, sent the transcripts via email to each participant for confirmation that the interpretation was correct. The participant's confirmation of my interpretation of the transcripts serves as member checking and authentication of the interviewers' perception of meanings. Bekhet and Zauszniewski (2012) concluded that member checking is a validation technique to improve the accuracy, reliability, and validity of the participant's responses. Data saturation occurs when further interviews do not yield additional research information (Walker, 2012).

Data Organization Technique

The widely accepted use of coding as a data organization technique in qualitative data analysis provides structure and clarity (Glaser & Laudel, 2013). I interviewed participants using detailed semistructured questions to capture raw data. The semistructured interview provides the means of comparable qualitative data and facilitates a two-way conversation with the interviewee, which constitutes an advantage of semistructured interviews (Broadhurst, 2015). I assigned alphanumeric codes to each participant consisting of letters and numbers (e.g., T1, T2, T3) to protect the identity of each participant and provide confidentiality. The use of coding allows the participant identity in the research to remain shielded for privacy (Banfield et al., 2013).

A comparison of the responses occurs with the digital recordings and verbatim transcripts by using software to ensure reliability and accuracy (Patton, 2015). Al Yahmady and Al Abri (2013) propose using (CAQDA) NVivo® as software that provides data analysis and organizational support to discover similar and different response themes from interviews. I transcribed my interpretation of the participant's responses, sent the transcripts via email to each participant for confirmation that the interpretation was correct. Once the participants confirmed the correct responses, I uploaded the data to (CAQDA) NVivo®, the web-based platform application, to support the coding of the data analysis procedures. Bekhet and Zauszniewski (2012) concluded that member checking is a validation technique to improve the accuracy, reliability, and validity of the participant's responses. I scrubbed the data to remove any traces of which participants were to assure that the identity of the participants was strictly confidential. I also ensured that participation in the study was strictly voluntary. At the completion of the study, I secured and stored all data, field notes of company 10K report, cash flow and profit and loss statements, consent forms, and recordings and will continue to secure for five years and afterward destroyed to ensure the confidentiality of all participants and their documents. Morse and Coulehan (2014) recommended that after the 5-year waiting period, all data and corresponding notes be destroyed to ensure the confidentiality of all participant.

Data Analysis

Data analysis is the means of analyzing the responses to the semistructured questions and understanding the data about the experiences of the small business owners of technology companies. At the beginning of the data analysis process, I reviewed the full transcripts of the interviews to gain an understanding of the interview responses in context. Researchers use methodological triangulation to anchor their studies and validate their studies using multiple data sources (Bekhet & Zauszniewshi, 2012). The data obtained for this study included the responses from the semistructured interview, interview notes, and company 10K report, cash flow and profit and loss statements obtained during the interview.

The first step in the data analysis process was analysis and examination of the data to look for themes, trends, redundancy and common denominators in the data. I used the computer-assisted qualitative data analysis software (CAQDA) NVivo® software as the instrument for analyzing the interview transcripts and management of data. CAQDA NVivo® aids researchers and Zamawe (2015) forwarded the notion that (CAQDA) NVivo® is a credible data management tool that confirms qualitative research data through categorizing themes. (CAQDA) NVivo® will facilitate the scrutiny of the participant's responses, identify outliers, categorize themes, and provide preliminary indicators for data interpretation.

The second step of the data analysis involved evaluating the field notes of company 10K report, cash flow and profit and loss statements documentation. Using triangulation, Bekhet and Zauszniewshi, (2012) stipulated that multiple sources provide validity and complement other data. I matched the themes identified during the interview and clarified points made in the transcripts to mitigate against researcher bias. The last step involved combining the data and preparing a narrative of the research findings answering the primary research question: What business sustainability strategies do some owners of small technology companies use to remain profitability beyond five years?

Reliability and Validity

Reliability

Reliability in research is critical to ensuring factual data. To establish quality in this qualitative research, I applied the following criteria: (a) reliability, (b) dependability, (c) validity, (d) transferability, and (e) data saturation (Houghton, Casey, Shaw, and Murphy, 2013). The application of reliability and validity to qualitative study allowed for the replication of the study (Leung, 2015).

Reliability allows the same observations of a phenomenon by multiple researchers using the same research methods and techniques (Munn, Porritt, Lockwood, Aromataris, & Pearson, 2014). Darawsheh and Stanley (2014) noted peer-reviewed interview questions linked to reliability substantiates reproducibility and member checking, and triangulation methods ensure the reliability of the study. Dependability supports the proposed qualitative study by maintaining a systematic approach throughout the study, data collection, interpretation of the data and reporting of the findings (Weatherill, 2012).

Validity

The researcher establishes validity and credibility, through honesty, and genuineness and attaches these attributes to a qualitative data set and enhances reader understanding and transparency of the issue (Darawsheh & Stanley, 2014). Collecting data sensitively and ethically is necessary for qualitative research since the researcher experiences, and attitudes of the researcher threaten the dependability of the study (Weatherill, 2012). Substantial credibility occurs through methodological triangulation through observations, interviews and document reviews (Wilson, 2014). The application of research findings to other qualitative studies enhances the transferability of the study and solidifies confirmability of the study to established research standards. Using methodological triangulation, and member checking I established the credibility of the research study. Data saturation occurs when the collection of data no longer provides any new or relevant information (Dworkin, 2012). To confirm saturation, I explored the participants ‘responses to the interview questions and observed when no new information emerges through member checking. I also used reliability to establish trust and dependability to this qualitative study.

Transition and Summary

Section 1 contained the problem statement and purpose statement, as well as the nature of the study that justified using a qualitative method and multiple case study design. Section 1 also included the (a) interview questions (see Appendix A), in addition to the (b) conceptual framework, (c) assumptions, (d) limitations, and (e) delimitations of the study. The final components of section 1 were the significance of the study and a review of the professional and academic literature. The literature review included a focus on previous literature relating to the following sections and subsections (a) competitive advantage, (b) systems theory, (c) small business planning, (d) the success or failure of a small business, (e) business sustainability and profitability, (f) and a critical analysis of the state of technology company profitability.

Section 2 included an opening introduction to the project and contained the purpose statement of the research study, the role of the researcher, the selection criteria of participants, and details of the research methodology and research design. Additionally, Section 2 had the (a) population and sampling method; (b) ethical research; (c) data collection instruments, techniques, and organization; (d) data analysis; and (d) the reliability and validity of my study.

Section 3: Application to Professional Practice and Implications for Change

Introduction

While new small business launches are on the rise in the United States, half of the new business startups close within the early formative years of the launch (Wagner, 2013). For technology companies, 90% of startup companies fail (Patel, 2015). Small business failure rates increase year over year with many entities failing within the first year and of the remaining businesses, the failure rate exponentially increases with many businesses not surviving two or more years (SBA, 2014). The purpose associated with this multiple case study was to explore the strategies some owners of small technology company's use for business sustainability and profitability beyond five years.

The study of business sustainability strategy as it relates to small technology companies and business survival rates was the principle reason for conducting this study. While the age, education, gender or race did not associate with the criteria for study participant selection, the participants revealed how each of these categories contributed to the success of their businesses. The participants met the research criteria and were small technology business owners who credited their tenacity, business relationships, training and longevity in business as instruments that have brought them business success in the Southeast region of the United States. The participants were professionals and entrepreneurs that all had a college education and had previous entrepreneurial experience.

I conducted five semistructured interviews with owners of small technology companies located in the Southeast region of the United States that are profitable in their business beyond five years. I ensured confidentiality of all research participants by assigning pseudonyms to replace their names: P1, P2, P3, P4, and P5. The participants of the study came from the following segments of technology companies: P1 (drone pilot training company, P2 (mobile app development company), P3 (real estate visualization company), P4 (cybersecurity company), and P5 (healthcare technology company).

I conducted research triangulation by reviewing the transcribed data from the semistructured interviews, along with corresponding corporate documentation provided by the research participants. I protected the identity of the research participants, whether by name or by business, against usage and the participant's identification remains anonymous from any identifiers. When I systematically reached data saturation, I operated the (CAQDA) NVivo® data analysis software as a means of identifying critical strategies and reoccurring themes that provided answers to the specific research question.

Presentation of the Findings

The overarching research question is: What business sustainability strategies do some owners of small technology companies use to remain profitability beyond five years? While business sustainability strategies can have different understandings and applications, not all companies are the same, so not all results are the same. Of all the themes that emerged, the prior serial entrepreneurial experience was the most frequently discussed during the interviews. The experience that a business owner brings to their organization can position a company for future success as compared to owners that have had no prior experience. Staying persistent and having a willingness to stay the course is directly linked to the prior experience of a business owner. The technology industry is highly competitive, and it is relatively easy for companies to merge or close for business. Those owners that remain in business beyond five years have learned to balance the challenges that a company faces with the risk of not mimicking competitors.

Conversely, tech companies' success directly linked to the ability to raise capital to not only bring their technology to fruition but also to find investment for future discoveries and technological advances. Some companies fold because their technology becomes obsolete by the time it comes to market. An experienced entrepreneur should have acquired the skills necessary to pitch new research and development ideas and have the tenacity to remained focused on raising enough capital not only for research but also for daily operations. All the themes are rooted in the passion of the business owner. Those owners that invest in their product, as well as their people, can have a significant sustainability advantage over those who invest only in the product or only in the people.

The research findings aligned with the conceptual framework of general systems theory. Von Bertalanffy (2009) determined that the use of a system to illustrate the connections and exchanges between its mechanisms and workings, as well as the nonlinearity of the interactions and exchanges is useful in understanding cycles and relationships. The term *general systems theory* (GST) provides the framework for understanding how systems, processes, cross interactions and functions aid in the growth and maintenance of business sustainability strategy. Through the components of general systems, small technology company owners can use the interrelationships of the themes simultaneously as a business sustainability strategy for remaining in business. Systems infer controllability, continuity, pattern interaction or exchange of information that is traceable and rely on the opportunity and more often those business owners that recognize the importance of opportunity capitalize for business sustainability (Block, Fisch, & van Praag, 2017).

The themes also aligned with the literature on effective business practices and strategies. While each participant discussed their strategies for business sustainability over competitors, each took a different approach early in their business formation to create a unique business niche' that has allowed for profitability beyond five years in business. A company's sustainability strategy is the unique quality that sets the company apart from all other companies in the same industry. In general, after constructing the literature review, it was apparent that while businesses are formed to remain in operation for a long time, some companies are prone to do a better job in daily practices that arise as a business sustainability strategy. Porter (1985) holds that competition fosters superior outcomes and determines whether a firm is outperforming or underperforming when compared to the industry average. The literature review presented that when an entrepreneur has prior experience in owning a business, prior planning for contingencies can serve as a guide for new small business owners' success. Chwolka and Raith (2012) suggested that an entrepreneur who identifies with societal needs and personal results such as creativity, high self-worth, and ingenuity often take the opportunity to plan for success beyond the initial launch of their company. This strategy links to the second theme of having a willingness to stay the course having the mindset to remain profitable in business beyond five years from the start of the company, not just a product idea. Additionally, obvious in the literature review is that markets change so having the resources to adapt to the change is paramount to remain competitive. This sustainability strategy aligned with the strategy of raising enough capital to meet obligations of R&D and daily operations. Cordeiro (2013) observed that successful companies planned for the change in the market environment and failed when the business plan did not take into consideration the change that the business would have to face brought on by increased competition. Alstete (2014) provided support regarding combination strategies and advanced innovation-oriented strategies that seek to create new market space by creating value innovation and free-form creative thinking to succeed against competition from their peers and broader competitors with more resources. The theme of having a driven and passionate owner as a sustainability strategy resonates with some of the authors in the literature review. Riain (2013) explained that the software technology industry is highly volatile and attractive to entrepreneurs, designers, and coders who share above average aspirations of success. Arasti et al. (2014) proposed the point of view that a small business owner takes towards the local business environment, general financial landscape and business policy dictate the factors that lead to the small business failing or succeeding.

