


2018

Small Business Sustainability Strategies

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Walden University

College of Management and Technology

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Walden University
2018

Abstract

Small Business Sustainability Strategies

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BS, Excelsior College, 2004

AS, Community College of the Air Force, 1997

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

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Abstract

Small businesses provide 48% of private-sector jobs in the United States and play a vital role in the country's economic growth and development. Only half of U.S. small businesses survive for longer than 5 years. The purpose of this qualitative multiple-case study was to explore sustainability strategies managers of small oilfield service companies used to sustain their business for longer than 5 years. Data were collected from semistructured interviews with 10 managers—one manager from each of 10 different oilfield service companies located in the Rocky Mountain region of the United States and from review of publicly available documents and archived records. The conceptual framework for this study was the dynamic capability theory. Data analysis was conducted using Yin's 5-step data analysis process and methodological triangulation. Four themes emerged from the study: networking or relationship strategies, financial planning strategies, differentiation strategies, and education and experience strategies. The implications of this study for positive social change include the potential for small business managers to use these findings to develop strategies for profitability and sustainability resulting in job creation, poverty reduction, and socioeconomic development.

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Dedication

I dedicate this doctoral study to my family. To my loving wife, editor, counselor, and best friend, Bobbi-jo. Thank you for your unwavering support throughout the entire journey. I appreciate your understanding and sacrifice during the many hours I put in while working on this study. To my son Brad and daughter Kelly; I have always been immensely proud of your accomplishments since you were small, but even more, now that you are grown, and we are able to see what you have become. I would also like to dedicate this doctoral study to my parents Sam Fillingim and Beverly Fillingim for their endless encouragement and whose examples have taught me to always love my family, to always work hard, and that I deserve anything I want in life as long as I am willing to put in the effort.

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Section 1: Foundation of the Study

Background of the Problem

Rural communities in the Rocky Mountain region of the United States (i.e., Montana, Idaho, Wyoming, Utah, and Colorado) rely on small businesses operating in the oil and natural gas industry to sustain themselves for economic prosperity (Dernbach & May, 2015). Communities in the region have experienced several boom and bust periods resulting from unstable oil and natural gas prices (Mason, Muehlenbachs, & Olmstead, 2015). The problem of sustainability for businesses operating in the region deserves more research because communities in the region have experienced employment growth and positive economic performance during energy booms but quickly reversed any benefits during the bust cycle (Kelsey, Partridge, & White, 2014; Tsvetkova & Partridge, 2016). Business leaders assign responsibility for the positive short-term effects on factors related to the instability of oil and natural gas prices, including changes in demand for petroleum products, crude oil production, and supplies of other liquid fuels (U.S. Energy Information Administration [EIA], 2015). The focus of this study was to explore the business strategies of successful leaders of small oilfield service companies in the region have used to sustain their businesses when commodity prices fluctuate.

Problem Statement

Small business comprised 48% of private-sector jobs and accounted for 50% of the United States GDP contributing to the nation's economic growth and development in 2016 (Small Business Administration [SBA], 2017a). However, of these businesses, only half survive past 5 years (SBA, 2014). The general business problem is that some small

companies risk failure because they are unable to sustain profitability. The specific business problem is that some managers of small oilfield service companies lack strategies to sustain profitability.

Purpose Statement

The purpose of this qualitative multiple-case study was to explore the strategies some small oilfield service company managers use to sustain profitability through boom and bust cycles. The target population for the study was 10 managers, one each from 10 different oilfield service companies located in the Rocky Mountain region of the United States (i.e., Montana, Idaho, Wyoming, Utah, and Colorado). These managers successfully sustained their businesses for at least 5 years and through boom and bust cycles of the industry. Findings from this study could promote positive social change by providing strategies for small businesses to thrive and contribute to economic prosperity. The resulting prosperity could drive communities to form a collective commitment to shared goals, provide for increased employment opportunities, and improve the financial security for community members where these small businesses operate.

Nature of the Study

I selected the qualitative research method to explore managers' business strategies in their natural setting. Using a qualitative method, a researcher can gain in-depth knowledge of a phenomenon by actively engaging with participants in their natural setting (Malagon-Maldonado, 2014). When using a quantitative or mixed method, the researcher tests theories and hypotheses to examine variables, relationships, or differences (Lewis, 2015). My intention for conducting this research was not to test a

theory or measure variables that support or refute a hypothesis. Therefore, using quantitative or mixed methods was not appropriate for this study.

I selected a multiple-case study as the most appropriate design for this research. Other qualitative designs include phenomenology, ethnography, and narrative research (Davis et al., 2016). When conducting phenomenological research, a researcher seeks to understand peoples' perceptions, perspectives, and understandings of a particular conscious experience (Bliss, 2016). I did not consider the phenomenology research design because I wanted to understand the strategies small business leaders' use to sustain profitability through boom and bust cycles versus describing the essence of perceived experiences. Ethnography is appropriate when searching for a systematic, in-depth, and detailed analysis of a cultural, social phenomena (Vesa & Vaara, 2014). I did not select ethnographic design because I did not intend to study a community's or group's culture. Narrative researchers collect information in the form of stories from the experiences of individuals (Zurlo & Cautela, 2014). However, narrative research would not provide a framework to develop an understanding of business leaders' sustainability strategies. Multiple-case study research is useful when addressing *what*, *how*, or *why* type questions rather than questions that address how many (Neubert, 2016; Yin, 2014). Therefore, I selected a multiple-case study as the most appropriate design to explore how and why business leaders sustain profitability through boom and bust cycles.

Research Question

The research question for this research was: What strategies do small oilfield service company managers use to sustain profitability?

Interview Questions

I designed the interview questions to focus on exploring how successful small oilfield service companies operating in the Rocky Mountain region of the United States sustained their businesses through boom and bust periods. The following are the interview questions that I used for this study:

1. What are the most significant challenges your small business faced in the oil and natural gas industry to sustain the business during the most recent boom and bust cycle?
2. What are the strategies you developed that led to you sustaining profitability?
3. How do your strategies change in boom cycles as opposed to bust cycles?
4. How do your strategies change in bust cycles as opposed to boom cycles?
5. What have been the key challenges to implementing your strategies for sustainability?
6. How has your organization addressed the key challenges you mentioned?
7. How have you assessed the efficacy of your strategies?
8. What else would you like to contribute that we have not covered regarding business strategies for sustainability during boom or bust cycles?

Conceptual Framework

The conceptual framework that I chose for this study was the dynamic capability theory (DCT). In 1997, Teece, Pisano, and Shuen (1997) described the DCT as the ability to incorporate, shape, and organize internal and external competencies to address rapidly changing environments. The DCT consists of two essential elements; the first is the

organization's ability to renew capabilities to create short-term economic positions, and the second is the ability to use these capabilities to position the organization for long-term competitive advantage. Teece et al. proposed three dynamic capabilities are necessary for an organization to meet new challenges: (a) the ability of employees to learn quickly and to build new strategic assets, (b) the integration of technology and customer feedback to improve key company processes, and (c) the transformation or reuse of existing assets which have depreciated. Teece et al. referred to the successful implementation of these three stages as developing corporate agility. Corporate agility is the ability of the firm to maintain dynamic capabilities by creating competencies to address external pressure (Nold & Michel, 2016). An organization's dynamic capabilities can influence private wealth creation where rapid change depends on improving technological, organizational, and managerial processes (Teece et al., 1997). Therefore, the DCT was an appropriate conceptual framework to explore the strategies for determining the technological, organizational, and managerial processes essential for sustaining small oilfield service companies during boom and bust cycles.

Operational Definitions

Boom-Bust cycle: A boom cycle is created when substantial short-term economic benefits affect local per capita income by more than 10% above pre-boom levels during the height of the boom. A bust cycle occurs when local per capita income is approximately 6% lower than it would have been if the boom had never occurred, unemployment compensation payments increase immediately following the peak of the

boom, and income does not contract back to pre-boom levels during the entire post-bust period (Jacobsen & Parker, 2014).

Entrepreneurial success: Entrepreneurial success includes: (a) financial success as a measure of earnings, sales, and net worth; (b) relative success as a measure of a firm's performance when compared to competitors in the same industry; and, (c) personal success as measured through personal satisfaction, pride in the job, personal achievement, and lifestyle flexibility (Smith, 2015b).

Small and medium-sized enterprises (SMEs): In the United States small and medium-sized enterprises are businesses that maintain revenues, assets, or employees below a certain threshold (Alomar, 2015).

Small business: In the United States, the SBA has established two size standards that define a small business as having less than 500 employees for most manufacturing and mining industries and \$7.5 million in average annual receipts for many non-manufacturing industries (SBA, 2014).

Sustainability: Sustainability is the ability of an organization to respond to their short-term financial needs without compromising their (or others') ability to meet their future needs (Bansal & DesJardine, 2014a).

Assumptions, Limitations, and Delimitations

Research studies include deficiencies such as the availability of resources, use of collection instruments or techniques, sample size, and time constraints (Yin, 2014). To mitigate deficiencies, researchers should communicate the assumptions, limitations, and delimitations of their research to their readers and describe the potential effect of the

research (Marshall & Rossman, 2016). These descriptions provide an enhanced understanding of the considerations of the study.

Assumptions

An assumption is the acceptance of something as true in the absence of facts in order to provide a framework or establish expected conditions of an operational environment so that planning can proceed (FEMA, 2010; Holloway & Galvin, 2016). This study included four assumptions. The first assumption was that a qualitative research methodology would be appropriate to explore the strategies small business leaders use to become sustainable when oil and natural gas commodities become unstable. The second assumption was that a multiple case study design would be an appropriate model for the study because this design allowed for face-to-face interviews with multiple business owners and enhanced validity and reliability to the results of the research. The third assumption was the sample size of small business owners willing to participate in the study reflected an appropriate sample of the population for the purpose of data saturation and sufficiency. The final assumption was that the study participants provided truthful and comprehensive responses to the interview questions about their decision-making processes.

Limitations

Limitations are a researcher's biases toward the outcome of a study or uncontrolled elements that may have an influence in results (Sarmiento et al., 2015). Adopting an effective evaluation criteria increases the transparency of research limitations (Eriksson & Kovalainen, 2015). There were three limitations in this study.

First, a qualitative multiple case study incorporates participant interviews and can be limited by participant bias or a participant's ability to accurately recall events from their past experience. Participants may feel uncomfortable disclosing information about failures or successes of their business and may not truthfully convey their experience conducting business. A second limitation was that this study was not comprehensive to include all types of businesses in different regions of the country. This study took place in the Rocky Mountain region of the United States (i.e., Montana, Idaho, Wyoming, Utah, and Colorado) and did not involve interviewing business owners in other geographical parts of the country. Finally, limitations also existed because of lack of access to company documents and individual data. Failure to obtain company documents limited the ability to triangulate data and add validity or reliability to the study.

Delimitations

Delimitations are the boundaries, characteristics, or restrictions a researcher identifies to reduce the range and define study limitations (Hancock & Algozzine, 2017; Marshall & Rossman, 2016). Delimitations of a study can include (a) sample size, (b) geographical location, and (c) business size (Yin, 2014). The first delimitation of this study was the geographical boundary limiting the research to the Rocky Mountain region of the United States, which included hundreds of small businesses that could provide small business owners capable of becoming viable research participants. The second delimitation of the study was the use of small business categories as defined by the U.S. Small Business Administration, based on annual sales or employee population. The third delimitation was the population of businesses that have been in business who have

sustained longer than 5 years and have survived boom and bust cycles of the oil and natural gas industry. Understanding these delimitations illuminated strategies for business owners to remain sustainable greater than 5 years.

Significance of the Study

The findings from this research may provide value to small business leaders in the oil and natural gas industry because of the challenges managers face with implementing strategies to enable them to remain sustainable when commodity prices fluctuate. Inadequate management skills, poor financial knowledge, and lack of expertise in functional areas such as marketing and human resources are the major causes of small business failures (Hyder & Lussier, 2016; Khanna, Guler, & Nerkar, 2016). Providing enhanced management skills to sustain profits when adapting to a changing paradigm could enable business leaders and industry stakeholders to fill gaps in understanding effective business practices. Gaps may exist in practices related to education, training, and acquiring resources, which contribute to sustainability (Little & Deokar, 2016). The results of this study might provide information in managing finance, marketing, and human resources in changing economic conditions. Given the economic importance of small business to the oil and natural gas industry in the Rocky Mountain region of the United States, the results of this study might provide information for economic stability in the region when commodity prices fluctuate.

Findings from this study can potentially promote positive social change through an enhanced business-community presence. A stable business presence within communities could develop to promote robust social units and contribute to the social and

economic well-being of the region. Enhancing business sustainability can lead to a more vibrant and stable community, which supports the growth of new business opportunities, jobs, capital investments, and increases the quality of life for community members (Frame, 2013).

A Review of the Professional and Academic Literature

The purpose of conducting a literature review is to present knowledge about the topic related to the business problem, address questions from extant research, and blend or abridge the literature as it relates to the research topic (Booth, Sutton, & Papaioannou, 2016; Machi & McEvoy, 2016; Wilson, 2017). Conducting a review of existing literature helps scholars and researchers systematically fill gaps, avoid unintentional duplication of research, and reduce the likelihood of bias while enhancing new research (Booth et al., 2016; Wilson, 2017). The literature review process enables researchers to connect research, theories, and methods to triangulate, complement, and augment a study (Wolcott, 2014). Moreover, the literature review aids scholars with the ability to reinforce beliefs or identify significant contributions to existing research (Booth et al., 2016; Wilson, 2017). The purpose of this review of the professional and academic literature is to evaluate, explore, and summarize current references related to the research topic.

This literature review includes analysis of the topics related to how leaders of small oilfield service companies achieved sustainability, remained in business longer than 5 years, and have survived boom and bust cycles. This review contains 89% peer-reviewed sources with a publication date between 2014 – 2018. The review is organized according to topics that include (a) a description of dynamic capability theory and related

theories, (b) characteristics of small business ownership, (c) small business success and failure, (d) a brief history of oil and natural gas development in the Rocky Mountain region of the United States, (e) boom and bust periods in the industry, (f) sustainability strategies, and (g) characteristics of an oil and natural gas company.

The literature search process included the use of peer-reviewed journal articles, books, scholarly studies, and websites. As shown in Table 1, the literature review includes 329 references composed of journal articles, books, dissertations, and web pages. Two hundred ninety-three (89%) are references published from 2014 to 2018. Two hundred ninety-five of the referenced literature sources (90%) were peer-reviewed.

Table 1

Source Accountability

	Reference Counts	Percentage of Total References
Reference type		
References (books, journals, websites, dissertations)	329	100%
Peer-reviewed references	295	90%
References published 2014-2018	293	89%
References from books	26	8%
References from government websites	20	6%
References from dissertations	6	2%

My primary sources for identifying relevant literature were Academic Search Complete, books written about the subject, Business Source Complete, Google Scholar, ProQuest Central, and Walden University dissertations. I used the following keywords in my search: *business failure, business survival, entrepreneurship, oil and natural gas, small business, strategy, and sustainability*. Ulrich's Periodical Directory served as a tool to verify if articles were from peer-reviewed journals. A thorough research of the

literature drew parallels between the strategies of small business owners and organizational sustainability, success, growth development, and failure.

I have attempted to critically analyze, organize, and synthesize this literature review based on my chosen conceptual framework as well as the existing body of knowledge regarding the research topic. This literature review is a report on the collected works that closely relate to my topic and demonstrate a rich and comprehensive review of areas that might influence the sustainability of a small business in the oil and gas industry. Those areas are organized using a topical structure and provide an in-depth analysis of scholarly studies and authoritative seminal work. This literature review begins with an examination of dynamic capabilities theory and is followed by other supporting and contrasting theories, and concepts and strategies related to competitive advantage.

Dynamic Capability Theory

The conceptual framework that I chose for this study was the dynamic capability theory (DCT). In 1997, Teece, Pisano, and Shuen (1997) described the DCT as the ability to incorporate, shape, and organize internal and external competencies to address rapidly changing environments. The DCT consists of two essential elements; the first is the organization's ability to renew capabilities to create short-term economic positions, and the second is the ability to use these capabilities to position the organization for long-term competitive advantage. Teece et al. proposed three dynamic capabilities are necessary for an organization to meet new challenges: (a) the ability of employees to learn quickly and to build new strategic assets, (b) the integration of technology and customer feedback to improve key company processes, and (c) the transformation or reuse of existing assets

which have depreciated. Teece et al. referred to the successful implementation of these three stages as developing corporate agility.

Some authors have described corporate agility as an organization's ability to efficiently respond to change by consistently adapting over time. Agile companies must be able to respond to incremental change that ultimately changes the leadership style, systems used, and the culture of the company, allowing the organization to survive and prosper in different environments (Nold & Michel, 2016). Corporate agility is the ability of the firm to maintain dynamic capabilities by creating competencies to address external pressure (Nold & Michel, 2016). Agility is the ability of an organization to continuously adjust the strategic direction and develop innovative ways to create value through altering processes, actions, structures, culture, attributes, skills, and relationships designed to ensure the organization remains flexible when facing new developments (Weber & Tarba, 2014). At an organizational level, agility enables leaders to respond effectively to constantly shifting environments using their dynamic capabilities.

The underlying assumption of the DCT view is that leaders in an organization may foresee new opportunities because of environmental changes and then begin to change strategies, reconfigure resources, and enhance capabilities that are in line with the newly recognized opportunity in an attempt to create and sustain competitive advantage (Breznik & Lahovnik, 2014). Strategy changes requiring reorganization or restructuring when exploring new environments involve an assortment of sophisticated dynamics (Datsyk, Grudina, Avdonina, & Podgornaya, 2016; Kuipers et al., 2014). Dynamic capabilities in ever-changing environments are likely to be continuous improvement

processes allowing the organization to gradually alter their resource base (Schilke, 2014). Arend (2014) stated that researchers use the dynamic capabilities view to describe how business owners realize short-term income through efficient redeployments of the organization's unique resources to match changing environments.

