2019

Innovation Strategies for a Global Manufacturing Business

Sachin Kakaji Ramteke
Walden University

Walden University

College of Management and Technology

This is to certify that the doctoral study by

Sachin K. Ramteke

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

Review Committee
Dr. Marilyn Simon, Committee Chairperson, Doctor of Business Administration Faculty

Dr. Jaime Klein, Committee Member, Doctor of Business Administration Faculty

Dr. Matthew Knight, University Reviewer, Doctor of Business Administration Faculty

The Office of the Provost

Walden University
2019

Abstract

Innovation Strategies for a Global Manufacturing Business

by

Sachin K. Ramteke

MBA, University of Iowa, 2014

BE, Nagpur University, 1999

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

October 2019

Abstract

Some global manufacturing businesses fail to reach an adequate level of financial performance within 5 years. The purpose of this single case study was to explore innovation strategies that business leaders of a global machinery manufacturing company in northwestern Illinois used to increase profit margins. The conceptual frameworks for this study included the holistic innovation model and the disruptive innovation theory. A purposeful sample of 9 business leaders who had more than 5 years of experience in the manufacturing industry and more than 2 years of experience using innovation strategies participated in the study. Data were collected from semistructured in-depth interviews and business documents, including multiyear strategic plans, annual reports, marketing campaign fliers, sustainability reports, customer needs documentation, statements, and other relevant information from the company's website. Data analysis involved manual and computer-aided techniques to compile the data, disassemble the data into codes, and reassemble the data into themes. The overarching theme emerging from data analysis was the importance of increasing a firm's competitiveness and sustaining profitable growth. There were 8 subthemes: distinctive customer experience, technology-based modernization, distinctive product quality, business model advantage, diversity of thoughts and inclusion, strategic partnerships and alliances, speed, and win in aftermarket. The implications of this study for positive social change include the potential to provide business leaders with evidence-based ideas to improve economic strength and sustainable development in the community.

Innovation Strategies for a Global Manufacturing Business

by

Sachin K. Ramteke

MBA, University of Iowa, 2014

BE, Nagpur University, 1999

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

October 2019

Dedication

I dedicate this doctoral degree to the memory of my brother, Dilip K. Ramteke, who passed away at a young age on December 04, 2001, for his inspirational spirit, mentorship when choosing a career path, motivation, and support. I also dedicate this degree to the memory of my deceased father, Kakaji H. Ramteke, for instilling the importance of education and for his encouragement, sense of humor, and support, and to my mother, Kachara K. Ramteke, for her sacrifices in life and hard work to support the children's excellent education. My parents inspired and encouraged me early in my life and gave me the confidence to drive throughout my educational journey. I also dedicate this doctoral degree to my family members for their endurance and support throughout the research process. My wife, Katelyn M. Ramteke, provided unrelenting support in helping me achieve my dream of completing this journey. My sincere appreciation goes to my loving daughters, Quinn K. Ramteke and Eliana K. Ramteke, for their understanding and patience. I also dedicate the study to my brother, Jitendra K. Ramteke, for his encouragement and support. To my dogs, Reggie and Louie, for staying up late to keep me company while I worked on my study. Finally, I want to thank extended family members and friends who in one way or another contributed to this process. I believe that this achievement will go a long way in inspiring those closest to me.

Acknowledgments

I want to thank Walden University for offering me an opportunity to realize my educational dream. I also want to extend my gratitude to my doctoral study mentors, Dr. Marilyn Simon and Dr. Godwin Igein, who provided valuable advice and constant encouragement throughout my doctoral journey. I will forever cherish their comments, thoughts, and conversations over the phone and via e-mail. I want to recognize Dr. Simon for her prompt responses and timely feedback, which helped me to reach my goals more quickly. Further, I want to thank Dr. Jaime Klein, the second committee member, whose experience and knowledge have proven invaluable to the doctoral process. I sincerely appreciate your support and insightful feedback: It made a difference. I also want to acknowledge the helpful feedback and suggestions I received from Dr. Matt Knight, the university research reviewer. I would also like to thank each of the company leaders who participated in this study. Finally, I would like to thank all of the Walden faculty, staff, and colleagues who contributed to the success of my doctoral journey.

Table of Contents

List of Tables iv

Section 1: Foundation of the Study 1

Background of the Problem 2

Problem Statement 3

Purpose Statement 3

Nature of the Study 3

Research Question 5

Interview Questions 5

Conceptual Framework 6

Operational Definitions 7

Assumptions, Limitations, and Delimitations 8

Assumptions 8

Limitations 9

Delimitations 9

Significance of the Study 10

Contribution to Business Practice 10

Implications for Social Change 11

A Review of the Professional and Academic Literature 12

Literature Search 13

Holistic Innovation Model Theory 14

Disruptive Innovation Theory 24

Link Between Business Performance and Innovation Strategies 29
Recurring Themes From the Scholarly Literature 41
Conclusion 63
Transition 64
Section 2: The Project 65
Purpose Statement 65
Role of the Researcher 65
Participants 68
Research Method and Design 70
Research Method 70
Research Design 72
Population and Sampling 75
Ethical Research 79
Data Collection Instruments 82
Data Collection Technique 84
Data Organization Technique 88
Data Analysis 90
Reliability and Validity 93
Reliability 94
Validity 97
Transition and Summary 101
Section 3: Application to Professional Practice and Implications for Change 102

Introduction 102
Presentation of the Findings 103
Overarching Theme: The Importance of Increasing a Firm's Competitiveness and Sustaining Profitable Growth 105
Subtheme 1: Distinctive Customer Experience 116
Subtheme 2: Technology-Based Modernization 121
Subtheme 3: Distinctive Product Quality 125
Subtheme 4: Business Model Advantage 130
Subtheme 5: Diversity of Thoughts and Inclusion 136
Subtheme 6: Strategic Partnerships and Alliances 141
Subtheme 7: Speed 146
Subtheme 8: Win in Aftermarket 149
Applications to Professional Practice 154
Implications for Social Change 162
Recommendations for Action 163
Recommendations for Further Research 166
Reflections 167
Conclusion 170
References 172
Appendix: Semistructured Interview Protocol and Interview Questions 263

List of Tables

Table 1. Business Leaders' Demographic Information 104

Table 2. References to Increasing a Firm's Competitiveness and Sustaining Profitable Growth 105

Section 1: Foundation of the Study

Organizations can take advantage of innovative initiatives to move toward cutting-edge development resulting in increased productivity and ability to compete in their respective markets (North & Kumta, 2018). Small- and medium-size enterprise (SME) leaders often lack the budget to employ innovation strategies due to the costs associated with new changes (Herrmann & Nadkarni, 2014). In a dynamic international business environment, innovation strategies offer opportunities to secure a competitive position in a given market (Prajogo, 2016; Visnjic, Wiengarten, & Neely, 2016), and businesses may experience increase in profits.