Before commencing with the interviews, I tested the interview instrument by reading the semistructured research questions aloud to several colleagues to test for clarity of questions. Once colleagues acknowledge that they understood and comprehended the questions, I contacted the prospective research participants through an email invitation to set up interviews. Prospects who agreed to participate in the study then received an informed consent form to sign, return and consent their understanding of the parameters of the interview. Participants choose the location and times of the interviews. Each participant consented to have their face to face interviews conducted at their company located in the Southeast region of the United States. I collected the data through face to face semi-structured interviews, and the participant's answers contributed to the research findings. The data analysis involved listening to the recording of each of the interviews and repeatedly reading through the data to identify reoccurring themes with each of the respondents. The data content analysis also involved member checking with each participant to ensure I captured the relevant thoughts and experiences accurately methodological triangulation for my study as well as documented any reoccurring themes in financial documents.

While I used the responses to the interview questions and the company financial documents as primary data sources, the abundance of data originated from the interviewing process of participants. I was able to achieve data saturation when I observed that the data obtained from the interviews and company financial documents yielded similar results and no new information emerged during the research just repetitive perceptions and themes. I further collected financial documents for additional data: (a) profit and loss statements, (b) balance sheets and (c) cash flow statements. I coded the data to provide privacy for the research participants and identified the documents as an example P1Da that represents Participant 1 Documents profit and loss statements, P1Da, P1Db and P1Dc. I reached data saturation when I interviewed the fourth participant and conducted the fifth interview with a small technology business owner. The saturation of data occurs when the interview answers yield no additional or relevant information (Dworkin, 2012). To confirm saturation, I explored the participant's responses to the interview questions and observed when no new information emerged through member checking.

Once I completed the interviews, I used the data obtained and input the corporate financial documents and interview data into the qualitative data analysis (CAQDA) NVivo® software for analysis. The following four themes emerged: (a) prior serial entrepreneurial experience (b) willingness to stay the course, (c) raising enough capital for research and development (R & D) and meet obligations, (d) driven and passionate owners. The themes derived from the participant interviews were from the primary data that included the corporate financial documentation, the 10K report, cash flow and profit and loss statements. I used the collective responses from the interview participants to answer the overarching research question: What business sustainability strategies do some owners of small technology companies use to remain profitability beyond five years?

The first theme that emerged is that a small technology business owners' prior serial entrepreneurial success is a business sustainability strategy. The second theme that emerged centered on the owner's willingness to stay on course. The third emergent theme involved the need to raise enough capital to conduct R&D and meet other obligations. The fourth emergent theme included that owners are impact driven and passionate about their companies. These 4 identified emergent themes aligned with the conceptual framework of general systems theory and are applicable as business sustainability strategies that some small technology company owners use to remain profitable beyond five years? Table 1 (Frequency Business Owners Mentioned Emergent Themes) shows the frequency in which the owners mentioned emergent themes in answering the interview questions.

Table 1

Frequency Business Owners Mentioned Emergent Themes

Themes	# of Response	% of Respondent
Serial Entrepreneur	3	60%
Focus on Course	5	100%
Capital for R & D	4	80%
PassionDriven	3	60%

Emergent Theme 1: Prior Serial Entrepreneurial Experience

The first theme that emerged is that a small technology business owners' prior serial entrepreneurial experience is a business sustainability strategy. Some entrepreneurs attributed their success from learning essential lessons from failing in their previous business ventures. Others attributed their success from acquiring the business knowledge and insight necessary to make prudent decisions that gave them a sustainability strategy over competitors. Participants also mentioned that their prior serial entrepreneurship experience prepared them for the strategies necessary for a sustainable technology company in Southeast region of the United States. The theme of prior serial entrepreneurial experience aligns with the general systems theory because each participant mentioned that it was the lessons that they learned from their prior business ventures aided in revealing what it takes to run a successful technology company. Brnjas (2014) theorized that general systems theory provides a framework to recognize the systems that are in operation around specific events and acknowledge that there is a correlation that exists between achieving goals and the degree that a user of an entity prepares for competition. Aaltonen et al. (2015) argued that a business sustainability strategy could derive from an enterprise cultural heritage that builds upon past victories and achievements to create innovation and creative ways to reinvent the company from the inside out. Histories for companies provide a wealth of opportunity to exploit the tangible and intangible assets of the company for future ventures, innovations and creative concepts (Aaltonen et al., 2015). A small technology business owner can utilize their prior entrepreneurial experiences to harness business and professional relationships without developing them for the first time like startup owners without prior experience.

When asked questions 1, 2, and 9; P1, P2, and P5 identified prior entrepreneurial experience as a critical element to the business sustainability strategy. P1 stated “the failure at the first tech company was costly, but there were valuable lessons learned from the business failure provided preparation for the next business." P2 confirmed prior entrepreneurial experience strategy was helpful by stating, "after the partners of the company launched our third successful tech company the process of creating more businesses seemed easier and easier." P5 also stated, "Medical device tech companies such as ours rely on gains in designs made through previous experiences to compete with larger medical tech companies that have more funding options and professional resources at their disposal. Medical device companies not only have to get the tech correct, but we also go through lengthy regulations that often requires many changes." The theme of prior entrepreneurial experience aligns with general systems theory through the cultural heritage that builds upon past victories as a strategy for sustaining in business beyond five years. Trevor (2014) also suggested that business owners who have already been in business startups, the business is more likely to survive based on previous experience. Singh, Corner and Pavlovich (2015) put forth the notion that the efficacy of serial entrepreneurship if modeled correctly increases the success rates for new businesses.

If a small technology business owner knows how to utilize their past successes to create a business sustainability strategy that leads to continued success, the results will generate both tangible and intangible opportunities. An example of the tangible results could be in the form of the mitigation against some risks that new startup businesses incur early in the startup phase, and an intangible result might be the reputation that the smart business ideas are the result of a robust business model. Table 2 shows the frequency of 60% at which business owners mentioned prior entrepreneurial experience through starting and stopping businesses in the past have contributed to the success of their current company in answering the case study interview questions. The data indicates starting the right company at the right time can ensure continued success.

Table 2

Number of responses related to IQ 1,3,9 for Prior Serial Entrepreneurial Experience

Participant	Interview Questions Responses Related to	% of Responses
P1	IQ1, 3, 9	30
P2	IQ 3, 5, 9	20
P3	IQ 2,8,9	10
P4	IQ 1,8,9	20
P5	IQ 1,3,9	30

Just as the GST suggests, each theme operates in an orchestrated manner for the concerted business sustainability strategy of small technology business owners for profitability beyond five years. Each participant mentioned how having a prior entrepreneurial experience was beneficial in the sustainability strategy necessary to remain profitable beyond five years. Even if the previous business was a failure, the knowledge gained from experience could lead to future success in business.

Emergent Theme 2: Willingness to Stay on Course

The emergent theme of having a willingness to stay the course during development and difficulties surfaced from Interview Questions 1,3,6 and 8. I primarily explored the expertise, experiences, and insights of the participants in implementing strategies for maintaining a sustainable business. The outcome of success in a technology company is contingent on the business owner's ability to avoid distractions and stay on course to answer the business problem behind the reason the business owners created the business. P1, P2, P4 shared their experiences of remaining committed to the business during “difficult financial challenges” and, how “determination was critical to surviving in business beyond five years.” When there is a commitment to the cause and goal of business ownership, aligned with established core values, and favorable network connections and influence equips successful entrepreneurs to persist in business through obstacles, challenges, and unplanned failures. Hechavarría, Matthews, and Reynolds (2015) promoted that some small business owners can recover from financial turmoil and launch new companies quicker than other entrepreneurs.

P5 stated that “When companies lack direction, or a clear path forward it is easy to get off course. Often companies fail because there is a lack of an external support system to help guide the business owners when they start to drift off course”. This statement aligns with Questions 5 and 6 and furthers the notion that having a willingness to stay on course is an effective strategy for remaining in business. While all the participants in the study had a desire to stay in business, each expressed a different level of commitment to stay focused on the business. P3, P4, and P5 did so through the development or guidance of a formal business plan, while P2 and P1 each had a guiding concept that they could articulate but may not be written down.

The introduction of new technology by other companies can create intimidation and lead some business owners to change course. P2 stated, “a certain technology almost caused the company to change course radically, but the decision to avoid being leaped over by other startups through early market deployment saved the company." P2 elaborated that "being first to market does not mean that the company engineers have completely thought of all the future adaptations of the technology which could make their technology obsolete or require frequent iteration changes." The entrance of disruptive technology often challenges business owners to change course. Interview Question 1 addressed the strategies necessary for longevity and P4 asserted that "having an aggressive in-house product development department allows a company to remain on course and at the forefront of the industry as well as remaining competitive while other companies lose ground to new companies." Bilgihan and Wang (2016) found that technology-induced business sustainability strategy is the means through which some companies differentiate from other competitors in the industry and give business owners a strategic edge through speed and agility.

With the high rate of business failure observed in the small tech industry, the willingness to stay on course with the business model is critical to any small technology company and aligns with the conceptual concept for this study. The survivability of any company relies on the development of a business model and management team that has a willingness to effectively navigate obstacles that may arise, so distractions and delays never cause the business to alter course. Within Table 3 are the number of times owners the relevance of having a willingness to stay on course in four of ten responses, which represents 60% of the replies given by P3, P4, and P5. P1 and P2 responses aligned with the notion that not altering the business model or quitting as crucial to remaining in business. Their responses were relevant to three out of ten of the research questions, accounting for 30% of the responses.

Table 3

Number of Times Having a Willingness to Stay on Course is Mentioned

Questions where participants mentioned Theme		Times Mentioned	% of Responses
P1, P2	IQ 4 & 5	2	40
P3, P4, P5	IQ 3, 6, & 7	3	60

Systems infer controllability, continuity, pattern interaction or exchange of information that is traceable and rely on the opportunity and more often those business owners that recognize the importance of opportunity capitalize for business sustainability (Block, Fisch, & van Praag, 2017).

