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Core Leader Competencies for Implementing Sustainability Strategies in Small and Medium-Sized Enterprises

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This is to certify that the doctoral study by

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2016

Abstract

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MBA, Anna Maria College, 1990

BGS, University of Nebraska, Omaha, 1988

Doctoral Study Submitted in Partial Fulfillment

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Abstract

Because small- and medium-sized enterprises contribute as much as 70% of the world's pollution, small-business leaders need to develop and implement strategic approaches to sustainable development. Global sustainable development spending may reach $5 trillion by 2030. Guided by leadership competency theory, this qualitative multiple case study explored the core competencies of 5 independent small business leaders who had successfully implemented environmentally sustainable initiatives in their manufacturing firms in eastern Nebraska. Interviews and company planning documents including strategic business plans were gathered, coded, and cross-case analyzed, and member checking was periodically conducted to strengthen the trustworthiness of interpretations. Thematic analysis identified 6 themes: industry knowledge, decision making, strategy and planning, environmental sustainability knowledge, communication and interpersonal skills, and passion and commitment. The implications for positive social change include the potential for enabling small to medium business leaders to develop environmentally sustainable strategies that could contribute to an increased focus on environmentally sustainable actions leading to reduced pollution and more socially responsible communities.

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Dedication

The journey of a lifetime is possible only with the help of family, friends, and colleagues, without whom this doctoral study could not have been accomplished. I owe a debt to my wife, Jill, for her undying patience and love, and the numerous extra burdens this process has caused her. To my sons Will and J. Scott, this doctoral study is evidence that persistence is the marrow of determination. Always persevere. To my late mother and father, I miss you both more than words can say. To my colleagues at work, thank you for your constant encouragement, especially Dr. Judy Grotrian, Dr. Christy Hutchison, Dr. Mary Goebel-Lundholm, and Dr. Sheri Grotrian-Ryan.

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Section 1: Foundation of the Study

Background of the Problem

Depletion of natural resources has emerged as a significant business, social, and environmental problem (Busch, Bauer, & Orlitzky, 2015). Sustainable development remains a dominant industry trend since the first meeting of the World Commission on Environment and Development (WCED) in 1987 (Barkemeyer, Holt, Preuss, & Tsang, 2014). With the publication of the WCED's findings in the Brundtland Report, the terms *sustainability* and *sustainable development* became widely used to describe business approaches to mitigate the long-term effects of diminishing natural resources. The importance of developing leader competencies concerning sustainability in the 21st-century and meeting stakeholder expectations for corporate social, economic, and environmental responsibilities has never been greater (Elliot, 2013).

Developing and implementing strategies for sustainable development requires business leaders to use rational decision-making processes based on organizational mission and goals (Papagiannakis, Voudouris, & Lioukas, 2014). Firms that plan for environmental sustainability tend to generate above average financial returns (Smith, 2014). Because small- and medium-sized enterprises contribute as much as 70% of the world's pollution, small-business leaders need to develop and implement strategic approaches to sustainable development to reduce waste and pollution (Johnson, 2015). Exploring the small-business leader competencies necessary to plan and successfully implement environmental sustainability strategies was the foundation for this study.

Problem Statement

Business leaders rank sustainability or sustainable development, among the top priorities facing the future of commercial enterprise (Galpin, Whittington, & Bell, 2015). Sustainable development is crucial to sustaining global economic growth (Barkemeyer et al., 2014). Global sustainable development spending may reach $5 trillion by 2030 (Bhattacharya, Oppenheim, & Stern, 2015). Leaders of 21st-century businesses must strategize and implement sustainable development approaches in the next 10 years (Galpin et al., 2015). The general business problem is business leaders have not adopted the requisite competencies to confront the sustainability challenges of the 21st-century economy. The specific business problem is that some leaders of small-business enterprises (SBEs) lack the core competencies for implementing sustainability initiatives successfully.

Purpose Statement

The purpose of this qualitative multiple case study was to explore what core competencies small-business leaders use to implement sustainability initiatives successfully. The data collection involved interviews with five business leaders of SBEs located in eastern Nebraska engaged in manufacturing who had successfully implemented environmentally sustainable initiatives. I selected leaders from five manufacturing companies in eastern Nebraska that had at least 10 employees, but not more than 499 employees, chosen from publically available lists of SBEs (Metcalf & Benn, 2013; Yin, 2014). The implication for positive social change of this study included working with commerce and community leaders in eastern Nebraska toward building community

partnerships among the leaders of small manufacturing firms, professional associations, city administrators, and community leaders to help extend sustainable competencies beyond the business community to the benefit of education, business, and citizens.

Nature of the Study

All researchers have the choice of selecting from the three methods for conducting research: (a) qualitative, (b) quantitative, and (c) mixed methods. A researcher who uses a qualitative method explores phenomena in real-world settings to gain an understanding of processes and problems under field conditions (Marshall & Rossman, 2016). When using a quantitative method, the researcher examines the relationships and differences among variables using statistical measurement (Trochim, Donnelly, & Arora, 2015). The choice of mixed-methods allows the researcher to combine elements of field exploration with statistical analysis to explore and examine phenomena using numerical and statistical data (Marshall & Rossman, 2016; Trochim et al., 2015). For this study, the qualitative method was the best choice for exploring the research question.

Researchers who choose the qualitative method then must select from among the designs particular to qualitative inquiry including (a) case study, (b) ethnography, (c) narrative research, and (d) phenomenology (Marshall & Rossman, 2016). Researchers choose an ethnography design when extended immersion into a group or culture helps in exploring personal relationships and beliefs in depth within a particular cultural context. In narrative research, the researcher systematically explores the lives of individuals using the recollections and stories of participants. Researchers selecting phenomenological

designs study the lived experiences of participants stemming from a shared event or phenomena. Case study researchers explore rich contextual situations constrained to a particular place and time, and use *how* and *why* questions to explore field situations not replicable in a laboratory (Marshall & Rossman, 2016; Yin, 2014). I selected the multiple case study design for my research as the case study design offered the best design to explore the research question.

Research Question

A central question guides this study using qualitative research design methods (Marshall & Rossman, 2016). The central research question in this study was: What core competencies do small-business leaders in manufacturing industries use to implement sustainability strategies successfully?

Interview Questions

Among the data collection techniques available to qualitative researchers is the interview technique. Qualitative researchers may develop a set of questions to ask in the interview session, the intent of which is to elicit responses about a topic or related topics from participants (Yin, 2014). Participant responses created the raw data that later was subject to analysis to identify trends or themes based on the recorded responses. In addition, observations, documents, and other artifacts contained additional data for analysis (Saldaña, 2016). I developed the research question and the interview questions after reviewing the research literature on leadership competencies and environmental sustainability.

The typical semistructured interview involves didactic interactions in which the participant responds to interviewer questions in a question and answer format. Below is the list of the interview questions used for in the study:

1. What does your organization define as *leadership competence*?
2. What does your organization define as *environmental sustainability*?
3. What leadership competencies are required to plan for and implement environmentally sustainable strategies?
4. What example(s) of the successful implementation of an environmentally sustainable strategy does your firm have?
5. How did you plan for the implementation of this (these) environmentally sustainable initiatives?
6. What were some of the planning and leadership challenges in implementing this (these) environmentally sustainable strategies?
7. What were the operational or logistical challenges to implementing this (these) environmentally sustainable strategies?
8. How did you address each of the implementation challenges?
9. How did you measure the success of managers in implementing sustainability initiatives?
10. What lessons about leading and managing sustainability initiatives have you learned that you would share with other leaders in your industry or community?

Conceptual Framework

Using a conceptual framework provides researchers with the opportunity to describe theories and assumptions associated with the research study. Employing a conceptual framework helps researchers to narrow the scope of the study by focusing attention on the primary areas of exploration (Miles, Huberman, & Saldaña, 2014). Leadership theory, leadership competence theory, strategic planning theory, sustainability theory, social responsibility theory, and stakeholder theory provided the theoretical and contextual underpinning of the study.

Leadership competency theory as articulated by McClelland (1973) and Boyatzis (1982) was the conceptual framework for the study. Leadership competency theory provides scholars and practitioners with a framework for developing and improving individuals who are leaders as well as those who seek leadership roles. Leaders must continually evolve and expand their skill sets in response to changes in the external environment. Organizations need leaders who possess the specific skills, knowledge, and abilities (SKAs) to be effective as leaders (Stevens, 2013).

Leadership Theory

The origins of leadership date to antiquity; however, the theory of leadership from a current research perspective dates to the 1840s, which paralleled the rise of the industrial era (Northouse, 2016). Leadership scholars and practitioners continue to explore the evolution of multiple facets of the nature of leadership and its application in organizational settings. Researchers of leadership theory provide a valuable perspective relevant to the primary research question of this study.

Leadership competency theory. Modern competence theory emerged from the industrial and organizational (IO) psychology field in the 1970s when researchers began exploring the behaviors of successful leaders. Researchers also sought to understand predictable behaviors and SKAs of successful leaders (Boyatzis, 1982; Day, Fleenor, Atwater, Sturm, & McKee, 2014). By the 1980s, IO psychologists and other organizational researchers began to develop competency models based on the KSAs for multiple types of work in the modern organization (Stevens, 2013).

Strategic Planning Theory

To improve both profitability and policy decisions, business leaders adopted strategic planning processes during the 1960s to improve competitiveness (Mainardes, Ferreira, & Raposo, 2014). However, the idea of strategic planning in a military sense predates the 1960s, with the first recorded reference to the strategy recorded in approximately 500 BCE (Albrechts, 2015). Strategy as a business concept, or strategic management, evolved from the convergence of economic theory and the necessity to allocate resources under conditions of scarcity. In essence, a firm's strategy represents the pathway between where a business is now and where business leaders intend to take the company in the future (Hörisch, Johnson, & Schaltegger, 2015). In a world with depleting natural resources, strategic planners now must consider sustainability as part of resource allocation decisions.

Theory of Corporate Social Responsibility

The concept of corporate social responsibility has roots in moral philosophy especially from ethics (Tripathi & Bains, 2013). The modern idea that business owners

and managers have a moral responsibility to society that extends beyond corporate profits emerged in the 1960s (Aguinis & Glavas, 2012; Brammer, Hoejmose, & Marchant, 2012; Cordeiro & Tewari, 2015). Corporate responsibility extends to all who have a stake or interest in the organization.

Stakeholder Theory

In the 1980s, stakeholder theory emerged as a way of describing the relationship between a business and various constituent groups and individuals interested or influenced by the company. Stakeholders may include vendors, cross channel partners, local communities, stockholders, employees, and other constituent groups (Westrenius & Barnes, 2015). In today's hyperdynamic business environment, the stakeholder concept now includes any person or group affected by organizational leaders' decisions (Bundy, Shropshire, & Buchholtz, 2013). Business leaders make decisions about resource allocations and how best to operate sustainably in the 21st-century. These choices include stakeholders not immediately connected with the firm's day-to-day business operations (Cook, Inayatullah, Burgman, Sutherland, & Wintle, 2014; Starik & Kanashiro, 2013).

Sustainability Theory

Sustainability theory began to evolve in the 1970s because of the environmental movement whose advocates posited that humans were starting to exhaust nonrenewable planetary resources at an increasing rate (Yates, 2012). Although sustainability has numerous definitions, business and political leaders now recognize the constraints of finite resources in the natural environment (Bateh, Horner, Broadbent, & Fish, 2014;

Dutta, Lawson, & Marcinko, 2012). Sustainability is the socially responsible action of assuring the availability of resources necessary for future generations.

Operational Definitions

Business sustainability: For purposes of this study, the term *business sustainability* refers to a business management approach adopted by business leaders that recognizes the social, environmental, and economic environments in which a firm operates to balance firm growth and stakeholder expectations (Imran, Alam, & Beaumont, 2014; Montiel & Delgado-Ceballos, 2014).

Competency: A competency contains both measurable and observable abilities required for individual occupational success consisting of specific SKAs and may include attitudes, management, tasks, technical traits, or values (Stevens, 2013).

Corporate social responsibility: Corporate social responsibility is the way a business organization's leadership assumes responsibility for its actions and the firm's impact on society beyond those legally mandated, including social, environmental, ethical, and rights of stakeholders (Crifo & Forget, 2015).

Leadership competence: For purposes of this study, leadership competence is the combination of those skills, knowledge, abilities, and personal characteristics that result in individual and organizational goal attainment by inspiring others to achieve complementary results (Boyatzis, 1982; Day et al., 2014; Taylor, Psotka, & Legree, 2015).

Small-business enterprise (SBE): For purposes of this study, a small-business enterprise (SBE) is a firm that is closely-held, privately owned and operated company

usually operating within a single industry, having more than 10 employees, but fewer than 500 employees, and that annually conducts some form of internal strategic or business planning (Fox, 2013).

Stakeholder: Any person, group, or organization directly or indirectly affected by or that may affect an organization's operations, strategies, or operations (Kechiche & Soparnot, 2012).

Strategy: A strategy is the total of the preparation, implementation, and evaluation of decisions within a business organization that enable organizational leaders to achieve long-term objectives (Trifu, 2013).

Triple bottom line: The triple bottom line highlights people, planet, and profits providing the same consideration for social and environmental aspects as economic bottom-line goals of a business enterprise (Schaltegger, Beckmann, & Hansen, 2012).

Assumptions, Limitations, and Delimitations

Assumptions

Researchers are not without bias as each brings to the investigation a set of a priori expectations based on experience, current and past research, and a set of assumptions based on the tradition of the discipline. Assumptions are those sets of preconceived notions that, if left unchallenged, could damage the integrity of the research (Marshall & Rossman, 2016). In this study, I made multiple assumptions regarding the nature of small-business leadership competencies, planning, and implementing strategy, and the manner in which environmental sustainability initiatives transpire in SBEs. The first assumption included the idea that the literature that I identified and considered

within the literature review transferred across multiple SBEs and various industry sectors. The next assumption suggested that SBE leaders who have planned and successfully implemented an environmental sustainability initiative within their firm possess specific competencies. In addition, I assumed that the successful implementation of sustainability initiatives was transferable to other SBEs. In this study, I defined *sustainability* as first proposed by the United Nations in the Brundtland Commission Report (Brundtland, 1987). This definition provided an underpinning for the competencies leaders of SBEs need to achieve success in designing and implementing successful sustainable initiatives as part of a strategic plan to achieve a sustainable competitive advantage for long-term profitability.

Understanding and acknowledging assumptions require the qualitative researcher to focus on specific expectations (Yin, 2015). For this study, I assumed that those small-business leaders who were successful in implementing sustainability initiatives would have some planning mechanisms in place. I also assumed that companies that do not engage in annual business planning on some level are less likely to be successful. I further assumed that there were at least 10 companies whose leaders had successfully implemented some form of environmental sustainability initiatives in eastern Nebraska. Furthermore, I assumed that the SBE leaders who agreed to participate in the study would truthfully answer and provide feedback during the interview process and that participants would understand the questions and relate experiences without personal bias.

Limitations

Limitations in qualitative research can include factors concerning the transferability, reliability, or validity of a study. Marshall and Rossman (2016) explained that limitations involve conditions, events, influences, or shortcomings that the researcher cannot control. Because the qualitative researcher cannot control all elements of the study, it is important for the qualitative researcher to recognize and acknowledge potential limitations. One limitation in this study was the geographical location of eastern Nebraska. Another limitation of the multiple case study included consideration of only those SBE leaders who had successfully implemented a sustainability initiative within their business. The research I reviewed focused on the leadership competencies necessary for successful implementation of sustainability initiatives. I did not review any literature in which researchers examined leadership actions that led to failed implementations of environmental sustainability. Research on leadership failures on the application of environmental sustainability initiatives in SBEs is exiguous. Considering previous leadership failures was a limitation of the study and a possible area for future research. An additional limitation of this multiple case study was the potential for bias from the participants and the researcher's biases and subjectivity (Merriam & Tisdell, 2015). Data collection continued until achieving data saturation, the point at which no further new data emerged from the interviews or documents reviewed (Houghton, Casey, Shaw, & Murphy, 2013; Smith & Chudleigh, 2015).

Delimitations

Delimitations of a doctoral study refer to conscious decisions by researchers to establish parameters or boundaries, surrounding the study (Patton, 2014). Due to limited time and resources, a longitudinal study of SBE leaders' development and implementation from planning stages to the final evaluation of successful environmental sustainability initiative was not feasible. Using criteria to define small businesses as those SBEs larger than 10 employees and fewer than 500, I excluded businesses with fewer than 10 employees because some businesses with fewer than 10 employees do not regularly engage in annual formal planning processes. I also excluded businesses with 500 or more employees because businesses with more than 499 employees are not normally considered small businesses. In addition, because I was interested in the leadership competencies required of the 21st-century leader, my research included primarily scholarly peer-reviewed resources with publication dates of 2012 or later with 85% with copyright dates within 5 years of my completed study. However, some seminal sources supported the current research.