Business leaders can use innovation practices to achieve the desired business performance. Business leaders develop and implement more efficient and effective processes to reduce the cost of product development, thereby leading to increased revenues (Chowhan, 2016). The benefit generated due to innovation is the result of collaboration between business leaders' innovation strategies, the conditions of external environment, and the fit between innovation strategies and the conditions of the external environment (Prajogo, 2016). Adopting innovative strategies helps businesses to exploit changes in the market (Petkovska, 2015). Innovation can lead to increased organizational performance (Chowhan, 2016), and it is critical for survival, growth, and enhancing the competitive position of companies. The goal of this qualitative case study was to explore innovation strategies that some leaders of a global machinery manufacturing business use to increase their organization's profit margin.

Background of the Problem

The dynamic business landscape and foreign competition puts pressure on companies to innovate with respect to their products, services, processes, and business models (Dasgupta, 2015). Company leaders must make efforts to change both incrementally and radically to meet stakeholder expectations and identify new sources of growth (Dasgupta, 2015). SMEs face several constraints in terms of organization, management, financing, competition, efficiency, growth, and development compared to large enterprises (Petkovska, 2015). Small businesses are challenged to maintain the traditional balance between customers and suppliers due to globalization, competition, and online presence (Taneja, Pryor, & Hayek, 2016). All companies face challenges to increase business performance.

Some companies face difficulties reaping the profits from newly launched products in the marketplace. Product innovations brought into the market can fail to reach an adequate level of customer acceptance and financial performance without collaboration with different partners such as research organizations and competitors (Najafi-Tavani, Najafi-Tavani, Naude, Oghazi, & Zeynaloo, 2018). A product innovation may not entirely complement *servitization*, which refers to a process employed by product providers to create greater value by increasing the services they offer (Gilbert, 2015). Servitization may have an adverse effect on service business model innovation. After-sales services are essential to create and seize value from the product innovation (Visnjic et al., 2016). Business leaders have growing pressure to increase business performance and remain competitive, both locally and globally.

Problem Statement

Some global manufacturing businesses fail to increase profit margins (Prajogo, 2016; Visnjic et al., 2016). Despite creating 65.9% of new jobs and employing 99.7% of the workforce, 50% of SMEs having fewer than 500 employees fail to reach an adequate level of financial performance within 5 years (U.S. Small Business Administration [SBA], 2018). The general business problem was that global businesses continue to experience declining profit margins. The specific business problem was that some leaders of global machinery manufacturing businesses lack innovation strategies to increase profit margins.

Purpose Statement

The purpose of this qualitative single case study was to explore the innovation strategies that some leaders of a global machinery manufacturing business use to increase the organization's profit margin. The target population for the study included business leaders (e.g., executives, directors, and senior managers) of a global manufacturing company in northwest Illinois who had successfully helped increase the organization's profit margin over the past 5 years by applying innovative strategies. The findings from this study may contribute new insights that could help global machinery manufacturing business leaders increase their companies' profit margins and sustainability, leading to improved economic strength and sustainable development in their communities.

Nature of the Study

I used the qualitative methodology to guide this study. The three traditional research methods are qualitative, quantitative, and mixed methods (Tonkin-Crine et al.,

2016). The qualitative method is applicable to business settings (Mahoney & Vanderpoel, 2015). Qualitative researchers study participants in their current environment (Lebor, 2015) and interpret the meaning of participants' experiences (Silverman, 2016). In contrast, quantitative researchers aim to test hypotheses about the relationships between variables (McCusker & Gunaydin, 2015; Yom, 2014). Mixed-methods researchers incorporate aspects of qualitative and quantitative methods (Venkatesh, Brown, & Sullivan, 2016). A quantitative or mixed-methods approach was not appropriate for this study because my focus was to identify and explore strategies and themes, not to test hypotheses. Given the differences among these three methods, the qualitative method was most appropriate to explore the innovation strategies that global machinery manufacturers use to increase profit margins.

I used a single case study design in this study. Researchers use the case study design to explore specific real-time cases at a given point in time (Yin, 2018). A single case study was an appropriate design for this study because my focus was to explore a specific real-time case at a given point in time. Qualitative research designs include ethnography, case study, phenomenology, and narrative research (C. Marshall & Rossman, 2016). Researchers use the phenomenological design to understand the meanings of participants' lived experiences (Bowden & Galindo-Gonzalez, 2015). Researchers use the ethnographic design to explore groups' cultures (Yin, 2014) and use the narrative design to capture the detailed stories or life experiences of participants (Creswell & Poth, 2017). For these reasons, a case study was the most appropriate design for this study to reveal strategies of innovation.

Research Question

The research question for this study was the following: What innovation strategies do leaders of global machinery manufacturing businesses use to increase profit margins?

Interview Questions

To answer my research question, I asked the following questions to participants:

1. What innovation strategies did you use to increase profit margins in your company?
2. Please explain the initial innovative phase regarding how you generated knowledge of innovative activities that were helpful to increase your profit margin.
3. What innovation strategies and methods did you find worked best to increase profit margins?
4. How did you adapt your strategies to changes in your industry?
5. What key challenges has your company faced? How did your organization address these key challenges to increasing profit margin?
6. How did your desire to compete with similar businesses affect your decision to use innovative strategies?
7. What changes are necessary for innovation strategies to be applied in your industry to increase profit margins in the future?
8. What other insights would you like to provide that we have not already discussed in this interview regarding innovative strategies to increase profit margins?

Conceptual Framework

The conceptual framework for this study included the holistic innovation model and disruptive innovation theory. Cornell (2012) and Van de Vrande, de Jong, Vanhaverbeke, and de Rochemont (2009) proposed the holistic innovation model to describe innovation practices of all types of companies. Christensen (2011) developed the theory of disruptive innovation for business leaders to use when creating future strategies and increasing performance. Cornell's innovation model explains how firms could benefit from the use of innovation practices.

The conceptual framework includes all internal activities, all external activities, the actions of the business leaders once information is resident within the firm, and the possible methods for taking advantage of this acquired knowledge (Cornell, 2012). The framework demonstrates a flow of innovation practices that company leaders can use to choose activities that will become the company's innovation strategy from beginning to end (Cornell, 2012). The innovation process begins with the exploration and exploitation phases, with potential practices stemming from the appropriate phase (Van de Vrande et al., 2009). The exploration phase includes the leader's actions to generate knowledge of innovative activities that are helpful to the business. The exploitation phase includes all actions taken to make use of the acquired knowledge, which can increase performance.