Emergent Theme 3: Raise enough capital to conduct R&D and meet obligations

Tech companies often have innovative ideas but lack the resources for long-term success, research, and development. P1 stated that “the lack of R & D financing could have been a barrier to the success of the company had the company executives not decided to go after government grants which will keep the company going for the next five years.” P5 mentioned, “the company was able to raise money from 25 private investors in three rounds of funding, the majority of the financing going towards the development of other medical devices and the technology to run them, which is why the company exists today”. Mismanagement and wrong priorities can drastically reduce the capacity of a small business. P2 reflected that, "while the first company they ran had a team that had technology skills, but they lacked the skills necessary to raise funding outside of crowdfunding and the company folded." Investment in technology companies is critical to business survival.

If a company cannot generate enough interest in the developed technologies, there is a high probability that the company will also struggle to generate profits once the technology goes to market. For example, Connell, Mina, and Probert (2015) found that there are several methods for technology companies, including the 'soft company' business model that allow for conducting exploratory technology development to generate revenue and investment for high-risk technologies. The ability to raise enough capital to conduct R & D is critical to allowing a company to innovate quickly or lose out to competition. P4 agreed that "lowering overhead costs and cross-training employees allows the company to remain lean and devote resources to the development of new technologies to combat cyber threats that change on a daily basis."

P2 stated that "engaging in R&D enhances the reputation of a company that they are actively engaging in the future of the organization and this is what investors are looking for." R&D provides a business sustainability strategy for small tech companies launching new products beyond the primary products. P1, P4, and P5 mentioned how having multiple streams of income can mitigate risk and attract investors. P1 mentioned, "having an internal R&D division contributed greatly to cash flow which allowed for matching government grants." P5 responded that "R&D costs can impact the budget, but there are tax benefits that can offset those costs." Found in table 4 are the number of times owners mentioned raising capital for R&D. Answers to Interview Questions 4, 5 and 6 correlates to GST. Internal strategies devoid of external strategies limit the financial yields necessary to sustain business longevity due to compartmentalization and duplication of efforts (Breznik, & Lahovnik, 2014; Turner, & Endres, 2017).

Table 4

Number of Times Participant Mentioned Raising Capital for R&D

Questions	where participants mentioned raising Capital for R&D	Times Mentioned	% of Responses
P1, P5	IQ4, IQ5, IQ6	5	50%
P3	IQ4	1	10%
P4, P2	IQ5, IQ6	3	30%

Emergent Theme 4: Owners are Impact Driven and Passionate Leaders

Passion is at the root of most successful business owners because they enjoy what they do, what they offer and the impact that their efforts are making on the world. When business owners operate entrepreneurially, it implies that the company owner competitively positions the company for market engagement while exploring untapped markets, the introduction of new concepts in production or the exploitation of natural or human resources for competitive gain (Dorin & Alexandru, 2014; Konstantakis et al., 2014). Entrepreneurs need passion to launch and maintain their business venture. There must be a belief that is at the core of a business owner that drives them to make an impact on the lives of people, in one's society, community and environment. Passion drives business owners to generate enough revenue to create escape velocity from the startup phase to the maintaining and accelerating phase.

See table 5 for the rate of recurrence of the reference to passion mentioned in the responses to the interview questions. P1 stated that “It is possible to generate profits if you have a great idea, but it is difficult to maintain those profits if you do not have a passion or a ‘why’ to keep you going when the parade and fanfare are over.” Block et al. (2015) suggested that an entrepreneur who identifies with societal needs and personal results such as creativity, high self-worth, and ingenuity often take the opportunity to plan for success beyond the initial launch of her or his company.

P3 offered that, “starting an app company was a life-long desire, but profits were the main driver to stay in business. P5 indicated that “Passion was the driver to develop medical devices that would aid in saving peoples’ lives.” When business owners lack passion, it is easy to give up and quit on a business idea. P2 mentioned that “when times got rough in the early years of the company, it was my passion that keeps me going and motivating my staff not to quit before we produced a product that would make us happy.” The competitive nature of business requires the business owner to resist losing business by winning at every opportunity or get passed up by other competitors who are more passionate about winning. P4 said, “profits were the main passion that pushed my team to give it everything they had to build a company that not only safeguards people’s online presence but makes us all rich.”

Table 5

The rate of Recurrence Owners mentioned Passionate

Participant and Questions and Responses		# of Response	% of Respondent
P1	IQ2, IQ3, IQ5, IQ7, IQ8	5	50%
P2	IQ3, IQ8	2	20%
P3	IQ2, IQ5, IQ8	3	30%
P4	IQ3, IQ5, IQ7, IQ8	4	40%
P5I	IQ, IQ3, IQ5, IQ7, IQ8	5	50%

Systems infer interconnectivity, which is often limited when open systems infer flexibility and are required for longevity, growth, and innovation (Kozlenkova et al., 2014; Winnard, Adcroft, Lee, & Skipp, 2014; Camacho Minano, Segovia Vargas, & Pascual Ezama, 2015). While some entrepreneurs launch well-funded ventures, others start up their company through bootstrapping their technology ideas. P2 said, "Passion is the glue that holds all the interconnected pieces of the business model together." Having a passion for what a person does is a crucial ingredient for longevity and symbolizes the interconnectivity between a successful business and a driven leader. While there are varied formats to the start of a business, the owner must have a passion for their business, or it will fail. Passion helps entrepreneurs not only unpack their ideas so that a working plan is developed but also provide direction to maintain the vision. Where there is a lack of vision, undefined ideas or a lack of drive and passion from the leader, failure for any startup is inevitable.

Applications to Professional Practice

The applicability of prior serial entrepreneurial experience, willingness to stay the course, raising enough capital to meet obligations, driven and passionate owners provide a business sustainability strategy for small technology businesses. Technology companies have influenced strategies, practices, and tactics that some companies utilize in the marketplace. When owners of small technology companies operate with a business sustainability strategy, the company has industry characteristics that do not appear in the operations of competitors, that allows the business owner to operate in a better manner than other industry participants (Lasalewo, Masruroh, Subagyo, Hartono, & Yuniarto, 2016). While most recent research suggests that 10% of small businesses fail within the first year of operation, for small technology companies that number grows to 20% by the end of the first year and 50% of small technology companies have failed by year five (SBA, 2015). The data from the participant interviews and company documents contains business sustainability strategies for small technology companies. The findings of this research study have the potential to improve business practices for small technology companies by educating existing and future owners of small technology businesses on sustainability strategies for remaining in business. The findings acquired from the study have further applicability to improve business practice by educating future and current small business owners on business sustainability strategies.

The sustainability strategies of a drone pilot training program having a business owner that is a serial entrepreneur contribute relevant findings for the professional small business practice. Bhat and Dauleno (2014) suggested that both the experience and education for small business owners were leading indicators to the success rate of the new rural small businesses. The data obtained from participant interviews and company documents revealed the strategy of serial entrepreneurship for reducing the failure rate for future business ventures. The business sustainability strategy of remaining focused and on course as learned from a mobile app development company provides as a strategy for reducing distractions and aiding small business owners in staying persistent. Baumol (2014) suggested that entrepreneurs that have the mindset of doing well by doing the best good possible tend to remain in business longer than those companies that merely launch for financial gain. The participant's indicated that through their strategies of raising enough capital to meet obligations as represented in the participant interview responses of a real estate visualization company and cybersecurity company demonstrates that companies that fail to generate consistent revenue struggle to remain open. Franca et al. (2014) stated financial problems, operating in the wrong location, low-quality goods and services, an under-trained labor force, and inadequate facilities are reasons for business failure. Having a driven and passionate owner is a sustainability strategy as demonstrated through the participant interview responses of a healthcare technology company. Singh, Corner, and Pavlovich (2015) indicate that the leading causes of failure of startups are an under skilled management team, a lack of financial literacy and vision. The participant's strategies demonstrated in the findings, interviews and review of the company documents build on the existing literature.

Implications for Social Change

Each year, almost 12% of companies fail to survive (Mousa, Bierly & Wales, 2014; Office of Advocacy, 2014). The risks associated with high-tech startups is high for business failure, due in part to insertion of technology advancements, similar competitor technology, along with the short product life-cycle of new products. Some startup technology company owners skip critical operational steps in the initial stages of the company that could accelerate the business failure rate exponentially (Salamzadeh & Kirby, 2017). The findings of this study qualitative multiple case study revealed the following emergent themes: (a) prior serial entrepreneurial success, (b) willingness to stay the course, (c) raising enough capital to meet obligations, (d) driven and passionate owners.

Wang and Hsu (2014) explained that the software technology industry is highly volatile and attractive to entrepreneurs, designers, and coders who share above average aspirations of success. Arasti, Zandi, and Bahmani (2014) suggested that studying how small and medium-sized businesses fail will give small business owners a competitive edge beyond innovation and creativity. Although growth depends on the type of business and the entrepreneur, there are other requirements worth addressing to preventing failure of the business. If a small technology business owner knows how to utilize their past successes to create a business sustainability strategy that leads to continued success, the results will generate both tangible and intangible opportunities. With the high rate of business failure observed in the small tech industry, the willingness for small technology business owners to stay on course with the business model is critical to any technology company. If an owner of a small technology company can raise enough capital to conduct R & D, this is critical to allowing a company to innovate quickly and hire more people, giving the company a sustainable edge. Having a passion for what a person does is a crucial ingredient for longevity and symbolizes the interconnectivity between a successful business and a driven leader. While there are varied formats to the start of a business, the owner must have a passion for their business, or it will fail.

This case study contains descriptions of strategies and skills relevant for long-term business survival and sustained profitable operations. Additionally, this multiple case study contains participants' insights that provide strategies for the transformation of communities through increased business sustainability for small technology companies, entrepreneurial expansion, and business closure mitigation. The findings from this study may assist owners of small technology companies to increase their business sustainability by implementing and capitalizing on the strategies: (a) prior serial entrepreneurial experience, (b) willingness to stay the course, (c) raising enough capital to meet obligations, (d) and being a driven and passionate owner. The research findings could be of interest to first-time small business owners, minority and women entrepreneurs, governments, and small business incubators that have a stake in business creation and entrepreneurial development in local communities.

Recommendations for Action

The purpose of this qualitative multiple case study was to explore the strategies some owners of small technology companies use for business sustainability and profitability beyond five years. While there were several strategies that each of the interviewees offered, there were 4 emergent themes that I identified that provided strategies that owners could use to increase their business sustainability and profitability. Of all the themes that emerged, the prior serial entrepreneurial experience was the most frequently discussed. The experience that a business owner brings to their organization can position a company for future success. Staying persistent and having a willingness to stay the course is directly linked to the prior experience of a business owner. The technology industry is highly competitive, and it is relatively easy for companies to merge or close for business. A tech companies' success is directly linked to the ability to raise capital to not only bring their technology to fruition but also to find investment for future discoveries and technological advances. Experienced entrepreneurs have acquired the skills necessary to pitch new research and development ideas and for raising enough capital for research and daily operations.