The fundamental contribution of DCT to research is the understanding that if an organization is to sustain itself, the organization will require documentation, infrastructure, routines, information technology, and the development of complex operational and social networks to extend the basic entrepreneurial capabilities (Argote & Ren, 2012). Arend (2014) expanded on the idea of the DCT by explaining an organization's dynamic capabilities include specific human characteristics, physical assets, and organizational resources, which are used to implement value-creating strategies. Understanding the various characteristics and routines enable businesses to create, deploy, and protect the intangible assets they possess, which enables them to achieve dynamic capabilities for long-term sustainability (Eisenhardt & Martin, 2000).

Some authors have criticized the value of dynamic capabilities as a means for understanding strategies for promoting business sustainability and growth. For example, Winter (2003) criticized the theory of dynamic capabilities due to the lack of a specific definition or empirical grounding. Wollersheim and Heimeriks (2016) objected to the theory for being vague and elusive. Peteraf, Di Stefano, and Verona (2013) disapproved the theory for being abstract and ambiguous. However, Pavlou and El Sawy (2011) developed a model to address the weaknesses espoused by the critics. Pavlou and El Sawy's model draws on existing dynamic capabilities literature by identifying a set of

capabilities such as: (a) sensing the environment to identify market trends and new technologies; (b) learning to revamp existing operational capabilities with new knowledge; (c) integrating to combine existing knowledge into the organization's new operational capabilities; and (d) coordinating to orchestrate and deploy tasks, resources, and activities in the new operational capabilities. These capabilities, while not exhaustive, suggest a logical link, which with effective coordination, shape organizational performance and create a strategic competitive advantage. Therefore, the DCT was an appropriate conceptual framework to explore the strategies for determining the technological, organizational, and managerial processes essential for sustaining small oilfield service companies during boom and bust cycles of their industry.

Resource-based View Theory

The resource-based view (RBV) theory supports the DCT as scholars have also used RBV to explain and predict the basis of an organization's sustainability or competitive advantage. Bengtsson, Kock, Lundgren-Henriksson, and Näsholm (2016) posited RBV is appropriate for recognizing strategy because of its methodological attributes, which adapt well to small business strategies. Recognizing strategies is important because strategies may apply to tangible physical assets or intangible assets (Yallwe & Buscemi, 2014). Tangible assets are stand-alone assets, such as a plant or equipment, and they do not create value or generate growth by themselves (Yallwe & Buscemi, 2014). Intangible assets, on the other hand, are not physical in nature and have no physical substance. Intangible assets include processes, individual knowledge, and

employee talent. Business managers employ intangible assets to add value to their business entity (Osinski, Selig, Matos, & Roman, 2017).

Penrose laid the foundation for the RBV in 1959 (Lockett & Wild, 2014). Later, in 1984, Wernerfelt expanded on Penrose's idea for the theory and introduced the idea of resource position barriers (Barney, Ketchen, & Wright, 2011). Barney (1991) formalized this theory, which emphasized the strategic use of a firm's heterogeneous resources to gain a competitive advantage. There are two assumptions within the RBV theory: (a) the organization's resources are different in comparison to other competing organizations; and (b) those resources are valuable, rare, inimitable, and nonsubstitutable (Rezaee & Jafari, 2016). If the firm's strategy includes valuable, rare, inimitable, and nonsubstitutable (VRIN) resources, the organization can achieve a competitive advantage due to competitors' inability to imitate the firm's resources (Barney, 1991; Porter, 1998). Thus, the RBV theory could assist small business managers in learning and implementing strategies to sustain profitability during boom and bust periods.

Entrepreneurship Theory

An additional theory that compliments the DCT is the entrepreneurship theory. Cantillon's research was the foundation for many studies concerning entrepreneurship theories. In 1755, Richard Cantillon described the entrepreneur as someone who exercises business judgment in the face of uncertainty to achieve profitability and sustainability (Hebert & Link, 1988). An entrepreneur is a pioneer who searches for potentially profitable ventures, forms hunches, and reacts quickly to risk to prevent going out of business if intuitions prove incorrect (Karimi & Hamedi, 2016). Entrepreneurship

includes key elements of sustainability, motivation, business education, management skills, and small business linked to profitability and success (Ayala & Manzano, 2014). Entrepreneurship theory applies to the study of small business because the theory allows for the possibility to explore the influence of small business conceptualization and exposure, business management skills, human capital attributes, sustainability strategies, and entrepreneur profitability (Schumpeter, 1939).

Schumpeter (1939) posited that business owners as entrepreneurs should have knowledge of consumer behavior, resource allocation, the creation of innovation, and the ability to adapt to changing business environments. An entrepreneur should have competence and management skills in creating innovation, productivity, and opportunity for jobs (Szczepańska-Woszczyzna, 2015). Entrepreneurs must be able to fulfill different functions such as allocating resources, be able to adapt personal strengths and weaknesses, and handle threats and opportunities in a changing environment (Schumpeter, 1939). Entrepreneurs create changes in the economy and society by taking risks, leveraging opportunities, and making decisions for achievement and power (Hebert & Link, 1988; Karimi & Hamedi, 2016). Therefore, entrepreneurship theory brings together new principles and elements that have a significant influence on the economy and the society (Acs, Audretsch, & Lehmann, 2013).

Entrepreneurial success is the practice of starting, organizing, operating, and developing a business or businesses by taking the risk and opportunity to gain profit (Parilla, 2013; Smith, 2015b). Management of a small business can be challenging, especially when the manager lacks business experience and knowledge. Based on

Cantillon's entrepreneurship theory, an entrepreneur's personal characteristics such as experience, knowledge, skills, and capabilities can affect the success and sustainability of their business (Frid, 2015). The manager should have knowledge regarding decision-making and should consider personal strengths, weaknesses, opportunities, and threats to succeed in competitive markets (Lafuente, Lafuente, Guzman-Parra, & Lafuente, 2013). Small business owners need to learn to generate an idea, recognize personal strengths, take risks, overcome threats and weaknesses, and exploit opportunities (Mitchelmore, Rowley, & Shiu, 2014). A manager's lack of knowledge is another reason for small business failure (Lafuente et al., 2013). In an environment of uncertainty and fluctuating oil and natural gas prices, business knowledge might become crucial to ensure profitability through cost control and people management.

Application to the applied business problem. The DCT applies to this study because of the oil and gas industry's need for small businesses to incorporate, shape, and organize internal and external competencies to address rapidly changing environments. Few researchers have shown the impact of oil price volatility on companies operating in the oil and gas industry (Li, Cheng, & Yang, 2015). Moreover, even fewer collected works exist in which qualitative research correlates unstable oil and natural gas prices with the profitability of small business service companies in the Rocky Mountain region of the United States. Nevertheless, some researchers suggested that regardless of the industry or area, for organizations to sustain themselves, business leaders must adopt new skills and competencies as part of their strategies (King et al., 2017; Zapata-Cantu et al., 2016). For example, Zaabouti, Ben Mohamed, and Bouri (2016) completed a study to

examine the influence of changes in crude oil price on the value of 19 industrial firms in Tunisia. Although this study was limited in scope and focused entirely on firms in the North African country, the researchers found business leaders of oil and gas companies elsewhere could adopt the strategy of cost control to maximize their earnings and profit margins during periods of unstable crude oil prices. In Calgary, Canada, effective strategies included communication, employee engagement, measuring business performance, self-awareness, and efficiency combined with optimization ensured business health, wealth, and profits (Braithwaite, 2017). In the Marcellus region of northeastern Pennsylvania, United States, small business leaders identified strategic and adaptive approaches to their changing economic environment. Small businesses that benefitted the most from the changing economy adopted a specific strategy, thought about strategy informally, expressed conservative outlooks and plans, and speculated that population trends in the Pennsylvania region would be a key determinant of long-term business effects (Banks, 2013). Although crude oil prices may frequently fluctuate, with the right leadership strategies, crude oil and gas companies could remain profitable and be in a position to provide ample employment opportunities (Braithwaite, 2017).

These studies may contribute to future research through an exploration of how strategic and adaptive leadership influences the decisions small business leaders make in changing economic environments such as the oil and natural gas industry. Authors of all three studies suggested future research should target a different geographical area to determine similarities and differences in regard to how small business leaders make decisions. The results of studies like these may provide valuable information to enable

improved adaptability strategies, enhanced business operations, and sustainability initiatives for small business leaders encountering changing economic scenarios.

Characteristics of Small Business Ownership

The DCT applies to small business as owners of these businesses may be required to learn quickly, integrate technology, and incorporate customer feedback to improve company processes to be successful in the implementation of corporate agility. The SBA (2014) has defined a small business as a firm or company with fewer than 500 employees. However, the definition of a small business varies, and in some instances, a small business could encompass 10 workers or less (Atkinson & Storey, 2016; Augustine & Asiedu, 2017). Small businesses in the United States may also have different classifications based on tax or liability status. For example, sole proprietorships are unincorporated businesses that are owned by a single individual (Cooper et al., 2016; Rassier, Braybrooks, Chute, & Krakower, 2016). A partnership, limited liability corporation, and an S-corporation can consist of more than one owner, which are also called pass-through entities (Clarke & Kopczuk, 2017). Although these entities exist, the most common use of the term small business has a conceptual application based on data about employment, income, and industry characteristics (Alomar, 2015; Cooper et al., 2016; Rassier et al., 2016).

Small businesses represent a large share of total business operations in most nations (McKenzie & Woodruff, 2016; Spence, 2016). In 2010, small businesses were responsible for approximately half of all employment in the United States (Cooper et al., 2016). Bressler, Campbell, and Elliott (2014) reported that by 2014, approximately 28

million small businesses existed, and were responsible for approximately 64% of the new jobs created during the previous decades. By 2016, small businesses provided two of every three new American jobs within the country (SBA, 2017a).

Small business ownership has an important role in the economic development of the United States. The contribution of small business ownership and entrepreneurship to U.S. economic development dates back to the 1700s (Rolfe, 2011). Economic development is recognized in many countries through the reduction of poverty, job creation, generation of revenue, and creating an environment for social and economic growth (Tarutė & Gatautis, 2014; Zhang, Ma, & Wang, 2014). In rural areas, an increase in small businesses have resulted in an increase in economic activities and served as a source of growth for these regions (Artz, Kim, & Orazem, 2016; Leigh & Blakely, 2016). Small businesses are not only a key source of employment, but also provide a significant source of funding for taxing bodies such as local, state, and federal governments. Therefore, the findings of this study may have positive implications for social change by serving as a source of information from which small business managers can explore strategies for survival, profitability, and sustainability resulting in job creation, poverty alleviation, and socioeconomic development.

Small business managers can influence the performance of their business by the level of skill and expertise they possess. Increasing knowledge and skills can provide a competitive advantage for a small business manager (Dunne, Aaron, McDowell, Urban, & Geho, 2016). Small business managers who lack management and business skills often fail at a higher rate than managers with strengths in these areas (Angrave, Charlwood,

Kirkpatrick, Lawrence, & Stuart, 2016; Hyder & Lussier, 2016). Lack of relevant knowledge results in inadequacies and inefficiencies and is one of the leading causes of small business failure (Angrave et al., 2016; Hyder & Lussier, 2016). A method that could be used to reduce small business failure is to assist managers in the development of leadership skills (Garavan, Watson, Carbery, & O'Brien, 2016).

Small Business Success and Failure

A company's success is not a measurement of financial performance alone (Kearney & Meynhardt, 2016; Mazzei, Flynn, & Haynie, 2016). However, financial success predominantly sustains the tangible resources for ongoing operation and growth (Bush, 2016; Fraser, Bhaumik, & Wright, 2015; Mazzei et al., 2016). Some small business owners, on the other hand, identify success from the acknowledgment they receive for their contributions to the creation of new jobs, sustaining productivity, and growth of the economy (Fraser et al., 2015; Miller, Hoffer, & Wille, 2016).

The effective strategies and behaviors small business owners use can have a positive influence on organizational sustainability, which may reduce the potential for business failure (Bamiatzi & Kirchmaier, 2014; Furlan, Grandinetti, & Paggiaro, 2014). Amankwah-Amoah (2016) emphasized the need for quality controls, financial controls, and the process of creating a niche in the marketplace to prevent business failure. However, intangible factors, such as owner personalities, leadership styles, motivation, perceived competition, community involvement and support, strategic planning, and educational levels of owners can influence revenue generation. Pryor, Webb, Ireland, and Ketchen (2016) also called attention to the need to know more about a small business

manager's cognitive processes calling for the recognition of identifying factors influencing revenue generation, growth, and sustainability.

The identifying factors influencing business failures have been studied many times. For example, Johnson, Friend, Rutherford, and Hamwi (2016) studied 626 salespeople to determine the absolute and relative causes of failure. The authors found organizational well-being, including salesperson job satisfaction, organizational commitment, and turnover intentions as critical to failure. Purves, Niblock, and Sloan (2015) also completed a study to explore the relationship between non-financial and financial factors to firm survival in Australian organizations. The finding of this study indicated non-financial factors associated with the organizations studied influenced their success or failure. These factors included managements' involvement in organizational strategy, the composition of the board of directors, and managements' decision-making approach and skill base. Devece, Peris-Ortiz, and Rueda-Armengot (2016) used data from the Global Entrepreneurship Monitor (GEM) survey, to review the 2008 economic crisis in Spain and the economic boom before the crisis. Results of the study revealed that necessity-driven entrepreneurship is not effective during downturns; however, innovation and recognition for opportunity are considered success factors. Results also show that an entrepreneur's perception of opportunities may be misleading in booming economies.

Many researchers also acknowledge the importance of small business and contributions to the economy. Recognizing the importance of small business is significant because small businesses play a crucial role in producing jobs, constitute social stability, and foster economic growth (Carbaugh, 2015). Nelson (2014) attested energy planning

and development contributes to long-term economic growth through job creation and economically healthy rural communities and is one of the most important drivers in the strength of the economy in Utah.

Understanding small business contributions to a community is important to sustainable economies because when oil and natural gas commodity prices become unstable, companies that fail to sustain their business, negatively affect rural economies. Some business failure is inevitable; however, strategic factors may enhance the probability of sustainability and success (Bush, 2016). Business failure occurs when revenues decline, or expenses rise in such a magnitude the firm becomes insolvent and is unable to attract new debt or equity funding; consequently, the business cannot continue to operate under the current ownership and management (Shepherd & Byrne, 2015). Business failure includes bankruptcy and discontinuity of the business or ownership (Gupta, Gregoriou, & Healy, 2015; Hruza, 2016).

Business failures include organizations involved in court proceedings or voluntary actions involving losses to creditors. According to the United States Courts (2016a) bankruptcy code, Chapter 7 and Chapter 11, companies are both considered failures due to loss to creditors. Chapter 7 companies liquidate whereas Chapter 11 companies restructure their debt and stay in business. Organizations going out of business without loss to creditors are not considered business failures, rather they are considered discontinued businesses. To be considered a success, the business must make at least industry average profits (Lun, Shang, Lai, & Cheng, 2016; Sánchez-Hernández, Gallardo-Vázquez, Barcik, & Dziwiński, 2016).

Business failure as a significant driver and consequence of entrepreneurial activity has been overlooked in scholarly discussions on how entrepreneurial opportunity is pursued (Amankwah-Amoah, Boso, & Antwi-Agyei, 2016). Understanding business failure is important because potential failure could have both short-term and long-term influences on the strategies, processes, and routines adopted by entrepreneurs. For example, during calendar year 2015, nearly 800,000 bankruptcy cases were filed under Chapter 7 and Chapter 11 throughout the United States (United States Courts, 2016a). This number was approximately 10% fewer than in 2014. Approximately 3% of those cases were filed in the states of Wyoming, Utah, and Colorado alone (United States Courts, 2016a). Approximately 22,500 were filed under Chapter 7, in which a debtor's assets are liquidated and the nonexempt proceeds distributed to creditors (United States Courts, 2016b). Consumer cases filed under Chapter 11 are less frequent and are believed to result when debtors exceed the debt restrictions of 11 U.S.C. § 109(e). Eight cases were filed under Chapter 11, which allows businesses and individuals to continue operating while they formulate plans to reorganize and repay their creditors (United States Courts, 2016b).

Oil and natural gas commodity prices also have a profound effect on employment and business prosperity. For example, the Uintah Basin region of Eastern Utah has benefited from increased oil and gas development (Utah Department of Workforce Services, 2015). In the Uintah Basin, employment in the oil and natural gas industry accounts for more than 60% of the area's economy (Utah Department of Workforce Services, 2015). The Utah Governor's Office of Energy Development also posited more

than 18,000 direct energy jobs are created from the industry, and the total expands to approximately 40,000 when indirect jobs are included (Governor's Office of Energy Development, 2016).

Oil and gas booms can have both positive and negative effects on an economy. The shale boom that occurred between 2005 and 2012 contributed to an increase in U.S. national employment during the Great Recession of approximately 4% (Mason, Muehlenbachs, & Olmstead, 2015). In some states, local public revenues associated with the shale development boom vary significantly across different counties and range from 1% to 10% of total production value. Banks (2013) proclaimed a similar finding in a study for a region of Pennsylvania, which indicated planning and proper investment would ensure a long-term, viable, sustainable, and healthy economy.

Oil and Natural Gas Development in the Rocky Mountains

From the time of drilling the first successful oil well in the Rocky Mountains near Canon City, Colorado in 1862, crude oil production has steadily increased nearly every year (COGA, 2012). The Florence Field near Canon City is the second oldest commercial oil field in the United States and followed the first well drilled in Titusville, Pennsylvania 1 year before in 1859 (COGA, 2012). Located along the rail lines of the Denver and Rio Grande Western railroad, success in Florence prompted the search for oil in the West and established an industry that would drive the economy and economic well-being of Colorado and the surrounding area (COGA, 2012).

The Rocky Mountain region of the United States contains an assortment of ecosystems that are diverse, highly productive, and contain valuable natural resources.

Environments of the region can range from alpine tundra to dense conifer forests to dry sagebrush and grasslands (CEC, 1997). This region consists of far-reaching mountains and plateaus separated by wide valleys and plains (Woodman, 2010). More than half of the region's 800,000 people live in small cities and towns (CEC, 1997). Mining, oil and gas production, and tourism are the significant activities of the region (Boxell & Wright, 2017; Dorning et al., 2016).