The theory of disruptive innovation is a practical framework that business leaders can use to understand the market, develop a business strategy, and address the potential threats and opportunities (Gobble, 2015). According to the disruptive innovation theory, during nascent business development activities leaders should focus on searching for

opportunities; addressing those opportunities through parties, partners, and customers; and creating a business model to address those prospects (Christensen, 2011). The theory of disruptive innovation is an approach based on competitive response to innovation (Christensen, Raynor, & McDonald, 2015; Čiutienė & Thattakath, 2014; Denning, 2016). Radical innovations are the product of incremental innovation to the point where the result disrupts the market. Both innovation and the degree of innovation that a company pursues alter the way that a company operates and performs (Christensen, 2011). The holistic innovation model provides a framework to describe the types of practices and processes that a company can use to innovate (Cornell, 2012; Van de Vrande et al., 2009). An expansion of the innovation chain includes a variety of methods for investing in innovation to account for the different ways that a company might implement the innovation strategy (Cornell, 2012). Business leaders may use the theories of holistic innovation model and disruptive innovation to initiate a process of transformation that can lead companies to create new ways of doing business and increase performance (Christensen, 2011; Cornell, 2012; Van de Vrande et al., 2009). For these reasons, the theories of holistic innovation model and disruptive innovation were relevant to understanding the findings from this study.

Operational Definitions

Following are definitions of terms I used in this study:

Business model: A business model is a system of interrelated activities that define how a firm conducts business with its customers (Kim & Min, 2015).

Diffusion of innovation: Rogers (2003) defined the diffusion of innovation theory as the process of spreading the rates of new idea and technology through the people of a social community.

Disruption: Disruption refers to how a newcomer can displace an incumbent (Čiutienė & Thattakath, 2014).

Disruptive innovation: Disruptive innovation is a creative process that a firm can use to create a new service or product that is capable of disrupting existing products or services (Christensen, 2011).

Servitization: Servitization is a process employed by product providers to create greater value by increasing the services they offer (Gilbert, 2015; Vendrell-Herrero & Wilson, 2017).

Assumptions, Limitations, and Delimitations

In this section, I address the general assumptions of this study. In addition to the assumptions, I also describe the study's limitations and delimitations. The reliability and credibility of this study depended on participants' responses from an interview inquiry.

Assumptions

Assumptions are claims considered to be true without concrete proof (Hibbert, Sillince, Diefenbach, & Cunliffe, 2014; Leedy & Ormrod, 2013). The elements of a study always include assumptions, although researchers may not control the risks of these assumptions (Denscombe, 2013). The following were the assumptions of my study:

- Participants would answer the open-ended interview questions honestly.

- Participants had experience using the innovation strategies to increase profits and were willing to share their experiences.
- Global machinery manufacturing companies required innovation strategies to achieve healthy profit margins.
- A culture of innovation would help global companies in the machinery manufacturing industry achieve improved financial performance.

Limitations

Limitations are threats that compromise the credibility of a study (Connelly, 2014; C. Marshall & Rossman, 2015; Yin, 2014) and are potential weaknesses in the study (Kirkwood & Price, 2013). The following were the limitations of the study:

- Participants could withdraw at any time during the study; therefore, participants who finished the study might not be truly representative of the population.
- Business leaders answering the interview questions might not represent universally accepted expert opinions.

Delimitations

Delimitations indicate the boundaries of a study (Batongbacal, 2015; Leedy & Ormrod, 2013; Rodner, 2015) and are controllable characteristics that narrow the scope of a study (C. Marshall & Rossman, 2016). The following were the delimitations of the study:

- The study was limited to one company.

- Participants included business leaders who had more than 5 years of experience in the manufacturing industry and more than 2 years of experience using innovation.
- The participants were employees of a global machinery manufacturing company located in northwest Illinois.

Significance of the Study

Innovation may affect the growth of businesses and communities. The changing business environment leads companies towards innovation (Bitektine & Haack, 2015; Martin-Rios & Parga-Dans, 2016; Saebi & Foss, 2015; Song, Cao, & Zheng, 2016). Company leaders may use the findings from this study to develop or improve their firm's innovation strategies.

Contribution to Business Practice

Innovation is essential to an organization's success. The appropriate use of innovation strategies can create additional value for customers and shareholders and increase enterprise competitiveness (Baker, Grinstein, & Harmancioglu, 2016; Rubera & Kirca, 2017). Innovation can also lead to increased organizational performance and revenue as business leaders develop and implement more efficient and effective processes for reducing costs or facilitating the development of better products (Chowhan, 2016; Simester, 2016). The success of any given innovation may be temporary, and nurturing a culture of innovation in organizations is essential to sustaining a competitive advantage and achieving higher profit margins (Ferreira, Fernandes, Alves, & Raposo,

2015; Villan, da Silva, & Camilo, 2016). Business leaders should seek to foster a culture of innovation in organizations to increase business performance.

Product innovation strategies are essential for manufacturing companies to strengthen competitiveness by creating revolutionary business opportunities in the marketplace. Business leaders have increasing pressure to remain competitive, both locally and globally (Burgess, 2013). Some leaders of rapidly changing businesses, however, lack the innovation strategies to drive the future business performance and sustainability while maintaining the stable business in the present (Prajogo, 2016; Visnjic et al., 2016). Through this qualitative single case study, I aimed to contribute to business practice by adding to a reservoir of working knowledge from which leaders of a global manufacturing business may gain a more profound understanding of innovation strategies for increasing the organization's profit margins. For example, small business owners may use the innovation strategies identified in this study to reduce their firm's risk of failure. Organizational development practitioners can use the knowledge of innovation strategies to guide firms through the process of transitioning into an innovative company to increase profit.

Implications for Social Change

The implications for social change include the ability to create developmental or transformational changes in the business community that could improve business performance and increase profit, leading businesses to create opportunities for, and contribute to, their communities. Increased business growth via innovation strategies can provide more job prospects and increase tax revenues to help local governments increase

or strengthen community services. Positive social change includes improved economic strength and sustainable development in the community.

A Review of the Professional and Academic Literature

Because of the dynamic nature of the global business environment, companies in the manufacturing industry may need viable innovation strategies for increasing performance and sustainability. In a constantly changing international trade environment or in a persistent economic decline situation, an external crisis leads surviving firms to attempt innovation actions to achieve renewal of business performance, and the innovation strategies can offer opportunities to increase profit and secure a competitive position in business (Martin-Rios & Parga-Dans, 2016; Prajogo, 2016). Business leaders can use innovation strategies to increase the performance of their businesses.

The adoption of innovation strategies is vital for organizational performance and could go a long way toward sustaining companies for the long term (Azar & Ciabuschi, 2017; Chuang & Lin, 2017; Jinke et al., 2018; Shanker, Bhanugopan, van der Heijden, & Farrell, 2017). Some businesses continue to experience falling profit margins, and some fail to achieve an adequate profit level within the first 5 years (SBA, 2018). The purpose of this qualitative single case study was to explore the innovation strategies that some leaders of a global machinery manufacturing business in northwest Illinois used to increase profit margin. In this literature review, I explore various innovation strategies that may help increasing profit margin.