The study could be of value to owners of small technology companies due to the high failure rate. There was a need to solve this applied business problem because small business owners need business sustainability strategies to survive (Frazer, 2015). The results of my multiple case study contained participants' insights that provided strategies for the transformation of communities and bringing about sustainable social change. I recommend that the Technology Association of Georgia and the SBA Georgia District branch should consider the results of this study and share the sustainability strategies with current and future small technology business owners. I will provide the participants of the research with a summary of the results and findings. I will encourage the participants to review the complete doctoral research study. I recommend that potential and current small technology business owners review the results and findings of this study for longevity, and long-term business sustainability strategies could provide solutions for companies that currently struggle to remain relevant. The small business owners' strategies contained best practices transferable to other small business owners resulting in improvements in business practices. Additionally, this multiple case study contained participants' insights that filled knowledge gaps for developing strategies for competitive business advantage beyond five years. I suggest the dissemination of the results through tech startup incubators, chamber of commerce meetings, entrepreneurship conferences, small business seminars, and other nonprofit community development initiatives.

Recommendations for Further Research

The purpose associated with this qualitative multiple case study was for the exploration of the business sustainability strategies some owners of small technology companies use to remain profitable. The primary limitation associated with the study was the number of owners of small technology companies located in the Southeast region of the United States. While there were limitations to this study, the study was not limited to one type of small technology company. The participants of the study came from the following segments of technology companies: P1 (drone pilot training company, P2 (mobile app development company), P3 (real estate visualization company), P4 (cybersecurity company), and P5 (healthcare technology company). I reached data saturation when I interviewed the fourth participant and conducted the fifth interview with a small technology business owner. The saturation of data occurs when the interview answers yield no additional or relevant information (Dworkin, 2012). A future study might be just limited to one segment of the technology industry.

The geography of the study was limited to small technology companies located in the Southeast region of the United States. For a future study, researchers may explore the business sustainability strategies of small technology companies in other metropolitan areas in the United States with less or more competition. I also recommend researching if the same strategies exist for small internationally operated technology owners. I based this study on the qualitative research method; however, future researchers should consider a quantitative or mixed methodology to study the sustainability strategies of small technology companies. I recommend conducting a longitudinal study to measure the long-term effectiveness of business sustainability strategies over an extensive period. My final recommendation is conducting a study of large technology companies and the sustainability strategies their business owners need to remain in business beyond five years.

Reflections

My experience as a scholar practitioner in the DBA program at Walden University was rewarding, distinctive, accelerated, and impressive. During my research I gained knowledge as I explored the business sustainability strategies of some owners of small technology companies used located in the Southeast region of the United States. The study of small tech company business sustainability strategies and survivability is of great importance to small business owners, families and company employees. Moreover, the business sustainability strategy topic of small technology companies is crucial to the financial stability and prosperity of owners of small technology in other parts of the United States where small business profitability remains a challenge in comparison with larger tech companies. I gained a new understanding of how small tech companies use strategies to survive against larger tech companies.

The participants I interviewed were accomplished in their various tech businesses and provided insights into what they used as owners to survive in business beyond five years. The owners were passionate about their companies, meticulous in reporting details and they took pride in their employees and the community they had built around their ideas. During the research process and at every procedural stage during the doctoral study, ‘I instituted personal measures to mitigate researcher bias and eliminate bias where appropriate. Sokolowski (2008) and Moustakas (1994) suggested that a research bracket personal bias through writing notes in a journal during data collection as a means of mitigating bias in a study.

As a researcher, I gained knowledge in data collection techniques, information organization, and a scholarly approach to interviews. The character, leadership, and motivation exemplified by each participant are evidence that the decision to include them in this doctoral study was sound. The participants provided enough data to provide the findings for this study. The study has changed my perception of what it means to be a scholar-practitioner. As the sole researcher, I made every attempt to mitigate research bias and error. I did not personally know the owners of the small technology companies I interviewed, and I followed the interview protocol (Appendix B) to further mitigate against personal bias and preconceived notions. Interviewing the small business owners changed my perspective of what it takes to be successful in business and gave me insights into further understanding some of the challenges of remaining profitable beyond five years. The DBA experience, including the research phase, has increased the likelihood of my supporting entrepreneurs and small businesses, thus impacting the owner's employees, families and the communities where the small businesses are located.

Conclusion

The participants in this research study are entrepreneurs who own small technology companies located in the Southeast region of the United States. The study participants varied in their approach to utilizing technology to create a lasting venture when they launched their company. Small technology companies had challenges surviving in a rapidly changing business environment; thus, sustainability strategies were necessary. While some of the business owners became profitable during their first business, others took several business attempts before operating at a sustainable level.

The overarching research question was: What business sustainability strategies do some owners of small technology companies use to remain profitability beyond five years? The research participants relied on their prior serial entrepreneurial successes as a guide for decision making process. As technology business owners, the study participants used their willingness and commitment to stay the course in the daily operation of their businesses. Even with the challenge of raising enough capital to meet obligations as a focal point, the participants followed similar processes in their entrepreneurial pursuits in order to remain profitable. Each of the owners exemplified to some degree a purposeful characteristic of being driven and passionate owners. Small technology company owners need sustainability strategies to remain profitable beyond five years.

References

Aaltonen, S., Heinze, A., Ielpa, G. & De Tommaso, D. (2015). Enterprise cultural heritage: The source of sustainable competitive advantage and survival for food sector SMEs. *The International Journal of Entrepreneurship and Innovation, 16*(2), 73-83. doi:10.5367/ijei.2015.0178

Achtenhagen, L., Brunninge, O., & Melin, L. (2017). Patterns of dynamic growth in medium sized companies: Beyond the dichotomy of organic versus acquired growth. *Long Range Planning, 50*, 457-471. doi:10.1016/j.lrp.2016.08.003

Alby, F., Fatigante, M. (2014). Preserving the respondent's standpoint in a research interview: Different strategies of 'doing' the interviewer. *Human Studies, 37*, 239256. doi:1007/s10746-013-9292-y

Aldrich, H., & Yang, T. (2014). How do entrepreneurs know what to do? Learning and organizing in new ventures. *Journal of Evolutionary Economics, 24*(1), 59-82. doi:10.1007/s00191-013-0320-x

Alstete, J. (2014). Strategy choices of potential entrepreneurs. *Journal of Education for Business*, *89*(2), 77-83. doi:10.1080/08832323.2012.759094

Anderson, A., & Ullah, F. (2014). The condition of smallness: How what it means to be small deters firms from getting bigger. *Management Decision, 52*, 326-349. doi:10.1108/MD-10-2012-0734

Andrevski, G. & Ferrier, W. (2016). Does it pay to compete aggressively? Contingent roles of internal and external resources. *Journal of Management, 20*(6), 1-25.

doi:10.1177/0149206316673718

Arasti, Z., Zandi, F., & Bahmani, N. (2014). Business failure factors in Iranian SMEs: Do successful and unsuccessful entrepreneurs have different viewpoints? *Journal of Global Entrepreneurship Research, 4*(1). doi:10.1186/s40497-014-0010-7

Arnold, R. & Wade, J. (2015). A definition of systems thinking: A systems approach. *Procedia Computer Science*, *44*, 669-678. doi:10.1016/j.procs.2015.03.050

Atta Panin, J. (2015). The role of profits: Is profit maximization tenable in the modern business environment? *Journal of Entrepreneurship and Organizational Management, 4*(02). doi:10.4172/2169-026x.1000135

Autio, E., Kenney, M., Mustar, P., Siegel, D., & Wright, M. (2014). Entrepreneurial innovation: *The importance of context. Research Policy, 43*, 1097-1108. doi:10.1016/j.respol.2014.015

Baumol, W. (2014). On the appropriate social responsibilities of successful entrepreneurs. *Business & Society, 55*(1), 14–22. doi:10.1177/0007650314523087

Bello, B., & Ivanov, S. (2014). Growth strategies for very small organizations: A case study of a very small entrepreneurship. *International Journal of Organizational Innovation, 6*(4), 51-53. Retrieved from http://www.ijoi-online.org

Bernard, H. (2013). *Social research methods: Qualitative and quantitative approaches.* Thousand Oaks, CA: Sage.

Bevan, M. (2014). A method of phenomenological interviewing. *Qualitative Health Research, 24*, 136-144. doi:10.1177/1049732313519710

Beskow, L., Check, D., & Ammarell, N. (2014). Research participants' understanding of and reactions to certificates of confidentiality. *AJOB Empirical Bioethics, 5*, 12-2. doi:10.1080/21507716.2013.813596

Bhardwaj, B. (2016). Role of green policy on sustainable supply chain management. *Benchmarking, 23*(2), 456-468. doi:10.1108/BIJ-08-2013-0077

Bhat, V., & Daulerio, P., (2014). Paths to entrepreneurial business ownership: U.S. perspective. *International Journal of Entrepreneurship and Small Business, 21*, 527-540. doi:10.1504/IJESB.2014062019

Bilgihan, A., & Wang, Y. (2016). Technology induced competitive advantage: A case of US lodging industry. *Journal of Hospitality and Tourism Technology, 7*(1), 37-59. doi:10.1108/JHTT-01-2015-0001

Block, J. Fisch, C., & van Praag, M. (2017). The Schumpeterian entrepreneur: A review of the empirical evidence on the antecedents, behavior, and consequences of innovative entrepreneurship. *Industry and Innovation, 24*, 61-95. doi:10.1080/13662716.2016.1216397

Block, J., Kohn, K., Miller, D., & Ullrich, K. (2015). Necessity entrepreneurship and competitive strategy. *Small Business Economics, 44*(1), 37-54. doi:10.1007/s11187-014-9589-x

Braun, A. (2015). Linking business model and open innovation: Success and failure of collaborations. *International Journal of Entrepreneurship and Innovation Management, 19*(1/2), 59. doi:10.1504/ijeim.2015.068440

Brem, A., Maier, M., & Wimschneider, C. (2016). Competitive advantage through innovation: The case of Nespresso. *European Journal of Innovation Management, 19*(1), 133-148. doi:10.1108/EJIM-05-2014-0055

Brewis, J. (2014). The ethics of researching friends: On convenience sampling in qualitative management and organization studies. *Journal of British Management, 25*, 849-862. doi:10.1111/1467-8551.12064

Briggs, E., Yang, Z., Harmon Kizer, T., & Arnold, T. (2016). How do differing community engagement strategies affect consumer responses to a retailer? *Journal of Marketing Theory and Practice, 24*(1), 109-127. doi:10.1080/10696679.2016.10

Brnjas, Z. (2014). General theory of systems and tendencies of administration. *American Journal of Economics and Business Administration, 6*(4), 143–147. doi:10.3844/ajebasp.2014.143.147

Broadhurst, K. (2015). Qualitative interview as special conversation (after removal). *Qualitative Social Work, 14*(3), 301–306. doi:10.1177/1473325015578501

Brooks, J., McCluskey, S., King, N., & Turley, E. (2015). The Utility of Template Analysis in Qualitative Psychology Research. *Qualitative Research in Psychology*, *12*(2), 202. doi:10.1080/14780887.2014.955224

Burchett, H., Mayhew, S., Lavis, J., & Dobrow, M. (2013). When can research from one setting be useful in another? Understanding perceptions of the applicability and transferability of research. *Health Promotion International*, *28*, 418-430.

doi:10.1093/heapro/das026

Byrne, O. (2014). The rocky road of business demise, failure, and recovery. *Academy of Management Proceedings, 2014*, 17634–17634. 10:5465/AMBPP.2014.17634abstract