To ration gasoline during World War II, the Petroleum Administration for War, established Executive Order in 1942 (U.S. Energy Information Administration, 2012). Although the administration was eliminated after the war, Congress passed the Defense Production Act of 1950, which created the Petroleum Administration for Defense and shaped Petroleum Administration for Defense Districts (PADDs). The establishment of the PADDs allowed data users the ability to analyze patterns of petroleum product movements throughout the nation (U.S. Energy Information Administration, 2012). As displayed in Figure 1., the Rocky Mountain region consists of Montana, Idaho, Wyoming, Utah, and Colorado and is considered PADD IV (U.S. Energy Information Administration, 2012).



Figure 1. Petroleum Administration for Defense Districts (PADDs). Adapted from U.S. Energy Information Administration. (2016). *Maps: Exploration, resources, reserves, and production*. Retrieved from <https://www.U.S. Energy Information Administration.gov/maps/>. In the public domain.

Within this region, there are eight basins where oil and natural gas development are occurring, which include: (a) Williston Basin, (b) Powder River Basin, (c) Big Horn Basin, (d) Greater Green River Basin, (e) Uinta Basin, (f) Park Basin, (g) Denver Basin, (h) Piceance Basin, and (i) Paradox Basin (U.S. Energy Information Administration, 2015). Figure 2. shows how each of these basins aligns with the PADD IV area map.

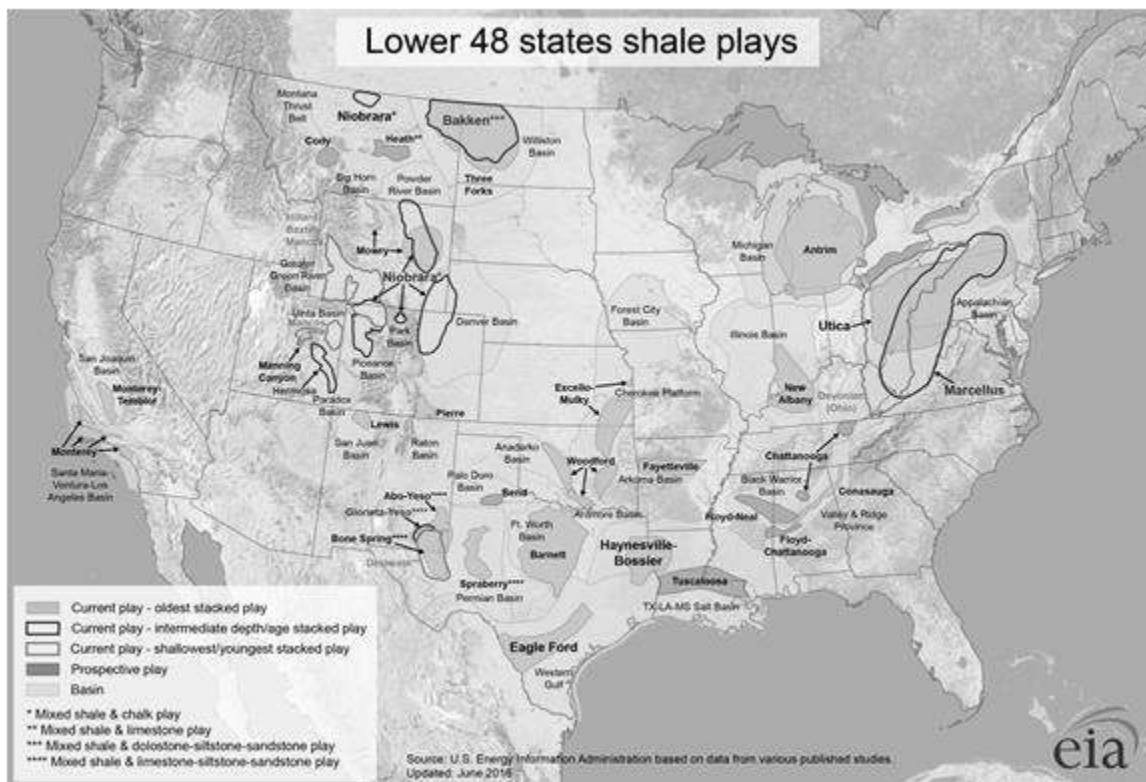
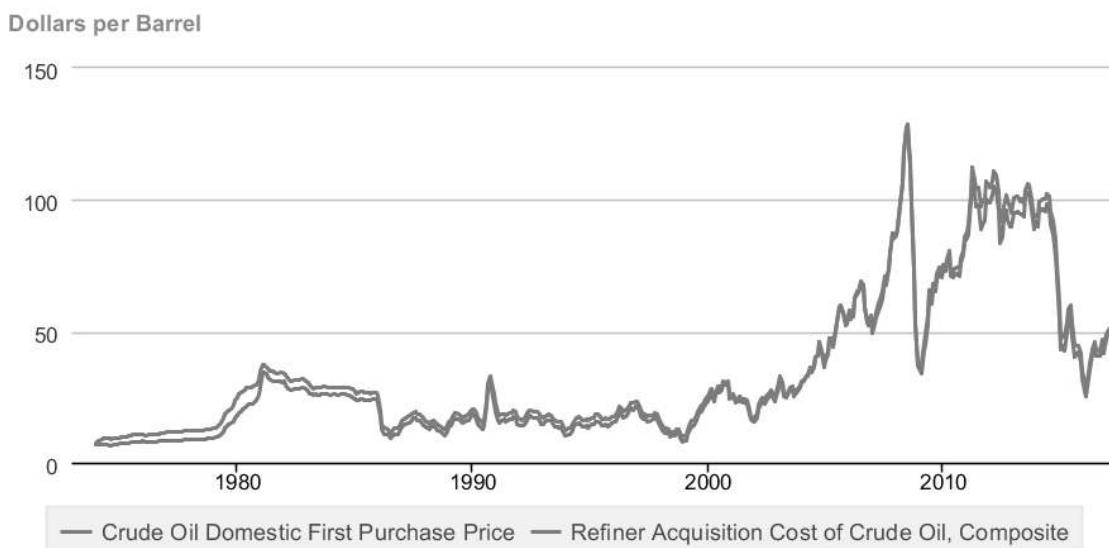


Figure 2. Map of oil and natural gas basins within the continental United States. Adapted from U.S. Energy Information Administration. (2016). *Maps: Exploration, resources, reserves, and production*. Retrieved from <https://www.U.S. Energy Information Administration.gov/maps/>. In the public domain.

Boom and Bust Periods

Several boom and bust periods have occurred as a result of market uncertainties, such as political events, severe weather, international relations, refinery outages, pipeline problems, and derivative contracts among investors. These events may create uncertainty about future supply or demand, which can lead to higher volatility in prices. Historically, the primary driver of uncertain oil prices has been global demand; however, not all oil price shocks are alike (Kilian, 2008). Boom and bust cycles occur because of delays between the time demand is realized, and the time the industry develops and delivers the

commodities, or too many companies invest in resource development causing an over-supply (Gurcan, 2014). The volatility of oil prices can be tied to the low responsiveness, or inelasticity, of supply and demand to price changes in the short-term (Kelsey et al., 2014). Figure 3 provides a visual representation of those boom and bust rollercoaster periods from 1949 to 2016.



 Source: U.S. Energy Information Administration

Figure 3. Graph depicting oil prices from 1949 to 2016. Adapted from U.S. Energy Information Administration. (2016). *Maps: Exploration, resources, reserves, and production*. Retrieved from <https://www.U.S. Energy Information Administration.gov/totalenergy/data/>. In the public domain.

As depicted in Figure 3, oil prices remained low until the late 1970s and then began to rapidly increase during the subsequent energy boom. The years 1978, 1979, and 1980 were characterized as a boom period in response to global demand (Kilian, 2008). The unanticipated increase in demand was consistent with concerns about the future availability of oil supplies imported to the United States from the Middle East. Some of

the concerns can be linked to the Iranian Revolution, the Iranian hostage crisis, the Soviet invasion of Afghanistan, and the outbreak of the Iran-Iraq War, all of which raised persistent fears for the destruction of oil fields in Iran and Saudi Arabia (Kilian, 2008). A downward trend began in the later half of 1981 and persisted following the collapse of the Organization of the Petroleum Exporting Countries (OPEC) in late 1985 (Kilian, 2008). OPEC collapsed in September 1985, as Saudi Arabia became tired of the idea of increasing prices by lowering its own production in the face of high output from elsewhere (Yergin, 2009).

Another boom occurred during the period of the Persian Gulf War in 1990-91. The sharp upward spike in oil prices occurred shortly after the invasion of Kuwait and was almost entirely due to an increase in anticipated demand (Kilian, 2008). The influence of the conflict was relatively short-lived, however, and returned to pre-war prices in April 1991. Once the supply disruption decreases, oil and product activities return to normal, and prices usually return to their previous levels (U.S. Energy Information Administration, 2017).

Figure 3 shows how oil and natural gas prices gradually increased after the recovery of the Persian Gulf War until the Asian crisis of 1997-98. Following the Asian crisis of 1997-98, the price of oil plummeted to an all-time low (U.S. Energy Information Administration, 2017). The crisis had a significant effect on the value of currencies, stock markets, and prices of other commodities around the globe (Bandi & Reno, 2016). Again, this crisis was short-lived and gradually reversed, creating another boom in 1999 (Kilian,

2008). The boom beginning in 1999 lasted until the September 11, 2001, terrorist attacks on the United States (U.S. Energy Information Administration, 2017).

The terrorist attacks of 9/11 increased fears of a sharper worldwide economic downturn and sharply lower oil demand (U.S. Energy Information Administration, 2017). The bust of 2001 lasted for almost 7 years until prices increased again, rising sharply to new levels in mid-2008 (Kelsey et al., 2014). As oil prices reached nearly \$130 per barrel, the Great Recession began (Kelsey et al., 2014). The Great Recession was an exceptional period when people saw both sharp increases and decreases in gasoline and crude oil prices (Bremmer & Kesselring, 2016). During 2008, West Texas Intermediate oil prices fluctuated from \$145.29 a barrel on July 3 to \$33.87 a barrel on December 19 as the Great Recession took hold (U.S. Energy Information Administration, 2015). The global financial crises of 2007-2008, caused the wide-spread falling output of commodities and unemployment. At the same time, oil prices rose significantly as a result of the increase in demand from China and India (Monadjemi, 2017). This boom period illustrates Kilian's (2008) claim that production-based accounts of oil price increases or decreases do not align with the timing of other crises.

In early 2009, oil and natural gas prices began to rise again and remained steady until 2014 when another bust occurred (U.S. Energy Information Administration, 2015). Between June and December 2014, the monthly average price of Brent crude oil fell by \$49, which amounted to 44% of its original value (Baumeister & Kilian, 2016; Tuzova & Qayum, 2016). The primary cause for the global price of oil to fall was a surplus of crude oil (Baumeister & Kilian, 2016; Tuzova & Qayum, 2016). The surplus of crude oil that

started in 2014 and accelerated through 2015 and 2016 had multiple causes. First, there was an oil boom in the United States and Canada where shale oil production reached critical volumes. Second, non-OPEC producing countries were improving efficiencies. Third, there was a falling demand for oil in China (Tuzova & Qayum, 2016).

Given the history of oil supply disruptions caused by political events, severe weather, international relations, refinery outages, pipeline problems, and derivative contracts among investors, market participants constantly assess the possibility of future disruptions. The need to assess disruptions is because when spare production capacity and inventories are low, a potential supply disruption may have a greater effect on prices than if only current capability and inventory were considered (Alley, 2016). Additionally, the difference between energy boom and bust periods is much of the activity occurs in areas where there is a lack of previous experience with the cycles that occur in energy development (Banks, 2013; Braimoh, 2017; Buowari, 2015; Kelsey et al., 2014). For example, development in the regions of northeast Pennsylvania, New York, and parts of eastern Ohio, have little experience (Banks, 2013; Kelsey et al., 2014). Gaining experience about how these boom and bust periods affect local communities is important to understand so those communities can prepare for the social and economic changes they face.

Researchers continue to conduct research to gain an understanding of boom and bust periods in the industry. Two such studies come from Jacobson and Parker (2014), and Kelsey et al. (2014). Jacobsen and Parker (2014) studied the oil boom and bust cycles of the 1970s and 1980s to gain insights into the economic effects of the cycles. The

results of this study indicated the boom brought positive short-term effects through increases in employment, wages, and dividends to property owners. However, in the aftermath of the bust, the researchers found that incomes decreased and unemployment increased relative to what conditions would have been if the boom had not occurred (Jacobsen & Parker, 2014). Kelsey et al. (2014) found similar results in a study to determine the economic characteristics of oil and gas development, such as employment potential, geography development, its boom-bust nature, and the experience of those working with shale oil and gas development. One of the results from this study showed the loss of entrepreneurship and small business development could limit local economic growth because businesses left behind after the boom ends, have limited sustaining power (Kelsey et al., 2014). The distinctions of these studies and others raise questions about the sustainability strategies that must be met to endure boom and bust cycles in rural economies.

Sustainability Strategies

As a concept, sustainability is still developing. Some researchers view sustainability strategy as a broad concept, which involves thinking holistically across all activities of an organization's value chain (Montiel & Delgado-Ceballos, 2014). Most scholars, however, agree that sustainability highlights the need to balance social, environmental, and economic goals (Aarseth, Ahola, Aaltonen, Økland, & Andersen, 2017). Understanding sustainability strategies are important because, in good economic times, sustainability is relatively easy to maintain. However, during times of constraint, periods of uncertainty, or when societal needs intensify, commitments are not as easily

maintained causing sustainability to become difficult (Barnett, Darnall, & Husted, 2015). For example, Bansal et al. (2014b) illustrated that during times of constraint, organizations make distinctions among investments, which are tactical versus planned. Tactical investments require fewer resources and focus on short-term activities that can be imitated easily. Planned investments, in contrast, affect the organization's competencies and focus on the long-term objectives (Barnett et al., 2015). Planned investments also involve significant resource commitments or structural changes within the organization and are less imitable by competitors (Barnett et al., 2015). The understanding of sustainability strategies applies to this research because when small businesses in the oil and natural gas industry adjust their strategies to meet economic constraints and uncertainty, their organization becomes stronger and more efficient.

Strategies can be viewed as actions that guide the realization of organizational goals. Sustainability strategies in an organization require business practices that influence and support long-term growth plans, provide a competitive advantage, and promote lasting profitability (Schmidt & Farkas, 2016; Strand, 2014). Organizations may employ many different strategies to acquire needed resources that require different levels of coordination (Malatesta & Smith, 2014). Some effective strategies small businesses may use include risk management, financial, leadership, communication or networking, marketing, and technology. Business leaders must identify strategies to consistently meet and exceed organizational objectives (Hopkin, 2017; Strand, 2014). Identifying strategies and gaps will aid in achieving a strategic position in the marketplace.

Scholars are identifying a perceived gap in the small business manager's understanding of how to implement their strategy. For example, Barnett et al. (2015) posited their review of existing studies shows that during a downturn in an industry, organizations become more strategic with their social and environmental activities, but researchers have not addressed how activities are managed. Similarly, Luederitz et al. (2016) have suggested there is little empirical research addressing how organizations are making progress toward sustainability in small-scale communities and how success can be replicated in other communities. Finally, Galpin, Whittington, and Bell (2015) identified a gap in the literature and offered a model to help leaders create a framework for organizational culture and sustainability. Identification of gaps has forced both industry leaders and academic researchers to recognize that sustainability has become mainstream and is important to the long-term success of both small businesses and the communities in which they operate.

As a result of existing research regarding sustainability strategies, two guiding models have been formed, which are a business model for small business and theory of constraints (ToC). French (2009) developed the first model for small businesses dividing potential issues and opportunities into categories referred to as strategic, tactical, and operational. Strategic planning is the process an organization uses to define the company's direction and make decisions on allocating its resources (Elbanna, Andrews, & Pollanen, 2016). Strategic planning deals, with the whole business, rather than just an isolated unit (Bryson, Edwards, & Van Slyke, 2017). Tactical planning is short-term planning and focuses on managing resources such as personnel and equipment that play a

direct role in an event. Managers use tactical planning to identify finances, personnel, equipment, and other resources the organization needs to be successful in near real-time (Cegarra-Navarro, Sánchez-Vidal, & Cegarra-Leiva, 2016; Department of Homeland Security, 2016). Operational planning is the process of linking strategic goals and objectives to tactical goals and objectives (Dror, 2017). Strategic, tactical, and operational planning describe the milestones, conditions for success, and explains how an organization's plan will be put into action during a given operational period.

The second guiding model comes from Kohli and Gupta (2010), who proposed a theory of constraints (ToC) model to help small business leaders develop strategic plans. The Kohli and Gupta ToC model focuses on improving effectiveness across a business's value chain without concentrating on costs. Regardless of the definition of strategy or model used, successful strategy creation begins with leaders asking appropriate questions pertinent to their business situation, their industry, their competitive situation, and the level of the organization's expertise for planning (Banks, 2013). Using the French and ToC models, small business managers can work to improve their understanding of their businesses and strategy implementation holistically, which may aid in the development of a risk management strategy.

Risk management strategy. Unpredictability in the oil and natural gas industry leads to small businesses opportunities, challenges, and risks mitigated by risk management strategies. A risk management strategy enables managers to efficiently deal with the uncertainty and associated risk, enhancing the capacity to build value (Steinhoff, Price, Comello, Coccozza, 2016). An organization's risk management function plays a

critical role in monitoring and managing the risks stemming from internal and external forces, which if gone unchecked could affect a company's profitability, success, or survival (Brustbauer, 2016). Enterprise risk management (ERM) practices have been identified as a pivotal part of adapting to the changing complexity of risk, enhancing performance, recognizing market trends, and expanding the reporting process to address expectations for greater stakeholder transparency (COSO, 2017). The ultimate goal of an active ERM process is to help companies manage risks in the context of strategy, so the organization is more likely to achieve its primary objectives (Viscelli, Hermanson, & Beasley, 2017).