The review of literature begins with a discussion of the theoretical context for innovation practices in consolidated, holistic innovation models by Cornell (2012) and

Van de Vrande et al. (2009). The holistic innovation model includes innovation exploration and innovation exploitation phases. Innovation exploitation includes three categories: (a) intellectual property (IP) maturation through the exploitation of process and product innovation, (b) market innovation, and (c) the realization of the value of IP. I narrow the discussion of open and closed innovation paradigms to specific theories relating to manufacturing firms. In the subsections that follow, I discuss disruptive innovation theory, define and discuss innovation intensity from a theoretical point of view, and describe innovation theory as the concept related to the holistic innovation model. I also discuss other related theories and the link between business performance and innovation strategies. Finally, I discuss the recurring themes in the literature on innovation strategies.

The intent of this study was to fill a gap in knowledge regarding the ways that manufacturing firms can approach innovation while increasing profit margin. I attempted to fill a knowledge gap in this study by exploring and identifying the ways that manufacturing firms can develop their innovation strategies using different innovation techniques and different levels of funding. The conceptual framework depicts the conceptual boundaries of the study based on existing knowledge and demonstrates the types of practices and investments a manufacturing company could use to build their innovation strategy.

Literature Search

The sources for the literature review included peer-reviewed journal articles, dissertations, federal government publications, and germinal books. The literature review

included the search for scholarly articles using several databases, including EBSCO, Pro-Quest Central, ABI/INFORM, Business Source Complete, Science Direct, and Info Science. I also used the Google Scholar search engine. The literature review contains 252 references; 221 (87.7%) were published within the past 5 years, and 216 (85.7%) were obtained from scholarly peer-reviewed sources.

Holistic Innovation Model Theory

Innovation theories advanced over time in terms of addressing the ways that businesses innovate and build strategies, putting practices in place to generate innovations. For example, the core of innovation theory began with the internal focus of Schumpeter (1934) and Rogers (2003). Chesbrough (2003) created the concept of open innovation as a new paradigm for conducting research and development (R&D). Later, Christensen (2011) developed disruptive innovation theory for use in creating future strategies and increasing performance, and Cornell (2012) and Van de Vrande et al. (2009) proposed the holistic innovation model to describe innovation practices of all types of companies. Manufacturing business leaders may find the innovation practices included in these innovation theories useful for generating innovations.

The holistic innovation model framework applies to manufacturing as well as service firms. According to Cornell (2012), the innovation model provides a framework to describe the types of practices a firm can use to innovate. The holistic innovation model includes Chesbrough, Vanhaverbeke, and West's (2006) model of innovation inputs and outputs as well as Van de Vrande et al.'s (2009) innovation processes and practices. The holistic innovation model framework includes practices that any company

can use (Lusch & Nambisan, 2015). For example, any company can benefit from Cornell's (2012) holistic innovation model because of the broadly applicable innovation practices.

The holistic innovation model contains a generic innovation process flow that firms can use for sustaining business performance. Cornell (2012) described the holistic innovation model as a generic innovation process flow of investment, exploration, and exploitation. In support, Taneja et al. (2016) reported that organizations that can maintain appropriate balances between explorative innovation and exploitative innovation would achieve long-term viability and survival. However, one item that is missing from the holistic model proposed by Cornell is the initial investment of company leaders. Companies must invest in innovation exploration to collect the information necessary to stimulate product and nonproduct innovations and then generate intellectual property for the company. Open disclosures can limit a firm's competitive advantage or ability to profitably commercialize their innovations (Gans, Murray, & Stern, 2017). These findings are relevant to this study because failure to secure intellectual property can provide opportunities for other businesses of similar interests to exploit a company's ideas. In addition to securing a company's intellectual property rights, maintaining the appropriate balance between explorative innovation and exploitative innovation can help a firm to increase and sustain the business performance.

The holistic innovation model contains two main phases: (a) innovation exploration, or value creation, and (b) innovation exploitation, or value capture. Innovation exploration is the stage for knowledge creation and ideation (Cornell, 2012;

King & Baatartogtokh, 2015; Van de Vrande et al., 2009). Businesses can increase generation of creative ideas by merging internal and external sources (Santoro, Ferraris, Giacosa, & Giovando, 2018; Scuotto & Shukla, 2018), moving from a centralized and internal R&D method to an ongoing decentralized flow of research activities (Messeni Petruzzelli & Rotolo, 2015). A firm can develop knowledge internally, procure it from external sources, or co-source it by collaborating with others to jointly develop knowledge (Dahlander & Gann, 2010). Innovation exploitation is the transformation of that knowledge into goal-driven outcomes such as increasing profits or organizational performance (Chowhan, 2016; Petkovska, 2015; Van de Vrande et al., 2009). The holistic innovation model is truly holistic because it includes both open innovation and closed innovation approaches, and because it includes both product innovations as well as nonproduct innovations.

Innovation exploration. A company's senior management may set the structure for following exploration and building a business case for investing in R&D. Innovation exploration happens when companies seek out information to use for the creation of a new product or process idea (Van de Vrande et al., 2009). Before investing in innovation, business leaders should carefully review the company's analysis regarding expectations and the nature of intended competitive advantages (King & Baatartogtokh, 2015). Firms retain the internal process improvements to improve operations, generate value through cost savings, or serve as a platform for future innovations (Van de Vrande et al., 2009). Business managers can apply innovation exploration to developing new ideas with the

intent of achieving desirable results such as competitive advantage or process improvement.

Business leaders have strategic decisions to make regarding how they want to develop and acquire knowledge to build innovation strategies. Cornell (2012) reported that innovation exploration includes a set of business practices that generate three types of knowledge: internally developed knowledge, externally developed knowledge, and sourced knowledge. Internally developed knowledge of innovation exploration is the existing knowledge base of a company and the knowledge of its current labor force (Taneja et al., 2016) and represents traditional closed innovation practices (Manzini, Lazzarotti, & Pellegrini, 2017). The holistic innovation model classifies internally developed knowledge as a closed innovation approach because the development and maintenance of knowledge take place within the organizational boundaries of the company.

Business leaders may use open innovation practices to share the risk of failure. Externally developed knowledge and sourced knowledge are both open innovation practices (Bogers, Chesbrough, & Moedas, 2018; Popa, Soto-Acosta, & Perez-Gonzalez, 2018; Spithoven, Vanhaverbeke, & Roijakkers, 2013), including activities such as buying or leasing IP from other firms, acquiring another company, intimidating competition, obtaining free intellectual property, or hiring new employees or consultants (Van de Vrande et al., 2009). Outsourcing or co-sourcing is an activity involving cooperation with an outside entity (Muqattash, 2017; Rialp-Criado & Komochkova, 2017).