Calandro, J. (2015). Revisiting the concept of a competitive cash advantage. *Strategy & Leadership, 43*(4), 38–46. doi:10.1108/sl-03-2015-0024

Camacho Minano, M., Segovia Vargas, M., & Pascual Ezama, D. (2015). Which characteristics predict the survival of insolvent firms? An SME reorganization prediction model. *Journal of Small Business Management, 53*, 340-354. doi:10.1111/jsbm.12076

Camacho Minano, M., Segovia Vargas, M., & Pascual Ezama, D. (2015). Which characteristics predict the survival of insolvent firms? An SME reorganization prediction model. *Journal of Small Business Management, 53*, 340-354. doi:10.1111/jsbm.12076

Capo, F., Brunetta, F. & Boccardelli, P., (2014). Innovative business models in the pharmaceutical industry: A case on exploiting value networks to stay competitive. *International Journal of Engineering Business Management*. doi:10.5772/59155

Caputo, A., Marzi, G., & Pellegrini, M. (2016). The internet of things in manufacturing innovation processes. *Business Process Management Journal, 22*(2), 383-402. doi:10.1108/BPMJ-05-2015-0072

Carduff, E., Murray, S., & Kendall, M. (2015). Methodological developments in qualitative longitudinal research: The advantages and challenges of regular telephone contact with participants in a qualitative longitudinal interview study. *BMC Res Notes, 8*(1). doi:10.1186/s13104-015-1107-y

Carter, N., Bryant Lukosius, D., DiCenso, A., Blythe, J., & Neville, A., (2014). The use of triangulation in qualitative research. *Oncology Nursing Forum, 41*, 545-547. doi:10.1188/14.ONF.545.547

Cassar, G. (2014). Industry and startup experience on entrepreneur forecast performance in new firms. *Journal of Business Venturing, 29*(1),137–151. doi:10.1016/j.jbusvent.2012.10.002

Castleberry, A. (2014). (CAQDA) NVivo® 10 [software program]. Version 10. QSR international;

2012. *American Journal of Pharmaceutical Education*, *78*(1), 1-21. doi:10.5688/ajpe78125

Caws, P. (2015). General systems theory: Its past and potential. *Systems Research and Behavioral Science*, *32*(5), 514-521. doi:10.1002/sres.2353

Chawinga, W. & Chipeta, G. (2017). A synergy of knowledge management and competitive intelligence: A key for competitive advantage in small and medium business enterprises. *Business Information Review, 34*(1), 25-36. doi:10.1177/0266382116689171

Check, D., Wolf, L., Dame, L., & Beskow, L. (2014). Certificates of confidentiality and informed consent: Perspectives of IRB chairs and institutional, legal counsel. *IRB: Ethics and Human Research, 36*(1), 1-8. doi:10.1038/gim.2014.102

Chowdhury, M. (2014). Coding, sorting and sifting of qualitative data analysis: debates and discussion. *Qual Quant*, 49, 1135–1143. doi:10.1007/s11135-014-0039-2

Christie, C., Bemister, T., & Dobson, K. (2015). Record-informing and notetaking: A continuation of the debate about their impact on client perceptions. *Canadian Psychology/Psychologie, 56* (1). Retrieved from http://psycnet.apa.org

Cirjevskis, A. (2016). Designing dynamically 'signature business model' that support durable competitive advantage. *Journal of Open Innovation*, *2*(1), 1. doi:10.1186/s40852-016-0042-z

Cleary, M., Horsfall, J., & Hayter, M. (2014). Data collection and sampling in qualitative research: Does size matter? *Journal of Advanced Nursing*, *70*, 473-475. doi:10.1111/jan.12163

Connell, D., Mina, A. & Probert, J. (2015). The 'soft company' business model of high-tech growth. *Academy of Management Proceedings, 2015*(1). 12784-12784. doi:10.5465/ambpp.2015.12784abstract

Cope, D. (2014). Methods and meanings: Credibility and trustworthiness of qualitative research. *Oncology Nursing Forum*, *41*, 89-91. doi:10.1188/14.ONF.89-91

Cordeiro, W. (2013). Small businesses ignore strategic planning at their peril. *Academy of Business Research Journal, 3*, 22-30. Retrieved from http://www.aobronline.com/#!abrj/cdlu

Cronin, C. (2014). Using case study research as a rigorous form of inquiry. *Nurse Researcher, 21*(5), 19-27. doi:10.7748/nr.21.5.19.e1240

Crowe, M., Inder, M., & Porter, R. (n.d). Conducting qualitative research in mental health: Thematic and content analyses. *Australian And New Zealand Journal of Psychiatry*, *49*(7), 616-623. Retrieved from http://journals.sagepub.com/home/anp

Darawsheh, W., & Stanley, M. (2014). Reflexivity in research: Promoting rigour, reliability and validity in qualitative research. *International Journal of Therapy and Rehabilitation, 21*, 560–568. doi:10.12968/ijtr.2014.21.12.560

Dalborg, C. (2015). The life cycle in women-owned businesses: From a qualitative growth perspective. *International Journal of Gender and Entrepreneurship, 7*(2), 126-147. doi:10.1108/IJGE-06-2014-0019

DaSilva, C., & Trkman, P. (2014). Business model: What it is and what it is not. *Long Range Planning, 47*, 379-389. doi:10.1016/j.lrp.2013.08.004

Dasgupta, M. (2015). Exploring the relevance of case study research. *Vision (09722629), 19*(2), 147-160. doi:10.1177/0972262915575661

Davis, P. (2017). How to realize strategy and build competitive advantage through your people: Increase resource heterogeneity; decrease resource mobility. *Human Resource Management International Digest 25*(4), 7-9. doi:10.1108/HRMID-01-2017-0019

Decker, R., Haltiwanger, J., Jarmin, R., & Miranda, J. (2014). The role of entrepreneurship in US job creation and economic dynamism. *Journal of Economic Perspectives, 28*(3), 3-24. doi:10.1257/jep.28.3.3

Dessi, C., Ng, W., Floris, M., & Cabras, S. (2014). How small family owned businesses may compete with retail superstores. *Journal of Small Business and Enterprise Development, 21*(4), 668. doi:10.1108/JSBED-02-2014-0025

DeTienne, D., & Wennberg, K. (2016). Studying exit from entrepreneurship: New directions and insights. *International Small Business Journal, 34*(2), 151–156. doi:10.1177/0266242615601202

Dhliwayo, S. (2014). Entrepreneurship and competitive strategy: An integrative approach. *The Journal of Entrepreneurship*, *23*, 115-135. doi:10.1177/0971355713513356

Dorin, C., & Alexandru, G. (2014). Dynamics of the entrepreneurship concept. Literature review. *Annals of The University of Oradea, Economic Science Series, 23*(1), 445-451. Retrieved from http://anale.steconomiceuoradea.ro/en/

Elsawah, S., Guillaume, J., Filatova, T., Rook, J., & Jakeman, A. (2015). A methodology for eliciting, representing, and analyzing stakeholder knowledge for decision making on complex socio ecological systems: From cognitive maps to agent based models. *Journal of Environmental Management, 151*, 500-516. doi:10.1016/j.jenvman.2014.11.028

Euchner, J. (2015). Digital technologies and competitive advantage: An interview with Joe Weinman. *Research Technology Management, 58*(6), 12-17.

doi:10.5437/08956308X5806003

Executive profile (2016, January). Metro Atlanta Chamber Profile. Retrieved from https://www.metroatlantachamber.com/assets/exectuve_profile_16-17_january_2017_6aJ57mX.pdf

Fader, G. (2015). Fact, fallacy and failure in small business governance. *Journal of Law and Governance, 10*(2). doi:10.15209/jbsge.v10i2.870

Federico, J., & Capelleras, J. (2014). The heterogeneous dynamics between growth and profits: the case of young firms. *Small Business Economics, 44*(2), 231–253. doi:10.1007/s11187-014-9598-9

Fisher, R., Maritz, A., & Lobo, A. (2014). Evaluating entrepreneurs’ perception of success: Development of a measurement scale. *International Journal of Entrepreneurial Behavior & Research, 20*, 478-492. doi:10.1108/IJEBR-10-2013-0157

Forster Holt, N. (2013). Entrepreneur as "end" repreneur: The intention to retire. *Small Business Institute Journal, 9*(2), 29-42. Retrieved from https://www.sbij.org/index.php/SBIJ/article/view/169

França, M., de Aragão Gomes, I., Machado, G., & Russo, S. (2014). Factors conditioning failure of micro and small businesses of the information technology and communication (ICT): Study of multiple cases, Aracaju (SE), Brazil. *Business Management Dynamics*, *3*(8), 40-50. Retrieved from http://bmdynamics.com/publication_abstract.php?c_id=193&id=35

Frazer, L. (2015). Failure to launch. *CPA Journal, 85*(5), 34-36. Retrieved from https://www.cpajournal.com/

Fugard, A., & Potts, H. (2015). Supporting thinking on sample sizes for thematic analysis: A quantitative tool. *International Journal of Social Research Methodology, 18*, 669-684. doi:10.1080/13645579.2015.1005453

Fusch, P., & Ness, L. (2015). Are we there yet? Data saturation in qualitative research. *The Qualitative Report, 20*, 1408-1416. Retrieved from http://nsuworks.nova.edu/tqr/vol20/iss9/3/

Galea, S. (2012). Simplicity, complexity, and conceptual frameworks. *Psychiatry: Interpersonal & Biological Processes, 75*, 223-226. doi:10.1521/psyc.2012.75.3.22

Galvin, R. (2015). How many interviews are enough? Do qualitative interviews in building energy consumption research produce reliable knowledge? *Journal of Building Engineering, 1*, 2–12. doi:10.1016/j.jobe.2014.12.001

Gandy, D., (2015). *Small business strategies for company profitability and sustainability.* (Doctoral dissertation). Retrieved from Dissertations & Theses @ Walden University. (Order No. 3700959).

Gharajedaghi, J., & Ackoff, R. (1984). Mechanisms, organisms and social systems. *Strategic Management Journal, 5*(3), 289–300. doi:10.1002/smj.4250050308

Gharajedaghi, J. (2011). Business Architecture. *Systems Thinking*, 181–207. doi:10.1016/b978-0-12-385915-0.00009-x

Gill, M. (2014). The possibilities of phenomenology for organizational research. *Organizational Research Methods*, *17*(2), 118-137. doi:10.1177/1094428113518348

Green, C., Duan, N., Gibbons, R., Hoagwood, K., Palinkas, L., & Wisdom, J. (2014). Approaches to mixed methods dissemination and implementation research: Methods, strengths, caveats, and opportunities. *Administration and Policy in Mental Health and Mental Health Services Research*, 1-16. doi:10.1007/s10488014-0552-6

Griensven, H., Moore, A., & Hall, V. (2014). Mixed methods research: The best of both worlds? *Manual Therapy*, *19*, 367-371. doi:10.1016/j.math.2014.05.005

Grigorescu, I. (2013). Competitive environment analysis and its role in the original management organizational management process. *Land Forces Academy Review, 18*(1), 76-82. Retrieved from http://www.armyacademy.ro

Gschwandtner, A., & Cuaresma, J. (2013). Explaining the persistence of profits: A time-varying approach. *International Journal of the Economics of Business, 20*(1), 39–55. doi:10.1080/13571516.2012.750051

Haltiwanger, J., Jarmin, R., & Miranda, J. (2013). Who creates jobs? Small versus large versus young. *Review of Economics and Statistics*, *95*, 347-361. doi:10.1162/REST_a_00288

Hammer, M. (2014). Exploring the prevention measures for prematurity negative entrepreneurial exit? *On Line Journal Modelling the New Europe,* (10), 3-16.