Risk management is a major issue for small businesses. Many small businesses lack the financial resources and have no reliable mechanisms to support their risk management activity (Brustbauer, 2016). Small businesses are more hesitant to take risks than larger companies because small businesses typically have a smaller capital base and less qualified employees, which makes them reluctant to make changes (Madanoglu, Altinay, & Wang, 2016; Sadgrove, 2016). Organizations that follow a passive risk management approach and put inadequate effort into the identification, assessment, and monitoring of risks are not as successful as those having a more advanced ERM process (Brustbauer, 2016). Therefore, companies that regard risk in the same way as other strategies may jeopardize the comfort of remaining economically self-sufficient and the ability to sustain a healthy competitive environment.

Although small business managers may be familiar with the operations of their businesses, they are unlikely to identify all related risks. Consequently, a strong ERM

strategy may help them raise awareness of their risks, assess and monitor risks, and facilitate actions to adjust to the uncertain environment (Brustbauer, 2016). Hopkin (2017) identified four categories of risk to support small businesses in creating an ERM strategy. The four categories include compliance risks, hazard risks, control risks, and opportunity risks. To manage the risk of uncertainty, organizations will have to decide on which actions they wish to take (COSO, 2017; Hopkin, 2017).

Recent studies identify risk management as a viable sustainability strategy. For example, Aven (2016) reviewed recent advances made in the risk field, focusing specifically on the fundamental idea of risk research. Aven found that risk management is established as a scientific field and can provide important contributions in supporting business decision-making practices. Similarly, Castro-Alvarez, Marsters, de León Barido, and Kammen (2017) illustrated lessons learned from shale booms in the United States, to analyze the risks to environmental, social, economic, and communities in Mexico as the shale industry develops. Castro-Alvarez et al. (2017) found that risks could be mitigated through regulatory practices implemented by business leaders, governments, and academic institutions who may have substantial resources to analyze ways to cope with and reduce any negative effects. In a third study completed by Bai, Zhou, Zhou, Meng, and Ju (2016), the researchers sought to understand how risk affects market uncertainties such as oil supply, oil price, and disruptions in the industry. Findings from the Bai et al. study showed the decision to minimize losses and reserve costs are related to drawdown and refill policies in response to different market risks.

Financial strategy. Small business managers need a thorough understanding of finances to generate capital and sustain their businesses. If small business managers understand how to apply financial strategies to their business, their business is more likely to be successful in any environment, even during periods of uncertainty (Bellavitis, Filatotchev, Kamuriwo, & Vanacker, 2017; Vahlne et al., 2017). Some business studies have identified financial performance as a representation of a successful organization (Buowari, 2015). Many successful organizations in the energy industry have identified the benefits of bringing financial management, marketing, and operational risks together to enhance the company's sustainability strategy (Hopkin, 2017). However, for some organizations, financial management is mainly concerned with the price of products and the risks of exploration (Hopkin, 2017).

Identifying strategies to acquire financial capital to sustain a small business may be essential to success. Insufficient financial capital has exposed many small business owners and entrepreneurs to the risk of failure (Dutta & Folta, 2016). Small businesses use internal or external sources of financing (Rostamkalaei & Freel, 2017; SBA, 2014). Some strategies to acquire financing might include enrolling in a crowdfunding platform, obtaining a small business loan, or participating in one of the Small Business Administration investment programs (SBA, 2017b). As an alternative, Hebert, Takupiwa, Honest, and Ephraim (2013) believed diversification of products, services, or markets, and maintaining relationships with existing clients while establishing new customers would enable a business to survive in a challenging financial environment.

Financial strategies are important for small businesses because these types of businesses typically experience difficulties obtaining funding due to their lack of financial history, available collateral, and the perception of risks associated with funding new ventures. Some financial institutions are reluctant to extend funding to some small business because the businesses rely too much on informal financing (Berger, Goulding, & Rice, 2014). Some small businesses have fewer opportunities to raise funds because of their inability to reach capital markets (Security Exchange Commission, 2017).

Many researchers have cited that there is a lack of adequate financial resources as a contributory factor to the failure. Baños-Caballero, García-Teruel, and Martínez-Solano (2016) discovered that the working capital requirements are in relation to changes during a financial crisis and are essential to survival. Hansson (2015) took a different approach to demonstrate executives have adopted downsizing activities as a financial strategy, which was driven by the belief that downsizing strategies will improve organizational efficiency, effectiveness, and overall financial performance to avoid failure. Zugrav (2015) posited that a company's lack of financial awareness is normally not the result of a single incorrect decision. Often failure is caused by a set of errors, the consequences of which do not emerge immediately, but rather over a period of time (Zugrav, 2015).

Leadership strategy. An organization's performance can be linked to the strategic choices made by people in leadership positions. As the critical organizational decision-makers, leaders use strategies to advocate goals and objectives (Bischock & Woiceshyn, 2015). A leadership strategy requires the individual in the decision-making position to constantly think, reflect, and analyze all viewpoints and relationships

bordering their organization, influencing the sustainment and prosperity of the organization (Sarfraz, 2017). Hence, organizational leaders have many roles.

Leadership is the art of working with people and involves the ability to inspire and guide them toward the achievement of a shared vision (Solomon, Costea, & Nita, 2016). Bloom's taxonomy simplifies strategic leadership (Sarfraz, 2017). Bloom's taxonomy defines strategic leadership as the ability to: (a) remember and recall facts and ideas; (b) understand the facts, ideas, and their links; (c) apply the facts, knowledge, and methods in various ways in new or old situations; (d) analyze, examine, and organize ideas and information into sections through the identification of causes, inferences, and evidence that supports simplifications; (e) evaluate and combine the facts and information in various ways through propositioning substitute resolutions or merging the elements in a new arrangement; and, (f) create a set of criteria certifying the work quality, ideas or judgments on data as this will showcase and guard the decision, new product, or service assessment (Adams, 2015; "How to build", 2017). Those firms that can quickly realize the unique association between technology, markets, environment, and the economy are in the best position to make a swift influence in their respective industries when implementing strategic leadership strategies.

Strategic leadership could propel an organization through the demanding situations of constant change to achieve the desired goals. Strategic leadership includes proactively creating a climate conducive to change implementation, demonstrating knowledge, and perseverance through problem-solving (Guerrero, Padwa, Fenwick, Harris, & Aarons, 2016). Researchers have indicated there are positive connections

between leadership and strategy to achieve the leader's vision (Fernandes & da Silva, 2015). To apply strategic leadership, leaders should actively listen to understand and learn to respond to employee or client demands, which will promote a strategy of utilizing implicit, explicit, and tacit knowledge (Fernandes & da Silva, 2015). Implicit, explicit, and tacit knowledge are each processed differently to meet employee and customer demands. Implicit knowledge is knowledge within people's minds, but the knowledge has not been made clear to others (Rutten, Blaas-Franken, & Martin, 2016). Implicit knowledge is the knowledge that people are not immediately aware of and is not readily accessible, but the knowledge that can be triggered through self-discovery (Rutten et al., 2016). Explicit knowledge, on the other hand, is knowledge that is articulated, codified, accessed, verbalized, and communicated to others (Rutten et al., 2016). Tacit knowledge cannot be transferred verbally or in writing and requires other means of transfer such as through mentoring and tutoring experiences (Bratianu, 2016; Rutten et al., 2016). Implicit, explicit, and tacit knowledge is something leaders can share as part of their strategy to provide value for small businesses operating in a challenging industry.

Recent studies show that an effective leadership strategy can have an influence on business success or failure. In a study to explore hard or soft elements companies use as a key to achieve success, Bóna and Lippert (2015) found leadership strategies that include a close relationship with the customer, the ability to adapt to market trends, and the talent to communicate the business strategy, will significantly increase chances for success. Similarly, in a study of 80 CEO's, Sirén, Patel, and Wincent (2016) found change-oriented leaders who display a harmonious passion for inspiring change and a strategic

vision, have a positive effect on firm performance; however, CEOs that embody obsessive passion do not benefit from the higher firm performance. A third study completed by Smith (2015a) exhibited similar results claiming leadership strategies including a commitment to active learning, continuous development, and best practice processes will prove to sustain an organization's global competitiveness.

Communication strategy. Small business managers may consider formal and informal communication and networking opportunities as part of their strategy-making processes. Communication is a strategy business leaders use to build, nurture, and manage relationships with their clients (Buowari, 2015; Shen, Chiou, Hsiao, Wang, & Li, 2016). Small business managers also use networking, marketing, communication, and customer service strategies to attract and retain customers (Pehrsson, 2016; Vera, 2016). Building a networking relationship with customers through the fulfillment of the customers' needs influences loyalty and retention; otherwise, by not communicating with the customer, the effectiveness of marketing efforts could decrease (Shen et al., 2016). Communication and engagement foster alignment of messages in a challenging business environment such as the oil and natural gas industry (Bramoh, 2017).

Communication strategies can be designed to help organizations communicate effectively to meet organizational objectives. Kernbach, Eppler, and Bresciani (2015) believed that to meet organizational objectives and gain a competitive advantage, leaders must implement effective communication strategies. Similarly, Holmes and Parker (2017) postulated communication is important for organizational success, and without it, motivation, leadership, and productivity cannot survive and grow. Transparent

communication strategies can create a reputation and growth for a company by capturing new markets, adding to the financial performance, and have an impact on consumer behavior (Yawar & Seuring, 2017).

An appropriate communication strategy can enhance growth within an organization. Communication practices to inform stakeholders can include demonstrations, meetings, newsletters, notes, and roadshows to present information (Dezdar & Ainin, 2012). Communication problems in small businesses can also plague implementation of an entire business enterprise (Venkatraman & Fahd, 2016). For example, negative or no communication and unethical practices can lead to failure at all levels of leadership regardless of how experienced and confident the parties involved (Ruben & Gigliotti, 2016).

Recent studies have shown communication strategies can be verbal, nonverbal, or visual and by integrating different strategies together will allow business leaders to see the most success. For example, Rim and Song (2017) found that through examination of multinational corporations (MNCs), social media is an effective strategy to communicate corporate social responsibility (CSR) practices. The findings from the Rim and Song study demonstrated that a company's communication responses help to increase people's attitude toward the company. In a similar study, Zerfass and Viertmann (2017) reported the value of communication across different disciplines and identified a framework to organize communication goals that are linked to generic corporate goals. The researchers identified four measurements of communication, which include enabling operations, building intangibles, adjusting strategy, and ensuring flexibility. The measurements also

encompass 12 specific goals for communication that can be derived from corporate strategy to enhance success. Finally, Herremans, Nazari, and Mahmoudian (2016) investigated how companies within the same industry engaged stakeholders to address economic, natural environment, and social resources. As a result of the study, the researchers identified the five following characteristics associated with the company's stakeholder communication strategy: (a) directness of communication, (b) clarity of stakeholder identity, (c) deliberateness of collecting feedback, (d) broadness of stakeholder inclusiveness, and (e) utilization of stakeholder engagement for learning. These studies show a manager's communication strategy plays an active part in practicing and promoting open communication.

Supply chain management strategies. Organizations may gain long-term benefit from the adoption of sustainable supply chain management (SCM) strategies. Supply chain management practices allow organizations to complete processes enabling integrity integration, operational efficiency, and continuous improvement for production and distribution of products or services (Ellram & Cooper, 2014). A supply chain can be organized to bring together short-term tactical or routine tasks throughout the functions inside or outside a business and across to customers (Cosimato & Troisi, 2015). In addition, supply chains may be essential to achieving sustainability through the implementation of buying practices and the influence on the environment as the SCM deals with multiple resources needed for operation of the business (Glover, Champion, Daniels, & Dainty, 2014). For example, the scope of resources included in SCM range from information technology, marketing, purchasing, logistics and transportation,

distribution management, and operations management (Chan, Nayak, Raj, Chong, & Manoj, 2014; Roh, Hong, & Min, 2014). All of these business processes are interrelated and are integral for an effective supply chain strategy that influences the performance of an organization (Chan et al., 2014; Roh, Hong, & Min, 2014).

The strategies of SCM may have a variety of meanings for different researchers and business leaders. However, as a result of technology advancements, decision-makers may gain an improved understanding about how SCM strategies can relate to their business from real-time data support identifying supply and demand forces on products or services (O'Rourke, 2014). For example, obtaining data about long distances can result in identifying longer lead times for delivery, increased inventory levels in warehouses, reduced product quality, and greater logistics costs (Stentoft Arlbjørn & Lüthje, 2012; Caniato, Ronchi, Luzzini, & Brivio, 2014; Ellram & Cooper, 2014). Supply chain data may also identify customer pressures, market requirements, and need for technological developments (Roehrich et al., 2017). An organization's survival, long-term resource supply, and scarcity of resources place pressure on organizations to seek sustainable supply chain strategies essential for sustainable economic performance (Karimi & Rahim, 2015). Therefore, company leaders cannot ignore the benefit of real-time SCM data to identify costs and maintain competitiveness and profitability.

Supply chains can comprise internal and external aspects of an organization's operations including the sourcing, logistics, production, and distribution of goods and services. Few studies have examined how these internal and external aspects of an organization's supply chain and value chain are interrelated to create competitive

advantage (Daniel, Adegoke, & Jan, 2016). However, Daniel et al. (2016) suggested both intra-organizational and inter-organizational SCM activities are important to creating superior performance. Superior performance is achieved through the integration of supply chains and value chains (Prajogo, Oke, & Olhager, 2016). A value chain is described as a process where businesses add value to products or services at various points during the life cycle (Yu, Li, & Yang, 2017). Hence, understanding supply chain and value chain activities are important because an organization is more likely to obtain superior performance when achieving high levels of efficiency.

Some studies have shown a supply chain strategy does not exist in isolation but rather throughout an organization as a leadership responsibility. For example, Wagner and Kemmerling (2014) studied the top leaders of large U.S. corporations to understand how supply chain management is measured in relation to a leadership position and organizational performance. Wagner and Kemmerling found SCM functions such as inventory reduction, just-in-time delivery of products, or strategic supplier partnerships, can aid the performance of an organization; however, the idea of incorporating a position of Chief Supply Chain Officer (CSCO) in the top management team has not yet received enough scholarly attention to determine a direct link to organizational success. In a similar study to determine the effects of a CSCO position with an organization, Roh, Krause, and Swink (2016) argued appointing a CSCO can bring enhanced organizational performance through financial leverage, internationalization, and diversification as a non-linear moderator to organizational decisions. Regardless of results, these studies indicate

successful alignment of leadership and supply chain strategy with organizational strategy, can enhance value for an organization's performance.

Competitive advantage strategies. A competitive advantage strategy may apply to this study because of the holistic view, which allows small business leaders to explore multiple experiences to ensure the organization's attractiveness in the industry and ultimately create a profit. The main purpose of the strategy is to create and maintain a strategic advantage; therefore, the organization should focus on creating new advantages leading to increased customer satisfaction compared to competitors (Popa, Dobrin, Popescu, & Draghici, 2011; Porter, 1998; Yenipazarli, 2015). A company's competitive advantage relates to the unique capabilities of the company to address shortcomings, differentiate their products, and implement process improvements for business performance separating them from their competitors (Huang & Chung, 2016; Nadarajah & Latifah Syed, 2014; Porter, 1998). A competitive advantage strategy consists of three universal approaches, which include a cost leadership strategy, a differentiation strategy, and a focus strategy (Porter, 1998).

Business leaders need to apply cost leadership to gain the competitive advantage when there is a lack of strategy to differentiate a product or service (Porter, 1998; Tansey, Spillane, & Meng, 2014). A cost leadership strategy is a strategy a company uses to discount their products to maximize sales and create a cost advantage over the competition (Agyapong, Ellis, & Domeher, 2016; Porter, 1998). The purpose of cost leadership is to gain an advantage over competitors by reducing operational costs below that of others in the same industry (Handoko, Aryanto, & So, 2015; Porter, 1998; Tansey

et al., 2014). A cost leadership strategy may require a large investment in equipment to achieve economies of scale and might not be suitable for small businesses who have resource constraints (Linton & Kask, 2017).

Differentiation is another approach to competitive advantage. Differentiation is an approach to meet customer demands in unique ways, such as product design, quality, speed, flexibility, and other value-added benefits (Linton & Kask, 2017). Differentiation is the ability to distinguish products and services from others in an industry (Linton & Kask, 2017; Porter, 1998). Two criteria customers may use to distinguish amongst competitors in the market are brand equity and the blending of cost-cutting with innovation. Branding is an effective tool companies use to distinguish its products from those of other companies (Karray & Sique, 2016; Renton, Daellenbach, & Davenport, 2016). The brand of a product or service is based on consumer perception, which includes both knowledge and experience with a brand and the fundamental value of the product or service (Linton & Kask, 2017; Reichart-Smith & Sanderson, 2015). Blending the cost-cutting policies with innovation strategies and value creation is a way of leveraging a company's services and engaging interaction with customers through innovative products (Linton & Kask, 2017). Cost and innovation are mostly related to monetary costs; however, from a purchaser's point of view, the cost represents a value of some kind to the holder. If a company can distinguish their products or services from a competitor through brand or cost, they will win the purchaser's loyalty (Fernandes, 2015). Brands serve as a tool to help consumers manage the complexity of their personal and product-related identities.

Focus is the third approach to competitive advantage. Focus is a common way for small businesses to compete with larger incumbents by offering personal relationships, flexible solutions, and superior service to stakeholders (Linton & Kask, 2017). A focus strategy enables the firm to narrow the range of demands placed upon it (Chari, Balabanis, Robson, & Slater, 2017). Companies may adopt a focused approach to maintain their position, to compete against larger businesses, or to gain profits and steady growth rates in the marketplace (Picone & Dagnino, 2015; Porter, 1998). For example, a company may place focus on those customers likely to be attracted by a competitor's offer to understand customer behaviors relevant to pricing choices, or products creating differentiation to set them apart from their competition (Rau, Zbiek, & Jonas, 2017). Focusing on specific products or services can capture consumer-oriented attitudes, behaviors, and the full scope of the business. Incorporating competitive advantage strategies aligns with the DCT as an organization strives to create short-term economic positions and use those capabilities to position the organization for long-term competitive advantage.