Significance of the Study

In this study, I explored the core competencies small-business leaders needed to implement sustainability initiatives successfully in eastern Nebraska. The specific core competencies necessary to plan and implement successful sustainability strategies were unknown.

Findings and conclusions from this study could contributed to the knowledge of business practitioners by providing small-business leaders with insights concerning the

skills and core competencies to implement sustainability strategies successfully. I expected that the findings, conclusions, and recommendations from this study can help leaders of SBEs to improve the sustainability performance of their own SBEs. In addition, the results of the study are potentially transferable by SBE leaders by extending sustainable initiatives in to community partnerships among the leaders of other small manufacturing firms, professional associations, city administrators, and among community leaders.

Contribution to Business Practice

The small-business leaders in this study were composed of small firms located close to their customers and other stakeholders. The adoption of sustainable strategies signals stakeholders that the company is aware of the responsibility to act in the best interest of stakeholders, especially when considering sustainable development (Bundy et al., 2013). By identifying the key skills and core competencies, required of SBE leaders to implement sustainable strategies resulted in improved financial performance. In addition, through the demonstration of real sustainable stewardship through the successful implementation of sustainable strategies, the small-business leader tended to attract suppliers and customers interested in sustainable business practices, which appeared to increase the potential for long-term profits to stakeholders (Stewart & Gapp, 2014).

Implications for Social Change

Through the exercise of judicious stewardship of resources that resulted from the implementation of sustainable business strategies, a small company leader promulgated

sustainable initiatives as a good corporate citizenship and acted as a role model for others in the community. Competent leadership involved making ethical decisions about the allocation of resources, reduction of waste, and being conservation minded (Lewis, Cassells, & Roxas, 2014). SBE leaders who successfully implemented sustainable strategies benefited from increased profitability. SBEs leaders then could allocate a portion of those additional profits for the benefit of educational, social, and community-based organizations through charitable contributions as well as adding jobs.

A Review of the Professional and Academic Literature

The purpose of this qualitative multiple case study was to explore what core competencies SBE leaders needed in order to successfully implement sustainability initiatives in small manufacturing firms located in eastern Nebraska. A review of academic and professional literature served to orient the reader regarding how the current study fits within the extant literature. For the researcher, the literature review was the starting point in the development of a research topic (Olhager, Pashaei, & Sternberg, 2015). Developing a literature review helped the researcher evaluate the quality and relevance of information sources available on the research problem. In addition, an examination of the literature assisted me in identifying and justifying a choice of conceptual framework allowing me to distil large quantities of information into a useful summary (Abbas, Katina, & Michael, 2014; Wakefield, 2015; Yin, 2013). In this multiple case study, I explored the leadership competencies required for leaders of SBEs to implement sustainability strategies successfully. Researchers have shown that SBEs, with

competent leaders, tend to be more successful (Mitchelmore & Rowley, 2013; Talik, Wiechetek, & Laguna, 2012).

The purpose of this professional and academic literature review was to examine, appraise, contrast, and compare a variety of scholarly and practitioner sources concerning the research topic and summarizing the research (Rowley, 2012; Wakefield, 2015; Yin, 2013). The literature review covered five major theories: (a) a review of leadership theory and the competencies for leading a small-business successfully, (b) strategic planning theory, (c) corporate social responsibility, (d) stakeholder theory, and (e) sustainability theory.

The primary sources came from the Walden University Library, using ABI/INFORM, Business Source Complete, SAGE Premier, and Science Direct. Key search words included combinations of phrases such as *sustainability***,** *environmental sustainability*, *small business*, *small-business enterprises* (*SBE*), *leadership*, *entrepreneurial leadership*, *leadership competencies*, *business strategy*, *planning*, and *corporate social responsibility*. The literature review contained 184 references. Of the references used in the literature review, 173 (94%) were peer-reviewed and originated within 5 years of the anticipated date of chief academic officer (CAO) approval. The study contains 255 references of which 230 (90%) constituted peer-reviewed sources. Ninety-eight percent (98%) of the references in the study are within 5 years of the anticipated 2016 year of CAO approval of the study.

In this heading, I reviewed the professional and academic literature and used the following major subject headings: leadership competencies, small-business owner, small-

and medium-sized enterprises (SMEs), strategic planning, corporate social responsibility, stakeholder theory, and sustainable development theory. The heading on leadership competencies contained the following subheadings: problem solving, communications skills, and analytical thinking. In the heading covering small business, the following subheadings appeared: definition, role and importance, characteristics of small-business leaders, and small manufacturers in Nebraska. The heading covering strategic and business planning theory included the following subheadings: competitive advantage, corporate social responsibility, and stakeholder theory.

Leadership Theory

The concept of leadership is timeless and remains a topic of considerable scholarly and practitioner interest. Managing a firm regardless of size, requires leaders to develop and display an increasingly diverse set of skills necessary to manage complex dynamic systems, provide for and meet stakeholder demands, all within a changing and sometimes ambiguous competitive environment (Kopp & Martinuzzi, 2013). According to Morris, Webb, Fu, and Singhal (2013), the discussion of leadership competencies necessary for success in smaller business enterprises in the literature remains an active area of research.

Leadership competency theory. Both scholars and practitioners continue to study leadership competencies to assist organizations in improving leadership performance (Arabha, Zandilak, & Barasoud, 2015; Stevens, 2013). Early research into the concept of competencies gained traction from IO psychologists conducting job design and job analysis, along with measurement testing activities of employees within large

corporations (Stevens, 2013). Initially, scholars and practitioners focused on isolating the principle SKAs necessary to be successful in various positions within a business organization attempting to discover the specific leadership competencies used by successful leaders (Boyatzis, 1982; Stevens, 2013). Scholars and practitioners continue to search for the optimum cluster of leader skills, which includes emotional intelligence as a competency (Hunt & Fitzgerald, 2013) and cultural competence or cultural knowledge (Keung & Rockinson-Szapkiw, 2013).

Through time, the concept of using competencies to develop position job descriptions morphed into a method of assessing individual performance and later leader performance using competency modeling and frameworks (Stevens, 2013). Scholars and practitioners believed that the identification of a cluster of particular skill sets established for leadership duties and responsibilities would lead to better organizational performance (Day et al., 2014).

Considerable debate surrounds the definition of competencies in the scholarly literature (Arabha et al., 2015). For the purpose of this study, leadership competence is the combination of those SKAs and personal characteristics that result in individual and organizational goal attainment by inspiring others to achieve complementary results (Boyatzis, 1982; Day et al., 2014; Taylor et al., 2015). Bennis (1984) described four competencies required of leaders including attention to detail, communicating meaning, showing integrity and developing trust, and self-management. Developing the SKAs necessary to lead and empower others to reach their greatest potential is a critical component of leadership.

Confusion also exists in the academic and applied literature about the differences between management and leadership (Algahtani, 2014; Simonet & Tett, 2013). Practitioners regularly use the two terms synonymously. Northouse (2016) considered management a process used to direct and control resources, systems, and people often with a short-term focus. Scholars define *leadership* as those individuals who have a vision, take appropriate risks, and inspire others to reach long-term goals (Yammarino, 2013; Yukl, 2013). Leadership also involves effectively communicating the direction an organization needs to pursue to accomplish long-range goals (Northouse, 2016; Simonet & Tett, 2013; Yammarino, 2013). The lack of specificity in the use of terms in the literature and organizational situations creates ongoing confusion.

Although leadership competencies appear as an applied set of skills particularly as practiced in educational, military, health care, and corporate human resource settings, the idea of being competent as a leader remains critical to all organizations (Alban-Metcalfe & Alimo-Metcalfe, 2013; Northouse, 2016). The style of leadership representative of leadership competency is that of *transformational leadership* (McKnight, 2013; Northouse, 2016). Leaders who concern themselves with environmental sustainability tend to be those that apply strategic CSR (Metcalf & Benn, 2013). Competent leaders remain invaluable to the achievement of organizational goals.

Entrepreneurs and small-business leaders must develop distinctive competencies. Garavan, McGuire, and Lee (2015), noted the need for leadership development practices within the small firm and the development of competent leadership remains a formidable challenge with few professional development opportunities available within SBEs. Some

of the distinctive competencies required of entrepreneurs include creativity, innovativeness, technology skills, adaptability, management ability, and personal skills (Mitchelmore & Rowley, 2013; Morris et al., 2013).

Scholar and practitioner lists of the requisite competencies for leaders vary widely particularly for the KSAs needed for global leadership (Osland, Oddou, Bird, & Osland, 2013). Distinct leader competencies, when properly defined, have the benefit of being observable and measurable (Morris et al., 2013). Organizations use competency models and frameworks for selection, promotion, and in training and development activities (Stevens, 2013). Although some researchers have suggested that the culture of a country influences styles of leadership, other business researchers have discussed competencies regarding the cultural intelligence required of global managers in cross-cultural communication in larger global corporate contexts (Lawrence, 2015; Sutton, Zander, & Stamm, 2013).

Definition of *leadership*. There are many definitions of leadership found in the extant literature (Hörisch, Freeman, & Schaltegger, 2014; Schyns & Schilling, 2013), and the topic of leadership remains an active and a vital area for research by scholars and practitioners (Kumar, 2014). Northouse (2016) stated that the leader's fundamental role is to influence followers to accomplish specific goals and objectives. Leadership is a widely studied field touching multiple disciplines such that a commonly accepted definition is elusive (Northouse, 2016; Schyns & Schilling, 2013; Yukl, 2013) and depends on the particular perspective of the viewer.

Definition of *leadership competency*. Although no universal definition of *leadership competence* exists, leadership competency is the combination of those SKAs, and personal characteristics that result in individual and organizational goal attainment by inspiring others to achieve complementary results (Boyatzis, 1982; Day et al., 2014; Taylor et al., 2015). A *competency* refers to a specific behavior or a set of behaviors leading to the effective performance in a role or within a specific job function. Scholars and practitioner agreed that the success of an SBE is largely dependent upon the entrepreneur and the competencies they possess (Kyndt & Baert, 2015; Parilla, 2013).

In examining leadership competencies, scholars suggested that leaders develop competencies involving specific job and technical know-how, the ability to get along with and manage others, and the ability to conceptualize to make effective decisions (Chiabrishvili & Chiabrishvili, 2013). Having competence and applying competencies are different. Possessing the right set of competencies for a particular job or type of organization and applying those skill sets that the organization, customers, and stakeholders value, are vital to both leader and organizational success (Tehseen & Ramayah, 2015).

According to Stevens (2013), a competency must be both measurable and observable. Some specific types of leadership competencies include planning, establishing mission and goals, effective communication skills, the ability to manage and disseminate knowledge (Lawrence, 2015; Ziek & Smulowitz, 2014). Leaders who possess these key skills may experience successful performance on the job (Simonet & Tett, 2013; Verle, Markic, Kodric, & Zoran, 2014). Competencies fall into two larger

classifications those that are job specific and those that are generic (Talik et al., 2012). Some authors suggested that a competent leader display attributes that rise to the level of exemplary performance and other scholars focus on the effectiveness of a leader in the performance of assigned responsibilities (Jena & Sahoo, 2014; Sanger, 2013). The globalization of business requires even SME leaders to adapt and add new competencies to compete in a changing world (Tehseen & Ramayah, 2015).

Given the similarities among these definitions, it is possible to synthesize a working explanation of leadership as the processes used to influence others to accomplish goals and tasks successfully. For the purpose of this study, leadership tasks assumed by the owner or general manager of an SBE involving the planning, organizing, staffing, directing, and controlling of the firm's assets and resources. Leadership competencies require the SBE leader to combine the technical, human, and conceptual skills to operate and maintain the SBE in an efficient and effective manner (Mujtaba, Ping, & Jieqiong, 2013; Northouse, 2016).

Leadership skills or competencies vary evolving with experience, education, and can be situationally dependent. As skills evolve, a leader may hone specific attributes (Yukl, 2013). Examining leadership competencies provide researchers and practitioners with insights regarding new skills needed to remain effective in leading an SBE. The business environment requires leaders to adapt to change at a faster pace (Takács & Matkó, 2014). Skills sets for operating various businesses may vary depending on the types of goods or services.

Historical background. Modern leadership theory emerged around the 1840s with the idea that leaders are simply born. This view of leadership refers to the *great man theory* of leadership (Bakhsh, Saadi, & Rassol, 2014). By the 1920s, researchers examined the individual traits of leaders in the belief that innate individual qualities set leaders apart from followers. The belief was that in attempting to identify the specific traits of leaders, that simply by finding others who possessed the same traits that they should perform well as leaders. This view of leadership refers to the *trait theory* of leadership (Taylor et al., 2015).

As business and industries grew in the 20th century, so did the complexity of the organizations and systems needed to produce, manufacture, and deliver the goods and services required for a broadening economic base. At the same time, organizations needed leaders with the competencies and skill sets to lead increasingly larger workforces and correspondent organizational structures. Complicating matters were the rising power of workers who organized and bargained for better wages and benefits. As workers moved from small farms to cities in search of better paying jobs, competition for available jobs increased. In response, companies developed employment practices instituting personnel departments with missions of testing, selecting, training, and developing workers to operate complex industrial machinery (Clouse, Goodin, Aniello, Stowe, & McDowell, 2013).

Scholars and practitioners described the action steps necessary to perform work using the one best way, and in the optimum sequence to perform the activities of a particular task (Witzel & Warner, 2015). By 1922, leaders of companies of all types

sought ways to improve the overall efficiency of business enterprise, particularly in heavy industries such as coal production, steel manufacturing, and in services type businesses such as railroads and intercity transportation (Witzel & Warner, 2015). Specialization led to the development of job descriptions detailing job duties and responsibilities, and specific competencies required of workers (Stevens, 2013). At the same time, research in the developing field of psychology began to develop exams for leaders using psychometrics to measure leadership ability and potential (Sanchez & Levine, 2012).

By the beginning of WWII, the requirement for thousands of leaders for military duty required faster and more efficient means of identifying leadership potential. The need to train so many leaders in such a short period required a shift from finding leaders who had leadership traits and testing for the ability to lead, to the development of leadership skills and competencies. It was at this time that leadership theorists and practitioners with the help of psychological researchers began to examine leadership behaviors and explored new methods to train and develop core leadership competencies (Clouse et al., 2013; Landis, Hill, & Harvey, 2014).

After WWII with the British, German, Italian, Japanese, and Soviet Union economies in shambles, the U.S. remained the only industrial base capable of meeting the world's needs for large scale manufacturing (Donaldson, 2014). Hundreds of thousands of service men and women were ready to resume civilian employment. Many of these veterans obtained leadership training through the military. There was a high demand for senior officers and leaders to work in the expanding companies driven by surging

demands for goods at home and overseas. Corporate recruiters sought senior officers with leadership skills for executive level positions. Companies also needed leaders to supervise and lead production and operating positions and employed junior officers and senior enlisted personnel (Donaldson, 2014).

By the 1960s, the idea leaders acquired a particular set of core competencies evolved along with the introduction of strategic planning. In leadership, scholars argued that the circumstances often dictated how to proceed and that different styles or approaches were necessarily contingent on the situation. This view of leadership evolved into the *contingency theory of leadership* (Landis et al., 2014).

By the 1970s, two new theories of leadership evolved from the study of leaders and their behaviors in the work environment. There was a noticeable shift from the leader as being all knowledgeable and without fault to a *dynamic transaction based theory* of leadership wherein the leader, and the follower sought to achieve a relationship that is positive and gives both the rewards they seek (Martin, 2015). Not surprising is that this theory became known as transactional leadership theory. Transactional leadership aligns with the principles of transactional psychology and with the emergence of positive reinforcement theories associated with behaviorist psychology (Strom, Sears, & Kelly, 2014).

One of the other major leadership theories to emerge in the 1970s is that of *transformational leadership*. Leaders who adopt a transformational leadership approach or style of leadership value the process of interacting in which both leader and follower transform their relationship to be mutually satisfying and still accomplishing the work

objective to which there is agreement (Carter, Armenakis, Feild, & Mossholder, 2012). Small-business leaders need to demonstrate transformational leadership skills when planning, organizing, staffing, directing, and controlling the activities of the small firm (Mazzarol, Clark, & Reboud, 2014). Shared leadership approaches such as work teams, work groups, and quality circles, emerged from both transactional and transformational leadership theories (Wang, Waldman, & Zhang, 2014).The responsibility for the development of specific competencies often falls with a corporate human resources department, with educational program curricula, and with individuals seeking employment or self-development. Competency development within smaller organizations often is left to the small-business leader, owner, or to the individual initiatives of employees trying to better their situation (Morris et al., 2013). Regardless of the many different styles and theories of leadership discussed by scholars, the ability to perform the roles, tasks, and responsibilities of leadership successfully require a leader to be competent (Alban-Metcalfe & Alimo-Metcalfe, 2013; Boyatzis, 1982).