The holistic innovation model classifies externally developed knowledge and sourced knowledge as open innovation because business leaders obtain knowledge and innovations from outside the company's organizational boundaries. A sourced knowledge approach may benefit business leaders because of the shared risk with an outside entity. Each of the innovation exploration components (e.g., internally developed knowledge, externally developed knowledge, and sourced knowledge) have their own sets of practices that business leaders can use to generate the knowledge for building innovation strategies.

Innovation exploitation. The holistic innovation model involves the use of information gathered to facilitate R&D and to implement product and nonproduct innovations. Innovation exploitation occurs when companies transform knowledge from the innovation exploration phase into new or improved products, services, processes, and business models (Van de Vrande et al., 2009). In the current demanding and competitive market, businesses use technologies for exploiting opportunities (Scuotto, Del Giudice, & Carayannis, 2017). The National Science Foundation (2015) described product innovation as the introduction of a new or significantly improved good or service to the market and described process innovation as the implementation of a new or significantly improved production process, distribution method, or support activity. Company leaders select innovation practices to implement processes and product innovation strategies with the intent of maximizing profit (Chowhan, 2016; Petkovska, 2015). Business managers can use innovation exploitation to drive the innovation strategies for achieving desired outcomes such as competitive advantage or profitability.

The holistic innovation model includes the connection between nonproduct innovations and product innovation to show that one can impact the other. Technological or product breakthroughs can sometimes lead to new strategic options for changing a company's business model (Cornell, 2012; Van de Vrande et al., 2009). For example, a company may invent a radical technology or product that could lead the company to change its business model to focus on developing an entirely new industry or industry segment. The holistic innovation model shows that businesses with unique and strong expertise in certain areas can make profits from providing consulting services to other businesses (Chesbrough et al., 2006; Cornell, 2012). Therefore, a firm's senior managers should proactively evaluate the firm's innovation portfolio to make strategic decisions for implementing the appropriate innovation strategies.

Innovation exploitation includes three subcategories: (a) IP maturation through the exploitation of process and product innovation, (b) market innovation, and (c) the realization of the value of IP. The open innovation paradigm encourages businesses to consider different routes to the market to reduce wasted R&D efforts, promote new partnering opportunities, and find new ways for exporting goods and ideas (Chesbrough et al., 2006; Rialp-Criado & Komochkova, 2017). Business leaders select innovation practices to implement a larger strategy that includes knowledge to implement process and product innovation with the intent of maximizing profit. Organizational design, practices, and capabilities must align with innovation strategies to positively influence innovation and consequent exploitation of innovation (Bitektine & Haack, 2015; Saebi & Foss, 2015). Pathways to the market under a closed innovation paradigm are

commercializing alone and leaving IP dormant (Chesbrough et al., 2006). The multiple options available under the open innovation paradigm include commercializing with other firms, selling or leasing the IP, spinning off a production or service unit, selling the firm, trading or bartering IP, making IP public, and providing consulting services (Abbate et al., 2015; Spithoven et al., 2013). The innovation exploitation process ends with pathways to the market, leaving business leaders with decisions to make regarding how to leverage generated intellectual property.

Innovation paradigms. Business leaders have a strategic decision to make regarding the selection of appropriate innovation practices for the growth of their firms. The list of accepted innovation practices has grown since 1930, expanding into a series of open and closed activities that a company can use (Cornell, 2012; Van de Vrande et al., 2009). In a closed innovation paradigm, companies retain all the rights to their creative work (Chandler, 1990). By contrast, companies using an open innovation paradigm reach beyond the boundaries of their firm to collect information and develop new products (Chesbrough, 2003). Each of the innovation paradigms is useful for generating innovation that results in new products or services. Business leaders also can opt to mix closed innovation and open innovation practices to achieve the desired business performance.

***Closed innovation: A traditional approach*.** Business leaders can use closed innovation to improve company performance. Teece (1980) and von Hippel (1988) challenged the traditional innovation paradigm and expanded innovation theory based on observed business practices. In contrast, Hsieh, Huang, and Lee (2016) and Manzini et al.

(2017) reported that closed innovation is suitable for positively influencing a company's performance because business leaders using closed innovation can focus on business innovation process within the enterprise such as creative thinking, technological R&D, patent applications, manufacturing, and market launch processes. Closed innovation is a traditional approach to innovation characterized by particular advantages and disadvantages. Historically, innovation was an internally focused method of creating a form of a monopoly on a product or market (Schumpeter, 1934, 1950). Innovation has been traditionally about developing economies of scale and scope through a company's value chain (Chandler, 1990; de Roest, Ferrari, & Knickel, 2018; Drucker, 1985). Chandler (1990) and Hemmert (2003) argued that closed innovation is a paradigm in which a company seeks to retain complete control over all pathways from a product's inception through the product's end of life. A company using a closed innovation paradigm will seek to make the best use of the creative power resident within the company and optimize processes to minimize the operating costs (Armour & Teece, 1980). However, one of the criticisms of internally developed practices is that these R&D methods can become wasteful when business leaders complete the work to create new ideas without ever taking the ideas to market (Chandler, 1990). These innovations are known as spillovers; in a fully closed innovation paradigm, such innovations yield no profit for the company (Chesbrough et al., 2006). In contrast, business leaders use open innovation practices to take advantage of spillovers and gain some return on investment that would otherwise get lost (Choi & Williams, 2014). Therefore, business leaders may need to decide whether closed innovation (e.g., internal pathways to generate products or

services) is the right choice for increasing company performance or growth or whether they should use open innovation to take advantage of spillovers.

***Open innovation and risks*.** Internal and external knowledge is equally valuable in open innovation paradigm for conducting R&D. Open innovation is an operational paradigm in which companies can evaluate both internal and external pathways to generate products or services and take those new products or services into the marketplace (Chesbrough et al., 2006). Szakonyi (1994) noted that business leaders must choose the internal and external practices that ultimately provide the best value for the firm. Business leaders who implement open innovation typically look outside the company for assistance with remaining competitive (von Hippel, 1988), operating under the assumption that their companies are unlikely to achieve complete vertical integration and will need to work with entities outside of their companies' boundaries (Chesbrough, 2003; Un & Rodríguez, 2018). For example, business leaders often must look outside their companies for funding or information because their companies do not have everything needed to create new products or services. Cooperation between firms benefits both participants so long as the shared information does not compromise a company's competitive advantage (von Hippel, 1988). Business leaders, therefore, can align their innovation strategies with their firms' objectives and can evaluate both internal and external routes for integrating a competitive open innovation strategy to sustain domestic and global markets.