Scholars have studied competitive advantage strategies to find a way of achieving sustainability in a particular market. For instance, to understand competitive advantage strategies for start-up companies, Block, Kohn, Miller, and Ullrich (2015) studied 4,568 German entrepreneurs. Results of the researcher's study show entrepreneurs who are just starting a company are more likely than other entrepreneurs to pursue a cost leadership strategy and less likely to pursue a differentiation strategy. Su, Linderman, Schroeder, and Van de Ven (2014) also completed a study to determine how organizations can

sustain a quality advantage after they have achieved the competitive advantage. The authors found three capabilities are required to sustain an advantage in a market (a) a meta-learning capability where organizations are able to change and adapt their internal processes quickly, (b) a capability to sense weak signals will enable organizations to identify emerging quality problems that may affect the consistency of performance, and (c) the capability of flexibility to quality disruptions helps minimize disruptions to quality and ultimately enhance performance consistency. Oilfield service companies will be required to understand these competitive advantage strategies if they are to sustain themselves in a volatile oil and gas market.

Oilfield Service Companies

Oilfield service companies provide a wide variety of products and services to the industry. Progress in the oil and gas industry would not be possible without the contributions of oilfield service companies (Raymond & Leffler, 2017). An oilfield service company is a company providing tools, equipment, expert advice, risk management services, and a wide range of services from construction, exploration, production, well abandonment, and reclamation (Raymond & Leffler, 2017; Sealy, Scott, & Walker, 2016). Service companies provide services to the petroleum exploration and production industry but do not typically produce petroleum themselves. Oilfield service companies can be divided into five macro segments (a) exploration, (b) drilling, (c) completion, (d) production, and (e) capital equipment (Gong, 2017). In general, the service companies develop technologies to address problems of producers (Yang, 2016).

In the 1970s, many oil and gas producing companies conducted operations using in-house employees; however, after 1980 most companies started using digital technologies and de-staffing, which caused activities to be outsourced to service companies (Raymond & Leffler, 2017). History has shown service companies are vitally important to the sustainability of the oil and gas industry, and the market is heavily affected by commodity price and the economic cycles of the industry. Service companies are important because each drilling rig that outsources its services employs over 170 people and approximately 80% of financial spending is outsourced to those employees working in the industry (Brown, 2015; Raymond & Leffler, 2017). The overall employment with service companies during boom or bust periods will depend upon future changes in the price of oil and natural gas, and how productivity within the sector changes (Brown, 2015).

Oil service company employees can affect other economies as the income they earn can have spillover effects. Communities can use the spillover to leverage the creation of additional wealth, the establishment of permanent advantages such as a more diversified economy that is resilient to industry volatility (Kelsey et al., 2014). Money earned by oilfield workers is spent on meals in restaurants, on home improvements, or other locally provided goods and services, leading to more jobs in those industries as well (Marchand & Weber, 2017). The response from oilfield employment opportunity is dynamic and increases over time as opportunity spreads to other sectors of the economy beyond oil and gas (Brown, 2015). However, when the market is in a bust cycle,

companies will sell assets, hold cash, and reduce the number of employees, which negatively effects local economies and the company's stability (Gong, 2017).

Transition

The purpose of this qualitative multiple-case study was to explore the strategies some small oilfield service company managers use to sustain profitability through boom and bust cycles. The study consists of three sections, which include the foundation of the research, the project, and the application for professional practice and implications for social change. Section 1 focused on the foundation, topic, and problem. In this section, I presented information that introduced the topic and the need to solve an applied business problem. This section included the literature review and analysis of topics related to how leaders of small oilfield service companies may have achieved sustainability, remained in business longer than 5 years, and have survived boom and bust cycles. The review contained peer-reviewed sources that were organized according to the following topics: (a) a description of dynamic capability theory and related theories, (b) characteristics of small business ownership, (c) small business success and failure, (d) a brief history of oil and natural gas development in the Rocky Mountain region of the United States, (e) boom and bust periods in the industry, (f) sustainability strategies, and (g) characteristics of an oil and natural gas company. In Section 2, I outlined my approach to the study, which included my role as the researcher, the participants involved in the research, the research methodology, and the participant population. Subsequent sections follow where I explain the data collection and data analysis process. Finally, I presented a discussion regarding reliability and validity procedures for the study. In Section 3, I will present my

findings relevant to the research question. Section 3 will contain the results of the completed research and the themes small business managers identified as their strategies to sustain profitability. This documented study will include a discussion of the findings in the context of implications for social change, recommendations for action, suggestions for further study, and my reflections on the research study.

Section 2: The Project

Purpose Statement

The purpose of this qualitative multiple-case study was to explore the strategies small oilfield and natural gas service company managers use to sustain profitability through boom and bust cycles. The target population for the study was 10 oilfield service companies located in the Rocky Mountain region of the United States (i.e., Montana, Idaho, Wyoming, Utah, and Colorado) who have sustained their business for at least 5 years. Findings from this study may promote positive social change by providing strategies for small businesses to thrive and contribute to economic prosperity. This prosperity may drive communities to form a collective commitment to shared goals, increased employment opportunities, and financial security for families, which subsequently perpetuates community members' social well-being.

Role of the Researcher

The role of the researcher when conducting a qualitative study is to observe and engage with research participants while simultaneously exploring a phenomenon through interviews and examination of documents and records (Collins & Cooper, 2014). Qualitative researchers conduct investigations in natural settings to preserve the context of the participants' experiences and then provide analysis and interpretation of the data (Devotta et al., 2016; Yin, 2014; Yin, 2016). Through the collection and analysis of data, themes and common meanings emerged. Methodically triangulating themes, patterns, trends, and leading topics that arose from participant perspectives summarized strategies and economic business benefits of management practices.

My relationship to the subject of small business sustainability in the oil and natural gas industry is that I have been a supply chain manager (SCM) in the industry since 2008. I have witnessed several businesses operating in the industry that have failed when commodity prices fluctuate. Therefore, I sought an increased understanding of what strategies successful business leaders use to increase their likelihood to thrive and succeed beyond 5 years.

Researchers should respect participants during the recruitment process and avoid risks for participants by using consent forms and impartially managed processes (Ryan et al., 1979). I treated participants ethically and respected their comments or decisions and made efforts to secure their well-being. The Belmont Report provides directions for researchers to meet ethical requirements and recommends that researchers abide by three ethical principles when conducting research with human subjects (Camille, Nian-Lin Reena, & Ban Leong, 2016). The three principles identified in the Belmont Report are: (a) respect for persons, (b) beneficence, and (c) justice (U.S. Department of Health and Human Services, 1979). I followed these ethical principles while conducting my research and in my plan to keep information secure.

Bias may appear in some qualitative research because of the interaction between the researcher and the participants on topics with which both parties are familiar (Devotta et al., 2016; Odierna, Forsyth, White, & Bero, 2013). As the researcher for this study, I attempted to mitigate bias by using an established interview protocol, conducting member checking, and ensuring data saturation during the data collection process of the study. To alleviate any research preconceptions, I patterned my open-ended interview questions

from original case study recommendations from Yin (2014). This approach allows each respondent to provide their individual perspective and helps to remove a researcher's voice from data collected (Yin, 2016).

An interview protocol provides the researcher with a script to follow during the research investigation and provides a form for recording the critical aspects of the discussion including observations and notes (Yin, 2016). Interview questions are the foundation of the data gathering process (Yin, 2016). The rationale for using an interview protocol is to apply a consistent and standardized approach to asking the semistructured interview questions that address the research question. Although more structured than the use of casual conversation to explore a research topic, the use of a protocol helped me to keep the interviews focused and consistent.

Participants

The participants selected for this qualitative multiple case study were 10 purposefully selected small business leaders of oilfield service companies. In purposeful sampling, researchers use their judgment to select participants based on the study criteria (Benoot, Hannes, & Bilsen, 2016; Bernard, Wutich, & Ryan, 2016). The criteria for the business leaders to participate in the study included: (a) owning or managing a small business in the Rocky Mountain region of the United States for at least 5 years, (b) performing work as an oilfield service company supporting the oil and natural gas industry, and (c) employing less than 50 employees.

To gain access to participants and to learn more about the phenomenon under study, I obtained information from three Chamber of Commerce databases in the region

(e.g., Vernal, Utah Chamber of Commerce, Rock Springs, Wyoming Chamber of Commerce, and the Grand Junction, Colorado Area Chamber of Commerce). Because none of the managers' or owners' contact information was embedded within the organizational structure, I did not have to seek a community partnership agreement to access participants. Chamber of Commerce databases are available to the public and include business names, addresses, cities, counties, and phone numbers (Robson & McCartan, 2016). These databases are public information and there are no costs associated to access.

One strategy for establishing a positive working relationship with participants is through trust. Researchers should establish a trust-based relationship with the participants on the intended purpose and outcome of the study to demonstrate competence, benevolence, and quality (Keszey, 2015). To establish a working relationship with participants, I provided a statement of purpose and intended results of the study. I discussed the ethical issues pertaining to the participants' confidentiality and rights. To ensure confidentiality, I established a number system to identify participants instead of names. I provided an informed consent document to ensure discretion and ensured the environment would provide a safe, nonthreatening atmosphere that allows for each participant's wellbeing.

To ensure participants' characteristics aligned with the intent of the study, I contacted each business manager via email to request a 30 minute meeting. In the meeting, I introduced myself, presented the research question, and explained the overall context of my study. In this meeting, I established rapport with participants and fostered a

trust-based relationship to alleviate the potential fear of the unknown. I attempted to create an atmosphere of self-reflexivity and learning as I described the semistructured interviewing process, established participant's rights, the importance of reflexive dialog in discussing their particular strategies, and presented opened-ended interview questions. Self-reflexivity and learning occur when the researcher and participant have the opportunity to learn from the conversation and reflect on responses (Bogumil, Capous-Desyllas, Lara, & Reshetnikov, 2017; Malaurent & Avison, 2017). Individuals who met the criteria of the study and committed to the interview process were asked to sign a consent form.

Research Method and Design

Research Method

For this study, I chose the qualitative research method to understand which strategies managers of small oilfield service companies use to stay in business within highly competitive environments. Research in competitive environments is important because competitive environments weaken the effect of product innovation on business performance, but strengthen the effect of process innovation on business performance (Prajogo, 2016). This study involved rich insight into the strategies business owners used to survive and prosper as descriptive data was collected from participants in their own words.

Unlike quantitative methods, the qualitative method includes responses of participants in their own words to express their personal experiences and perceptions of the situation being examined (Goldberg & Allen, 2015). Qualitative researchers are

interested in understanding the meaning people construct to justify their experiences in the world (Devotta et al., 2016; McGannon & Smith, 2015; Yin, 2014; Yin, 2016). A qualitative study is the useful research method for synthesizing human experiences resulting in an inductive analysis. Synthesizing small oilfield business managers' experiences and strategies to sustain profitability through boom and bust cycles was the intent of this study.

In quantitative research, deductive analysis occurs that generates statistical or numerical data that allows the researcher to reject or accept the null hypothesis (Watson, 2015). The mixed method is a combination of qualitative and quantitative methodologies (Frels & Onwuegbuzie, 2013). Mixed method is useful to researchers for integrating quantitative numerical data with the qualitative meaning and understanding of participants' experiences. My intention for conducting this research was not to perform statistical analysis, identify numerical data, test a theory, or measure variables that support or refute a hypothesis. Therefore, quantitative and mixed methods were not appropriate for this study. I selected the qualitative research method as the preferred method to identify themes and explore managers' business strategies in their natural setting. The qualitative case study approach suited the needs of this study more than a quantitative or mixed method approach to understand the strategies managers use to remain profitable when oil and natural gas commodities are unstable.

Research Design

The research design used for this study was the qualitative multiple-case study design. Researchers use a case study design to find answers to *what*, *how*, and *why*

questions (Yin, 2014). A case study design is preferred over other key designs when: (a) a researcher has little or no control over the events; (b) the focus of the study is current, not historical; (c) the research questions require *what*, *how*, or *why* responses (Neubert, 2016; Yin, 2014). When conducting case studies, a researcher may also identify the links between events over time (Parry, Mumford, Bower, & Watts, 2014), and may involve one organization and location or multiple organizations and locations experiencing the same event (Yin, 2014). The case study design aligned with the research method because this design allows for the triangulation of data from face-to-face semistructured interviews with participants who have knowledge of the phenomenon and were able to provide strategies to answer *what*, *how*, and *why* type questions, and from archived company documents, company marketing materials, and public information regarding the participant businesses on government or company websites.

Other qualitative research designs include phenomenology, ethnography, and narrative research (Davis et al., 2016; Yin, 2014). A researcher conducting phenomenological research seeks to understand peoples' perceptions and perspectives, and describes the experiences of individual participants regarding a particular situation (Doody & Bailey, 2016; Hancock, Amankwaa, Revell, & Mueller, 2016). However, the phenomenological design approach was not suitable for this study because the phenomenological design is better suited for exploring lived experiences and not the strategies small oilfield service company managers use to sustain profitability. Ethnography is suitable for studying and observing important events in cultures and groups in relation to facts or experiences from the past (Toledano, 2017; Yin, 2014).

Using guidance from Dunne (2016), ethnographic research was not chosen for this study because of the difficulties in replicating events in a natural setting. In narrative research design, researchers look for ways to understand and then present real-life experiences through the stories of the research participants (Wang & Geale, 2015). The narrative approach allows for a rich description of these experiences and an exploration of the meanings the participants derive from their experiences. However, narrative research does not provide a framework to develop an understanding of business leaders' decisions and choices regarding sustainability strategy. Given the purpose of narrative research, and my intent to explore the sustainability of small oilfield service companies, the narrative design was not selected.

Data saturation is the *gold standard* in qualitative research (Hancock et al., 2016). The realization of data saturation is achieved when no new substantive information is acquired, demonstration of efforts made through the collection of evidence or the triangulation with other sources, and when data is not limiting the case study falsely due to exhaustion of resources (Hancock et al., 2016; Yin, 2014). To achieve data saturation, I thoroughly explored all available documentation and archived data in detail, and evaluated responses from participant interviews until no new information emerged.

Population and Sampling

Many existing research efforts involved the use of the purposive sampling method for selection of participants. I used purposive sampling to explore the strategies that managers of small businesses require for survival in a competitive environment. Purposeful sampling involves choosing a small number of information-rich cases most

likely to produce the maximum amount of information needed while minimizing the time and cost necessary for the researcher to address the research question (Iqbal, Zakar, Zakar, & Fischer, 2017). Conducting purposeful sampling can be a way to obtain a representative sample of a larger population to serve a specific purpose (Benoot et al., 2016; Bernard et al., 2016). Iqbal et al. (2017) concluded purposeful sampling involves the search for participants who are well-informed of the phenomena and possess the qualities for an information-rich in-depth study.

Typical sample size does not apply when contemplating a qualitative multiple case study design (Yin, 2014). Qualitative studies do not have a commonly accepted sample size because the ideal sample is contingent on the purpose of the study, the intent of the research questions, and fullness of the data received from participants (Elo et al., 2014). The basis for identifying the sample size of participants is to explore diversity rather than statistical significance (Elsawah, Guillaume, Filatova, Rook, & Jakeman, 2015). In case study research, the researcher studies one or a few cases of a phenomenon in depth (Yin, 2014). Boddy and Boddy (2016) recommended the use of the concept of saturation to determine the qualitative sample size because analyzing a large sample is time-consuming and impractical. I used this sampling technique to select managers of 10 small oilfield service companies with the necessary expertise and experience to contribute in this study. The participants included managers of small businesses (less than 50 employees) who have been in business for at least 5 years. The knowledge or expertise of these managers could enhance a researcher's understanding of business problems, research questions, as well as specific issues related to the study.

Other factors may exist affecting sample size in qualitative studies such as data saturation. Data saturation can be used as a guiding principle during a researcher's data collection process (Hammarberg, Kirkman, & De Lacey, 2016). Saturation is the point at which the research data becomes repetitive and reveals no new information (Elsawah et al., 2015; Smith & Chudleigh, 2015). I interviewed 10 small business owners but was prepared to interview additional respondents if needed. I achieved data saturation when no new data emerged, so additional participants were not needed.

The criteria for selecting participants included their position as owner or manager of a small oilfield service company in the Rocky Mountain region of the United States. The participants were owners or managers of a successfully operated small business for at least 5 years. There was no income requirement for participants, but they had to be profitable and operate their business within Montana, Idaho, Wyoming, Utah, and Colorado.

I attempted to conduct each interview in a setting that was most comfortable for the participant and in an environment that enabled participants to respond with open and honest personal experiences. Wilson, Slaughter, Forbes, Hanson, and Khadaroo (2016) claimed members are not likely to be distracted and will more likely share information when the interview took place in the comfort of their environment and scheduled at their convenience. Therefore, participants were afforded the opportunity to select the setting that minimized interruptions for interviews lasting for 30 to 45 minutes. When participants are in a comfortable setting, they may be more willing to share sensitive information (Deakin & Wakefield, 2014).

Ethical Research

Before I began my research, and to gain an understanding of ethical research, I completed the National Institute of Health (NIH) Protecting Human Research Participants course. Ethical research begins with informed consent from participants. Informed consent is the process by which a participant voluntarily endorses their willingness to participate after having been informed of all aspects of the proposed study (Dal-Ré, Carcas, Carné, & Wendler, 2017). Once I received Incident Review Board (IRB) approval (approval number 05-09-18-0284063), each participant received an informed consent form identifying the purpose of the study, their role as participants, my responsibilities as the researcher, and any confidentiality procedures. An IRB assessment is vital for approved research involving human participants (Tsan & Tsan, 2015). The language on the consent form indicated participation was voluntary, explained there is no incentive for participating, and participants were free to withdraw from the study at any time and for any reason without reprisal. Participants were also informed they may communicate their intention to withdraw their participation in person, by telephone, or by email.

Trustworthy research rests on the integrity of the researcher (McLaughlin & Alfaro-Velcamp, 2015). To ensure trustworthiness, ethical protection, and privacy, I maintained integrity in all my dealings with participants and expected each participant to reciprocate. I will not include study participants' names or the name of their organization in my findings; therefore, data protection measures were taken to label the study participants using designators from P1 to P10, where P will refer to the participant.