Competency development. After WWII, institutions of higher learning became instrumental in educating leaders for business and industry by providing the business knowledge and teaching leadership competencies. However, the U.S. military remained the primary institution that taught leadership skills and provided leader training, primarily through the military academies and reserve forces training centers. The dominance of military leadership remained throughout the years of the military draft, which ended in 1975. Competency development of small-business leaders began to change following

WWII. Development of skills in the small business results is largely from on-the-job (OJT) training (Fox, 2013).

Training and educating small-business leaders dates to the first course in entrepreneurship conducted at Harvard University in 1947 (Carlsson et al., 2013). Entrepreneurial education and training programs featuring the development of core competencies among entrepreneurs are responsible for much of the growth in jobs in the private sector, especially among small businesses (Fox, 2013). Part of the responsibility of entrepreneurial education is to provide the necessary competency skills to start, run, and maintain an SBE. Mitchelmore and Rowley (2013) found that the leadership competencies necessary to successfully operate an SBE include management, human relations, individual, and entrepreneurial skills.

Simonet and Tett (2013) noted that although aspects of the competencies of leaders and managers are similar; at least some of the skills needed to lead others differentiate leaders from managers. Although the leadership competencies differ slightly for those leading smaller enterprises compared with those for running a large corporate organization, many of the skills are comparable (Jena & Sahoo, 2014). Leaders of SBEs must be proficient in a wider array of traditional business skills and leadership competencies because their span of control is greater than larger organizations that employ specialized managers (Verle et al., 2014).

According to Mitchelmore and Rowley (2013), the success of the SBE depends on the individual competencies of the leader and their mastery of the SKAs necessary for successful operation of their firm. Although Chell (2013) stated that skills and abilities

are distinctly different from one another, many SBE leaders have widely divergent backgrounds, education, work ethics, attitudes, and competencies (DeKrey & Portugal, 2014). Some of the leader competencies required for the leader of an SBE include effective communication skills, the ability to delegate, teaching, and mentoring others in the organization. SBE leaders must have the capacity to plan strategically, by developing and communicating a vision for the future (Quan, 2015; Simonet & Tett, 2013; Verle et al., 2014).

Kopp and Martinuzzi (2013) proposed a set of sustainable competencies for leaders necessary to operate 21st-century businesses. These include the triple bottom line, the principle of justice or fairness, reductions in resource consumption, stakeholder consideration, and the use of sustainable development values. Leaders of 21st-century businesses must develop a new set of competencies including the ability to understand and solve the problems associated with sustainable development.

Establishing leadership competency models or frameworks by which to assess leadership effectiveness is not without controversy. Alban-Metcalfe and Alimo-Metcalfe (2013) noted the dissimilarities between what leaders say and their actions. However, if an organization is operating toward its stated goals and objectives, and there is evidence of planning, in all likelihood a competent leader is present.

Leadership competencies of small-business leaders. Effective leadership of an SBE is essential to business success (Arham, Boucher, & Muenjohn, 2013; Renko, El Tarabishy, Carsrud, & Brännback, 2015; Zimmerman, 2014). Among the competencies needed to operate a small-business manufacturing firm successfully include strong

communication, adept interpersonal skills, industry and personal knowledge, effective problem solving skills, and analytical skills (Gray, 2013; Northouse, 2016; Yukl, 2013). Also, Mueller, Volery, and von Siemens (2012) concluded that those entrepreneurs who possessed adaptability, were effective communicators, capable of aligning priorities, managed time effectively, and were capable of multitasking reflected the competencies necessary to exploit opportunities. Schyns and Schilling (2013) identified a correlation between efficacious leadership behaviors and the financial performance of a business.

Communication skills. Communication among and between individuals in a business organization is an essential daily function (Psychogios & Garev, 2012). The mutual exchange of policies, ideas, opinions, and understanding is central to the functioning of a business; effective communication among participants is the means by which organizational members achieve the goals and objectives of a company (Chanyatipsakul & Wongsurawat, 2013). Communication in business involving the exchange of information is goal directed. Therefore, there should be no gap between the originator and the recipient of information (Helfat & Peteraf, 2015).

Turker and Altuntas (2013) posited that communication is necessary for directing and controlling people in organizations. The multilevel hierarchical structure of industrial era organizations made effective communication one of the major challenges confronting business leaders (Al-Taha, Soltani, Pourkiani, & Karnama, 2014). Communication is the means to accomplish unity of purpose and the goals and objectives of an organization (DeKrey & Portugal, 2014; Tench & Moreno, 2015).

Having effective interpersonal skills is a critical competency for leaders of any organization, regardless of size (Wesselink, Blok, van Leur, Lans, & Dentoni, 2015). Understanding the interpersonal dynamics and the behaviors of people in organizations remains a key leadership competency requiring effective listening and communication skills (Yukl, 2013). The most effective leaders have superior communication competencies, which include active listening, having empathy with listeners, speaking clearly using plain language, seek to earn trust of others, and acting with integrity (Garavan et al., 2015; Northouse, 2016; Van Wart, 2013)

Industry and personal knowledge. Each leader develops unique competencies in part based on personal and educational experiences, from professional practice, technical expertise, from observation, and through association with other business owners or practitioners (Northouse, 2016). The concept of personal competencies appears early in the academic literature beginning in the late 1970s and has remained an active area of practitioner and scholarly research through 2015 (Yukl, 2013). Although the competencies required for leading and operating a small business have changed through the years, especially with the introduction of computers and the Internet, the fundamental competencies remain. The most successful small-business owners gain technical expertise, acquire the ability to be flexible, have the capacity to effect change, are collaborative with employees, and understand the industry in which the firm competes (Harris, Gibson, & McDowell, 2014). Nevertheless, leaders of SBEs must also be problem solvers.

Problem solving. Small-business leaders are often entrepreneurial in their approach to managing and leading a small enterprise. Chief among the entrepreneurial skills of small-business leaders is the ability to solve problems and to encourage employees to think of new and creative ways to resolve problems (Renko et al., 2015). Creating the environment in which employees feel free to suggest and make improvements is crucial to small-business growth (Smith & Woodworth, 2012). Substantive growth in a small manufacturing firm may result from problem solving that leads to product or process innovation, from increases in capacity, from increased marketing efforts leading to increased demand and other dynamic leader capabilities. Problem solving resulting from scarcity may lead to the creative use of available resources (Berends, Jelinek, Reymen, & Stultiëns, 2014). Of course, problem solving is not the only ability required of the small-business leader.

Analytical skills. Small-business leaders require the ability to make decisions based on an analysis of the situation. The circumstances may involve any one or more of the primary functional areas of business including finance and accounting, sales and marketing, customer support, production and operations, personnel, research and development, information technology, and strategy decisions. The ability to analyze a problem and then make a decision remains a critical competency for small-business owners (Yukl, 2013). According to (Northouse, 2016) analytical skills fall within the domain of conceptual skills.

Lofstrom, Bates, and Parker (2014) concluded that neither personal wealth nor educational attainment had a significant effect on success in small business. Rather,

entrepreneurial success seems to emanate from a combination of communication skills, analytical skills, and other specific business competencies. Without sound and effective decision-making skills, a small business may not be successful (Garavan et al., 2015). Definitions of small business success by scholars and practitioners include enterprises that start-up and persist for 3 or more years. This definition includes those companies that provide profits to owners or shareholders and businesses started from scratch operating continuously for 5 or more years (Strielkowski, 2012).

Worldwide, SBEs constitute the largest segment (90%) of business operations, and leaders of SBEs are largely responsible for between 50% and 60% of employment growth (Stewart & Gapp, 2014). According to the U. S. Small Business Administration (SBA), 99.7% of all businesses fit the definition of small business, with more than half being home-based businesses. Most businesses (86%) are sole proprietorships; the remaining 14% of firms split evenly between partnerships and corporations (SBA, 2014).

Definition of *small business*. What officially defines a *small business* for purposes of contracting, receiving loans or grants, and eligibility for government programs has a variety of descriptions in the United States depending upon the industry type, revenue earned, and number of employees. The broad definition of the SBA Advocacy Office is that a small business is a firm with fewer than 500 employees and operates as an autonomous enterprise (SBA, 2014). The SBA also provides specific sizing criteria for government eligibility that varies among industries. The criteria for small-business eligibility also includes a revenue limit for industries like support services in the oil and gas extraction industry, agriculture, forestry, fishing, construction, and

other capital intensive businesses (SBA, 2012). In general, firms under five employees constitute a *micro business* or *very small business enterprise* (*VSBE*).

SBEs, defined as businesses with under 500 employees in the U. S. constituted 99.7% of all employer firms in the United States in 2012 (SBA, 2014) and 99.9% in the U.K. (Blackburn, Hart, & Wainwright, 2013). SBEs represent 90% of the global business population, 70% of the productive capacity, 65% of global employment, and as much as 70% of global pollution (Hoogendoorn, Guerra, & van der Zwan, 2015; Vázquez-Carrasco & López-Pérez, 2013).

The term *small and medium-sized enterprise* (SME) defines *small business* within the European Union. For purposes of this study, using the conventions found in the literature, the terms *small-business enterprise* (*SBE*), *small- and medium-sized enterprise* (*SME*), and *very small business enterprise* (*VSBE*) refer to locally owned firms that are not dominant in their industry. Typically, these firms employ fewer than 500 employees and, with some exceptions, usually have gross revenues not to exceed $7.5 million (SBA, 2014).

In this research study, the terms *entrepreneur* and *small-business leader* or *small-business owner* were synonymous. Although some scholars view entrepreneurial leadership differently from small-business leadership (Renko et al., 2015), the basic competencies required to operate an SBE are quite similar.

Role and importance. Most businesses throughout the world are small businesses (Volery & Mazzarol, 2015). Small businesses play an integral part in the economic prosperity of nearly all countries (Battisti, Deakins, & Perry, 2013) and in the

U.S. small business accounts for as much as 46% of gross domestic product (GDP) (Kobe, 2012). According to Hecht (2014), although small business represents only 21.5% of small businesses that employ workers, these small firms represent 49.2% of the workers in the U.S. Not only do small businesses benefit national economies, SBEs are also instrumental in the development of local economies. Local SBEs play important roles in job creation, contribution to local economic growth, give to local charities, and develop new processes and products (Halbesleben, & Tolbert, 2014; Thornton & Byrd, 2013).

Some small businesses contribute to local communities by advertising in high school yearbooks, sponsoring baseball teams, and investing locally within the community (De Clercq, Thongpapanl, & Voronov, 2014). Small-business leaders may also actively participant in community activities and use personal resources to support many local causes or to meet social needs in the community (Bressler, 2012; Lumpkin, Moss, Gras, Kato, & Amezcua, 2013). Although in closely held businesses, family members may play a larger role than external stakeholders may in the selection of charities or organizations to support.

Researchers have examined small business from several different perspectives (Blackburn et al., 2013). For example, Shah, Nazir, Zaman, and Shabir (2013) looked at growth factors affecting small firms. Other scholars have studied small business from the standpoint of pure profit and loss (Finkle, Menzies, Kuratko, & Goldsby, 2013), whereas others have focused on longevity (Bates & Robb, 2013; Napolitano, Marino, & Ojala, 2015). There is a consensus among researchers, economists, and practitioners that the

world, national, and local economies benefit from the activities of SBEs (Inyang, 2013; Lucky & Olusegun, 2012).

Characteristics of small-business leaders. Small-business owners and leaders share traits with entrepreneurs. For purposes of this research, small-business owners, small-business leaders, and entrepreneurs refer to people who own, operate, manage, lead, or direct the activities of firms that do not dominate their industry and employ fewer than 500 employees (Thomason, Simendinger, & Kiernan, 2013). Small-business leaders have many diverse characteristics, and these entrepreneurial attributes continue to change to meet the changing needs of the marketplace (Blackburn et al., 2013).

Some small firms lack resources, especially in the early stages of development and growth of the organization. Time, financial, and human resources are the most frequently cited resource deficit mentioned by small-business leaders (Kroon, Van De Voorde, & Timmers, 2013). Mousiolis and Zandis (2015) noted the principle reasons that small business fail are the lack of management competencies and insufficient business experience.

Small manufacturers in the state of Nebraska. In 2013, Nebraska experienced an economic growth rate of 3% rate, which was higher than the U. S. national average of 2.2%. Small businesses in Nebraska constitute 96.6% of the employment base, whereas nationally some Manufacturers with between 1 and 499 employees made up 3.7% of all employer firms in 2012 (SBA, 2015). Nebraska is a largely rural state, with a population of 1.88 million persons in 2014, with population concentrated in only three large metropolitan statistical areas (MSA) more than 100,000 in population (U.S. Census

Bureau, 2014). These areas are Lincoln, Omaha, and Sioux City (U. S. Census Bureau, n. d.). An MSA is a geographical area that contains an urbanized portion of the territory consisting of a population exceeding 50,000 people. An MSA includes those areas immediately adjacent to the urban core on which citizens and businesses rely for economic and social assimilation, or to which residents outside the MSA regularly commute for employment (OMB, 2013).

Strategic Planning Theory

The concept of strategy evolved from factions in China during the warring states period wherein the need to conquer an enemy required planning. The use of military strategies first appeared sometime between 400 BCE and 200 BCE referenced in *The Art of War* (Albrechts, 2015). The modern concept of strategic planning in business organizations emerged during the 1960s, as a set of methods to improve the policy decisions made by organizational leaders and to increase competitiveness (Mainardes et al., 2014). Strategy as a business concept or strategic management evolved from the convergence of economic theory and the necessity to allocate resources under conditions of scarcity (Mitchelmore & Rowley, 2013). As the competitive environment turned more turbulent and unpredictable characterized by rapid change, senior business leaders needed to develop a method that could help them to anticipate these fluctuations more effectively (Mainardes et al., 2014). By 1965, *planning* was a word used widely, but had many meanings in business and government contexts. Business planning and particularly *strategic planning* is an outgrowth of military strategy.

Strategic planning is critical to business success for all organizations (Cordeiro, 2013). The development of a competitive business strategy for the smaller firm may be as important as having an entrepreneurial mindset (Lechner & Gudmundsson, 2014). Strategic planning processes include attempts to examine the past to project the future, to make changes, and to adapt to changing market conditions. There is an abundance of information about the formulation and implementation of corporate business strategy for large corporations (Mazzarol et al., 2014). However, the strategy process in small- and medium-sized enterprises is less well understood (Williams & Schaefer, 2013). Investigation into how planning by SBE owners and managers affects competitive advantage when adopting environmental sustainability strategies needs further study (Brammer et al., 2012).

Conversely, Blackburn et al. (2013) asserted that business size and longevity tended to predict which firms performed better rather than any particular strategy. Jing, Avery, and Bergsteiner (2014) found additional factors affect the organizational performance of the small company including internal and external variables. However, having some formal business plan is never the less important, particularly for companies experiencing growth (Ibrahim, 2012). Cordeiro (2013) posited that business growth for small firms appeared to be a factor in longevity and for start-up companies and having a written formal planning document tended to lead to commercial success.

Strategic planning is especially critical to business success for SBEs (Cordeiro, 2013). Hang and Wang (2012) stated that the ability to make strategic business decisions is a primary factor in successful small businesses. Nevertheless, SBE owners and

managers often lack knowledge of the strategic management process. SBE strategy design is often the result of trial and error on the part of the owners or managers responsible for planning (Hahn, 2013; Menzel & Günther, 2012; Sandada, Pooe, & Dhurup, 2014). In many SBEs when business planning does exist, the time horizon is typically 1 year or less. Conversely, Cordeiro (2013) discovered evidence of strategic planning in small firms often for 3 or more years. The debate concerning small firm planning and growth to gain competitive advantage remains an active area of scholarly inquiry.

Competitive advantage. Strategy provides direction for owners and managers in planning the activities of the firm. Often, beliefs and dreams of the founder or owner guide the business, although often planning resides surreptitiously in the mind of the owner (Alstete, 2014; Mazzarol et al., 2014). Owners then begin to share plans for the firm to realize potential, at which point vision and mission statements develop. These collective visions and mission statements combine in ways to enhance the core competencies of the firm, its organizational culture, and abilities to create a form of competitive advantage (Sandada et al., 2014).

Through a shared vision and competitive advantage, SMEs create value for stakeholders, some of whom invest in the business and contribute to creating value streams (Bressler, 2012). Strategic or business plans are contingent upon market size, customer needs, and the necessity of flexibility, and often SMEs are more responsive to changing market conditions than large multinational corporations. Focused differentiation is a type of strategy that SME managers have adopted effectively, and planning is more

important during times when economic fluctuations are the greatest in the broader environment (Bressler, 2012). Alstete (2014) argued that some entrepreneurs devote time to planning at the expense of implementing strategies.