Retrieved from http://neweurope.centre.ubbcluj.ro/

Hamrouni, A., & Akkari, I. (2012). The entrepreneurial failure: Exploring links between the main causes of failure and the company life cycle. *International Journal of Business & Social Science, 3*(4), 189-205. Retrieved from http://www.ijbssnet.com/

Harvey, L. (2015). Beyond member checking: A dialogic approach to the research interview. *International Journal of Research & Method in Education, 38*, 23-38. doi:10.1080/1743727X.2014.914487

Hashai, N., & Buckley, P. (2014). Is competitive advantage a necessary condition for the emergence of the multinational enterprise? *Global Strategy Journal, 4*(1), 35–48. doi:10.1111/j.2042-5805.2013.01069.x

Hatak, I., Fink, M., Rauch, A., & Baranyi, A. (2014). A framework to study startup conditions, burn-out and startup success. *Academy of Management Proceedings, 2014*(1), 13868–13868. doi:10.5465/ambpp.2014.13868abstract

Hechavarría, D., Matthews, C., & Reynolds, P. (2015). Does startup financing influence startup speed? Evidence from the panel study of entrepreneurial dynamics. *Small Business Economics, 46*(1), 137–167. doi:10.1007/s11187-015-9680-y

Hmieleski, K., Carr, J., & Baron, R. (2015). Integrating discovery and creation perspectives of entrepreneurial action: The relative roles of founding CEO human capital, social capital, and psychological capital in contexts of risk versus uncertainty. *Strategic Entrepreneurship Journal, 9*, 289-312.

doi:10.1002/sej.1208

Holodnikov, Y. (2015). Prospects for small business participation in the development of real sector of economy. *Economy in the Industry*, 36(2). doi:10.17073/2072-1633-2012-2-36-39

Honan, E. (2014). Disrupting the habit of interviewing. *Reconceptualizing Educational Research Methodology*, *5*(1), 1-17. doi:10.7577/rerm.929

Hundermark, G. (2014). How does learning keep a small company afloat? *Information Management and Business Review, 6*(3), 156-167. Retrieved from https://ifrnd.org/journal/index.php/imbr

Huang, K., Dyerson, R., Wu, L., & Harindranath, G. (2015). From temporary competitive advantage to sustainable competitive advantage. *British Journal of Management, 26*(4), 617–636. doi:10.1111/1467-8551.12104

Hyett, N., Kenny, A., & Dickson Swift, V. (2014). Methodology or method? A critical review of qualitative case study reports. *International Journal of Qualitative*, 9. doi:10.3402/qhw.v9.23606

Jenkins, A., & McKelvie, A. (2016). What is entrepreneurial failure? Implications for future research. *International Small Business Journal, 34*(2), 176–188. doi:10.1177/0266242615574011

Kahlke, R. (2014). Generic qualitative approaches: Pitfalls and benefits of methodological mixology. *International Journal of Qualitative Methods, 13,* 37-52. doi:10.1177/160940691401300119

Kalnins, A., & Williams, M. (2014). When do female owned businesses out-survive male owned businesses? A disaggregated approach by industry and geography. *Journal of Business Venturing, 29*, 822–835. doi:10.1016/j.jbusvent.2013.12.001

Karahan, H. (2013). Does population density have any effect on entrepreneurial rates? Evidence from US counties. *Journal of Social and Development Sciences, 4*(3), 123-130. Retrieved from https://www.ifrnd.org/main/

Karim, S., Carroll, T., & Long, C. (2016). Delaying change: Examining how industry and managerial turbulence impact structural realignment. *Academy of Management Journal*, *59*(3), 791-817. doi:10.5465/amj.2012.0409

Ketokivi, M., & Choi, T. (2014). Renaissance of case research as a scientific method. *Journal of Operations Management*, 32, 232-240. doi:101016/j/jom.2014.03.004

Kendall, L. (2014). When businesses falter: How relational climates foster or hinder recovery. *Academy of Management Proceedings, 2014*, 11703–11703. doi:10.5465/ambpp.2014.76

Ketokivi, M., & Choi, T. (2014). Renaissance of case research as a scientific method. *Journal of Operations Management*, *32*, 232-240. doi:10.1016/j.jom.2014.03.004

Khan, S., Tang, J., & Joshi, K. (2014). Disengagement of Nascent Entrepreneurs from the Startup Process. *Journal of Small Business Management*, *52*(1), 39-58. doi:10.1111/jsbm.12032

King, N., Kyando, N., & Massoi, L. (2014). The challenges of confidentiality and anonymity in undertaking scientific research. *International Journal of Social*

Science Research, 2(2), 47. doi:10.5296/ijssr.v2i2.5620

Kitto, K. (2014). A Contextualised general systems theory. *Systems, 2,* 541–565. doi:10.3390/systems2040541

Kohler, R., & Baumann, O. (2015). Organizing for factory-like venture creation: The case of company builder incubators. *Academy of Management Proceedings, 2015*, 11699–11699. doi:10.5465/ambpp.2015.11699abstract

Konstantakis, K., Michaelides, P., & Papageorgiou, T. (2014). Sector size, technical change and stability in the USA (1957-2006): a Schumpeterian approach. *International Journal of Social Economics, 41*, 956-974. doi:10.1108/IJSE-07-2013-0165

Kornbluh, M. (2015). Combatting challenges to establishing trustworthiness in qualitative research. *Qualitative Research in Psychology*, *12*, 397-414. doi:10.1080/14780887.2015.1021941

Kozan, M., & Akdeniz, L. (2014). Role of strong versus weak networks in small business growth in an emerging economy. *Administrative Sciences, 4*(1), 35–50. doi:10.3390/admsci4010035

Kozlenkova, I., Samaha, S., & Palmatier, R. (2014). Resource based theory in marketing. *Journal of the Academy of Marketing Science, 42*, 1-21. doi:10.1007/s11747-013-0336-7

Lasalewo, T., Masruroh, N., Subagyo, Hartono, B., & Yuniarto, H. (2016). The effect of competitive advantage and human advantage on industrial competitive strategy (case study: SMIs in Gorontalo Province). *Journal of Indonesian Economy and Business, 31*(3), 307-324. doi:10.22146/jieb.23179

Lazonicka, W., Mazzucatoc, M., & Tulumb, O. (2013). Apple's changing business model: What should the world's richest company do with all those profits? *Accounting Forum, 37*(4), 249–267. doi:10.1016/j.accfor.2013.07.002

Leavy, B. (2014). Strategy, organization, and leadership in a new transient advantage world. *Strategy & Leadership, 42*(4), 3-13. doi:10.1108/SL-05-2014-0038

Leedy, P., & Ormrod, J. (2013). *Practical research: Planning and design* (10th ed.). Upper Saddle River, NJ: Pearson Education.

Lenters, L., Cole, D., & Godoy Ruiz, P. (2014). Networking among young global health researchers through an intensive training approach: A mixed methods exploratory study. *Health Research Policy and Systems, 12*, 5-16. doi:10.1186/1478-4505-12-5

Leung, L. (2015). Validity, reliability, and generalizability in qualitative research. *Journal of Family Medicine and Primary Care, 4*(3), 324. doi:10.4103/2249-4863.161306

Lin, Y. (2014). Equity compensation and organizational survival: A conceptual framework. *Journal of Accounting and Finance, 14*(4), 141-152. Retrieved from http://www.na-businesspress.com/JAF/jafgateway.html

Lofsten, H. (2016). Business and innovation resources: Determinants for the survival of new technology based firms. *Management Decision, 54(1),* 88-106.

doi:10.1108/md-04-2015-0139

Lofstrom, M., Bates, T., & Parker, S. (2014). Why are some people more likely to become small-businesses owners than others: Entrepreneurship entry and industry specific barriers. *Journal of Business Venturing, 29*, 232-251. doi:10.1016/j.jbusvent.2013.01.004

Macklin, R. (2014). Ethical challenges in implementation research. *Public Health Ethics, 7*(1), 86–93. doi:10.1093/phe/phu003

Majer, C. (2014). Wastes in the modern world: The silent killers of productivity and profitability. *Employment Relations Today (Wiley)*, *41(1),* 19-25. doi:10.1002/ert.21439

Mantere, S., Aula, P., Schildt, H., & Vaara, E. (2013). Narrative attributions of entrepreneurial failure. *Journal of Business Venturing*, *28(4),* 459-473. doi:10.1016/j.jbusvent.2012.12.001

Marom, S., & Lussier, R. (2014). A business success versus failure prediction model for small businesses in Israel. *Business and Economic Research, 4*(2), 63. doi:10.5296/ber.v4i2.5997

Marshall, B., Cardon, P., Poddar, A., & Fontenot, R. (2013). Does sample size matter in qualitative research?: A review of qualitative interviews in is research. *The Journal of Computer Information Systems, 54*(1), 11-22. doi:10.1080/08874417.2013.11645667

Marshall, C., & Rossman, G. (2016). *Designing qualitative research*, 6th ed. Thousand

Oaks, CA: Sage.

Martinus, K., & Hedgcock, D. (2015). The methodological challenge of cross national qualitative research. *Qualitative Research Journal, 15*(3), 373–386. doi:10.1108/qrj-07-2013-0046

Matejun, M. (2014). The role of flexibility in building the competitiveness of small and medium enterprises. *Management (1429-9321)*, *18*(1), 154-168. doi:10.2478/manment-2014-0012

Mazzei, M., Flynn, C., & Haynie, J. (2016). Moving beyond initial success: Promoting innovation in small businesses through high-performance work practices. *Business Horizons, 59*, 51-60. doi:10.1016/j.bushor.2015.08.004

Moustakas, C. (1994). *Phenomenological research methods*. Thousand Oaks, CA: Sage.