Open innovation involves business leaders reaching beyond their companies' boundaries to collect information and develop new products or services. Chesbrough

(2003) presented open innovation as a complete concept to unite the concept of collaborative innovation practices with the classical view of internal R&D. Firms use open innovation to go through a deep organizational change to transform the closed boundaries and enable innovation to move easily between internal innovation processes and external environments (Lopes, Scavarda, Hofmeister, Thomé, & Vaccaro, 2017; Taneja et al., 2016). The benefits of open innovation include accessing new competencies and know-how, sharing costs and risks of innovation, reducing time to market, increasing creativity, broadening product range, catching market opportunities, and monitoring technological change (Manzini et al., 2017). R&D intensity affects the competitiveness of a firm positively when a firm acquires another firm in the domestic or international market (Galavotti, Depperu, & Cerrato, 2017; Genc & Zakaria, 2017). Business leaders may prefer open innovation (e.g., external pathways to generate products or services) for sharing R&D cost and risk of failure, as well as diversifying products.

Diversification strategy is a potential path for companies to innovate products and services through collaboration with external entities, including competitors. Researchers such as Teece (1980) and von Hippel (1988) reported that diversification and cooperation serve as viable innovation strategies for companies looking outside of their organizations. Small companies, which often lack the resources and competence to innovate, would benefit from exploiting the open innovation model (Manzini et al., 2017). SMEs, therefore, are increasingly adopting open innovation practices (Spithoven et al., 2013; van de Vrande et al., 2009). The drastically changing business environment and increasing product complexity push companies toward innovation network collaboration

(Song et al., 2016). Business leaders can use open innovation as a means of diversifying products and services or achieving radical innovation with reduced risk.

Mixing closed and open innovation. Firm leaders may choose a mixed approach to innovation to generate viable innovation strategies for the firm's growth. Business managers can use different philosophies of open and closed innovation paradigms while developing their innovation strategies for increasing business performance and competitive advantage through a scientific creation process whether that process occurs inside or outside of the firm (Manzini et al., 2017; Villasalero, 2018). Business leaders may find a mixed innovation approach more convenient for tailoring to their firms' needs once the holistic model gets decompose into a set of different practices. SMEs may accentuate external and internal factors of the organization such as technological position, innovation, organizational design and personnel management to encourage innovation and achieve business efficiency and firm performance (Taneja et al., 2016). A company can increase profit by fully exploiting the internal and external innovation ideas (Hsieh et al., 2016; Un & Rodríguez, 2018). Therefore, open and closed innovation are not necessarily opposite approaches to innovation (Villasalero, 2018). Both closed innovation and open innovation paradigms contain practices that business leaders can mix to exploit internal and external innovation ideas for developing new products or services.

Disruptive Innovation Theory

Disruptive innovation theory includes practices companies can use in their endeavors to meet the need of customers and investors in terms of products and services. Disruptive innovation theory is based on competitive response to innovation (Christensen

et al., 2015; Čiutienė & Thattakath, 2014; Denning, 2016). Innovation disruption occurs when customers begin to adopt the market entrants' new offerings of products or services in volume (Christensen et al., 2015; Karimi & Walter, 2015). Business leaders of a company experiencing disruption may face challenges to retain or acquire customers and the company, therefore, may not achieve expected business performance. For this reason, the disruptive innovation theory was appropriate for my study.

Business leaders may use disruptive innovation because success with existing products may not guarantee future success. Different business models emerge because of the innovation disruption, and although not every disruption succeeds, business leaders must act to respond to the disruption in creative ways before it becomes a problem (Christensen et al., 2015). Innovation will likely disrupt a firm if disruptive innovations have characteristics that the firm is not using already (Gomber, Kauffman, Parker, & Weber, 2018; Nagy, Schuessler, & Dubinsky, 2016). For example, a technology that a company uses to secure products can become obsolete if the company fails to keep up with the pace of technological change. Therefore, the company may experience the technology innovation disruption. In contrast, a company that created a disruptive innovation may experience an increase in profits. Disruptive innovations have specific characteristics, specifically, functionality and a technical standard or a form of ownership that are comparable to the firm's current technologies (Nagy et al., 2016). Companies can continue to transform through research and development. Therefore, a firm's management team should foster creativity and align the organization's culture with

innovation adoption in order to achieve an increase in revenue, to sustain business performance, and to stimulate future expansion.

From an international SME perspective, innovation is critical to company growth because SME can generate breakthrough innovation and increase competitive strength (de Jesus Pacheco, ten Caten, Jung, Guitiss Navas, & Cruz-Machado, 2018; Kocak, Carsrud, & Oflazoglu, 2017). SMEs play an important role in the global economy because they are dynamic, easily adaptable, and flexible (Petkovska, 2015). Technologies make radical changes to the value chain, and firms can capture cost reductions from the new value chain architecture (Bouncken & Fredrich, 2016). SMEs can increase efficiency by adopting disruptive innovation strategies, opening new markets, and improving value (Chen, Zhu, & Zhang, 2017; Del Vecchio, Di Minin, Petruzzelli, Panniello, & Pirri, 2017; Q. Zhou, Fang, Yang, Wu, & Ren, 2017). Firm leaders should develop distinct capabilities for enhancing their company's ability to adapt to the changing global business environments and the disruptive innovations that will pose competitive challenges in the changing environments.

Business leaders may need to make quick decisions regarding implementation of an innovation strategy, because delays can erode competitive advantage. Innovation intensity is the degree of a firm's investment in innovation practices. A firm's innovation intensity determines the beginning of the firm's innovation process and represents the way that company leaders seek innovation through an expenditure of funds (Hsieh et al., 2016; Tavassoli, 2015). Innovation intensity is also a company's ratio of R&D investment to net sales (Hatzikian & Bampasis, 2017; Heyden, Reimer, & Van Doorn,

2017). Innovation intensity may change when companies change innovation practices. Innovation intensity is not necessarily connected to a company's growth potential, although innovation intensity is an indication of the degree to which a company is willing to invest in new ideas (National Science Foundation, 2015). Companies with high innovation intensity experience beneficial knowledge spillovers, networking opportunities, and diversification that result from the companies' interest in learning to generate new kinds of knowledge, whether that interest is directly related to current products or not (Choi & Williams, 2014). Firm leaders must take steps as quickly as possible to assess the capacity of the company to invest in R&D for achieving a competitive advantage.

Businesses may experience failure when managing complex innovation projects. The expected value of a project and the probability of innovation failure increase with innovation intensity (Kamoto, 2017). Although failure experiences can lead to frustration, such experiences are also a vital source of new knowledge for companies and can enhance innovation (Carmeli & Dothan, 2017). Decreasing R&D can weaken a firm's ability to remain innovative in the long run (Heyden et al., 2017). Increase in R&D is the most influential determinant of firms' probability of being innovative in declining industries (Tavassoli, 2015). Business leaders, therefore, may fail to sustain competitive advantage in international trade without an investment in R&D.