Developing the strategy of a firm is among the most complex activities owners and managers undertake (Zott & Amit, 2013). One of the potential benefits of strategic planning is enabling the manager of the firm to assists the business to gain a competitive advantage by the application of the concomitant planning tools, models, and techniques (Leonidou, Christodoulides, & Thwaites, 2014). Research remains limited on how SME owners and managers use strategic planning within the SME environment and whether planning provides any advantage for the small enterprise (Wingwon, 2012). Due to a lack of agreed upon mechanisms and definitions for measuring competitive advantage, Hofer, Cantor, and Dai (2012) asserted that the ability to quantify the value of strategic planning in achieving competitive advantage remains challenging.

Often located closer to customers than are larger corporations, the proximity of SMEs allows for greater personalization and customization of goods and services to customers than typical of larger corporations (Simpson, Padmore, & Newman, 2012). Having a flat organizational structure allows the SME to be more responsive to customer needs and provides the ability to change direction more rapidly, resulting in higher levels of creativity and innovation. Because of a lack of resources, knowledge, and skills to develop long-range plans, SMEs are particularly vulnerable to competitors having better planning and better access to capital (Sandada et al., 2014). Management of the typical SME involves reactionary and adaptation tactics rather than any formal planning process.

The use of strategic business models is helpful to individuals charged with designing and implementing company strategy (Mitchelmore & Rowley, 2013). In the SME, strategic development is the responsibility of the owner and other top managers, and when successfully executed, directs the activities of the company toward mission accomplishment. Business models may exist independently of the strategy of a small enterprise, but the realized strategy may become the business model for the organization (Casadesus-Masanell & Zhu, 2013). The use of strategies that support environmental and social sustainability allow a balanced approach to aligning the need for profit with the rational utilization of resources, adapted for the benefit of local, regional, and national communities (Klewitz & Hansen, 2014). Sustainable strategies can create synergistic effects resulting in inherent advantages that exceed unilateral benefits associated with business strategy (Ramanathan, Poomkaew, & Nath, 2014).

Because the business market is highly collaborative and networked, the need has accelerated for SME owners and managers to develop strategies consistent across industry markets and supply chains, when promoting innovation, creativity, and entrepreneurial activities (Oxborrow & Brindley, 2013). The imperative for SME owners and managers is to develop collaboration with noncompetitors and with suppliers to provide a unified, sustainable benefit for consumers and business end users (Lewis et al., 2014). In examining the collaborative efforts of SBEs with suppliers and noncompetitors to create networks, Verschoore, Wegner, and Balestrin (2015), identified better financial outcomes for both consumers as well as business owners.

Managers of small firms face additional difficulties when conducting strategic or business planning, particularly when the company owner remains enmeshed in the daily operations of the enterprise. According to Becherer and Helms (2014), owners faced numerous barriers to the implementation and advancement of green strategies. These barriers included additional costs associated with environmental practices, a lack of operational and organizational skills, antipathy toward change and modernization, and ineffective attempts to engage employees in environmental sustainability initiatives (Henriques & Catarino, 2015). Critical obstacles to the adoption of proactive environmental sustainability strategies by SME owners and managers need addressing (Williams & Schaefer, 2013).

The mindset of the SME owner and manager, in particular, a predisposition to environmental action, may affect the support and implementation of an environmentally sustainable strategy (Roxas & Coetzer, 2012). Because SMEs are small by definition, the owner-manager plays a significant role in strategic decision making, as a role model for employees, and in establishing the mission and goals of the enterprise. Thus, actions often are more telling of intent than mere discussion of proposed actions.

For SME managers and owners to elect to implement environmentally sustainable strategies, there must be some sense that the investment will provide tangible results lest the leaders decide not to pursue sustainable policies. One mechanism that helps firms achieve a cost-benefit outcome is the use of environmental management systems (EMS). An EMS is an essential part of the overall set of operating systems of a business that, when combined, help managers to plan, measure, control, and adjust to environmentally

sustainable actions. The adoption of International Organization for Standardization (ISO) criteria by many SMEs remains challenging for leaders of SBEs. Addressing ISO 14001 standards can help leaders of small firms to improve manufacturing processes. Adoption of quality standards outlined in ISO 9001 allows SBEs to complete for worldwide market share, but meeting these ISO standards is not easy (Ferenhof, Vignochi, Selig, Lezana, & Campos, 2014).

The planning processes SBE leaders employ often differ from the typical strategy formation processes of larger corporations (Tell, 2012). Strategic implementation of business goals of SBE owners and managers remains a challenge, but is essential to firm growth and profitability (Weber, Geneste, & Connell, 2015). Among the well-documented strengths of SBEs is the ability of managers to be flexible and to adapt as the business climate fluctuates. Planning by SBE owners and managers helps to make the firm more competitive and can catalyze growth through time (Alegre, Sengupta, & Lapiedra, 2013; Ates, Garengo, Cocca, & Bititci, 2013).

SMEs owners and managers lag in the development and implementation of environmental sustainability, often lacking clear understanding of environmental issues associated with their industry (Halila & Tell, 2013). Some SME managers do not have access to the resources, in terms of time, knowledge, skills, and finances, to plan effectively, or to integrate appropriate environmental sustainability strategies. In addition, many owners and managers of SMEs are genuinely skeptical of how planning for sustainability will lead to positive economic outcomes (Halila & Tell, 2013).

Sustainability planning in the SME may be emergent or deliberate (Wiesner & Millett, 2012). Because many firms continue to use 20th century business models to determine value, social, and environmental issues excluded from these models make planning more difficult. A high percentage of SME owners and managers were aware of the need for environmentally sustainable practices (Williams & Schaefer, 2013). Operational methods some participants in the study employed included recycling, energy reduction, efforts to reduce and control pollutants, and the general reduction in waste materials (Lewis et al., 2014). However, SME leaders reported little or no environmental consideration associated with company activities.

About 30% of U. S. company leaders use environmentally sustainable business strategies. SMEs, in general, have failed to adopt sustainability strategies, but the reason for this lapse remains unknown (Kirkwood & Walton, 2014). Stakeholders and Non-governmental Organizations (NGOs) have increased both external and internal pressures on decision makers and organizational planning activities to reduce the environmental footprint of a company, to reduce carbon emissions, and to plan for sustainability (Ramanathan et al., 2014). In addition, political and regulatory pressures for firms to adopt ISO standards, or to have local, state, or national legislative bodies enact legislation to require environmental sustainability planning, remains a potential threat to SME's competitive ability (Darcy, Hill, McCabe, & McGovern, 2014).

Corporate Social Responsibility

Although CSR continues as a vital area of research, particularly since 1960, a standard framework for theoretical explanation, and more importantly for the application

of CSR, from a strategic perspective is lacking (Turker & Altuntas, 2013). Furthermore, CSR research remains incomplete in the SME environment (Spence, 2016). Large corporations and SMEs are fundamentally different in nature. Owners and managers of SMEs are less likely than are managers of larger business organizations to have a structured CSR program in place if they have one at all (Vázquez-Carrasco & López-Pérez, 2013). In comparison to managers of larger organizations, SME owners and managers do not track or report CSR accomplishments, lack resources to pursue a vigorous CSR campaign, and are more responsible to local constituents and community organizations (Baumann-Pauly, Wickert, Spence, & Scherer, 2013).

SMEs may benefit from participation in CSR because of the local connection most SMEs have with their community programs (Inyang, 2013). The characteristic of being locally owned and located presents an advantage because consumers and suppliers often know the firm and its managers. At the same time, proximity may create liability because the firm is in the community structure and may not have the resources to engage fully in CSR activities. Any failure in the CSR arena for an SME can have devastating consequences because of possible customer backlash, resulting in market letdown (Gupta & Kumar, 2013). Planning for CSR, or more precisely, developing strategies that promote CSR, can improve the reputation of the owners and managers of the SME as well as improve the firm's branding (Baumann-Pauly et al., 2013).

Leaders of all businesses have a moral obligation to society that extends beyond the mere economics of profitability and employment for workers, an idea firmly rooted in society in both the practitioner and scholarly literature (Taghian, D'Souza, & Polonsky,

2015; Tarabella & Burchi, 2013). There is a definitive connection between ethics and environmental sustainability, and although early researchers focused on the virtuous roots of sustainability, more recently, authors studying sustainability have taken a more scientific view (Metcalf & Benn, 2013). Society demands and expects leaders in the business sector to act ethically, and these expectations have increased steadily since the 1950s. However, commercial and ethical scandals have occurred in every decade since the 19th century, and no sector of business is exempt from bad decisions and moral lapses (Boerner, 2014). Achieving CSR requires t leaders to guard against unethical actions in business and the ethical lapses chronicled by scholars, practitioners, and mass media (Dzansi & Hoeyi, 2013).

When SMEs owners and managers are more committed to the CSR concept, they tend to use CSR to improve services to stakeholders (Kechiche & Soparnot, 2012). Because many SMEs lack resources, the wider adoption of CSR by SME owners and managers remains deficient. Those SME owners and managers who do implement CSR strategies experience the advantages of lowered operation costs, more efficient operations, increased engagement, workforce motivation, and greater potential to obtain a competitive edge over rival firms (Kechiche & Soparnot, 2012). Some downsides of the failure to enact CSR in the small business are lost customers, because of reputational degradation and the resulting loss of profits (Green & Peloza, 2014).

Stakeholder Theory

One theory of the firm that supports strategic planning is the stakeholder theory. Stakeholder theory introduced the notion that business planners need to take into account

all of those persons affected or influenced by the decisions of the firm (Harrison & Wicks, 2013; Hörisch et al., 2014). Before the emergence of the stakeholder concept, business owners focused primarily on enriching shareholders or themselves with profits from the enterprise (Westrenius & Barnes, 2015). The global market has expanded considerably in the last 30 years or more, but scholars and practitioners have largely failed to challenge this focus or further develop the stakeholder model to include environmental sustainability (De Brucker, Macharis, & Verbeke, 2013) particularly in smaller enterprises. Nevertheless, the turbulent global business environment continues to challenge all businesses, including SMEs.

A state of equilibrium is hard to achieve and maintain in complex human systems (Gamage, Boyle, & McDowall, 2013). Sustainability in organizations involves satisfying a variety of constituents, including employees, shareholders, investors, and community members. Broadly speaking, anyone affected by the organization is a stakeholder, but defining the term stakeholder more narrowly to include individuals with a stake in the activities of a company because of proximity or financial circumstances is common (Harrison & Wicks, 2013). Under this definition, other individuals have only a potential interest in the activities of the firm (Bolboli & Reiche, 2013).

Stakeholders became more active and concerned with the activities of firms, governance structures, and management decisions, such as those dealing with social justice, quality of life issues, and environmental performance. The activism of stakeholders began to affect business leaders' approaches to a wide array of business decisions (Bundy et al., 2013; Starik & Kanashiro, 2013). One of the many outcomes of

stakeholder activism is an increased concern for environmental issues. Corporate boards and business leaders must increasingly account for decisions on how to create value without degrading the physical environment (Chin, Hambrick, & Treviño, 2013; Harrison & Wicks, 2013; Tantalo & Priem, 2014).

Sustainable Development Theory

Sustainability and sustainable development are among the most significant challenges facing business (Tencati & Pogutz, 2015). The business problem associated with the research question is that leaders of some SBEs lack the core competencies for implementing sustainability initiatives within their firm and consequently ignore environmental sustainability by failing to plan for implementation of sustainability initiatives (Starik & Kanashiro, 2013). The specific competencies required to execute sustainable development issues are still evolving (Gibson, 2012) and educational institutions are introducing new courses to prepare graduates for the inevitable challenges that lie ahead (Barber, Wilson, Venkatachalam, Cleaves, & Garnham, 2014; Karatzoglou, 2013; Ki-Hoon & Schaltegger, 2014). To establish the context of the business problem, a brief review of the history of sustainability follows.

Definition of *sustainability*. For purposes of this research, the definition of sustainability or sustainable development comes from the Brundtland Report (1987). In attempting to define sustainability, the Brundtland Report described sustainability as the ability to meet present needs of society without damaging future generations' capacity to support their future needs (Brundtland, 1987). The Brundtland Report definition remains the accepted explanation for sustainable development or sustainability in scholarly and

practitioner-based research articles, yet the definition of sustainability remains controversial.

Barkemeyer et al. (2014) suggested that *sustainable development* does not have the same meaning as sustainability. Barral (2012) criticized the Brundtland definition as being vague, particularly from a legal perspective. The ambiguity of the definition fails to address the real limits of development and the consequences of breaching potentially irreversible ecological boundaries (Imran et al., 2014).

Furthermore, some aspects of sustainability remain both controversial and contradictory such as the concepts of munificence, economic, environmental, and social performance (Skjølsvold, 2013). SBE managers' challenge to influence outcomes that are sustainable, provide for economic profits for the firm, and meet the social needs of stakeholders is promethean (Bateh et al., 2014; Skjølsvold, 2013). Top executive managers set t corporate agenda, and through strategic planning, guide and support the development and accomplishment of derivative organizational goals and objectives (Galpin & Whittington, 2012). SBE owners and leaders are responsible for establishing the vision and mission of the smaller firm, and in so doing, demonstrate predilections toward integrity and organizational values reflective of the society (Jing et al., 2014). Furthermore, leaders must ensure that the corporate representatives act in ways that are in the best interest of local, regional, and national communities, and at the same time are responsible for financial profit. At the same time, some SBE leaders lack plans for implementing sustainable strategies even though others are unable to operationalize sustainable initiatives (Johnson & Schaltegger, 2015).

Historical background of sustainability. The idea of sustainability may have its earliest beginnings with the desire to practice conservation regarding the viability of the forests in Europe in the 18th century (Chasin, 2014). However, the general rise of modern sustainable development lies with the United Nations in 1987 with the publication of the Brundtland report known as *Our Common Future*. The Brundtland report introduced a sense of urgency regarding environmental and ecological depletion of natural resources and the loss of animal and plant life in some parts of the world (Barkemeyer et al., 2014; Brundtland, 1987; Imran et al., 2014).

Some scholars suggested the Brundtland principles of sustainable development have morphed into a complex set of concepts that may no longer be adequate for guiding business leaders, policy makers, NGOs, and governments in implementing environmentally sustainable strategies (Holden, Linnerud, & Bannister, 2014). Coupled with the lack of standard definition of sustainable development, the complexity of sustainable development has retarded both practical solutions and extensive research in some sectors of business and industry (Chasin, 2014). Environmental sustainability along with economic and social sustainability, make up the triple bottom line (TBL) arguably making the assessment and accounting for sustainable development, even more, challenging (Mitchell, Curtis, & Davidson, 2012; Seuring & Gold, 2013; Sridhar, 2012). A comprehensive theory and definition of sustainable development would benefit scholars and practitioners.

Theory of sustainability. Environmental sustainability theory is in effect an amalgamation of several well-established theories, including CSR theory (Aguinis &

Glavas, 2012; Schaltegger, Lüdeke-Freund, & Hansen, 2012). These theories include the theory of natural capitalism (Blignaut, Aronson, & de Groot, 2014); features or components of systems theory (Adams, Hester, Bradley, Meyers, & Keating, 2014); and complexity theory (Peter & Swilling, 2014). The resource-based view of the firm (Lin & Wu, 2014) along with economic theory helps to explain the relationships between environmental, economic, and social of systems surrounding. Sustainability is admittedly a set of complexities that currently lacks a unified theory or consensus definition (Liénart & Castiaux, 2013). Starik and Kanashiro (2013) stated that it is the very nature of sustainability for researchers to link multiple theories for providing an integrated perspective.

The triple bottom line. The triple bottom line (TBL) is a well-developed concept that has emerged from the synthesis of stakeholder theory and CSR research (Harrison & Wicks, 2013; Meixell & Luoma, 2015). Triple bottom line theory provides a view of the holistic approach of a company to social, environmental, and economic performance. More specifically, TBL refers to how companies, NGOs, or not for profit organizations, and governments account for the proper use of natural resources, providing social justice and equity for people, maintaining the quality of the environment, and still achieve economic prosperity (Barkemeyer et al., 2014). Often reduced to the catch phrase *people*, *planet*, *and profit*, these three Ps represent the three sustainability pillars (Burritt, 2012).

The concept of the TBL gained ascendancy from the 1980s when it became increasingly apparent to environmentalists, researchers, and practitioners that the rates of environmental resource utilization exceeded the planet's capacity to sustain itself (Busch,

et al., 2015). More narrowly defined, TBL refers to the accounting framework that contains environmental measures in many accounting audits (Gond, Grubnic, Herzig, & Moon, 2012). In essence, the TBL refers to how leaders of business organizations need to consider prioritizing profitability and simultaneously address the needs of the environment and people (McCann, & Sweet, 2014).

Organizational leaders interested in sustainability face significant challenges in implementing and measuring TBL performance (Klewitz & Hansen, 2014). The question remains as to the ability of SBE leaders to implement sustainable business strategies incorporating TBL and if implementing such strategies will contribute to the company's bottom line (Roxas & Chadee, 2012; Tollin & Vej, 2012). In reports on CSR issues, TBL serves as a basis for identifying and collecting data about the business activities of the company related to social, economic, and environmental sustainability measures. TBL data inform stakeholders about the business decisions made by the owners and managers of the enterprise on sustainability measures. Such knowledge can identify shortcomings, areas of opportunity, and positive directions toward sustainability goals (Barkemeyer et al., 2014).