McIntosh, M., & Morse, J. (2015). Situating and constructing diversity in semi-structured interviews. *Global Qualitative Nursing Research, 2*(0). doi:10.1177/2333393615597674

Metcalf, T., & Pendleton, D. (2016, July 29). U.S. tech billionaires lead 2016 gains to reshape wealth ranks. *Bloomberg.* Retrieved from http://www.bloomberg.com/news

Miller, S. (2016). Thematic analysis. *Salem Press Encyclopedia*,

Monika, D., & Sharma, A. (2015). Venture capitalists' investment decision criteria for new ventures: A review. *Procedia Social and Behavioral Science, 189*, 465-470. doi:10.1016/j.sbspro.2015.03.195

Moreno Moya, M., & Munuera Aleman, J. (2015). The differential effect of development speed and launching speed on new product performance: An analysis in SMEs. *Journal of Small Business Management, 54*, 750–770. doi:10.1111/jsbm.12170

Morse, J. (2015). "Data were saturated . . . ." *Qualitative Health Research, 25*, 587–588. doi:10.1177/1049732315576699

Morse, J., & Coulehan, J. (2014). Maintaining confidentiality in qualitative publications. *Qualitative Health Research, 25*(2), 151–152. doi:10.1177/1049732314563489

Mousa, F., Bierly, Paul E., & Wales, W. (2014). Different strokes: IPO risk factors, investor valuation, and firm survival. *Journal of Management and Organization, 20*(3), 348-364. doi:10.1017/jmo.2014.25

Mueller, B. & Shepherd, D. (2014). Making the most of failure experiences: Exploring the relationship between business failure and the identification of business opportunities. *Entrepreneurship Theory and Practice, 40*, 457–487. doi:10.1111/etap.12116

Munn, Z., Porritt, K., Lockwood, C., Aromataris, E., & Pearson, A. (2014). Establishing confidence in the output of qualitative research synthesis: The ConQual approach. *BMC Medical Research Methodology*, 14. 1-7. doi:10.1186/1471-2288-14-108

Muralidharan, K. (2014). On sample size determination. *Mathematical Journal of Interdisciplinary Sciences, 3*(1), 55–64. doi:10.15415/mjis.2014.31005

Njie, B., & Asimiran, S. (2014). Case study as a choice in qualitative methodology. *International Organization of Scientific Research Journal of Research & Method* *in Education, 4*(3), 35–40. doi:10.9790/7388-04313540

Nummela, N., Saarenketo, S., & Loane, S. (2014). The dynamics of failure in international new ventures: A case study of Finnish and Irish software companies. *International Small Business Journal, 34*(1), 51–69. doi:10.1177/0266242614539363

Office of Advocacy of the U.S. Small Business Administration. (2014). Washington, DC: Author. Retrieved from https://www.sba.gov/sites/default/files/FAQ_March_2014_0.pdf

Ogane, Y. (2015). Competition among financial institutions and startup company exit. *International Journal of Business, 20*(2), 128-143. Retrieved from http://ijbr-journal.org/domains/IJBR-JOURNAL/Default.aspx

Olaison, L., & Bent, M. (2014). The abject of entrepreneurship: Failure, fiasco, fraud. *International Journal of Entrepreneurial Behavior & Research, 20*(2), 193-211. doi:10.1108/IJEBR-09-2013-0143

Paradkar, A., Knight, J., & Hansen, P. (2015). Innovation in start-ups: Ideas filling the void or ideas devoid of resources and capabilities? *Technovation*, 41-42, 1-10. doi:10.1016/j.technovation.2015.03.004

Parhankangas, A., & Ehrlich, M. (2014). How entrepreneurs seduce business angels: An impression management approach. *Journal of Business Venturing, 29*, 543-564. doi:10.1016/j.jbusvent.2013.08.001

Parnell, J., Long, Z., & Lester, D. (2015). Competitive strategy, capabilities, and uncertainty in small and medium sized enterprises (SMEs) in China and the United States. *Management Decision, 53*, 402-431. doi:10.1108/MD-04-2014-0222

Patel, N. 2015. “90% of startups fail: Here's what you need to know about the 10%” Forbes. Retrieved from https://www.forbes.com/sites/neilpatel/2015/01/16/90-of-startups-will-fail-heres-what-you-need-to-know-about-the-10/#355e62136679

Patton, M. (2015). *Qualitative research and evaluation methods* (4th ed.). Thousand Oaks, CA: Sage Publication, Inc.

Pereira, J. (2014). Survival analysis employed in predicting corporate failure: A forecasting model proposal. *International Business Research, 7*(5). doi:10.5539/ibr.v7n5p9

Pierre, E. & Jackson, A. (2014). Qualitative data analysis after coding. *Qualitative Inquiry*, *20*, 715-719. doi:10.1177/1077800414532435

Phillips, W., Lee, H., Ghobadian, A., O’Regan, N., & James, P. (2015). Social innovation and social entrepreneurship a systematic review. *Group & Organization Management, 40*, 428-461. doi:10.1177/1059601114560063

Porter, M. (1985). *Competitive advantage*. The Free Press: New York.

Predic, B., & Stosic, D. (2014). Strategic analysis of competitive environment: The case of Philip Morris operations Ad nis, Serbia. *Aktual'ni Problemy Ekonomiky = Actual Problems in Economics*, *151*, 214-224. Retrieved from http://findinquirers.sdu.dk:8080

Price, D., & Stoica, M. (2015). The relationship between resources and firm performance: factors that influence SMEs. *Academy of Entrepreneurship Journal, 21*(2), 87-97. Retrieved from http://www.abacademies.org/journals/month-december-year-2015-vol-21-issue-2-journal-aej-past-issue.html

Primc, K. & Cater, T., (2015). The influence of organizational life cycle on environmental proactivity and competitive advantage. *Organization & Environment, 29*(2) 212-230. 10:1177/1086026615584684

Rezaee, F. (2016). Key Determinants of success to achieve sustainable competitive advantage (SCA). *Archives of Business Research, 4*(6). doi:10.14738/abr.46.2340

Ritzer, G. (Ed.). (2005). *Encyclopedia of social theory.* Thousand Oaks, CA: SAGE Publications, Inc.

Rivera Ruiz, I., & Ferrer Moreno, E. (2015). The relationship between strategic leadership, human IT infrastructure, project management, project success, and firm performance. *International Journal of Information, Business, and Management, 7*(2), 77-84. Retrieved from https://ijibm.elitehall.com/index4.htm

Robinson, O. (2014). Sampling in interview-based qualitative research: A theoretical and practical guide. *Qualitative Research in Psychology, 11*(1), 25–41. doi:10.1080/14780887.2013.801543

Roer Strier, D. & Sands, R. (2014). Moving beyond the 'official story': When 'others' meet in a qualitative interview. *Qualitative Research*, *15*(2), 251-268. doi:10.1177/1468794114548944

Rossetto, K. R. (2014). Qualitative research interviews: Assessing the therapeutic value and challenges. *Journal of Social and Personal Relationships, 31*, 482-489. doi:10.1177/0265407514522892

Rousseau, D. (2015). General Systems Theory: Its present and potential. *Systems Research and Behavioral Science*, *32*(5), 522-533. doi:10.1002/sres.2354

Roy, K., Zvonkovic, A., Goldberg, A., Sharp, E., & LaRossa, R. (2015). Sampling richness and qualitative integrity: Challenges for research with families. *Journal of Marriage and Family, 77*(1), 243-260. doi:10.1111/jomf.12147

Salamzadeh, A., & Kirby, D. (2017). New venture creation: How startups grow?/Creación de nuevos emprendimientos: ¿Cómo crecen las startups? *Ad-Minister*, (30), 9-29. doi:http://dx.doi.org.ezp.waldenulibrary.org/10.17230/ad-minister.30.1

Sanchez, N., Maniam, B., & Leavell, H. (2015). The impact of small and medium businesses on the United States economy. *Review of Business Research, 15*(1), 77–82. doi:10.18374/rbr-15-1.7

Sandelowski, M. (1995). Sample size in qualitative research. *Research in Nursing & Health, 18*(2), 179–183. doi:10.1002/nur.4770180211

Schulz, S., & Flanigan, R. (2016). Developing competitive advantage using the triple bottom line: A conceptual framework. *The Journal of Business and Industrial Marketing, 31*(4), 449-458. doi:10.1108/JBIM-08-2014-0150

Senge, P., Smith, B., Kruschwitz, N., Laur, J., & Schley, S. (2010). *The necessary* *revolution: How individuals and organizations are working together to create a sustainable world*. New York, NY: Crown Business.

Sharma, A. (2018). *What is a Serial Entrepreneur?* Retrieved from https://www.entrepreneuryork.com/entrepreneurship/what-is-a-serial-entrepreneur/

Shukla P., & Shukla, M. (2014). Small business survival index traction and movement in rankings of states (2000-2013). *Journal of Business & Economics Research*, *12*, 153-158. Retrieved from http://www.cluteinstitute.com/ojs/index.php/JBER/article/view/8529/8536

Sigalas, C., (2015). Competitive advantage: The known unknown concept. *Management Decision, 53*(9), 2004-2016. doi:10.1108/MD-05-2015-0185

Singh, S., Corner, P. D., & Pavlovich, K. (2015). Failed, not finished: A narrative approach to understanding venture failure stigmatization. *Journal of Business Venturing, 30*, 150-166. doi:10.1016/j.jbusvent.2014.07.005

Soken, N. H., & Barnes B. K. (2014). What kills innovation? Your role as a leader in supporting an innovative culture. *Industrial and Commercial Training, 46*, 7-15. doi:10.1108/ICT-09-2013-0057

Soomro, B., & Shah, N. (2015). Developing attitudes and intentions among potential entrepreneurs. *Journal of Enterprise Information Management, 28*, 304-322. doi:10.1108/JEIM-07-2014-0070

Sparkes, A. (2014). Developing mixed methods research in sport and exercise psychology: Critical reflections on 5 points of controversy. Psychology of Sport and Exercise, *16*, 49-58. doi:10.1016/j.psychsport.2014.08.014

Suen, L., Huang, H., & Lee, H. (2014). A comparison of convenience sampling and purposive sampling. *Hu Za Zhi, 61*(3), 105-111. doi:10.6224/JN.61.3.105

Svaleryd, H. (2014). Self employment and the local business cycle. *Small Business Economics, 44*(1), 55–70. doi:10.1007/s11187-014-9592-2

Taneja, S., & Toombs, L. (2014). Putting a face on small businesses: Visibility, viability, and sustainability the impact of social media on small business marketing. *Academy of Marketing Studies Journal, 18*, 249-260. Retrieved from https://www.abacademies.org/journals/academy-of-marketing-studies-journal-home.html

Tasnim, R., Yahya, S., & Zainuddin, M. (2014). "I'm loving it!" what makes the successful entrepreneur affectively committed to entrepreneurial performance? *Journal of Applied Management and Entrepreneurship, 19*, 27-52. doi:10.9774/GLEAF.3709.2014.ap.00004

Taylor Robinson, A. (2014). How to prepare a scientific doctoral dissertation based on research articles. *Journal of Biological Education, 48*(4), 242. doi:10.1080/00219266.2013.863796

Tervo, H. (2014). Starting a new business later in life. *Journal of Small Business & Entrepreneurship, 27*, 171–190. doi:10.1080/08276331.2014.1000148

Thamhain, H. (2014). Assessing the effectiveness of quantitative and qualitative methods for R&D project proposal evaluations. *Engineering Management Journal*, *26*(3), 3-12. Retrieved from http://www.asem.org/asemweb-emj.html

Thomas, D. (2017). Feedback from research participants: are member checks useful in qualitative research? *Qualitative Research in Psychology, 14*(1), 23-41. doi:10.1080/14780887.2016.1219435

Touboulic, A., & Walker, H. (2015). Theories in sustainable supply chain management: A structured literature review. *International Journal of Physical Distribution & Logistics Management, 45*(1), 16-42. doi:10.1108/IJPDLM-05-2013-0106

Tsang, E. (2014). Case studies and generalization in information systems research: A critical realist perspective. *The Journal of Strategic Information Systems, 23*, 174-186. doi:10.1016/j.jsis.2013.09.002

Tundui, C., & Tundui, H. (2012). Survival, growth strategies and performance of women owned micro and small businesses in Tanzania. *International Journal of Business and Management, 7*(8), 143-155. doi:10.5539/ijbm.v7n8p143

Turner, S. & Endres, A. (2017). Strategies for enhancing small-business owners' success rates. *International Journal of Applied Management and Technology, 16*, 34-49. doi:10.5590/UAMT.2017.16.1.03

Trafimow, D. (2013). Considering Quantitative and Qualitative Issues Together. *Qualitative Research in Psychology, 11*(1), 15–24. doi:10.1080/14780887.2012.743202

U.S. Department of Commerce. (2015). *Business Dynamics Statistics:* Washington, D.C.