Firms can use buyout investments to outperform investments in the public market, and their consistent outperformance contributes to the risk of buyout funds (Buchner, Mohamed, & Schwienbacher, 2016). Innovation intensity, capital expenditure, sales

growth, and return on assets affect the probability of going public for firms with internal cash flow that's lower than their investments (Acharya & Xu, 2017). When a firm stays public, managerial choice of the innovation intensity is subject to shareholders' intolerance of innovation failure (Kamoto, 2017). Business leaders may increase investment in R&D in hopes of achieving the desired competitive advantage and profitability. However, a leadership team still may not achieve desired success in the short term because the complexity of innovation involves innovation transformation that requires skill sets and learning processes to continue to develop new knowledge.

Every company's investment level in innovation depends on inputs for innovation intensity. Innovation inputs are essential for innovation intensity of firms (Tavassoli, 2015). However, relying only on input indicators might result in overrating unproductive R&D investment (Edquist & Zabala-Iturriagagoitia, 2015). A top management team's functional experience, tenure, education level, and age may influence decisions about R&D intensity (Heyden et al., 2017). An SME's intended level of innovation intensity depends on the company's stable cost flows, its technical competence, and its collaborations with directly connected partners (Hatzikian & Bampasis, 2017). Business leaders must alter the way their companies select their desired levels of innovation intensity to implement open innovation practices (Lopes et al., 2017). Business managers may use open innovation practices to leverage internal and external knowledge for increasing innovation intensity level.

Company leaders may change innovation intensity and innovation practice when collaborating with external partners. Firms can change the level of innovation through the

acquisition of additional technical competence from external sources (Hatzikian & Bampasis, 2017). When business leaders realize a need for different products or processes, they can opt to change their organizations' innovation intensity and shift the focus to exploration or exploitation innovation (C. Lee, Park, Marhold, & Kang, 2017; Soo-Myung, Seong-Taek, & Young-Ki, 2017). Firms in the same industry may have varying levels of innovation intensity. For example, smaller firms tend to have higher innovation intensity rates than larger firms due to a desire to create new and unique products (National Science Foundation, 2105). The marketplace influences the way a firm experiences value from R&D investments after the firm introduces an innovation in the market (Un & Rodríguez, 2018). Business leaders can collaborate with the business leaders of other companies to innovate and extend product range and can also disrupt the industry at the same time with bold new products or services.

Link Between Business Performance and Innovation Strategies

Companies may use innovation strategies to increase market value and competitive advantage. Innovations are a method for generating value in a company's products or services (A. Karlsson, Larsson, & Rönnbäck, 2018; Riyadi & Sumardi, 2017; Vendrell-Herrero, Gomes, Bustinza, & Mellahi, 2018; Verdu-Jover, Alos-Simo, & Gomez-Gras, 2018) provided that the innovation is useful and cost-appropriate (von Hippel, 1988). Other researchers similarly found that the use of strategies for innovative technologies and processes leads a company to maintain a competitive edge over other companies and results in increased market value (Drucker, 1985; Hua & Wemmerlöv, 2006; Jajja, Kannan, Brah, & Hassan, 2017; Prajogo, 2016; Stock, 2015). Bala

Subrahmanya, Balachandra, and Mathirajan (2004) argued that companies also could use innovation strategies to (a) prevent product or service rejection after bringing offerings to customers, (b) reduce costs of production, (c) improve quality, and (d) penetrate new markets. These findings are relevant to my study because the use of innovation strategies can lead companies to increased market value and competitive advantage.

Business leaders may use innovation strategies to deal with uncertainty in the market. Companies can pursue innovation as one way to deploy resources to maintain a competitive advantage in the market (Levin, 1978; Penrose, 1959; N. Yazdani & Murad, 2015). However, companies focusing on innovation strategies and relying on innovation for their competitive advantages can face challenges when competitors adopt or develop innovative ideas and apply new pressures in the market (Rogers, 2003). Companies must continue to innovate over time in order to overcome new forces in the marketplace (Capello & Kroll, 2016; Christensen, 2011). Implementation of innovation strategies has many advantages for a company. These findings indicate that business leaders should have strategies to innovate constantly over time to deal with uncertainty in the market and achieve the desired competitive advantage.

Innovation strategies may have a positive impact on the business performance. The knowledge, ideas, interpretations, and insights added to the marketplace from external networks serve as primary drivers for innovation strategies and offer means for companies to innovate successfully even when they do not have a strong entrepreneurial culture (Baker et al., 2016). Other researchers supported the importance of innovation strategies for increasing revenue and sustaining business performance, arguing that

innovation is a creative process of introducing new technologies, designs, or processes into the marketplace (Demirkan & Spohrer, 2016; Fernandes & Solimun, 2017; Karabulut, 2015; Rahman, Hassan, & Said, 2015; Taneja et al., 2016). These findings suggest that companies promote the culture of innovation and use innovation strategies to launch new products and services that may have an impact on business performance.

Strategies for building a culture of innovation may help new companies increase R&D and increase profits. The absence of innovation in small business resulted in the Small Business Innovation Act of 2011, legislation aimed at increasing efficiency in innovation development (SBA, 2015). Innovation requires employees to gain and share knowledge throughout the organization, expanding the company's knowledge reserve to result in performance (Ferreira et al., 2015). Small business innovation research exceeded $100 million, and the SBA allocated 2.8% of its research and design budget to increasing private sector innovation development (SBA, 2015). The SBA also encouraged companies to foster innovation culture, arguing that nurturing a culture of innovation is important for contributing to the development of employee skills and innovation strategies.

Companies may use innovation strategies to deal with marketplace challenges such as presenting new products and services and addressing the supply-demand gap. Firms investing in innovations usually experience financial constraints (Efthyvoulou & Vahter, 2016; Garcia-Quevedo, Segarra-Blasco, & Teruel, 2018; Howell, 2017; Pellegrino & Savona, 2017). Partnering with external entities such as suppliers, customers, and innovation agents can help companies handle the challenges in the

marketplace (Song et al., 2016). For example, external partnerships can help business leaders better understand the need of customers. Harris, McAdam, and Reid (2016) noted several determinants of innovation, including: characteristics of the firm, targeted markets for sale and ownership, the importance of leadership, organizational culture, and variables representing absorptive capacity. Firms can collaborate with suppliers or other companies to reduce the demand-supply gap and to introduce new products or services.

Business leaders may adjust R&D levels based on the innovation determinants such as characteristics of the firm and targeted markets for sale. Chowhan (2016) and Prajogo (2016) highlighted the importance of product and process innovation strategies for business performance, whereas Martin-Rios and Parga-Dans (2016) stressed the importance of companies' performance renewal abilities to select and implement the efficient innovation strategies and to understand the consequences of innovation deployments. Therefore, different innovation practices are necessary for companies to provide superior customer service.