The change from maximizing profit to embracing TBL has not been an easy one. Management teams must think of the impact of decisions in wider terms as affecting not only economics, but also of social and environmental issues (Starik & Kanashiro, 2013). Corporate performance reviews conducted in the popular press and elsewhere have reflected increasing concerns about corporate business practices, particularly their social

and environmental effects. Members of a variety of environmental groups have lobbied corporate management and boards to adopt sustainable practices (Brammer et al., 2012).

Conceptually, TBL is easy to grasp. The difficulty for leaders is in the implementation of strategies to achieve a balanced approach to economic, social, and ecological sustainability (Wilson, 2015). Achieving agreement among scholars and practitioners on the best way to measure sustainability performance using the TBL approach remains challenging. According to Govindan, Jha, and Garg (2016), developing an efficacious measurement system for the use of TBL has thus far proven elusive in the manufacturing sector. One of the methods of measuring TBL performance is the TBL *Scorecard,* a framework, which leaders use to measure how well a firm's sustainability strategy is working (Buys, Mengersen, Johnson, van Buuren, & Chauvin, 2014).

Transition and Summary

In Section 1, the discussion focused on the background information and a rationale for conducting this research into the leadership competencies needed by SBE leaders to implement sustainability initiatives successfully. In Section 1, I presented an introduction to the study, the background of the problem, and a review of the academic literature. Among the newest challenges facing small-business leaders are the issues of environmental sustainability and how to implement sustainability strategies. The research remains deficient in providing a consistent definition of sustainability, sustainable development strategies, and the role SBE leaders play in the business practice of sustainability.

Section 2 provides details concerning the methodology and design, and methods used in selecting participants and deriving a population sample. In addition, in Section 2, I discuss the roles and responsibilities of the researcher, and review considerations, requirements, and protocols for conducting the research in an ethical manner, which includes maintaining the privacy of study participants.

In Section 3, I provide a brief summary of the findings concerning the research question before presenting the detailed results of the study. I relate the findings to the, the contemporary literature reviewed in the literature review and to the larger extant literature relevant to the research topic. Finally, in Section 3, I discuss the applicability of the findings from my study for improving business leadership practices in SMEs through strategic and operational planning for environmental sustainability.

Section 2: The Project

Business leaders rank sustainability or sustainable development among the top priorities facing the future of commercial enterprise (Galpin et al., 2015). Sustainable development is crucial to sustaining global economic growth (Barkemeyer et al., 2014). Global sustainable development spending may reach $5 trillion by 2030 (Bhattacharya et al., 2015). Exploring the competencies that small-business leaders need to implement successful sustainability initiatives is the primary reason for conducting this qualitative multiple case study design.

Section 2 contains a detailed description of the qualitative method and case study design for the study including the role of the researcher, a rationale for participant selection and justification, and ethical considerations. In addition, I described the data collection methods detailing the strategies for collecting and analyzing data, achieving data saturation, reliability, and validity.

Purpose Statement

The purpose of this qualitative multiple case study is to explore what core competencies small-business leaders in eastern Nebraska use to implement sustainability initiatives successfully. The data collection involved interviews with five business leaders of SBEs located in eastern Nebraska engaged in manufacturing who have successfully implemented environmentally sustainable initiatives. I selected leaders from five manufacturing companies in eastern Nebraska that had at least 10, but not more than 499, employees who had successfully implemented environmentally sustainable initiatives. The population for this study included small-business leaders from multiple companies in

manufacturing industries chosen from lists of SBEs located in eastern Nebraska (Yin, 2014). The positive social change included working with business and community leaders in eastern Nebraska toward building community partnerships that helped to extend sustainable competencies beyond the business community.

Role of the Researcher

In a qualitative study, the role of the researcher is to observe and engage with study participants simultaneously exploring phenomena by interviewing and examining artifacts, including, but not limited to, studying documents and records (Bahn & Weatherhill, 2013). Qualitative researchers conduct investigations in field settings, in workplaces, preserving the context of the participants' experiences and then provide analysis and interpretation of the data (Yin, 2015). Direct interaction with study participants creates the potential for ethical issues to arise and investigators who employ qualitative research methods must take extra precautions to ensure transparency to protect study contributors (Houghton et al., 2013).

For this study, I collected data by interviewing leaders from 10 small manufacturing companies in eastern Nebraska that have at least 10 employees, but not more than 499 employees (Metcalf & Benn, 2013), who have successfully implemented sustainable business strategies. I used a multiple case study approach and in addition to interviews, I examined documents, records, and other artifacts. Using a multiple case study design allowed me to make comparisons by examining similarities and differences in individual cases as well as exploring replication across cases (Houghton et al., 2013; Yin, 2014).

Located in Appendix B are the interview questions I used in the study. I also kept a researcher's journal in which I recorded reflections following each interview. Through a collection of multiple sources of data and keeping a documented chain of evidence, including a predetermined interview protocol (Appendix B), and by maintaining a reflective journal, I attempted to reduce possible bias. The rationale for using an interview protocol is to apply a consistent and standardized approach to asking the semistructured interviews questions that address the research question. Although more structured than the use of informal conversation to explore a research topic, the use of a protocol helped me to keep the interviews focused and consistent (Jacob & Furgerson, 2012).

Working as a management executive in a variety of business organizations for nearly 30 years, a senior enlisted member of the Army Reserve for 26 years, and as a small-business owner for more than 10 years, has provided a set of lenses through which to view business leadership. I have significant experience in planning, organizing, staffing, directing, and controlling commercial enterprises where I interacted with customers, clients, community members, and decision makers in various business situations. Having these leadership and management experiences enables me to view leadership from multiple perspectives. However, I have not had direct involvement in planning or implementing environmental sustainability initiatives.

The Belmont Report (1979) outlines the ethical principles and research practices researchers must abide by when dealing with human subjects. The Belmont Report provides directions for researchers and recommends researchers abide by three ethical

principles when conducting research with human subjects. These principles are (a) respect for persons, (b) beneficence, and (c) justice (U.S. Department of Health and Human Services, 1979). I followed these ethical principles at all times during the conduct of my research.

Ethical research practices also require that I disclose any personal relationships, affiliations, or interactions that might affect the integrity of the study. From 1991 through 2001, I served as a consultant to small and medium-sized businesses in eastern Nebraska. During the same period, I also worked as an adjunct professor at a private university. From 2005 to the present, I have served as an assistant professor at a small public college in southeast Nebraska. Disclosing personal relationships, affiliations, or associations afford the reader insights and understanding into the emotional perspective and lenses of the researcher (O'Brien, Harris, Beckman, Reed, & Cook, 2014).

Participants

When using a multiple case study design, both the context of the study and the selection of study participants must align with the study's purpose. One purpose of exploratory research is to obtain deeper insights and understanding of contextually rich situations (Palinkas et al., 2013; Poulis, Poulis, & Plakoyiannaki, 2013). In proposing criteria for selecting study participants, I selected leaders of companies who have successfully planned and implemented one or more sustainability initiatives in the manufacturing sector with SBE firms located in eastern Nebraska, and who have demonstrated the leadership competencies required to implement sustainable strategies in

their firms. In addition, the leaders I selected had a record of successful implementation of some form of environmentally sustainable action or initiatives within the past 5 years.

The population for the study included all small-business manufacturers in eastern Nebraska. To obtain a set of sample participants, I used the following procedure. Using lists of small-business employers in the manufacturing industry compiled from the Nebraska Chamber of Commerce, Nebraska Department of Economic Development, and from proprietary lists of manufacturing firms in eastern Nebraska, I selected leaders from 10 different manufacturing companies in eastern Nebraska that had at least 10 employees, but not more than 499 employees. I then contacted five business owners or leaders from these lists by sending an e-mailed letter of invitation to each of the leaders of these five companies (Appendix A). Only firms with the North American Industry Classification System (NAICS) prefix code of 31 through 33, indicating classification as manufacturing business, were included in the selection process.

Table 1

Distribution of Manufacturing Firms and Number of Employees in Eastern Nebraska (Omaha, Metropolitan Statistical Area)

County	Number of firms	Number of employees
Cass	21	408
Douglas	420	20,824
Sarpy	73	2,361
Saunders	24	473
Washington	22	1,048
Total	560	25,114

Note. From U. S. Census Bureau (2013). County business patterns (NAICS): Select Nebraska counties. Retrieved from http://censtats.census.gov/cgi-bin/cbpnaic/cbpsect.pl

The invitation letter explained the purpose of study and invited the recipient to participate in an interview concerning leadership competencies required of small-business leaders in planning for environmentally sustainable strategies. I also attached a participant consent form to the emailed letter. I repeated this process until I identified five qualified business leaders, and they had consented to be interviewed by electronically signing the Participant Consent Form by replying to the email with "I consent." I contacted only those who consented to the interview by telephone or email to arrange for the most convenient date and time for the interview.

A listing of the NAICS codes for the organizations in which I interviewed company owners or leaders appears in Table 2. The use of NAICS codes helped me to select SBEs that met the study criteria.

Table 2

Listing of Organization Type by North American Industry Classification System Code

Organization	NAICS code	Brief description
Company 1	326299	Fabricated rubber products, reclaimed
Company 2	322230	Envelope manufacturing
Company 3	332322	Sheet metal fabrication
Company 4	332312	Fabricated structural metal manufacturing
Company 5	332999	All other miscellaneous fabricated metal product manufacturing

Note. NAICS, North American Industry Classification System.

Although I had planned to interview 10 small-business leaders for this multiple case study, I continued to interview participants using the procedure above until achieving data saturation, which occurred after five interviews. According to Smith and Chudleigh (2015), data saturation occurs when researchers are unable to identify new information from participants' responses. The actual number of interviews conducted depended upon reaching data saturation, which happened when no new relevant information emerged from interviews (Smith & Chudleigh, 2015) and when no new themes or categories developed from the data (Morse, 2015). For this study, after conducting five interviews, the similarity of responses and data categories appeared repetitively, and no new information emerged from the interview data.

At the start of each interview session, I asked the participant to review their signed participant consent form I restated the general purpose of the interview and asked if they had any questions. I reminded the interviewee that their participation was voluntary and that they could withdraw from the study at any time without prejudice. Building trust by being open and honest about the nature of the research proved important in the interview process (Rubin & Rubin, 2012). Recruiting participants who were open to sharing objective information about their business strategies, identifying and exploring how these business leaders approached sustainability, and the essential competencies they used in planning for environmental sustainability were also key focus elements of the interview process. I used critical case sampling, a form of purposeful sampling, in the selection of participants for my study (Patton, 2014). Using critical case sampling enabled me to maximize in-depth data collection which helped in reducing cost and time, provided the basis for robust theory building, and, although not necessarily transferable, facilitated drawing inferences about local conditions or regional differences (Palinkas et al., 2013; Patton, 2014). A critical case can be more than a single instance of a phenomenon for study. As an exploratory researcher, I exercised care when making logical generalizations from a critical case sample (Nag & Gioia, 2012).

It was crucial that I followed ethical guidelines and procedures to avoid any human rights violations, and as a part of those procedures, I received Walden University Institutional Review Board (IRB) approval (approval number 03-23-16-0517310). I used the letter of introduction to assure each prospective participant met the inclusion criteria for my study (Appendix A). If they agreed, I then obtained an electronically signed email

copy of the participant consent form. I minimized onsite interruptions by conducting the interview in a private area in a convenient, but private, location on the business premises. I called each participant 24 or more hours in advance to confirm the interview date, location, and time. I planned to allocate 1 hour of time per interview, but most interviews went longer than 60 minutes. The additional time typically indicated that the participant had rich contextual information in answer to my interview questions and follow-up questions. Once at each participant's location, I made observations concerning the place of business, conditions, demographics, and general surroundings. Before the interview began, I handed the participant a copy of their electronically signed participant consent form for review before starting the interview questions. After the participant had reviewed their completed participant consent form, and agreed to continue their participation in the interview, I engaged in informal conversation with the purpose of putting the participant at easy before following the interview protocol and interview questions (Appendix B).

Research Method and Design

This heading contains the justification of the research method and the choice of principle research design, including instruments, study populations, and sampling procedures used in the study. Although the extent of small-business research is significant, few researchers have examined environmental sustainability strategies from the leadership competencies perspective (Ervin, Wu, Khanna, Jones, & Wirkkala, 2013; Hofer et al., 2012; Searcy, 2012).

Research Method

The qualitative method was suitable for this research to explore the leadership competencies required to implement sustainability strategies in a small-business context because I was able to gain greater understanding by exploring the rich context surrounding each participants' situation in this case study (Pettigrew, 2013; Poulis et al., 2013; Yin, 2014). I chose a qualitative methodology to understand naturally occurring phenomena in a particular setting, to gain detailed data through interviews, exploring secondary data sources, observation, and archival data or artifacts (Pettigrew, 2013; Rowley, 2012; Tsang, 2013). Using a multiple case study approach required not only the systematic collection of interview data, but also developing an understanding of the boundary limitations so that each case unit was distinct and separate from other instances. The use of multiple cases provided the opportunity to gather comprehensive data to assist in exploring the phenomena under review rather than using a single case study design (Boblin, Ireland, Kirkpatrick, & Robertson, 2013; Houghton et al., 2013; Klonoski, 2013). A multiple case study design provided for the possibility of methodological triangulation using multiple sources of evidence (Cronin, 2014; Yin, 2013). When field researchers explore business phenomena, the qualitative method is an appropriate choice for in-depth analysis.

In reviewing research methods, I considered using the mixed-methods design, where researchers collect both qualitative and quantitative data. I rejected the use of a mixed-methods design because I wanted to focus on exploring the leadership competencies necessary to implement sustainability strategies successfully. Although

mixed-methods designs have an appropriate place in research, a mixed-method design requires collecting quantitative data along with qualitative data, requiring additional analysis, cost, and time to the researcher to understand the data thoroughly. A mixed-methods approach was not appropriate for this study because the requirements for a quantitative component would not be conducive to developing a better understanding or enable a greater in-depth exploration of the core competencies needed by small-business leaders to implement sustainability initiatives successfully.

Quantitative researchers rely on data that is numerically quantifiable from survey participant data, or other collection instruments (Palinkas et al., 2013). The use of the quantitative method of research did not apply to my study due to the limitations inherent in the use of statistical descriptions, the inability to capture rich contextual data, and participant perspectives (Rowley, 2012; Rubin & Rubin, 2012). The use of a mixed-methods design is also inappropriate because I used semistructured interview questions and collected archival documents (Yin, 2014). Therefore, the use of a qualitative research method was the appropriate choice for this study.

Research Design

Planning for research involves the selection of a qualitative research design that enables researchers to gather rich data from study participants (Rowley, 2012; Verner & Abdullah, 2012; Yin, 2014). I am interested in exploring those leadership competencies that allow small-business leaders to implement environmental sustainability initiatives successfully.

Researchers who choose the qualitative method select from among the designs particular to qualitative inquiry including (a) case study, (b) ethnography, (c) narrative research, and (d) phenomenology (Marshall & Rossman, 2016). Strengths and weaknesses exist in each of the designs. Some designs are more appropriate depending on the nature of the research, who the participants are, and the studies' location (Yin, 2014).

Using ethnographic design is appropriate when the researcher seeks immersion within a culture or group of people to explore behaviors and daily activities of people in their natural surroundings (Maxwell, 2013). The time scale involved in collecting data is considerably longer than other methods given that the researcher must establish trust and confidence with participants. I did not select the use of an ethnographic research design because the data collection relies on frequent interactions with extensive field notes describing multiple observations of people.

Researchers who elect to use narrative research designs, gather stories through extended periods that frequently require multiple interviews (Merriam & Tisdell, 2015). The researcher gathers extensive information regarding the participants' experiences. The narrative researcher must develop one or more sets of contextual frameworks to provide chronological and categorical themes to make proper sense of the participants' experiences. I did not select the narrative research design since gathering stories about participants' lives was not appropriate for the business context of the study.

Investigators who employ phenomenological research designs explore the lived experiences of multiple individuals. The phenomenological researcher seeks to develop a single description or universal truth shared by persons or groups of people (Marshall &

Rossman, 2016). I discarded the phenomenological research design because my study involves unique small-business situations each with a single leader, and because I wanted to explore multiple occurrences of phenomena rather than the meaning of the leaders' lived experiences.

My focus was on exploring the core competencies SBE leaders need to implement successful sustainability strategies. The case study design is useful when exploring phenomena from multiple perspectives using various types of data. Using a case study design enables the researcher to explore phenomena under real-world conditions, but is useful particularly when the researcher is interested in answering questions of *how* and *what*. Once a researcher decides to use a case study design, the next decision is whether to choose a single case study or multiple case study design. A multiple case study design is appropriate when relevant data appear to exist in more than one field setting, and the researcher wants to explore the circumstance across more than one occurrence of the phenomena (Yin, 2014). I also reviewed company documents, made observations, and reviewed archival company information from five small businesses in the manufacturing sector in eastern Nebraska, the multiple case study design was the most appropriate for this study.