Retrieved from http://www.census.gov/ces/dataproducts/bds/

U.S. Small Business Administration. (2014). *The small business economy.* Washington, DC: Author. Retrieved from https://www.sba.gov/sites/default/files/advocacy/United_States.pdf

U.S. Small Business Administration. (2014). *Small business profile: Georgia*. Washington, DC: Author. Retrieved from http://www.sba.gov/sites/default/files/files/Georgia13(1).pdf

Vardi, M. (2016). The moral hazard of complexity theoretic Assumptions. *Communications of the ACM*, *59*(2), 5. doi:10.1145/2870659

Van Rooij, A. (2014). Sisyphus in business: Success, failure and the different types of failure. *Business History, 57*(2), 203–223. doi:10.1080/00076791.2014.909808

Vaysman, Y. (2015). Relevant factors of innovative activities of small business in regions. *Economy of Region*, 309–322. doi:10.17059/2015-4-24

Von Bertalanffy, L. (1972). The history and status of general systems theory. *Academy of Management Journal*, 15, 407-426. doi:10.2307/255139

Von Bertalanffy, L. (2009). General systems theory (17th ed.). New York, NY: Braziller.

Wagner, Eric T. 2013. "5 reasons 8 out of 10 businesses fail." Forbes. Retrieved May 1, 2017 (http://www.forbes.com/sites/ericwagner/2013/09/12/5-reasons-8-out-of-10-businesses-fail).

Walker, J. (2012). The use of saturation in qualitative research. *Canadian Journal of Cardiovascular Nursing, 22*, 37-41. Retrieved from https://www.cccn.ca/content.php?doc=209

Wang, C., & Hsu, L. (2014). Building exploration and exploitation in the high-tech industry: The role of relationship learning. *Technological Forecasting and Social Change, 81*, 331-340. doi:10.1016/j.techfore.2013.04.008

Whiteley, A. (2012). Supervisory conversations on rigour and interpretive research. *Qualitative Research Journal, 12*(2), 251-271. doi:10.1108/14439881211248383

Wilson, N., & Altanlar, A. (2013). Company failure prediction with limited information: newly incorporated companies. *Journal of the Operational Research Society, 65*(2), 252–264. doi:10.1057/jors.2013.31

Wilson, V. (2014). Research methods: Triangulation. *EBLIP, 9*(1), 74. doi:10.18438/b8ww3x

Winnard, J., Adcroft, A., Lee, J., & Skipp, D. (2014). Surviving or flourishing? Integrating business resilience and sustainability. *Journal of Strategy and Management, 7*, 303-315. doi:10.1108/JSMA-11-2012-0059

Wolgemuth, J., Erdil Moody, Z., Opsal, T., Cross, J., Kaanta, T., Dickmann, E., & Colomer, S. (2014). Participants' experiences of the qualitative interview: considering the importance of research paradigms. *Qualitative Research, 1*5, 361-372. doi:10:1177/1468794114524222

Yang, S. (2013). Surviving as a qualitative researcher in a quantitative world: a personal reflection. *International Journal of Social Research Methodology*, *16*(1), 81-85. doi:10.1080/13645579.2012.709803

Yin, R., (2014). *Case study research: Design and methods (5^{th} ed.).* Thousand Oaks, CA: Sage

Zafar, S., & Khan, I. (2014). A study of entrepreneurial success with respect to gender, education, family background, self perceived reasons for success, and culture. *Journal of Asia Entrepreneurship and Sustainability, 10*(1), 150-187. Retrieved from http://www.asiaentrepreneurshipjournal.com/JAESJuly2014.pdf

Zamawe, F. (2015). The implication of using (CAQDA) NVivo® software in qualitative data analysis: Evidence-based reflections. *Malawi Medical Journal, 27*(1),13. doi:10.4314/mmj.v27i1.4

Zilber, T. B. (2014). Beyond a single organization: Challenges and opportunities in doing field level ethnography. *Journal of Organizational Ethnography, 3*(1), 96113. doi:10.1108/JOE-11-2012-0043

Zirima, H., Nyanga, T., Mupani, H., & Chifamba, E. (2013). Survival of the vulnerable: Factors accounting for the survival of small to medium enterprises in Zimbabwe during the economic crisis. *Annamalai International Journal of Business Studies & Research, 5*(1), 1-6. Retrieved from http://www.auent.org/publications/

Zivkovic, J. (2012). Strengths and weaknesses of business research methodologies: Two disparate case studies. *Business Studies Journal, 4*, 91-99. Retrieved from https://www.abacademies.org/journals/business-studies-journal-home.html

Appendix A: Participant Consent Form and Sample Invitation email to participate in the research project titled:"Business Sustainability Strategies of Small Technology Companies"

Dear Owner of a Small Technology Company,

I am a doctoral candidate at Walden University, and I am conducting interviews as part of the research for the exploration of the business sustainability strategies some owners of small technology companies use to remain profitable in business. As an owner of a small technology company, you are in an ideal position to give me valuable first-hand information from your perspective. The interview takes around 30 minutes to complete. I am trying to capture your thoughts and perspectives on being an owner of a small technology company in the Southeast region of the United States.

Your responses to the interview questions will be kept confidential. Each interview will be assigned a number code to help ensure that personal identifiers are not revealed during the analysis and write up of findings. There is no compensation for participating in this study. However, your participation will be a valuable addition to my research and findings could lead to greater insights that provide strategies for the transformation of communities through increased sustainability for small technology companies, entrepreneurial expansion, and business closure mitigation. The research findings could be of interest to first-time small business owners, minority and women entrepreneurs, governments, and small business incubators that have a stake in business creation and entrepreneurial development in local communities. I do hope you will choose to participate in this study. If you have any questions, please do not hesitate to ask.

Thanks!

Eric Smith

Sample Consent Form

You are invited to take part in a research study on small business owners of technology companies located in the Southeast region of the United States to determine what strategies small business owners use to achieve profitability by the end of the first five years of opening their business. The researcher is inviting small technology business owners that have been profitable for five years or longer in Southeast region of the United States to participate. This form is part of a consent process to allow you to understand this study before deciding whether to take part. A researcher named Eric Smith, who is a doctoral student at Walden University, is conducting this study.

Background Information:

Some small business owners lack adequate strategies for remaining competitive as a small business beyond five years. The purpose of this research is to explore the strategies of some small business owners of technology companies to understand how they create sustainability strategies for profitability beyond the first five years. The interview questions will allow me to gain details about the strategies.

Procedures:

By consenting to participate in this research, you will be asked to participate in one, approximately 30-minute audio-recorded interview, and perform a 15 minute follow up interview review of the transcripts of my interpretation of your answers to ensure the accuracy. You will be provided a 2-page summary of the findings via e-mail.

Here are some sample interview questions:

- What business strategies did you use to ensure profitability beyond five years?
- How did you implement your profitability strategies?
- What challenges to strategy implementation were present that affected profitability?
- How were the challenges to the strategies addressed?
- How were the successes of the strategies measured?

Voluntary Nature of the Study and Payment:

This study is voluntary with a minimum amount of risk associated with this research. Everyone will respect your decision of whether you participate in the study. If you decide to join the study now, you can still change your mind later. You may stop the interview at any time by just saying so without any repercussion or coercion to remain in the study. There is no compensation or gifts associated with participating in this voluntary study. Participants should not expect wages, salaries or any other payment for participating in the study. The participant should not anticipate any compensation after the study is concluded or when the findings become published.

Risks and Benefits of Being in the Study:

Being in this type of study will not involve any risks of discomforts. Being in this study would not pose a risk to your safety or well-being. Potential benefits of this study include providing new strategies for better preparing small technology business owners in starting and achieving profitability of their small business past the first five years. There are known conflicts of interest associated with your participation in this study.

Privacy:

Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name, organization's name, or anything else that could identify you in the study reports. Written data will be kept secure in a locked cabinet, and electronic data will be kept secure on a personal, password-protected, external hard drive. I will keep data from the research for a period of at least, but no longer than five years, as required by the university.

Contacts and Questions:

Walden University has authorized the researcher to conduct the doctoral study. You may ask any questions you have now, or if you have questions later, you may contact the researcher via e-mail at Eric.Smith7@waldenu.edu. If you want to talk privately about your rights as a participant, you can call the Research Participant

Advocate at my university at 612-312-1210. Walden University's approval number for this study is 05-30-18-0551674, and it expires on May 29, 2019. The researcher will give you a copy of this form to keep.

Informed Statement of Consent:

I have read the above information, and I understand the study well enough to decide my involvement. I understand that my participation is entirely voluntary. By replying to this email with the words, "I consent," I understand that I agree to the terms described above.

Appendix B: Interview Protocol and Interview Questions

Interview Protocol Questions

1. Introduce self to the participant(s).
2. Present consent form, go over contents, answer questions and concerns of participant(s).
3. Give participant copy of consent form.
4. Turn on the recording device.
5. Follow the procedure to introduce the participant(s) with pseudonym/coded identification; note the date and time.
6. Begin the interview with question #1; follow through to the final question.
7. Follow up with additional questions.
8. End interview sequence; discuss member-checking with the participant(s). Thank the participant(s) for their part in the study. Reiterate the participants' contact information to allow for follow-up questions and concerns.
9. End protocol.

Interview Questions

The overarching research question provides the foundation for obtaining information from the interviews. The interview questions will allow me to gain details about the competitive strategies some small technology company owners located in the

Southeast region of the United States use to remain profitable in their businesses beyond five years. I will focus the qualitative multiple case study with question 1 as the initial probe question, questions 2-8 to answer the overarching research question, and question 9 as the wrap-up question.

1. What business sustainability strategies did you use to ensure profitability beyond five years?
2. What business sustainability strategies did you use to grow your business in a competitive market?
3. How did you implement your business sustainability strategies?
4. What financial strategies did you use to remain competitive?
5. What challenges to strategy implementation were present that affected your business sustainability?
6. How were the challenges to the business sustainability strategies addressed?
7. How were the successes of the strategies measured?
8. What weaknesses, threats, and opportunities affected your business' sustainability strategies?
9. What additional strategies would you like to provide that helped you remain profitable in business beyond five years?