Responses from participants were coded, which will make it difficult to link participants to their responses keeping the participants and organizations confidential. All data, including the informed consent form, any recorded electronic data, hard copies of the research data and transcripts, and information related to individuals or organizations participating in the study will be protected on a thumb drive and stored in a secure, fireproof safe for 5 years to protect the confidentiality of participants. After 5 years, I will destroy the information by shredding the paper documents and erasing any e-data.

Data Collection Instruments

As the researcher for this study, I was the primary data collection instrument. In qualitative research, the researcher is the primary data collection instrument because the researcher observes, interprets, and records the data (Allen, Hancock, & Vardaman, 2014; Devotta et al., 2016; Morgan, Pullon, Macdonald, McKinlay, & Gray, 2016; Marshall & Rossman, 2016; McGannon & Smith, 2015; Yin, 2014). Case study data collection requires multiple resources of data gathering (Yin, 2014). As a data collection process, I gathered and triangulated information from semistructured interviews, archived documents, company marketing materials, and public information regarding the participant businesses on government or company websites. Data triangulation in qualitative research may result in a broader understanding of the phenomenon of interest (Bureau & Andersen, 2014; Carter, Bryant-Lukosius, DiCenso, Blythe, & Neville, 2014). Data triangulation led to enhanced reliability and validity of the data collection instrument process.

I conducted semistructured interviews face-to-face and by telephone according to established protocols that apply to the research question, the research method, and the research design. Face-to-face interviews provide the advantage of inserting the researcher into the interviewee's contextual environment (Carayannis, Sindakis, & Walter, 2015; Collins & Cooper, 2014). Kallio, Pietilä, Johnson, and Kangasniemi (2016) argued semistructured interviews are a good way for a researcher to focus on the details that answer the research question. I created an interview protocol to ensure consistency throughout the process of capturing small business leaders' experiences and perceptions related to their business during boom and bust periods in the industry (see Appendix A). An interview protocol helps to guide the interviewer with a step-by-step approach through all phases of the investigative process, which maximizes the amount of information elicited from memory (Benia, Hauck-Filho, Dillenburg, & Stein, 2015).

Research reliability and validity of the instruments can be achieved through the use of an expert panel to validate interview questions, member checking after semistructured interviews, and triangulation of multiple data collection methods (Birt, Scott, Cavers, Campbell, & Walter, 2016; Carter et al., 2014; Taylor & Thomas-Gregory, 2015; Wang, Xiao, He, & Bellis, 2014; Yin, 2014). I performed member checking and triangulation of multiple sources of data. Member checking consists of performing the interview, recording what a participant says, restating the data with the participant for accuracy, and validating the emerging themes, which are consistent with the participant's intended description of events (Marshall & Rossman, 2016; Strauss & Corbin, 2015). Data triangulation is a validity procedure where researchers base their conclusions on

different sources of information (Bekhet & Zauszniewski, 2014; Cope, 2014). For example, a researcher might compare conclusions from interviews to ensure consistency with discoveries from company documents or websites and observations. When more themes or similarities are confirmed by different data sources, validity is proven.

Data Collection Technique

To thoroughly cover the complexity of a problem, a case study should rely on multiple sources of data collection, which may include questionnaires, focus groups, archived documents, observations, and interviews (Birt et al., 2016; Carter et al., 2014; Taylor & Thomas-Gregory, 2015; Wang et al., 2014; Yin, 2014). The technique I used for data collection was a combination of documents from archived records and semistructured interviews, which were recorded using an audio recording device. When conducting qualitative research, researchers gather information to describe a phenomenon in a broad manner (Devotta et al., 2016; Hancock et al., 2016; Yin, 2014; Yin, 2016).

There are advantages and disadvantages of each data collection technique. Results from questionnaires are easy to tabulate, score, and analyze; however, questionnaires usually only provide a snapshot of a concern and do not provide for an in-depth analysis of an issue (Patten, 2017). I did not use questionnaires as a data collection technique. Focus groups are suited to environments in which members are knowledgeable, willing, and capable of communicating in a group setting (Krueger, Colletti, Bogner, & Stineman, 2017). A focus group approach was not used to collect data for this study because the technique does not allow for confidentiality or the ability to establish rapport with participants. Archived records can hold both published and unpublished materials and can

be in many formats (U.S. National Archives and Records Administration, 2017). Two disadvantages of using archived records for data collection are the accessibility due to privacy reasons and the potential for unknown bias from the original author (Yin, 2014). Data collection using observation techniques can provide a holistic perspective to the research setting (Holloway & Galvin, 2017). When researchers choose to observe, they look at participants in their natural setting. Bell, Fahmy, and Gordon (2016) argued observation compliments the interviewing technique. The challenges related to observation have to do with the potential biases produced (Floman, Hagelskamp, Brackett, & Rivers, 2017; Hancock et al., 2016), and the process can be time-consuming and costly because of the man-hours needed (Yin, 2014). Interviews are the primary source of data collection for qualitative case studies (Yin, 2014). Disadvantages of using interviews for data collection include inaccuracies due to poor recall of events from participants, and the interviewee may give answers to what they think the interviewer wants to hear (Yin, 2014).

After obtaining IRB approval, the protocol for data collection was to contact at least 10 small business leaders to request an interview. Interviews were the primary source of data collection. Conducting interviews and in-person data collection enables researchers to collect rich and deep data (Alsaawi, 2014; Yin, 2014). The goal of the interviews was to achieve data saturation. Data saturation is achieved when no new information is revealed (Fusch & Ness, 2015; Yin, 2014). Individual interviews should occur during onsite visits to the organization and at interviewee preference (Morse & McEvoy, 2014). I administered interviews face-to-face and via telephone one participant

at a time. Face-to-face interviews require communication and listening skills of the interviewer such as when to pause, probe, or prompt appropriately, and are necessary for a qualitative study (Chao, Murray, & Star, 2016; Gilakjani & Sabouri, 2016). Face-to-face interviews allow for the capacity to establish rapport, provide humor, fostering trust, and demonstrate mutual respect (Bailey & Bailey, 2017; Brinkmann, 2016). Interviews allow for open-ended questions so that participants can share their thoughts and experiences (Kristin, 2016). The interview questions asked were open-ended, so participants were able to provide answers to *what*, *how*, or *why* type questions (see Appendix A).

As secondary data collection techniques, I used a combination of documents from archived records and participant observations during the interview. To create an in-depth qualitative case study, it is imperative to observe each participant in their natural environment (Morgan et al., 2016; Ramani & Mann, 2016; Yin, 2014). Observations during an interview can provide multidimensional research experience and degree of objectivity to the data collection process (Guerrero et al., 2017; Joslin & Müller, 2016). I recorded descriptive and reflective notes of the non-verbal cues of the participants' communication behaviors.

I did not conduct a pilot study with my data collection as this approach was not necessary for this study. A pilot study is a preliminary study aimed at developing testing, or refining research and results that will be used later in the formal case study (Yin, 2014). In the pilot studies, researchers may complete informal interviews or administer questionnaires to a percentage of the total sample. A pilot study was not necessary for

this study because the main objective of a pilot study is to determine whether conducting a larger study is worth the effort (Eldridge, Costelloe, Kahan, Lancaster, & Kerry, 2016).

I used member checking and data triangulation to support data dependability and credibility in the data collection techniques. Member checking improves the accuracy of the collected data (Harvey, 2015; Marshall & Rossman, 2016; Strauss & Corbin, 2015). Member checking is the process of taking ideas back to research participants for their confirmation on the accuracy of data gathered, descriptions, or even interpretations (Harvey, 2015). From the beginning of the interview with participants, I explained the purpose of the research. I transcribed responses from the interviews to validate the accuracy of the interview results and performed member checking of the interview responses for verification of their responses. Participants were encouraged to review my interpretations of their interview responses and contact me with any suggested changes. I encouraged participants to respond within 1 week to share thoughts concerning my interpretation of their responses. Participants provide confirmation of a researcher's interpretation of interviews or disagreement by serving as expert judges of findings (Thomas, 2017; Wolgemuth, et al., 2015). I evaluated interview responses to create codes and themes to determine data saturation.

Data Organization Techniques

Proper data organization is crucial for ensuring the reliability of the research data because the techniques used address possible concerns relating to privacy, information security, maintenance, and retention of the research data. Data organization techniques include data storage, data categorization, and data cleaning (Soares, Bastos, Rodrigues,

Pereira, & Baptista, 2015). Data organization can assist a researcher in the creation of an audit trail, which can be cross-referenced with other sources of data (Soares et al., 2015; Yin, 2014). The intent of organizing data is to (a) learn, (b) understand, (c) make inferences, (d) enable discovery, and (e) clarify results identified by computer programs (Soergel, 2015). I used research logs as my primary data organizing technique to collect, record, tag, track, and organize all interview information and other data collected during this study. Research logs are a tool enabling researchers to organize data and develop search patterns to manage time effectively (Yin, 2014). I also used a reflective journal to record my findings and thoughts throughout the research process. Reflective journals comprised of notes, concepts, events, or interactions over a period enable researchers to gain insight and learning (Yang, Tai, & Lim, 2015). Data from the research logs, a reflective journal, interview responses, and relevant internal or external corporate documents were entered into NVivo software to assist in organizing the data into codes and themes. I used a Microsoft Excel spreadsheet to display the collected data from NVivo and pattern check to determine the commonality within the data.

I identified and stored all digital files related to the research in a password-protected folder while research was occurring. Now that the research is complete, I will store the collected data for 5 years to meet Walden University requirements. After 5 years, I will delete from the computer memory or temporary storage devices and shred all papers and physical evidence related to the research.

Data Analysis

Because my research incorporated a case study approach, I used methodological triangulation to perform data analysis. Triangulation occurs when researchers use multiple sources to draw conclusions (Cope, 2014). There are five types of triangulation (a) data triangulation, (b) investigator triangulation, (c) methodological triangulation, (d) theory triangulation, and (e) philosophical triangulation (Joslin & Müller, 2016). Methodological triangulation involves using multiple methods of analysis to study a phenomenon. Methodological triangulation allows researchers to use multiple sources of data, including semistructured face-to-face interviews, a company's internal or external documents, and observation (Vallon & Grechenig, 2016). When researchers use interviews and multiple data collection methods to analyze a company's internal and external documents, methodological triangulation aids the analysis technique (Mata & Portugal, 2015). Methodological triangulation has been found beneficial for confirming findings, providing for more comprehensive data analysis, and increasing the validity and understanding of phenomena (Bekhet & Zauszniewski, 2014).

Different research designs require different data analysis processes. Data analysis often involves the sequential process of compiling, disassembling, reassembling, interpreting, and concluding (Yin, 2016). A sequential process for the data analysis of this research began with an analysis of all primary data from the semistructured interview questions, company documents and websites, and review of my research logs and journals. Following my initial analysis, I used a three-step process of (a) inputting the data into the NVivo software program, (b) manually checking for accuracy and

redundancy, and (c) searching out themes within the data. NVivo software assists with the organization of data to reduce the time needed for coding and categorizing data during the analysis stage and facilitates data management (Boddy & Boddy, 2016; Castleberry, 2014; Cridland, Jones, Caputi, & Magee, 2015).

Identification of data using specific codes was the next phase of analysis. A researcher uses coding to identify themes from the interview transcriptions and other collected data to reach saturation, which ensures the reliability, validity, and credibility of the study (Yin, 2014). Coding of interview transcripts and other data should continue until discrepancies are eliminated, and satisfaction data saturation has been achieved (Nelson, 2016). The process of organizing codes into categories will be instinctive, using a constant comparison between interview transcripts and other collected data to identify common and recurrent themes. In effect, organizing the data into a specific order to create fragments and labels, and then reassembling into sequences and groups can enable a researcher to form interpretations and conclusions (Yin, 2016). As common themes developed, I gained an increased understanding of corporate governance strategies for reducing small business failures in the industry.

The final step was to correlate the key themes with existing literature and the conceptual framework of DCT to develop a conclusion. The conceptual framework is the connection between the literature, method, and the findings of the study (Borrego, Foster, & Froyd, 2014). The fundamental principle of the DCT as a conceptual framework is the ability to incorporate, shape, and organize internal and external competencies to address rapidly changing environments (Teece et al., 1997). The DCT offers guidelines to

communicate to small business managers, industry stakeholders, and future researchers about critical factors influencing attributes that may contribute to small business failure. Understanding *what*, *how*, or *why* failures occur, provides managers with a framework to design and implement strategies to mitigate losses (DuHadway, Carnovale, & Hazen, 2017; Millsted, Redmond, & Walker, 2016). The use of existing literature and the DCT provides a framework for developing strategies for interested parties and aligns with the needs for this doctoral study, providing a framework of communication guidelines to mitigate failures resulting from a boom or bust in the industry.

Reliability and Validity

For every research study, readers raise questions about reliability, validity, and generalizability. While these terms generally apply to quantitative research, the correlating terms for qualitative research are dependability for reliability, and credibility, confirmability, and transferability for validity. The commensurate term for generalizability in qualitative research is transferability (Bailey & Bailey, 2017; Weis & Willems, 2017). In qualitative research, reliability means assuring the data presented is accurate and inclusive, and the experiment or test yields the same results on repeated trials, while validity means ensuring data measured actually reflects the concept it is intended to measure (Fikkers, Piotrowski, & Valkenburg, 2017). Qualitative researchers address the reliability and validity of their research when planning, evaluating results, and assessing the quality of their findings (Devotta et al., 2016; McGannon & Smith, 2015; Yin, 2014; Yin, 2016). Addressing reliability and validity is an important issue because peers and future researchers need to perceive the research as trustworthy (Morse, 2015).

The terms used to indicate a study is trustworthy are dependability, credibility, confirmability, and transferability (Wamba, Akter, Edwards, Chopin, & Gnanzou, 2015). Performing a research study with rigor also assures the quality of the research findings are trustworthy (Hadi & Closs, 2016; Morse, 2015). I arranged for rigor when conducting this research study to ensure trustworthiness.

Reliability

Researchers demonstrate reliability when the data collection process is consistent and results are repeatable. Reliability in qualitative research refers to how a researcher has addressed dependability (Bailey & Bailey, 2017; Hancock et al., 2016). To demonstrate dependability, I described the research design, the research processes, details used for gathering data, and the evaluation of the effectiveness of the process of the study. I performed member checking and triangulation of multiple sources of information. Member checking consists of performing the interview, recording what a participant says, interpreting the data with the participant for accuracy, and validating that the emerging themes are consistent with the participant's intended description of events (Marshall & Rossman, 2016; Strauss & Corbin, 2015). If future researchers believe their situations to be similar to findings described in a study, they may relate or transfer the findings to their own research (Marshall & Rossman, 2016).

Validity

The primary focus of this research was to understand the governance strategies of small oilfield service company managers and convincingly represent those strategies in written text. Some of the threats to a study include insufficient or biased knowledge and

lack of validity (Marshall & Rossman, 2016). Validity implies all facets of the research process are trustworthy and possess credibility, transferability, and confirmability (Farokhzadian, Nayeri, & Borhani, 2015). Researchers have developed several tactics to address validity to include: (a) persistent engagement, (b) triangulation, (c) peer review, (d) case analysis, (e) clarifying researcher bias, (f) rich and thick description, and (g) member checking (Schaik, O'Brien, Almeida, & Adler, 2014). To ensure validity, mitigate bias, and demonstrate trustworthiness, I attempted to methodologically triangulate the information I collected until I reached data saturation.

Credibility. In research studies, credibility is the degree to which individuals receiving the message perceive the message as believable. Credibility is a process that includes scrutinizing the findings of the information presented to assess whether the analysis and results are accurate (Anney, 2014; Birt et al., 2016). A qualitative study is credible when individuals share the same experience and recognize the accounts of human experiences (Cope, 2014). A researcher can enhance credibility through several means, which may include member checking interview responses, data triangulation, following established interview protocols, participating in focus groups, and observation of participants (Cope, 2014; Hyett, Kenny, & Dickson-Swift, 2014; Marshall & Rossman, 2016; Yin 2014). I used member checking and data triangulation to ensure the credibility of this study and to enhance accuracy.

Member checking improves the accuracy of the collected data. Member checking is the process of taking ideas back to research participants for their confirmation on the accuracy of data gathered, description of events, or even interpretations of responses

(Harvey, 2015). From the beginning of the interview with participants, I explained the purpose of the research. I transcribed responses from the interviews to validate the accuracy of the interview results and provided the responses to the participant via email for verification of their responses.

Methodical triangulation leads to enhanced reliability and validity of the data collection process. Triangulation in qualitative research may result in a broader understanding of the phenomenon of interest (Bureau & Andersen, 2014; Carter, Bryant-Lukosius, DiCenso, Blythe, & Neville, 2014). Methodical triangulation is a validity procedure where researchers base their conclusions on different sources of information (Bekhet & Zauszniewski, 2014; Cope, 2014). For example, a researcher might compare conclusions from interviews to ensure consistency with discoveries from company documents or websites and observations. Researchers use triangulation to compare different sources of data and draw conclusions to support accurate analysis (Bekhet & Zauszniewski, 2014; Cope, 2014). Validity is enhanced when different data sources confirm themes or similarities.

Transferability. Transferability occurs when the results of a study are generalizable or transferable to different environments or settings. In qualitative research, transferability is essential if the study results are to have meaning for individuals and readers not participating in the study (Cope, 2014). Transferability of research requires the researchers to provide thorough explanations of all the research processes from data collection, the context of the study, and the final report (Soares et al., 2015). Using transferability as a method to determine the exchange of a researcher's findings links

their completed study to other similar studies (Black, Palombaro, & Dole, 2013; Elo et al., 2014). I demonstrated how the findings of this study will be transferable to others through explanations of data collection, analysis techniques for the research design, the interview protocol, reaching data saturation, and a final report to meet the requirements of transferability.

Confirmability. Confirmability is the process where results can be confirmed or supported by others. Confirmability is the ability to show how the study findings represent the participant's responses and not the researcher's biased opinions or perceptions (Cope, 2014; Kallio, et al., 2016). Some researchers closely link confirmability to dependability in referring to the impartiality and truthfulness of the data (Bailey & Bailey, 2017; Hancock et al., 2016). The aim of this research was to provide information, without bias, which accurately reflects the participants' views. I used methodological triangulation, information from relevant company documents, responses from semistructured interview questions, and follow-up member checking to enhance the confirmability and dependability of data.