Smith and Chudleigh (2015) noted that data saturation occurs when researchers are unable to find any additional information from the participants in their responses to the interview questions or other types of data. The actual number of interviews depends upon reaching data saturation. Data saturation occurs at the point when no new relevant information emerges from interviews or other data sources.

Population and Sampling

I used purposeful sampling, in the selection of participants for the study. Purposeful sampling involves choosing a small number of information rich cases most likely to produce the maximum amount of information needed concurrently minimizing the time and cost necessary for the researcher to address the research question (Patton, 2014). A purposeful case can be more than a single instance of a phenomenon for study. There are limits to the generalizability and transferability of case sampling. However, purposeful case sampling allows inferences about local conditions or regional differences in applying results of case study research (Isaacs, 2014; Palinkas et al., 2013; Patton, 2014).

Like other forms of purposeful sampling, a researcher selects a sample based on a particular premise looking for participants who meet general selection criteria to help the researcher explore a particular phenomenon. Because of a relatively limited population of manufacturing SBEs who have successfully implemented sustainability strategies in eastern Nebraska, the critical sampling method is appropriate for this study.

Typical sample size does not apply when contemplating a multiple case study design (Yin, 2014). The population for this study was SBE manufacturers in eastern Nebraska. Approximately 560 firms meet the definition of an SBE (U.S. Census Bureau, 2013). The use of a critical case sample was appropriate given these demographics. As my analysis progressed, data saturation occurred when interview data revealed no new information or themes (Houghton et al., 2013; Smith & Chudleigh, 2015).

Ethical Research

I conducted this study after I received clearance from Walden University's IRB (approval number 03-23-16-0517310). As I conducted my research, I considered the three fundamental tenets of research with human subjects including (a) beneficence, (b) the importance of respect for people, and (c) justice (Belmont Report, 1979). Participants in my study received either an email invitation or postal letter (when no email address for the individual was available), which described the intent of the study and explained that participation was voluntary. The emails and postal letter contained the consent form, which each recipient reviewed before deciding to sign or not. If the participant wished to participate in the study, they needed only to reply *I consent* in a reply email. In the case of postal mail, I personally telephoned each participant after five days if they had not responded.

The importance of participant confidentiality and well-being is an integral part of any investigation, before conducting the study, during interviews, and 5 years after the study concludes. Protecting the rights of participants is vital to the conduct of ethical research and helped to establish study credibility. Participation in the study was voluntary, and the participants were free to withdraw at any time. If a participant had elected to withdraw from the study, I would have destroyed all data the participant provided. Although the Consent Form explained the voluntary nature of the study, I reminded each participant before arranging for the personal interview and again at the start of the interview of the voluntary nature of his or her participation. I also reminded participants that they could withdraw at any time, that all of the data would remain

confidential. I informed participants that they would receive no incentives or inducements for their participation in the study. I coded each participant's name and company, using alphanumerical values known only to me. The use of a coding system allowed for maintaining the confidentiality and privacy protection of participants who agreed to participate in the study (Yin, 2015). Before I started each interview I asked permission from each of the participant to record the interview digitally. All of the participants granted permission to me to digital record their interview.

I explained to each participant that, upon request, I would provide a summary of the study findings to him or her. All data from the study remain in a locked vault to which only I have access. Destruction of the data associated with the study will occur 5 years after the date of CAO approval.

Data Collection Instruments

In multiple case study investigations, using interviews to collect data is a popular method, especially when exploring a fundamental phenomenon and when how and what questions (Rowley, 2012; Rubin & Rubin, 2012; Yin, 2014). In conducting multiple case study interviews, I served as the primary data collection instrument. I asked open-ended questions using a semistructured interview process, which allowed me to ask probing and follow-up questions to gain as much in-depth information from the participants as possible.

One advantage to researchers who adopt a qualitative approach to research is the variety of tools available for use in collecting data. I used an interview protocol represents the primary data collection instrument for guiding the semistructured

interviews. The interview protocol and interview questions are in Appendix B. Several researchers acknowledged the value of an interview protocol or research plan before conducting case study research (Jacob & Furgerson, 2012; Maxwell, 2013; Yin, 2015)

In addition to recording interview data, I used two additional forms of data in the study using field notes and a reflective journal in which I recorded my thoughts and reflections concerning the interview. Yin (2014) suggested that in addition to interview data, a qualitative case study researcher might draw from (a) archived company records, (b) documents, (c) direct observation; (d) participant-observation, and (e) physical artifacts. I reviewed company records related the research question following each interview. Pettigrew (2013), Rittenhofer (2015), and Yin (2015) recommended using a personal or reflective journal. Besides a way of managing ethical risks and bias, a reflexive journal may serve as a catharsis for the researcher (Pettigrew, 2013). I also kept a researcher's journal to record reflections about the research process.

The physical artifacts included memos, directives, and records relating to implementing environmental sustainability pertaining to planning and cost reductions. One example of a physical artifact was computer records supporting a strategic planning process, and previous strategies or operating plans for implementing sustainability initiatives. Documents comprised paper and computer records for planning, directing, and recording progress toward sustainability goals. I took notes during each interview, with the permission of the participant.

Once the interview was complete, I reviewed my notes from each interview. Taking notes helped me to track relevant information and enabled me to expand the notes

into a narrative format (Merriam & Tisdell, 2015; Miles et al., 2014; Yin, 2014). While I made direct observation at each participant's location, such as interactions with other staff members, and general observations concerning the company, this information was incidental and provided no additional relevant data (Marshall & Rossman, 2016; Merriam & Tisdell, 2015; Pettigrew, 2013). The total of these data sources formed a comprehensive package of what Yin (2014) refers to as the *case database*.

I used member checking as a way to provide participants with the opportunity to verify I correctly presented a summary of their interview data. Some scholars recommended that a qualitative case study researcher conducting interviews use member checking to assure the validity of interview data (Marshall & Rossman, 2016; Maxwell, 2013; Morse, 2015). Member checking is not without critics who have questioned researchers' ability to convey an accurate interpretation of the interview, in summary form. A few authors have argued that some respondents may not wish to offend the interviewer by challenging the interpretation of the interview or those scholars that maintain that qualitative research lacks rigor (Kornhaber, de Jong, & McLean, 2015; Morse & McEvoy, 2014; Torrance, 2012).

I recorded all interviews with an iPhone using the program iTalk to capture the participants' responses to the open-ended questions that I used to elicit participant responses using the interview questions (Appendix A). During the interview, I made brief notations recording relevant facts or comments. In addition, I kept a reflective journal as a guard against potential bias in interpreting the interview data. According to Jacob and Furgerson (2012), Rubin and Rubin (2012), and Xu and Storr (2012), using a reflective or

diary recording the interviewer's experiences and thoughts immediately following an interview allows the researcher to examine assumptions, biases, and document the research process as a way of providing transparency.

Data Collection Technique

The research question for this study was what competencies do small-business leaders in manufacturing industries need to implement sustainability strategies successfully? To address this question, I used face-to-face personal interviews with small-business leaders in the manufacturing industry to answer the research question. Patton (2014) identified three methods for collecting qualitative interview data: (a) the general interview, (b) informal conversational interview, and (c) open-ended interview. Each method has strengths and weaknesses. I selected the semistructured interview approach, used open-ended questions, and an interview protocol (Appendix B).

The strengths of semistructured interviews are that personal interviews allow for the collection of rich, detailed information concerning complex phenomena not ordinarily available by using a simple survey instrument. An additional strength of the open-ended semistructured interview method is that it allowed me to follow-up and clarify participants' responses. An additional strength of using semistructured interviews with open-ended questions is that participants shared their perspectives and insights about the leadership competencies needed to implement sustainability initiatives. Further advantages include the relatively small cost of collecting data, availability of the participants, and convenience of access to interviewees' proximity to me. The opportunity to analyze the data from the interviews in multiple ways is another reason a

researcher might decide to pursue the personal interview approach to data collection. Potential drawbacks of using personal interviews include the time consuming nature of collecting and analyzing the data from interviews, research rigor is harder to achieve, and the quality of the researcher's skills in conducting interviews can lead to bias (Jacob & Furgerson, 2012; Patton, 2014; Rubin & Rubin, 2012).

I proactively discarded the names of participants or companies with whom I may have had a potential conflict of interest, by eliminating their names from consideration for participation in the study. Because I had not worked in the manufacturing industry or served in a consultant capacity, I did not encounter a conflict of interest. Nothing in the interview process resulted in any risk to the participants beyond those experienced in everyday living.

At the start of each interview session, I asked each participant to review their signed consent form, and then I restated the general purpose of the interview, reviewed the overall purposes of the study, and asked if the participant had any questions. I provided a definition of environmental sustainability. When the participant had questions, I answered their questions. I reminded each interviewee that their participation was voluntary and that they could withdraw from the study at any time without prejudice by informing the interviewer that they no longer wish to participate. No participants withdrew from participation in the study.

Initially, I engaged in social dialogue at the beginning of the interview, to make the participant feel more at ease. I then answered participants' questions. Some qualitative researchers recommend helping the respondent in interview situations by

engaging in social discourse either by engaging in conversation or by asking warm up questions (Brinkmann & Kvale, 2015; Jacob & Furgerson, 2012; Yin, 2014). After the initial social dialogue, I transitioned into asking a series of open-ended questions using the interview guide and interview protocol (Appendix A). As I approached the end of the interview with the participant, I asked to review relevant company documents such as planning documents, reports, memos, or other materials related to strategies for implementing sustainability initiatives.

In qualitative case study research, replication comes in the form of the use of interview protocols for assuring consistent primary questions, using multiple forms of inquiry to strengthen dependability, and from methodological triangulation of results. Methodological triangulation results from collecting multiple sources of data and determining if different data sources reveal similar results (Kapoulas & Mitic, 2012). As a quality control measure, I sent a summary of the interview to the participant for member checking, to assure that I had accurately reflected the interview findings with the study participant (Houghton et al., 2013).

Data Organization Technique

In preparing for the study, a review of the relevant scholarly and practitioner literature helped me to identify possible research themes and ultimately the research question. According to Onwuegbuzie, Leech, and Collins (2012); Rubin and Rubin (2012); and Yin (2015), the review of the literature is a crucial step in planning, organizing, conducting, analyzing, and reporting research findings.

The original themes I developed from the review of the academic professional and academic literature included environmental sustainability, SBEs, leadership competencies, planning, strategy, social responsibility, and stakeholder theory. Some of these fundamental themes emerged as a part of the data analysis phase of the study (Rubin & Rubin, 2012; Miles et al., 2014; Saldaña, 2016).

As participants completed their interview, I organized each interview by coding the participant, the business, and my interview notes using a set of study codes known only to me. I assigned a unique code to each participant, each business, and to my interview notes after each interview. To help me in organizing the data, researcher notes, and my reflections, I used several software programs to assist in organizing the interview data, including Microsoft Excel, Microsoft Word, NVivo, v. 11, a type of computer assisted qualitative data analysis (CAQDAS), and iTalk (recording software) using my iPhone as a recording device.

In collecting and storing data for the study, I followed the requirements of the IRB of Walden University. I am the only person that has access to the data, and all of the data are stored on a personal external hard drive that is password protected. I will delete and destroy all data after 5 years from the date of CAO approval including any research notes, journals, or paper files.

Data Analysis

I had planned to interview at least 10 small-business owners or leaders of small manufacturing firms located in eastern Nebraska with at least 10, but not more than, 499 employees (Metcalf & Benn, 2013). I conducted five interviews. Five interviews proved

to be a sufficient number of interviews to achieve data saturation. I used methodological triangulation by using multiple sources of evidence from these various businesses (Cronin, 2014; Yin, 2013). Using multiple independent sources, each small-business leader represented a single case study. Researchers use multiple cases to determine if the different case units reveal similar results about a particular phenomenon (Kapoulas & Mitic, 2012; Yin, 2013).

I recorded each of the interviews on an iPhone® using an app called iTalk (recording software), and, after completing each interview, I transcribed the interviews and my field notes. I reviewed companies' planning documents, including internal memos the leaders utilized to develop a strategic or business plan, and operationalize sustainability initiatives. I used alphanumeric codes to encrypt the identities of the participants and an additional code for the participants' companies to protect and ensure that participants remained confidential. For example, O1, O2, O3, O4, and O5 refer to companies 1, 2, 3, 4, and 5 respectively and participant codes P1, P2, P3, P4, and P5 referred to participants 1 through 5 respectively.

I interviewed one small-business leader from each company. I also made handwritten notes to capture important points, and developed field notes as I reviewed company documents. I sent a summary of the interview to the participant for member checking, as a quality control process and to ensure that I accurately reflected the interview with each study participant. Houghton et al. (2013), Maxwell (2013), and Yin (2014) recommended using a recording device or taking extensive notes during case study interviews.

I used a CAQDAS to limit the chance for error inherent in a manual coding system. I then constructed codes from the content of each semistructured interview using keywords, sentences, and concepts as expressed by the participant. I used NVivo® as the CAQDAS software to help me to refine the themes through the identification of recurring word frequencies. Software packages such as NVivo® provide researchers with the tools to interpret, code, and organize interview data (Campbell, Quincy, Osserman, & Pedersen, 2013; Rowley, 2012; Saldaña, 2016). Using the NVivo® software facilitated collecting and analyzing data in ways that were transparent and credible, for identifying and exploring themes. These practices were consistent with the recommendations for qualitative researchers (Miles et al., 2014; Rowley, 2012; Yin, 2015).

I compared the themes that emerged from the interviews with those that I developed from the review of the professional and academic literature. As I coded the interviews, various repetitive themes regarding leadership competencies and environmental sustainability emerged. These emergent themes corresponded with the previously identified themes from the literature review and conceptual framework (Campbell et al., 2013; Miles et al., 2014; Yin, 2015). Upon completing multiple separate interviews and gathering additional documents, artifacts, and other materials, I performed a cross-case analysis. Houghton et al. (2015), defined cross-case analysis as a technique to increase internal validity, by examining similarities and differences in multiple cases, and to aid in reducing researcher bias.

Reliability and Validity

To establish the validity and reliability of a study, qualitative researchers must establish rigor using multiple sources of data as evidence to mitigate researcher bias and preconceptions. Obtaining quality within qualitative research although challenging, is achievable (Smith & Chudleigh, 2015). Among the difficulties facing the qualitative researcher is validity and reliability have inconsistent definitions (Foley & O'Connor, 2013; Street & Ward, 2012). To achieve validity in qualitative research, investigators use four criteria (a) credibility, (b) transferability, (c) dependability, and (d) confirmability (Houghton et al., 2013). In quantitative research the traditional corresponding criteria researchers use are alternatively termed (a) internal validity, (b) external validity, (c) reliability, and (d) objectivity (Marshall & Rossman, 2016).

In qualitative research, replication comes in the form of the use of interview protocols to assure consistent primary questions, and using multiple forms of inquiry to strengthen dependability, for methodological triangulation of results. Methodological triangulation requires collecting multiple types of data and determining if the different types of data reveal similar results (Kapoulas & Mitic, 2012). The nature of qualitative research is largely interpretive, where meaningful text-rich interview data become the primary means through which a researcher interprets and attempts to understand phenomena (Yin, 2015). Therefore, qualitative researchers should possess effective listening and communication skills and judgment to demonstrate a study's reliability and validity.

Reliability

Researchers seek consistency in estimating whether study results are credible. One way to assure a credible study is through the inclusion of rich-text accounts that amplify and extend the interpretive understanding of the phenomena studied (Yin, 2015). Another method is by using the principle of convergence in which the research question, themes discovered, and cross checking with secondary data sources help to uncover divergence in collected data (Miles et al., 2014; Yin, 2014). The qualitative researcher establishes credible findings by using a transparent research design. A transparent research design is one that clearly shows how the collection, coding, and analyzing of the data took place. Demonstrating the rigorous use of field methods including collecting documents, artifacts, taking field notes, and using a researcher's journal also helps to establish reliability (Maxwell, 2013; O'Brien et al., 2014; Patton, 2014).

Dependability. Achieving dependability in qualitative research can occur with the use of multiple methods including methodological triangulation, member checks, and transcript reviews (Denzin, 2012; Merriam & Tisdell, 2015; Patton, 2014). I used member checking to assure that I correctly represented their interview responses and that my interpretation of their responses is accurate. Employing methodological triangulation also facilitates establishing dependability in qualitative research (Denzin, 2012; Patton, 2014; Yin, 2015). Denzin (2012) identified four types of triangulation (a) data, (b) researcher, (c) theoretical, and (d) methodological triangulation. Methodological triangulation is a technique researchers employ to demonstrate dependability in the research process and the resulting findings and conclusions by collecting two or more

different types of data. I used member checking to ensure that I accurately represent each participant's interview in summary form and emailed the summary to each participant not more than three days after the interview concluded. Member checking helped to demonstrate study credibility. None of the participants made or suggested changes to the summary document.

Validity

To achieve validity in conducting qualitative research investigators use four criteria (a) credibility, (b) transferability, (c) dependability, and (d) confirmability (Onwuegbuzie et al., 2012). Scholars evaluate the accuracy and trustworthiness of a research study by using these criteria. Qualitative researchers select a qualitative research design as part of a study, and the concept of validity in qualitative research differs from the nature of internal and external validity in quantitative research. While quantitative researchers consider the criteria of internal and external validity, the qualitative researcher uses credibility and transferability in gauging the qualitative validity from the perspective of credibility and trustworthiness (Elo et al., 2014; Saldaña, 2016). I plan to use member checking as a technique to ensure the accuracy of my understanding and interpretation of the interview using a summary form (Kornbluh, 2015).

In developing a case study protocol, I plan to collect company documents, examine artifacts, and collect interview data. Some researchers have recommended the use of multiple data sources to assist with transparency, credibility, and trustworthiness in conducting qualitative research (Patton, 2014; Yin, 2015). It is also important to refrain from making prejudgments or coming to conclusions until the research process and data

analysis are complete. I kept a researcher's journal in which I wrote my reflections about each interview once the interview was complete. Using a reflective journal concerning my experiences immediately following the interviews, helped me identify any prejudices or preconceived perceptions I had. Carefully documenting interview procedures is important for enabling other researchers to assess confirmability.

Credibility. I collected data in a transparent, organized manner that fulfills the requirements for reliability, credibility, transferability, and confirmability by using the interview protocol (Appendix B). Furthermore, I reviewed planning and other company documents, kept a researcher's journal, took field notes, performed member checks, to make accurate, bias free data interpretation (Marshall & Rossman, 2016; Maxwell, 2013; Onwuegbuzie et al., 2012). Because I was the only coder using the NVivo® 11 software, I was able to maintain consistency in interpreting words, phrases, and themes during the data analysis phase. Research is more reliable than if there were multiple researchers or multiple coders. The use of member checking increased the reliability and dependability of interview data along with the use of member checks to ensure that I correctly characterized their interview responses (Houghton et al., 2013; Marshall & Rossman, 2016; & Maxwell, 2013).

Transferability. Enabling other researchers to determine if the findings of a particular research study apply to a situation with a similar context defines the concept of transferability. Houghton et al. (2013) noted that establishing transferability requires the use of thick descriptions by qualitative researchers. Morse and McEvoy (2014) explained

that transferability relates to the other researchers' ability to interpret generalizability based upon rich descriptions.

Confirmability. Each researcher approaches the research question with a perspective that is unique to the researcher's experience, knowledge, and background. The concept of confirmability implies that given the same population, the same research design, and the same research question, that other researchers could reproduce the study achieving similar results. Such confirmation or corroboration is essential to all research (Houghton et al., 2013). Demonstrating reliability, credibility, transferability, and confirmability facilitates demonstrating that the research is transparent and valid.

Transition and Summary

The purpose for Section 2 was to detail the methodology and design for this study concerning the leadership competencies required for SBEs to implement successful environmental sustainability initiatives. I used a qualitative multiple case study to explore the core competencies small manufacturing business leaders needed to implement sustainability initiatives successfully. In this section, I described the (a) population for the study; (b) the tenets of ethical research; (c) the data collection instruments, organization; and (d) data analysis methods including how I assured reliability and validity in the study.

In Section 3, I report the significance of the findings of the doctoral study. I also discuss how the findings have application for practitioners and scholars, and relate to the literature and my conceptual framework. In discussing social change, I used the analysis of the data to report on implications based on the data and analysis. I also provide

suggestions for future research and a summary of my reflections on what I learned from conducting the doctoral study. I then provide overall conclusions.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of this qualitative multiple case study was to explore what core competencies small-business leaders use to implement sustainability initiatives successfully. The data came from interviews with five business leaders of SBEs in eastern Nebraska engaged in manufacturing and who had successfully implemented environmentally sustainable initiatives, and from reviewing company documents. The findings suggest that leaders of SBEs use similar strategies when planning for and implementing sustainability initiatives as they do for successfully planning other business operations.

Presentation of the Findings

The research question for my study was: What core competencies do small-business leaders in manufacturing industries use to implement sustainability strategies successfully?

The following themes emerged from the analysis of the interview data: (a) industry knowledge, (b) decision making, (c) strategy and planning, (d) communication and interpersonal skills, (e) environmental sustainability, and (f) passion and commitment.

Emergent Theme 1: Industry Knowledge

The first theme to emerge was the importance of the SKAs necessary for successful operation of an SBE. This theme supports Bressler (2012) and Simonet and Tett (2013). Participant 2 (P2), Participant 3 (P3), Participant 4 (P4), and Participant 5

(P5) explained that industry knowledge was critical to long-term success (Table 3). P1 stated that they had owned another business for 35 years so when they sold that business and started their new business, the owners developed competence and knowledge of the industry from continued operations. The development of deep professional industry knowledge, having a broad awareness of and access to other industry leaders, and identifying current industry trends allowed P5 to gain national contracts for his firm. P2 inherited the business from his father and only wrote a business plan when he needed additional capital for expansion.

The participants noted that the idea of being a competent leader involved personal skills, organizational skills, and industry knowledge. This finding is similar to what Mitchelmore and Rowley (2013) and Garavan et al. (2015) found that competency develops from the exercise of business and personal skills, with knowledge of industry practices, and through effective organizational skills.

P4 stated, "It's a learning curve. It takes time to develop what to focus on and what to bypass." The importance of industry, technical, and personal knowledge of each participant supports both Northouse (2016) and Yukl's (2013) conclusions that leaders' competencies develop through time through the processes of education, training, and experience. Development of SKAs appeared to be the result of experience, willingness to learn, and developing leadership competency. Other researchers (Day et al., 2014; Stevens, 2013) support this finding.

Industry knowledge emerged as an important theme. Leadership competencies are necessary for SBE leaders to be successful. P3 stated that although some leaders in

established firms can operate initially without extensive knowledge of the industry in which they compete, SBE leaders need to master industry knowledge quickly. According to P5, if an SBE leader fails to learn the nature of the industry early in the life of their business, the chances are that they will fail within 5 years. Boyatzis (1982) and Metcalf and Benn (2013) noted the need to gain industry knowledge and to develop competencies associated with a specific type of industry Study participants varied in mentioning the importance of industry knowledge and P4 did not mention industry knowledge *specifically* as an important competency. Table 3 reflects the importance of industry knowledge as a component of leadership competence as expressed by study participants.

Table 3

Frequency of Industry Knowledge Mentioned

Source	Reference	Frequency (%)
Participant 1, Interview Question 1	3	24.01
Participant 1, Interview Question 3	2	12.05
Participant 2, Interview Question 6	2	16.32
Participant 2, Interview Question 9	1	22.62
Participant 3, Interview Question 1	4	27.56
Participant 3, Interview Question 3	4	31.09
Participant 5, Interview Question 3	1	15.03
Participant 5, Interview Question 6	1	13.76

According to P5, environmental sustainability planning does not differ from operational planning: “In everything we do we must consider cost, rates of return on

investment, and how it helps our customers." Industry knowledge appears to help SBE leaders in remaining competitive.

Emergent Theme 2: Decision Making

The second main theme concerned the importance of effective decision making and originated from Interview Questions 3, 5, 7, and 8. Each participant mentioned the importance of decision making as a core competence in leading an SBE. P1 spoke of the relationship between business viability and good decision making as vital, especially in the early stages of business operations. P1 and spouse had jointly owned another business for 35 years before starting their present business.

P2 explained that making solid decisions, especially early in the life of the business, made the likelihood of success much more probable. He gave the example of some of his first hiring decisions as an SBE leader: "Yes, I made some mistakes in my hiring choices. However, those decisions turned out to be excellent lessons on what not to do." Decision-making is the single most important aspect of starting and operating a small business according to P3.

Each participant stated that being able to analyze a problem or situation and make a decision quickly was at one time or another crucial to the viability of the firm. This finding supports the literature on leadership (Northouse, 2016; Yukl, 2013). The importance of making sound decisions and managing risk is an important attribute of the SBE leaders interviewed for this study as shown in Table 4. Bundy et al. (2013), also found that making sound decisions and managing risks are critical success factors for SBEs.

Table 4

Frequency of Decision Making and Risk Management

Source	Reference	Frequency (%)
Participant 1, Interview Question 1	3	23.55
Participant 1, Interview Question 3	2	17.96
Participant 2, Interview Question 6	2	15.67
Participant 2, Interview Question 9	1	8.33
Participant 3, Interview Question 1	4	38.12
Participant 3, Interview Question 3	4	36.47
Participant 5, Interview Question 3	1	9.05
Participant 5, Interview Question 6	1	11.13

P3 remarked about using a formal decision-making process but left the daily planning to his operations manager. Similarly, P5 suggested that although he had no difficulty making decisions, as his business grew, he needed supervisors to help in make better decisions about projects and people.

P2 said that automation had improved production significantly, reduced waste, and improved overall shop performance. The peak time for production runs is in the summer months, during which employees typically want vacation time. To accomplish this (providing time for vacation), P2 stated that he decided that each employee who worked on the shop floor would cross train to run more than one type of machinery. P2 remarked that the decision to cross train employees on different equipment types also

helped with "eliminating mistakes due to boredom." Employees now regularly operate more than one type of machine depending on the product demand.

P5 indicated that good decision-making helps to sustain a business. P5 also stated that by empowering employees to make job-related decisions he can concentrate on getting new customers and taking care of existing customers.

Emergent Theme 3: Strategy and Planning

The third theme that emerged from the data was strategy and planning. Planning for environmental sustainability or any other type of business planning requires time. P1 stated that there never seems to be enough time to commit to writing a formal plan. P2 also understood the importance of strategy, but day-to-day pressures to move the product out the door took precedence. P2 stated, "Since we automated some functions, we do a better job of production planning." P3 said that much of his business involves bidding processes outside of his control and the workload is ". . . either feast or famine."

Business planning. None of the participants had started their business with a traditional written business plan. The discovery that initially none of the SBE leaders used a formal written plan was a surprising finding given the importance placed on planning by the SBA, community, and business education centers, and in colleges and universities. P1, despite being in the current business for more than 10 years, had not committed to a written business plan. Her husband and joint owner do most of the planning.

P2, P3, and P5 developed a business plan only as a requirement to seek additional capital for expansion. P2 and P5 developed a formal business plan either to meet

regulatory bidding requirements or to meet guidelines of downstream partnerships. P4 stated that he does not have a formal written plan but meets with supervisors and employees weekly to discuss production goals. However, company documents revealed some planning through a series of memos and directives.

None of the participants had addressed environmental sustainability initially or later when required to develop a formal written plan. The need for sustainable processes often resulted from a need to trim expenses. P5 stated that customers are becoming increasingly interested in meeting international standards. Customers are more aware of environmental sustainability. Nevertheless, these SBE leaders addressed environmental sustainability more as a way to reduce costs or improve the bottom line.

Lack of formal planning. The fact that these businesses remain successful despite the initial lack of a formal written business plan seems contradictory to the concept of strategic planning as articulated by Cordeiro (2013) and Mainardes et al. (2014). Nevertheless, all participants seemed to have an entrepreneurial mindset.

Reviewing the interview data and company document reviews indicated that all participants thought that strategy and planning are important qualities that SBE leaders need in order to be successful. Although the frequency of mentioning strategy and planning varied among the participants (Table 5), most of the participants did not have a formal written business plan. P5 stated that planning for environmental sustainability initiatives depended on what monies were available.

Table 5

Frequency of Reference for Themes Related Strategy and Planning

Source	Reference	Frequency %
Participant 1, Interview Question 3	4	21.65
Participant 1, Interview Question 4	2	11.65
Participant 2, Interview Question 3	5	36.35
Participant 2, Interview Question 4	2	13.55
Participant 2, Interview Question 5	4	18.67
Participant 3, Interview Question 6	4	19.90
Participant 4, Interview Question 3	6	37.68
Participant 4, Interview Question 4	2	9.96
Participant 5, Interview Question 5	6	46.23

What became apparent from the interviews was that although the SBE leaders acknowledged the importance of planning, they turned to a written plan only when required. Mostly the strategic plan according to P2 "was in my head." Planning for environmental sustainability requires the same amount of energy and time as formal business planning. Most participants (except P1) did not specifically differentiate planning for environmental sustainability. When an opportunity arose to save or reduce expenses, the leaders said they proceeded and made the changes if it made economic sense.

Emergent Theme 4: Environmental Sustainability

Responses to Theme 4 originated from Interview Questions 2, 4, 5, and 7. Participants agreed that environmental sustainability is important, but they did not always

agree on the definition of *success* or have a common definition of environmental sustainability. Each participant used some form of environmental sustainability to reduce costs, improve throughput, reuse waste materials, and recycle scrap metal or materials. Only P1 saw the bigger picture of how their business of repurposing discarded tires fit into the larger macro view of environmental sustainability. The other participants planned and made changes successfully, but they did so to improve operations and reduce costs. Although the net outcomes resulted in the successful implementation of an environmental sustainability initiative, implementing sustainability initiatives was not the primary motivation.

Recycling. Recycling was the most often mentioned form of sustainability (Table 6). The leader of O1 discussed the company installing solar hot water heaters for use in degreasing and cleaning of used tires before shredding the tires into rubber pellets. Two company leaders, P3 and P5, discussed changing the lighting in the shop and office areas to lighting that is more efficient. P5 stated that the lighting project was ongoing and expected completing the conversion of all common areas and high usage shop areas to more efficient lighting by the end of 2016.

Table 6

Sustainability Initiatives Successfully Implemented by Organization

Organization	Description of sustainability initiative implemented by leader
1	Installed solar hot water heaters
2	Recycled waste paper; purchased high-efficiency automation machinery
3	Recycled waste materials; changed to energy efficient lighting
4	Recycled scrap materials; reworked some steel for other projects
5	Recycled metal scrap; switched to LED lighting in office and some shop areas

P1 noted that recycling and reuse are part of their fundamental business model: "We produce pellets in differing sizes from recycled tires. We sell the pellets to other firms for use on playgrounds, mats in gymnasiums, and even as padding on artificial turf used in stadiums." O1 also produced mats and artificial turf for stadiums, but no longer does so. Environmental awareness was also evident in O2. P2 noted that the company collects all scrap materials used in other preconsumer products labeled 100% recycled material. Turning waste products into a variety of preconsumer products such as office products, paper towels, and noncorrugated boxes helps reduce costs and provides a small revenue stream.

Participants stated that regulatory requirements in their industry often dictated minimum standards for reducing or eliminating environmental pollution. Several participants (P1, P3, and P5) mentioned that the Occupational Health and Safety

Administration (OSHA) regulations and recordkeeping requirement took considerable time. P4 and P5 stated that implementing sustainability measures developed as much from serendipitous decisions to reduce waste, lower costs, or reclaim valuable materials than a concerted effort at environmental sustainability. P1 noted that their business of recycling tires is highly controlled by federal and state regulations and is intensely involved in reuse and repurposing of used tires.

Table 7 contains a summary of the words and phrases P2, P3, P4, and P5 used in defining environmental sustainability. I coded incidental descriptions of actions related to sustainability resulting from such references to conserving energy, reducing waste products, recycling materials, reusing or repurposing production materials, and being a good member of the community. P1's frequency of mentioning themes related to environmental sustainability as the highest among the participants interviewed (Table 7). The occurrence of so many mentions or words related to sustainability by P1 may be because P1's business of tire recycling is fundamentally an environmental business.

Table 7

Frequency of Reference for Themes Related to Environmental Sustainability

Source	Reference	Frequency %
Participant 1, Interview Question 1	7	44.29
Participant 2, Interview Question 2	4	26.35
Participant 2, Interview Question 10	5	28.38
Participant 3, Interview Question 2	3	17.65
Participant 3, Interview Question 4	2	12.07
Participant 3, Interview Question 10	2	16.05
Participant 4, Interview Question 4	3	19.09
Participant 4, Interview Question 10	2	13.66
Participant 5, Interview Question 4	2	12.88
Participant 5, Interview Question 10	3	14.97

Small businesses often lack the financial resources in the early stages of the business lifecycle (Roxas & Chadee, 2012). As the business grows financially, new equipment replaces older equipment often creating more throughputs or increasing worker productivity (P2, P3, and P5). Some participants thought about waste reduction in replacing older equipment, but the primary driver was reducing cost or lowering overall expenses.

While all of the firms had successfully implemented some form of environmental sustainability (Halila & Tell, 2013), environmental sustainability was often not the main reason for implementation. Often the choice was not because it was sustainable or good

for the environment, but that the actions helped to reduce costs or save expenses. The most frequently cited reasons for reducing costs related to saving energy. P2, P3, and P4 stated that energy saving resulted from changing light fixtures, adding insulation, or (all participants) turning off idle equipment. Bateh et al. (2014) found that SBE leaders encouraged employees to help reduce operating costs, such as those cost saving initiatives reported in this study.