Data Saturation. Researchers use data saturation as a criterion to signal the quality of qualitative research for its transparency and credibility. Data saturation is the *gold standard* in qualitative research (Hancock et al., 2016). The realization of data saturation is achieved when no new substantive information is acquired, demonstration of efforts made through the collection of evidence or the triangulation with other sources, and when data is not limiting the case study falsely due to exhaustion of resources (Hancock et al., 2016; Yin, 2014). Saturation is the point at which the research data

becomes repetitive and reveals no new information (Elsawah et al., 2015; Onwuegbuzie & Byers, 2014; Smith & Chudleigh, 2015). Reaching data saturation will help assure the dependability of the findings. To achieve data saturation, I explored all available company documentation and archived data in detail, interviewed 10 small business owners or managers who possess the knowledge necessary to understand the problem being investigated, and evaluated responses from each participant until no new information emerged. I planned to conduct additional interviews if needed to reach saturation, but when no new data emerged, additional participants were not needed.

Transition and Summary

The purpose of this qualitative multiple-case study was to explore the strategies some small oilfield service company managers use to sustain profitability through boom and bust cycles. The study consists of three sections, which include the foundation of the research, the project, and the application for professional practice and implications for social change. Section 1 is a focus on the foundation, topic, and problem. In this section, I presented information to introduce the topic and the need to solve an applied business problem. This section reported on the collected works that closely relate to the topic and demonstrate a rich and comprehensive review of areas that might influence the sustainability of a small business in the oil and gas industry. In Section 2, I outlined my approach to the study, which included my role as the researcher, the participants involved in the research, the proposed research methodology, and the participant population. Subsequent sections followed where I explained the data collection and data analysis. Finally, I presented a discussion regarding reliability and validity procedures for the

study. In Section 3, I will present my findings relevant to the research question. Section 3 contains the results of the completed research and the themes small business managers identified as their strategies to sustain profitability. This documented study includes a discussion of the findings in the context of implications for social change, recommendations for action, suggestions for further study, and my reflections on the research study.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of this qualitative multiple-case study was to explore the strategies some small oilfield service company managers use to sustain profitability through boom and bust cycles. The findings came from my interviews with 10 successful small business owners and from my review of market-related material and online resources used by the small business managers whose businesses were in the Rocky Mountain region of the United States (i.e., Montana, Idaho, Wyoming, Utah, and Colorado). Using methodological triangulation of all the data sources, I identified four emergent themes related to the sustainability strategies used to ensure small business survival in an uncertain industry: (a) networking or relationship strategies, (b) financial planning strategies, (c) differentiation strategies, and (d) education and experience strategies.

Presentation of the Findings

The central research question that guided this study was: What strategies do small oilfield service company managers use to sustain profitability? I used a qualitative research method and a multiple case study design to provide the insight information needed to answer the research question. I attempted to gather information from various businesses in the industry to provide relevant data. I conducted semistructured interviews and recorded each participant's answers word for word to collect data that involved the nine open-ended questions among 10 small business owners in the Rocky Mountain region of the United States (see Appendix A). I used an interview protocol and member checking process to mitigate my biases, and I used a triangulation approach for validity

and reliability in data analysis. To triangulate data sources, I used existing peer-reviewed literature, public websites, official government documents, and the interviewees' comments. Member checking assured the reliability and validity of the interview data. Thematic analysis and the NVivo software program encompassed my analysis of the interview data for identifying themes. I reached data saturation when no new information or themes appeared and the data became repetitive.

To ensure confidentiality in the data collection and analysis, I assigned a number for participant identification such as P1, P2, and P3. Subsequently, I used the NVivo software program to identify and link similarities in the data as well as reviewing the data manually for redundancy, checking for accuracy, and identifying themes within the data. Combining this approach with a multiple case study design, I was able to gain an enhanced understanding of the phenomena and the participants' experiences.

As indicated in Table 2, there were four emerging themes from the content analysis. The themes indicated strategies small business owners needed to sustain their business through boom and bust cycles and included: (a) networking or relationship strategies, (b) financial planning strategies, (c) differentiation strategies, and (d) education and experience strategies. In the subsections that follow, I will discuss each theme that resulted from the interviews and compare those themes to the corresponding literature reviewed in this study. The sources identified in each table represent the responses from participant interviews. The references column in each table shows the number of times the node or theme was referenced by the sources.

Table 2

<i>Emergent Themes</i>		
Nodes/Themes	Number of Respondents	Number of Times the Theme was Addressed
Networking or relationship strategies	9	15
Financial planning strategies	7	12
Differentiation strategies	6	9
Education and experience strategies	7	7

Participation requirements for this study were: (a) owning or managing a small business in the Rocky Mountain region of the United States for at least 5 years, (b) performing work as an oilfield service company supporting the oil and natural gas industry, and (c) employing less than 50 employees. After reviewing local Chamber of Commerce data and company websites in the chosen area of study, I contacted 44 candidates by email and provided an invitation to participate. Eleven individuals responded accepting the invitation to participate. As indicated in Table 3, one respondent who initially accepted the invitation later became unavailable due to other commitments. Five respondents were available for a face-to-face interview while the remaining five interviews were conducted by telephone.

Table 3

<i>Response from Business Managers</i>		
	Number of Participants	Percentage of Participants
Number of Respondents Accepted	10	22%
Number of Respondents Rejected	1	2%
Number of Non-Responses	33	75%

There was one participant from each of the following service sectors: (a) roustabout services, (b) production operator and general laborer, (c) heavy machinery and

equipment, (d) materials management expeditor, (e) supply chain and purchasing, (f) warehousing, (g) fishing and drilling rental tools, (h) water and liquids hauling, (i) civil engineering, and (j) cementing. At the time of the interviews, P1 had over 10 years of experience and was the manager of a business that provided roustabout workers with broad-based, non-specific skills, capable of maintaining various tasks throughout the oilfields. P2 was the manager of a business with 33 years of experience and provided contract operators and general laborers who monitor and maintain drilled wells. P3 had 28 years of experience and was the owner and manager of a business that provided large earth moving equipment to establish onshore drilling locations or reclaim those locations to the land's original condition after the well had completed its lifecycle. P4 had nearly 35 years of experience in the industry and owned and managed a company capable of providing propane to trucks and servicing equipment operating on oilfield locations. P5 had over 15 years of oil and natural gas experience and was manager of a maintenance, repair, and operations (MRO) business that provided supply chain and purchasing functions. P6 had been the manager of a warehouse business for over 15 years and provided parts and supplies needed to construct and maintain oilfield equipment. P7 had approximately 30 years of experience owning and managing a fishing and rental tool company. P8 had 14 years of experience in the industry and owned and managed a company with a fleet of trucks capable of hauling various types of fluids, MRO materials, or equipment. P9 had over 25 years of experience and had been providing engineered drawings for well locations and surface equipment. P10 had nearly 20 years of experience

managing a small company that provided cementing services to protect and seal the wellbore.

Because the participants were from such diverse service sectors, I was able to obtain varied points of view. However, I reached data saturation when I interviewed the manager of the eighth small business. Data saturation is when the responses begin to repeat and when no new information or coding themes occur (Fusch & Ness, 2015). Because I scheduled meetings with all 10 participants that responded, I continued to meet with all participants until interviews with all 10 participants were complete, which confirmed data saturation. The process I completed for data analysis included transcription of verbal interviews, cyclical review for themes and sub-themes, coding, and synthesis. I personally transcribed all 10 audio recordings of the interviews. During the transcription process, I attempted to categorize and document common themes. I entered sections of the transcribed interviews and data I obtained into the NVivo program to create the following themes.

Emergent Theme 1: Networking and Relationship Strategies

The first and most noticeable theme emerging from the participants was the need for small business owners to build relationships with their customers. Most participants responded by stating that regular communication with clients, building trust with the customers, and enhancing the customer service experience were symbols of a relationship-building strategy and enabled their small businesses to survive through the boom and bust periods. After hand coding, I entered the data into the NVivo program to

verify this theme, which revealed nine data sources, supported by 15 references and is indicated in Table 4.

Table 4

<i>Theme 1: Networking and Relationship Strategies</i>		
Node/Theme	Sources	References
Networking and relationship strategies	9	15

Most participants acknowledged that building customer relationships create retention and sustainability. Nine of the 10 participants stated that maintaining a good relationship with both existing and new clients was paramount to long-term business sustainability and growth. Participants' responses referenced the need to build trusting relationships with consumers during slow times to secure more referrals and expand their customer base. For instance, P3 stated,

The oil and gas industry is constantly changing their products, so we have to be able to change our equipment and adapt to the changes of the industry or try to anticipate those changes whenever possible through project managers as they see what's happening on the ground and have a close relationship with the oil and gas company. We try to develop some trust in there to see what's coming up and so that we can anticipate and acquire the necessary equipment.

In line with the relationship-building theme, P8 added,

One thing I would like to emphasize though is the importance of the relationship between the service company and the people they serve. Being able to have open, honest, and candid communication benefits everyone. This way, the people running the company understand the needs of their customers and how the

company is functioning. The customers also know the challenges the company is facing as they provide that service. The relationship is the most important part of keeping a business running, especially during a bust period.

P6 summed up the value of building relationships by stating,

We may lose a customer or two to get through, but we're still going to have work. As long as we're taking care of that relationship and as long as we watch the price, we will get through the bust cycle.

Correlation to the literature. Data collected from participants has shown that constant communication and the process of establishing a trustful relationship with customers, suppliers, and other industry professionals is essential for long-term business sustainability. The finding of creating a relationship strategy aligns with concepts from Westrenius and Barnes (2015) in that small business managers who know their stakeholders and attend to their needs can positively affect the profitability of their businesses. Zaefarian, Thiesbrummel, Henneberg, and Naudé (2017) suggested that for businesses to maintain a long-term business existence and stay competitive, they need to manage business relationships. Relationships are increasingly important to small business owners because they can help recognize valuable opportunities (Shu, Ren, & Zheng, 2018).

Ninety percent of participants interviewed for this study stressed a strategy for networking and building relationships with employees and customers. Leadership strategies that include a close relationship with the customer, the ability to adapt to market trends, and the talent to communicate the business strategy will significantly

increase chances for success (Bóna & Lippert, 2015; Shen et al., 2016). Diversification of products, services, or markets, and maintaining relationships with existing clients while establishing new customers will enable a business to survive in a challenging financial environment (Honest & Ephraim, 2013). Therefore, I concluded that the literature review and participant responses have confirmed that to operate a business effectively and to achieve long-term business sustainability, small business owners in the oil and gas industry should cultivate strong relationships with their customers and partners.

Correlation to the conceptual framework. Teece et al. (1997) claimed that one of the three dynamic capabilities that are necessary for an organization to meet new challenges is to incorporate customer feedback. Collaborations and relationships can be a source of new learning that can help companies recognize undesirable routines and prevent strategic blind spots. Teece et al. (2007) also suggested that a dynamic capability framework includes the variables and relationships that need to be manipulated to produce, defend, and influence intangible assets to achieve superior performance and avoid bankruptcy. In a dynamically competitive era, collaborative relationships amongst people with different skills, diverse groups, and sometimes professionals outside the organization are essential for economic development (Teece, 2009). Thus, the DCT, the conceptual framework for this study, helps to explain how a business can create value from a relationship when there is a strategic fit between organizations.

Emergent Theme 2: Financial Planning Strategies

The second emergent theme was the need for small business owners to have access to financial capital during all stages of the business's lifecycle. In 70% of

interview responses, participants explained the financial support that helped to create and enabled their small businesses to survive for at least 5 years. After hand coding the participant responses, I combined the transcribed data along with other referenced material into the NVivo program to authenticate this theme. Table 5 represents theme two and shows the coding data analysis from seven sources with 12 references for financial planning.

Table 5

Theme 2: Financial Planning Strategies

Node/Theme	Sources	References
Financial planning strategies	7	12

Some participants used financial planning strategies to indicate whether financial resources are available, or the market is a stable investment. For instance, comments from three participants were similar. P3 summarized those comments by stating,

Companies need to continually monitor the market and their finances. We constantly watch news reports on TV, read stories on the internet that pertain to oil and gas, and we talk with the companies we support. Having a good relationship with the companies we service gives us a good idea of what their plans are, which helps us make decisions about our own company. We're also constantly watching our finances. Truck repairs, fuel costs, and employee wages are probably our biggest expenses. If we can watch for trends in those areas and try to find ways to be more efficient, our finances usually work out okay.

P7 provided the following statement about the importance of financial planning,

I gauge everything on how much I will net. How much we net determines whether or not we're being effective. For example, we can run a million dollars a month, but if our bills are 1.5 million, then we're not being effective at making money. If I'm making money, that's good! If I'm not, there something wrong and I need to change. And, I need to figure it out quick because I do not like to lose money.

P8 echoed other participant comments about finances while addressing the challenges to remain sustainable,

We watch what we are making versus what we are spending. We have to make decisions about which repairs need to be done and which ones can wait. We basically need to make sure we have enough money coming in to cover all the costs we have going out. If we can cover those costs each day, each week, or each month, we can sustain ourselves for another month and hopefully until a boom happens again.

Correlation to the literature. The literature revealed that financial strategies could be important for small businesses because these types of businesses typically experience difficulties obtaining funding due to their lack of financial history, available collateral, and the perception of risks associated with funding new ventures. For example, some business studies have identified financial performance as a representation of a successful organization (Buowari, 2015). Small businesses need immediate access to funds to meet daily obligations (Bellavitis et al., 2017). Financial planning is essential for establishing the monetary goals of the business (Albuquerque, Filho, Nagano, & Philippsen, 2016). Financial success predominantly sustains the tangible resources for

ongoing operation and growth (Bush, 2016; Fraser, Bhaumik, & Wright, 2015; Mazzei et al., 2016). Thus, existing literature indicated that funding is critical for small business owners to maintain sustainability and profitability.

All participants interviewed for this study favored a strategy for funding their business, which ranged from self-financing, private financiers, and banks. If small business managers understand how to apply financial strategies to their business, their business is more likely to be successful in any environment, even during periods of uncertainty (Bellavitis et al., 2017; Vahlne et al., 2017). Therefore, I concluded that the literature review and participant responses have confirmed that a solid financial strategy can contribute significantly to long-term business sustainability.

Correlation to the conceptual framework. Teece et al. (1997) claimed that in the short-term, an organization's financial position and degree of leverage may have strategic implications in a dynamically changing environment. However, in the long-term, cash flow ought to be more influential in the assets that matter for competitive advantage. For example, the business's internal assets such as its technological assets, complementary assets, financial assets, reputational assets, institutional assets, and structural assets can influence long-term competitive advantage. This ideology is in line with the DCT, which consists of two essential elements (a) the ability to renew capabilities to create short-term economic positions, and (b) the ability to use these capabilities to position the organization for long-term competitive advantage (Teece et al., 1997). Hence, the DCT helps to explain how a business can create value from financial strategies that can be used to create and enable their small businesses to survive.

Theme 3: Differentiation Strategies

As some participants provided their challenges and strategies for sustainability, they revealed opportunities to differentiate or diversify their business from others in the industry. Successful business owners differentiate themselves from their competitors through specialization and by focusing on a market niche (Linton & Kask, 2017). After hand coding, I entered the data into the NVivo program to verify this theme, which revealed six data sources, supported by nine references and is indicated in Table 6.

Table 6

<i>Theme 3: Differentiation Strategies</i>		
Node/Theme	Sources	References
Differentiation strategies	6	9

Six of the participants acknowledged that every small business owner has to confront pressure from competition. P3 explained how he incorporated a differentiation strategy to set his company apart,

A lot of the marketing and advertising is probably close to what our competitors have, but I think our business is a little more diversified. That's something that's missed by a lot of people. We recently had to diversify more because of the market conditions. Starting about 2 years ago we looked into doing residential, while a lot of the competitors focused on just one product or service and they do a good job at it. That approach gave us the ability to provide a multitude of different services. This kind of sets us apart.

Business owners can also take a less expensive approach to set their business apart. For example, P4 stated he tries to set his business apart with personal service. P4 stated,

The one thing that we do is: The number that you call to reach our office comes directly to me. I take every phone call. I can't do that forever, but I try to take every phone call to make it a personal touch.

P9 and P10 added that their companies have tried to set themselves apart and create sustainability by working with industries outside of the oil and gas industry. For example, P9 stated,

We diversify our services by working on projects outside the industry. The oilfield companies are our first priority because there is more money there and we want to be loyal, but the work is usually not constant. We have found that if our equipment is not working, then we are not making money. We need to look at diversification to fill in the gaps.

Correlation to the literature. To set themselves apart from others providing similar services or to sustain their business during bust periods, six participants emphasized the importance of diversification and differentiation. Differentiation is an approach to meet customer demands in unique ways, such as product design, quality, speed, flexibility, and other value-added benefits (Linton & Kask, 2017). These views aligned with Hebert et al. (2013) who believed diversification of products, services, or markets, and maintaining relationships with existing clients while establishing new customers would enable a business to survive in a challenging environment. Alstete (2014) alleged market differentiation is the ability of a business to ensure that its brand, either product or service, stands out in the market as unique and difficult to replicate. These philosophies also aligned with Porter's (1980) idea that organizations could

overcome competitive forces through the use of three broad strategies (a) cost of leadership, (b) differentiation, and (c) focus. Porter's philosophies are similar to the strategies addressed by Alstete (2014), which include: (a) brand recognition, (b) competitive pricing, (c) excellent customer service, (d) enhancement of products, (e) location of the business, and (f) product customization. Because there are several ways in which small business managers can achieve differentiation in this industry, I concluded that the literature review and participant responses have confirmed that a differentiation strategy can contribute significantly to long-term business sustainability.