Emergent Theme 5: Communication and Interpersonal Skills

All participants agreed that effective *communication* is crucial to leadership, especially when planning to make changes or implement new processes. P2 found that each time they purchased a new type of machine, operators needed instructions on how to program as well as operate the machinery. Communication played a significant part of the installation and integration of new equipment into the daily workflow.

P3 had a weekly meeting on Monday mornings with all employees to review the prior week's production numbers, asked for suggestions from workers, and planned for the production targets for the current week. Support for reducing waste material as a sustainability measure used by small businesses is consistent with the extant literature (Bateh et al., 2014).

Interpersonal skills. P4 advised that owning and running a small business required effective personal skills in handling employees, customers, and vendors. P4 went on to state "don't get into business unless you have a real passion for what you are doing". P5 said that being able to multitask and work with a variety of personalities is essential, especially early in the development of the business. P1 stated that internal

communication with workers and supervisors was always face-to-face. P2 said that hiring the right people with good communications skills remains important. The types of production machinery require extensive training, explained P2 and P4. Communication emerged as an important theme among all participants as a key competency, which SBE leaders need to be successful (Table 8). P4 noted that designing custom installations requires excellent communication between the customer and the initial salesperson, and with design engineers, fabricators, and installers. P1 mentioned that good communication with employees is a critical aspect of leadership.

Table 8

Frequency of Reference for Themes Related to Communication

Source	Reference	Frequency %
Participant 1, Interview Question 1	5	31.09
Participant 2, Interview Question 1	3	30.31
Participant 2, Interview Question 9	2	22.58
Participant 2, Interview Question 10	2	11.23
Participant 3, Interview Question 1	3	22.19
Participant 3, Interview Question 9	4	17.98
Participant 4, Interview Question 1	2	25.08
Participant 4, Interview Question 9	5	31.85
Participant 4, Interview Question 10	3	19.66
Participant 5, Interview Question 10	2	12.05

Findings from the extant literature support the need for effective communication. Stevens (2013) considered communication skills to be an essential leadership

competency. All of the participants were good at communications skills, although their experiences were all quite different.

Emergent Theme 6: Passion and Commitment

The emergent theme six of *passion* and *commitment* evolved from the analysis of the interview data. The theme of the *passion* and *commitment* required of SBE leaders to be successful is common in the extant literature on small-business ownership (Renko et al., 2015). Table 9 represents information showing that four of the five participants cited passion as an important ingredient in their business success. Four of the five participants also founded the business. All five mentioned the commitment required to run and manage their SBE.

Table 9 contains the words and phrases the participants used to describe the importance of passion and commitment when leading an SBE. Participants also noted the commitment owning or running an SBE requires. The attribute of commitment supports the findings of Thomason et al., (2013). However, P5 did not establish O5, but hired into the leadership position after the founder left the business for health reasons

Table 9

Frequency of Reference for Themes Related to Passion and Commitment

Source	Reference	Frequency %
Participant 1, Interview Question 1	5	31.09
Participant 2, Interview Question 1	3	28.05
Participant 2, Interview Question 9	2	22.58
Participant 2, Interview Question 10	2	11.23
Participant 3, Interview Question 1	3	22.19
Participant 3, Interview Question 9	4	27.09
Participant 4, Interview Question 1	2	17.03
Participant 4, Interview Question 9	5	31.85
Participant 4, Interview Question 10	3	19.66
Participant 5, Interview Question 10	2	12.05

I noted that the leadership of the participating SBE leaders was more personal than in larger corporations. This finding aligned with the existing literature (Williams & Schaefer, 2013). P1 discussed their commitment to both the business and their employees. P2 noted that leading a small business requires considerable amounts of time and energy. P2 stated, “I did not take a vacation for the first 5 years of my business.” P3 and P4 mentioned that the small-business owner or leader must handle multiple priorities and work long hours. P3 stated, “Owning a small business is not an 8 to 5 job.” P4 said that if you are passionate about your business, then you look at things differently. Roxas

and Coetzer (2012) discussed commitment as part of the central idea of how to achieve business success.

The findings from this study indicate that the participating SBE leaders when beginning environmental sustainability initiatives did not specifically view the intention for sustainability, but implemented new measures as cost saving initiatives. These results contradict the findings by Wingwon (2012) and Morris et al. (2013) who posited that SBE leaders require planning competencies. Through analysis of the findings, I uncovered 6 key themes which were: (a) industry knowledge, (b) decision making, (c) strategy and planning, (d) communication and interpersonal skills, (e) environmental sustainability, and (f) passion and commitment. With the exception of planning for environmental sustainability, support for these themes appears in the literature (Aguinis, & Glavas, 2012; Burritt, 2012; Klewitz & Hansen, 2014; and Psychogios, & Garev, 2012). Based on the results of this study, successful leadership in small firms appears to be complex and dependent on multiple competencies.

Applications to Professional Practice

SBE leaders and managers typically work and live in or near the communities where they operate their businesses. In order to be good stewards of the environment, SBE leaders might benefit from better planning skills and specifically more access to information on how the implement environmental sustainability initiatives. The findings from this study indicate that SBE leaders could improve their actions to plan for and implement environmental sustainability initiatives.

The application to professional practice gained from this study is the importance of planning as a method of reducing costs. Leaders must master the strategic planning process. While none of the business leaders in this study started with a formal written plan, most had a plan in mind. Having a written plan can help leaders and everyone in the business to understand the company's direction. SBE leaders could benefit from this study by developing and implementing key strategies for implementing environmental sustainability initiatives which could result in higher profits, increased visibility in the local community for being a *green* business, less waste materials headed for landfills, and better utilization of natural resources.

Implications for Social Change

Worldwide, SBEs constitute the largest segment (90%) of business operations, and leaders of SBEs are largely responsible for between 50% and 60% of employment growth (Stewart & Gapp, 2014). Because small- and medium-sized enterprises contribute as much as 70% of the world's pollution, better planning by competent leaders could lead to a cleaner environment with generation of less waste, more recycling, and more effective reuse of resources.

The application of strategy and planning methods and determining the leadership competencies to lead a small business successfully as gleaned from these small manufacturing firms in eastern Nebraska may be transferable to other business enterprises, community action groups, city, county, and regional planners to help improve environmental quality. SBE leaders could build partnerships with local community action groups resulting from this study. The findings from this study can provide a starting point

for discussions on how to implement the core leadership necessary to plan and implement environmental sustainability initiatives. In addition, other groups interested in environmental sustainability may find this study helpful. Such groups could benefit by first identifying the leadership competency deficiencies in their organizations. Some SBE leaders could consider planning for or implementing environmental sustainability after having read this study. Finally, community leaders seeking to conserve natural resources, increase economic opportunities, and provide green jobs can develop policy templates, which include the leadership competencies for planning and leading environmental initiatives. Using the information from this study could benefit leaders from any business or organization interested in the leadership competencies required for implementing sustainable initiatives.

Recommendations for Action

Small-business practitioners should consider the results of this study to benefit their own small businesses. Furthermore, I encourage the Nebraska Small Business Development Center to consider adding training materials and resources for future and existing SBE leaders in existing curricula, developing specific workshops on environmental sustainability, and presentations at academic conferences.

SBE leaders in eastern Nebraska need access to more information on how to implement environmental sustainability initiatives. I recommend that scholars and practitioners collaborate on the development of specific attributes for a leadership competency model addressing environmental sustainability and develop a clearinghouse

of information unique to SBEs on how to plan and implement sustainable initiatives, along with local, state, and national NGOs.

Organizations such as Nebraska Business Development Center (NBDC), the SBA, the Service Core of Retired Executives (SCORE), as well as local and state colleges and universities need to develop environmental sustainability information and curricula for teaching the importance of environmental sustainability in Nebraska. A consortium of concerned citizen groups, such as the Nebraska Environmental Trust, the Green Omaha Coalition, Arbor Day Foundation, and similar organizations should develop a central information repository. Storing information on a website about environmental sustainability may be of particular interest to SBE leaders and managers by providing the resources necessary to provide information on environmental sustainability and the steps that SBEs can take to implement sustainable strategies.

The development of an expanded leadership competencies model by scholars and practitioners that includes the specific leader competencies for integrating sustainability measures, detailed planning procedures, and a list of desired model competencies could add to the Competency Model Clearinghouse. Metcalf and Benn (2013) and Stevens (2013), recommended instilling best practices through the exercise of leadership competencies. Practitioners can promulgate leadership competencies through wide dissemination of environmental sustainability practices, by providing greater knowledge, and by creating opportunities for leaders to practice key skills. With wide dissemination and greater awareness of the leadership and sustainability actions specific to smaller enterprises, NGOs, community organizations, and subdivisions of government could

provide support for improving the practice of leadership and concurrently help to improve sustainable development.

Recommendations for Further Research

The purpose of this qualitative multiple case study was to explore what core competencies small-business leaders used to implement sustainability initiatives successfully. The findings reported in the study indicated that the leadership competencies normally associated with operating and managing small manufacturing firms in eastern Nebraska are fundamentally the same competencies needed for planning for environmental sustainability initiatives. Prior research by Mainardes et al. (2014) along with Mitchelmore and Rowley (2013) are consistent with these findings except for the lack of written business plans. One recommendation for further research centers on the importance of business planning and correlation with business success.

To determine if these factors influence core leadership competencies, future studies on small-business leadership competencies necessary to implement environmental sustainability initiatives successfully should capture demographic data such as leaders' age, educational background, and how long the leader has been in the position as a leader of the business. Nebraska does not have a large manufacturing base, so it is possible that the findings do not represent manufacturing practices in general. The manufacturing firms within this study consisted of small businesses operating in fields related to construction, making envelopes, small fabrication shops, and job shops. Future studies should also include a larger geographic area and use a mixed-methods approach

combining survey data with interviews. Such studies should include a broad array of both service and manufacturing firms.

Additional research for exploring specific leadership competencies necessary to implement complex environmental sustainability initiatives using quantitative studies could provide insights on successful leadership competencies. Furthermore, researchers should focus on the specific strategies necessary to implement more complex environmental initiatives and incentives to gain wider acceptance and greater awareness.

Reflections

The opportunity to explore the leadership competencies necessary to implement environmental sustainability strategies successfully resulting from my doctoral study provided me with numerous positive outcomes and experiences. As I expected, I learned a great deal about the challenges of running a small manufacturing firm by interviewing and carefully listening to participants. I interviewed five small manufacturing business leaders whom each had extensive business experience and knowledge of his or her industry. I was surprised at the extent of knowledge SBE leaders had of leadership and environmental sustainability.

In addition, I found that these SBE leaders were conversant about not only his or her industry, but also the broader implications of environmental sustainability. I was able to broaden my perspective and understanding of the varied types of manufacturing processes used by these business owners and the challenges they face in operating these businesses. My view of the leadership of small manufacturing has substantially changed because of this study.

As I approached the research question, I did not expect to find SBE leaders engaging in environmental sustainability practices merely because sustainability made the best economic sense. I expected that some of the business leaders would be influenced by suppliers or logistics channels to adopt sustainability practices for contract awards eligibility. Initially, I thought I would find SBE leaders who would be genuinely passionate about implementing environmental sustainability in their businesses.

I was unprepared for the discovery that none of these small-business leaders had specifically considered environmental sustainability as part of their strategic planning. While some internal memos noted various projects to reduce costs through energy savings, or in selecting new equipment to increase productivity and reduce waste, environmental sustainability was not the driving force I had expected it to be.

The difficulty in locating business leaders of small firms willing to participate in the study surprised me, as did the challenge in finding a sufficient number of small-business leaders who had successfully implemented an environmental sustainability initiative. My initial attempt to secure interviews using introductory letters proved much more challenging than I had imagined. Through persistence of using emails and making numerous telephone calls, ultimately I identified and interviewed five voluntary SBE leaders who met the study criteria.

Conclusion

Environmental sustainability remains an essential element in a world of finite resources. The challenge today is, as leaders develop the leadership competencies necessary for successfully implementing environmental sustainability initiatives is to

conserve existing resources so that future generations can enjoy the same benefits of a sustainable environment.

I noted that the information surrounding environmental sustainability is highly fragmented. SBE leaders lack a comprehensive single source where they can obtain specific information about environmental sustainability. The acquisition of leadership competencies is a complex process involving education, experience, and practice. Despite local, regional, and national programs directed toward SBE leaders, the SBE leader increasingly faces more and more challenges. Leadership in SBEs requires the development of multiple competencies within the SBE leader. By developing a model of leadership competencies for planning and implementing sustainable strategies and widely promulgating the advantages of leadership strategy and planning, small firm leaders can improve not only their competitive position but also the environmental sustainability of their enterprises.

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Appendix A: Letter of Introduction

Month xx, 2016

Title Name
Organization
Address
City, State, Zip Code

Dear [Potential Participant]:

This letter is a follow-up to [my telephone call] (or) [our meeting at the Chamber of Commerce event]. As you may recall, I am a doctoral candidate at Walden University collecting data on the competencies small manufacturing firm leaders need to implement environmental sustainability strategies in their organizations.

The purpose of this letter is to invite you formally to participate in this study in partial fulfillment of my degree program requirements. Your leadership of a small business manufacturer in eastern Nebraska meets the selection criteria for the study. Your responses may be helpful to leaders of other organizations in their efforts to implement strategies to become more environmentally sustainable.

By agreeing to participate in an approximately 45-minute-to-60-minute one-on-one interview and more time if needed, conducted at your place of business, I will ask you some brief questions concerning leadership competencies and environmental sustainability strategies and planning. It is important that you understand that your participation in the study is entirely voluntary, and you may stop the interview at any time without prejudice. You will not receive compensation for your participation. Any comments that you make during the interview will remain entirely anonymous, as will your name and your company's name. To protect confidentiality, I will use a coding system in which your name and the name of your business will each receive a separate alphanumerical code known only to me.

Once I have completed the interview, I will send a summary of our conversation for your review to check to see if I have the major constructs and concepts correctly identified as expressed during the interview. You will have the chance to make changes or add information at this time. Once published, the study results will summarize all of the interview data. I will contact you by telephone within a week from the date of this letter to arrange a time convenient for you to meet with me. I look forward to speaking with you.

Should you have any questions concerning this research project, please call me at XXXX or send an email to XXXXXX. You may also call the Walden University representative,

Dr. XXXXX XXXXX, at XXX-XXX-XXX, should you have questions about your rights as a participant.

Kind regards,

Alan W. Jackson
Doctoral Student

Appendix B: Interview Protocol and Questions

I. Introductions (self to participant)

II. Show participant consent form, review contents, address questions and concerns of participant.

III. Give interviewee copy of the participant consent form.

IV. Turn on recording devise (double check to make sure it is recording).

V. Begin interview with question 1; and ask follow-up questions as needed.

VI. Repeat asking question beginning with question 2, until all questions have been asked.

VII. Answer any participant follow-up questions.

VIII. Ask to review company documents related to strategies for implementing sustainability initiatives

IX. End interview.

X. Discuss transcript review with participant, and possible follow-up meetings.

XI. Thank the participant for taking part in the study. Review contact information should the participant have follow-up questions or concerns.

XII. End of protocol.

Interview Questions

The competencies required of small-business leaders who have successfully planned and implemented environmental sustainability form the central research question associated with this study. The following 10 semistructured questions will be asked during the interview. Open-ended questions means that I may ask follow-on questions to

gain greater clarity and more in-depth information. I will also ask to see any company documents related to the implementation of sustainability strategies. I will transcribe the interview and you will have the opportunity to check the accuracy of the information you provided. Then I will code the interview, analyze the interview for themes, and include findings in the completed study.

For purposes of this research, *leadership competence* is the combination of those skills, knowledge, abilities, and personal characteristics that result in personal and organizational goal attainment by inspiring others to achieve complementary results.

1. What does your organization define as leadership competence?
2. What does your organization define as environmental sustainability?
3. What leadership competencies are required to plan for and implement environmentally sustainable strategies?
4. What example(s) of the successful implementation of an environmentally sustainable strategy does your firm have?
5. How did you plan for the implementation of this (these) environmentally sustainable initiatives?
6. What were some of the planning and leadership challenges in implementing this (these) environmentally sustainable strategies?
7. What were the operational or logistical challenges to implementing this (these) environmentally sustainable strategies?
8. How did you address each of the implementation challenges?

9. How did you measure the success of managers in implementing sustainability initiatives?

10. What lessons about leading and managing sustainability initiatives have you learned that you would share with other leaders in your industry or community?

Appendix C: Protecting Human Subject Research Participants Certificate

Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that **Alan Jackson** successfully completed the NIH Web-based training course "Protecting Human Research Participants".

Date of completion: 06/24/2015

Certification Number: 1788659