Correlation to the conceptual framework. Differentiation is at the essence of the DCT. The fundamental principle of the DCT is to provide a framework for the ability to incorporate, shape, and organize internal and external competencies to address rapidly changing environments (Teece et al., 1997). A business leader adjusts to those changing environments by looking at market conditions, technologies used, and various business models through different lenses (Teece, 2009). The capability to change depends on the ability to study the environment, evaluate market conditions, and quickly reconfigure or transform ahead of the competition to avoid imitation or mimics (Teece, 2009). Imitation occurs when companies discover and simply copy another company's routines and procedures. Mimicry occurs when firms discover alternative ways of achieving the same functionality (Teece et al., 1997). Accordingly, the DCT helps to explain how a small business can create a competitive advantage and differentiate itself in highly competitive environments like the oil and natural gas industry.

Emergent Theme 4: Education and Experience Strategies

While establishing rapport with participants and confirming they understood the intent of the study, each participant provided some information about their education, experience, and background. All participants volunteered information about themselves, which helped to formulate and understand how these factors influenced business strategies. After hand coding, I entered the data into the NVivo program to verify this theme, which revealed seven data sources, supported by seven references and is indicated in Table 7.

Table 7

Theme 4: Education and Experience Strategies

Node/Theme	Sources	References
Education and experience strategies	7	7

Preliminary discussions with participants during the introduction and recorded interview stages of the interview revealed that only three of the 10 participants received some type of formal education after high school. P1 stated he received a bachelor's degree in marketing following high school, P5 stated he completed a master's degree in business administration, and P10 has completed a bachelor's degree in chemical engineering. All other participants had no education beyond high school. Results showed that continuing education did not have an influence on company success. As P3 stated,

There is certainly an amount of experience that comes from working in the industry. I think that although you can go get a lot of education, you can bring on the people that have the experience. But, definitely, any type of education in

business management, accounting, or finances will always help out a great deal, but experience should not be overlooked.

P7 also supported the importance of experience over education while making the following comment,

Everybody has to be physically trained. You can't just go read this book or do this paperwork. That includes the people I hire. They all have to have over 10 years of oilfield experience before I even consider interviewing them for a job. That way I know that they've been out there or have some type of rig experience. Stuff like that. We don't get to do the paperwork—no research!

Correlation to the literature. Although education and experience strategies are identified as a theme, the existing literature did not align with participant responses regarding the education, experience, or background needed to operate a small business in this industry. Existing literature indicated that an advanced education increased chances for success. For example, Passaro, Quinto, and Thomas (2018) found that both advanced education and work experience increased the chances of small business survival. Jansen, van de Zande, Brinkkemper, Stam, and Varma (2015) found that innovative entrepreneurship was more likely to occur if the small business owner had an academic education. Nabi, Liñán, Fayolle, Krueger, and Walmsley (2017) posited that a manager's formal education level influenced the choice of entrepreneurial strategies for the business. Faggian, Partridge, and Malecki (2017) found that educational attainment, business knowledge, and managerial skills are valued assets for a small business to succeed in a highly competitive market.

The literature shows that knowledge can be an important organizational resource, which managers should regard as a source of sustainable competitive advantage. However, although most participants interviewed for this study favored a strategy for advanced education, findings revealed that an advanced education is not needed to operate a small business in this industry. Seventy percent of participants indicated they did not have formal education beyond high school. Their success shows that a high level of experience and other competencies will achieve greater performance outcomes for their businesses and increase an organization's chance of survival. Therefore, the qualitative results show that most small business managers interviewed, use their experience rather than an advanced education to help them overcome the challenges they encountered while operating a service company type business.

Correlation to the conceptual framework. Limited information exists connecting the DCT to education and experience strategies. However, Teece et al. (1997) did explain the concept of dynamic capabilities as a coordinative management process, which does allow for the potential for learning. Learning may be considered an internal competency in which repetition and experimentation enable tasks to be performed quicker and with improved accuracy. Learning through educational opportunities or experience can also enable new production opportunities to be identified (Teece et al., 1997). The ability to learn, adapt, and reconfigure capabilities creates sustainable value and competitive advantage (Shuen, Feiler, & Teece, 2014). Therefore, I concluded, that through the correlation of participant interviews from this study and existing literature, highly experienced and competent managers have the ability to sustain a business during

a boom or bust cycle using their business acumen. Results of this study indicated that small business leaders learn through experience rather than through formal education.

Applications to Professional Practice

Managers of small oilfield service companies can apply the findings of this study to aid in establishing sustainable strategies that will enable them to remain profitable during boom and bust periods in the industry. The emergent themes of this study offered suggestions for professional practice that explained why their business is important to local communities. Research revealed small business is important to rural communities because rural communities in the Rocky Mountain region of the United States (i.e., Montana, Idaho, Wyoming, Utah, and Colorado) rely on small businesses operating in the oil and natural gas industry to sustain themselves for economic prosperity (Dernbach & May, 2015). The results are also relevant to other professions in the industry because the study included practical solutions to small business owners regarding how they could operate their businesses successfully. Understanding these results is important because few researchers have shown the influence of oil price volatility on companies operating in the oil and gas industry (Li, Cheng, & Yang, 2015). Moreover, even fewer collected works exist where qualitative research ties unstable oil and natural gas prices with the profitability of small business service companies in the Rocky Mountain region of the United States. Therefore, the findings can serve as a guide to struggling small business owners to improve their business practices and avoid failure.

Implications for Social Change

Understanding the strategies small business managers used to sustain their business in volatile oil and natural gas environments can aid in developing a competitive advantage and enable a stable and sustainable business future. Therefore, the results from this study may have implications for positive social change for small business managers as those managers develop conditions that shape economic, social, cultural, and human environments. The resulting prosperity of small businesses could drive communities to form a collective commitment to shared goals, provide for increased employment opportunities, and improve the financial security for community members where these small businesses operate. Other small business managers may also benefit from this study by using the findings to develop an improved differentiation strategy to reduce the risk of failure and enhance a business-community presence. A stable business presence within communities could develop to promote robust social units and contribute to the social and economic well-being of the region.

Recommendations for Action

Throughout this qualitative multiple-case study, I explored the strategies some small oilfield service company managers use to sustain profitability through boom and bust cycles. This study was needed because rural communities in the Rocky Mountain region of the United States rely on small businesses operating in the oil and natural gas industry for economic prosperity. The recommendations from this research may aid small business owners and managers, leaders of community organizations, and future researchers who study small business sustainability. Entrepreneurs, small business

managers, and community leaders should consider the results of this study and recommendations because explicit knowledge has been shared and incorporating these recommendations could enable businesses to sustain profits and ensure economic prosperity. As a result of this study, I have identified three recommendations for small oilfield service company managers to use that may help to sustain profitability. Those recommendations include: (a) adopt a relationship strategy, (b) develop long-term and short-term financial strategies, and (c) differentiate and diversify products or services.

Adopting a relationship strategy is necessary for small businesses operating in the oil and natural gas industry. Triangulation of information obtained for this study has revealed the theme that trustful relationships are necessary to enable small business success and profitability in rapidly changing environments. Data has also shown that successful relationships allow business owners and managers to develop an understanding of the organization's ability to renew capabilities to create short-term economic positions and use these capabilities to position the organization for long-term competitive advantage and entrepreneurial success.

The second recommendation for small business owners and managers is to develop long-term and short-term financial strategies. Results from this study have shown that access to financial resources is a critical factor affecting the growth opportunities and long-term sustainability. The literature revealed that financial strategies could be important for small businesses because these types of businesses typically experience difficulties obtaining funding due to their lack of financial history, available collateral, and the perception of risks associated with funding new ventures. For example, if small

business managers understand how to apply financial strategies to their business, their business is more likely to be successful in any environment, even during periods of uncertainty (Bellavitis et al., 2017; Vahlne et al., 2017). Participants interviewed for this study also favored a strategy for funding their business, which ranged from self-financing, private financiers, and banks. Existing literature and participant responses have indicated that insufficient financial capital can expose a small business to the risk of failure, especially in a volatile industry.

The third recommendation for small business owners and managers is to differentiate and diversify products or services. Themes revealed in this study have shown that pursuing a differentiation strategy is important to agility and sustainability. The development of new products, services, or technology, and offering those facilities to others outside the oil and natural gas industry may mean the difference between success and failure during a boom or bust period.

Disseminating the results and recommendations of this study to participants, other small business owners, and community leaders in the region will be important to the growth and development of businesses operating in the industry. I will provide participants with an email containing a copy of the study for future reference and distribution. Upon request, I will announce the results of my study at business conferences, leadership summits, and by participating in training seminars. Finally, I will invite future researchers to perform peer review of this study for upcoming research.

Recommendations for Further Research

In this qualitative multiple case study, I have explored the strategies some small oilfield service company managers use to sustain profitability through boom and bust cycles. This study was similar to other scholarly inquiries in that this research conveyed some assumptions, limitations, and delimitations. There were three limitations in this study. First, a qualitative multiple case study incorporates participant interviews and can be limited by participant bias or a participant's ability to accurately recall events from their past experience. In this research, participants may have felt uncomfortable disclosing information about failures or successes of their business and may not have truthfully conveyed their experience conducting business. A potential solution to minimize the limitation in future research would be to investigate how different questioning strategies could reduce potential embarrassment and increase accurate recall of events. For example, one possibility would be to allow the participant time to prepare a written response in advance in addition to a face-to-face interview, thereby allowing them to verify their memory. Participants who are warned they would be providing a written and verbal response may have less uncertainty and hesitation in their accounts.

A second limitation is that this study is not comprehensive to include all types of businesses in different regions of the country. This study took place in the Rocky Mountain region of the United States and did not involve interviewing business owners in other geographical parts of the country. Future researchers could expand the current study to other geographical locations to understand whether the same themes would emerge, or strategies might appear.

Finally, I expected a limitation because of the lack of access to company documents and individual data. Failure to obtain sufficient information from company documents may have limited the ability to triangulate data and add validity or reliability to the study. I attempted to find company documents in publicly available sources such as published company histories, annual reports, newspapers, journals, and trade catalogs. Most of these sources can be consulted without contacting the companies. However, because the focus of the study was narrowed to managers of small businesses supporting the oil and natural gas industry and that employ less than 50 employees, some of the companies chosen did not maintain a significant amount of company related documents. A recommendation to overcome this limitation for further research is to conduct a more extensive study using a casual observation technique. Data collection using observation techniques can provide a holistic perspective to the research setting (Holloway & Galvin, 2017). When researchers choose to observe, they look at participants in their natural setting, which may result in a broader understanding of the phenomenon of interest and allow for enhanced data triangulation.

Reflections

The Doctor of Business Administration (DBA) program at Walden University has been an emotional journey. Along the way, I worked with some knowledgeable faculty members and staff, established relationships with classmates, and developed new life-long friendships. There were moments when I felt overwhelmed, frustrated, and questioned my desire to continue; however, with help from an outstanding support group,

I triumphed. I am grateful for the encouragement of my wife, chair, peers, and mentors who provided support along the way.

The study took much longer than I expected. The primary reasons for this were because the data collection process was daunting, the Walden review process was comprehensive, and the triangulation of information received was in-depth. However, over time, I improved my ability to summarize concepts and identify emerging themes to provide a thorough report. Ultimately, I found that conducting a qualitative multiple case study yields a significant amount of rich text data. My engagement in these processes led to a greater appreciation for the journey that scholars undertake when they conduct research. Also, despite the many challenges, the data collection is valuable information for small business managers, business experts, and future researchers.

My experience provided me an opportunity to gain knowledge that will benefit my career, business leaders I come in contact with, and my community as I reflect on my findings. Because of my relationship with the subject of small business sustainability in the oil and natural gas industry, I initially had a preconceived notion of the type of struggles small business owners face. However, I set aside my biases and embraced my research and interactions with participants as I attempted to determine the commonalities that make some small businesses successful while other businesses are not. My study of scholarly literature, review of existing studies, and interviews with business leaders broadened my view of the subject. Now I have a better understanding of small business successes, causes of failure, and what it takes for sustainability.

As I progress in my career and move forward in life, I will take the lessons learned from this study and my experiences at Walden University with me. Completing the study provided the confidence that enabled me to feel equipped to tell the stories of the people who participated in my study. The study enhanced my understanding of the challenges small business owners face and the lengths they will go to survive. I was particularly surprised by the breadth of activities business owners and managers were involved in on a daily basis. In many cases, I was humbled by the approach business owners and managers use to develop strategic thinking despite many complex issues. During the study process, I established a keen sense of respect for the courage, determination, thoughtfulness, and hard work required to sustain a small business in a volatile industry. Interacting with the small business participants involved in the study was an honor.

Conclusions

The purpose of this qualitative multiple case study was to explore the strategies some small oilfield service company managers use to sustain profitability through boom and bust cycles. The target population for the study was 10 managers, one each from 10 different oilfield service companies located in the Rocky Mountain region of the United States (i.e., Montana, Idaho, Wyoming, Utah, and Colorado). I used the DCT as the conceptual framework to complete the study, and I used a member checking and a triangulation method to ensure data saturation. I reviewed and analyzed over 340 sources to develop the themes of this study, which included information from semistructured interviews with business leaders, existing peer-reviewed literature, archived company

documents, and public information regarding the participant businesses on government or company websites. As the sources were analyzed, four themes developed that are useful in answering the research question and understanding factors that influence sustainability in this industry. Data analysis from multiple sources revealed four themes, which included: (a) networking or relationship strategies, (b) financial planning strategies, (c) differentiation strategies, and (d) education and experience strategies.

The results of this study have contributed to other scholarly research by filling a gap in the existing literature that applied dynamic capabilities to small business in the oil and natural gas industry. The summary of the analysis linked each emergent theme back to the existing literature and the conceptual framework for this study. The theme identifying networking or relationship strategies has shown that constant communication and the process of establishing a trustful relationship with customers, suppliers, and other industry professionals is essential for long-term business sustainability, especially in the oil and natural gas industry. This strategy aligns with existing literature, participant experiences, and the DCT. Results also confirm the notion that to operate a business effectively and to achieve long-term business sustainability, small business owners in the oil and gas industry should cultivate strong relationships with their customers and partners.

The theme identifying financial planning strategies indicated that funding is critical for small business owners to maintain sustainability and profitability during boom and bust cycles. The literature and responses from participants revealed that a financial strategy is important for small businesses operating in the oil and natural gas industry

because these types of businesses typically experience difficulties obtaining funding due to their lack of financial history, available collateral, and the perception of risks associated with funding new ventures. This strategy aligns with findings in the literature, participant responses, and the DCT and has confirmed that a solid financial strategy can contribute significantly to long-term business sustainability.

The theme of applying a differentiation strategy is important to understand as business leaders need to set themselves apart from their competitors through specialization and by focusing on their market niche. Participants in this study attempted to maintain a core service without straying too far from their niche market; however, they explored the idea of diversification in some way. To set themselves apart from others providing similar services or to sustain their business during bust periods, most participants emphasized the importance of diversification and differentiation. Because there are several ways in which small business managers can achieve differentiation in this industry, I conclude this theme aligned with the literature, participant responses, and the DCT. A differentiation strategy can provide a framework for the ability to incorporate, shape, and organize internal and external competencies to address rapidly changing environments and long-term business sustainability.

An interesting finding in this study was that formal education beyond high school was not a significant contributor to success. This finding supports Uy, Foo, and Song (2013) who proclaimed education is not just formal learning in the classroom but, more importantly, learning attained through the achievement of skills, on-the-job training, or apprenticeship. This finding also does not support the claim from Qureshi, Saeed, and

Wasti (2016) who stated a suitable educational program increases the chances of success and sustainability for small businesses. For the majority of participants in this study, an advanced education had little to do with their long-term success and more to do with their experience and critical thinking skills. The success of participants in this study shows a high level of experience, and other competencies will achieve greater performance outcomes for their businesses and increase an organization's chance of survival in this industry.

In conclusion, this doctoral research process broadened my knowledge in a variety of areas involving service companies in this industry. The findings from this multiple case study revealed that owners and managers of small service companies operating in the oil and natural gas industry succeeded by building lasting relationships, creating long-term financial planning strategies, crafting differentiation strategies, and using their experience to set their company apart and adapt to the environment. My contribution from this study will be to provide small business owners in the oil and gas industry with the knowledge to sustain their business during future boom and bust periods.

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Appendix A: Interview Protocol

The research question for this study is: What strategies do small oilfield service company managers use to sustain profitability? Therefore, this qualitative multiple case study, will consist of eight open-ended questions to gain ideas and insights from experienced small business managers in the oil and natural gas industry in Rocky Mountain region of the United States.

Interview Protocol	
Protocol Steps	Protocol Actions
Select participants	I will contact participants by email or phone and according to established eligibility criteria.
Set time and place for interview	Interviews will take place in participant's private office or public place.
Introduce the interview and set the stage	I will recap the purpose of the research study, obtain verbal consent from each participant, and provide each participant a written consent form.
Record the interview	I will explain to the participant the interview will be audio-recorded. The interview will start with the following background information: <ol style="list-style-type: none"> a. Educational background b. Title/Position c. Years of experience
Ask open-ended questions while watching for non-verbal cues, paraphrasing as needed, and asking follow-up probing questions to ensure rich and in-depth responses	<ol style="list-style-type: none"> 1. What are the most significant challenges your small business faced in the oil and natural gas industry to sustain the business during the most recent boom and bust cycle? 2. What are the strategies you developed that led to you sustaining profitability? 3. How do your strategies change in boom cycles as opposed to bust cycles? 4. How do your strategies change in bust cycles as opposed to boom cycles? 5. What have been the key challenges to implementing your strategies for sustainability?

	<p>6. How has your organization addressed the key challenges you mentioned?</p> <p>7. How have you assessed the efficacy of your strategies?</p> <p>8. What else would you like to contribute that we have not covered regarding business strategies for sustainability during boom or bust cycles?</p>
Wrap up the interview thanking participant	Thank each participant in person and confirm the participant has my contact information for follow-up questions and concerns. I will also mail out a thank you card to each participant after the interview.
Transcribing the interview	I will transcribe each interview and email transcription and interpretation to participants.
Member check	I will contact each participant and confirm accuracy of the transcription.
Schedule a follow-up member checking interview to ensure data saturation and enhanced rigor of the research	I will ask participants if my synthesis represents their response or if there is additional information they would like to share.