Types of innovation. A business may choose a form of innovation that is beneficial to the company's financial performance and for maintaining market position. The types of innovation include product innovation, process innovation, marketing innovation, and organizational innovation (Çetinkaya Bozkurt & Kalkan, 2014; C. Karlsson & Tavassoli, 2016; Petkovska, 2015; J. Zhang & Zhu, 2015). Another important classification is the one that divides innovation by the degree of innovativeness on incremental and radical innovation (Dohse & Niebuhr, 2018; Petkovska, 2015). Innovation may be disruptive, radical, incremental, or sustaining (Souto, 2015). Business

culture that focuses on big thinking is an accelerator for innovation and creativity, resulting in concepts that laypersons may not visualize (Connolly, Turner, & Potocki, 2018; Suwannathat, Decharin, & Somboonsavatdee, 2015). For example, companies can continue to expand their product ranges, and at the same time, business leaders can launch breakthrough innovations that disrupt the industry.

A business culture that promotes creativity may foster an environment for R&D and for taking risks. It is not typical for businesses to use all four innovation types simultaneously or in combination (Marcelino Sadaba, Perez-Ezcurdia, Echeverria-Lazcano, & Amurrio, 2015; Snihur & Wiklund, 2019). Leadership teams may prefer particular innovation types depending on business goals and the availability of physical resources.

Product innovation involves business leaders launching new or improved products for a firm's internal and external users. Product innovation is the introduction of a good or service that is new or significantly improved in terms of its characteristics or intended uses (Çetinkaya Bozkurt & Kalkan, 2014; National Science Foundation, 2015; Petkovska, 2015; Restuccia, de Brentani, Legoux, & Ouellet, 2016). Product innovation includes significant improvements in technical specifications, components, and materials, incorporated software, user-friendliness, or other functional characteristics (Petkovska, 2015). Business leaders may use product innovation to introduce new goods or services, to increase market value, or to enter into the new market. Some of the examples of product innovation are instant photos, camera and touchscreen in a mobile phone, a global positioning system, electric cars, and drones.

Process innovation may have a positive impact on a firm's productivity growth. Process innovation is the implementation of a new or significantly improved production or delivery method (Çetinkaya Bozkurt & Kalkan, 2014; Hanedaa & Ito, 2018; National Science Foundation, 2015; Petkovska, 2015). Examples of process innovation would include: the digitization of the printing process, the automation of equipment, or the introduction of new equipment such as lasers or sensors (Petkovska, 2015). These findings are relevant to this study because business leaders can implement process improvement efforts to increase their firms' productivity.

Marketing innovation involves business leaders using marketing strategies to promote new and improved products or services. Marketing innovation is the implementation of a new marketing method that involves significant changes in product design or packaging, product placement, product promotion, or product pricing (Çetinkaya Bozkurt & Kalkan, 2014; Petkovska, 2015). Kumar and Zattoni (2014) argued that marketing innovation is the introduction of a new marketing strategy into the business process by incorporating the four Ps of marketing, namely, product packaging or design, placement, pricing, and promotion of products. Implementing the four Ps fosters customer satisfaction, encourages new product visibility, and opens new investment avenues, with those improvements, in turn, providing a surge in sales, increasing profits, and improving organizational performance (La & Yi, 2015). Examples of marketing innovation include: introducing director-exclusive sales, using the method variable cost of goods, promoting a new trademark, or marketing a new product (Petkovska, 2015).

The use of such marketing tactics may also result in the new business development and expansion opportunities for small businesses.

Business leaders may feel the need to transform their workplace and business practices. Organizational innovations are the implementation of new organizational methods in a firm's business practices, its workplace organization, or its external relations (Aeron & Jain, 2015; Çetinkaya Bozkurt & Kalkan, 2014; Petkovska, 2015). Examples of organizational innovation would include: changes in jobs and formation of teams in the organization, making business improvements, or introducing quality standards (Petkovska, 2015). Business leaders may think of organizational innovations as tools for improving organizational culture, fostering a culture of creativity, increasing competencies of the workforce, and improving quality standards and supplier relations.

Companies benefit from using both incremental and radical innovations. Incremental innovations refer to small-scale, step-by-step improvements to existing technologies or to existing products or to modified versions of existing products or processes (Petkovska, 2015). Radical innovations refer to the introduction of completely new products or services or to completely new systems of production and distribution that make existing products and services uncompetitive (Jugend, de Araujo, Pimenta, Gobbo Jr, & Hilletofth, 2018; Petkovska, 2015; Taneja et al., 2016). Radical innovations may also include new technologies or may link to existing technologies for new applications. Whether the innovation focus is on a product, a service, a process, or an organization, the result of a dynamic innovation process involves factors internal and external to the company (Taneja et al., 2016). Business leaders use incremental

innovation to build on existing knowledge and ideas, therefore enjoying a reduced level of risk. Radical innovation, however, means higher risk for a company because it involves new and more drastic changes in technology and knowledge and results in a new product.

Challenges to innovation strategy. Businesses may have to face internal and external challenges to innovation. Internal innovation barriers are those that arise inside the company, whereas external innovation barriers are those that arise from the external environment (Çetinkaya Bozkurt & Kalkan, 2014). Without the ability to innovate and being competitive to provide new products and services, companies can experience the loss of their major clients (Stoker, 2016). Heidenreich, Kraemer, and Handrich (2016) pointed out that the historical failure of innovation results from consumers' resistance to innovation and their rejection of most of the innovations. These findings suggest that business leaders may fail to achieve the desired success without increasing their firms' ability to innovate and providing meaningful product and services to their customers.

Business leaders may try to understand the variety of challenges to innovation. The key barrier for potentially disruptive and radical innovations includes traditional risk-avoidance focus (Das, Verburg, Verbraeck, & Bonebakker, 2018). Internal factors influencing SME innovation include inadequate training, a lack of related work experience for employees, and insufficient communication between departments (Çetinkaya Bozkurt & Kalkan, 2014). In contrast, external factors influencing innovation for SMEs include crisis or instability in the market, excessive bureaucracy in government supports, and difficulty in obtaining support from institutions such as universities

(Çetinkaya Bozkurt & Kalkan, 2014). Therefore, SME leaders may find the external challenges to innovation more difficult to deal with than the internal challenges to innovation.

Manufacturing companies may face variety of challenges. Manufacturing companies face challenges to innovation that complicate the production process, including small delivery units, high variety of products, shorter delivery times, shorter product life cycles, or requirements for high quality (Gabriel & Pessl, 2016). A manufacturing company's leadership team may not successfully deal with the challenges, especially if the company is a small one saddled with a lack of financial resources, scant opportunities to recruit specialized workers, and a small innovation portfolio (Çetinkaya Bozkurt & Kalkan, 2014; Seibert, Sargent, Kraimer, & Kiazad, 2017). Some SMEs may find innovation change very difficult and challenging.

Businesses may need the balance between their innovation efforts and customers' demand in the marketplace. The influence of how businesses understand the demand in the marketplace and innovate, contribute towards much of the social environment, business environment, and economic effect (Jennings, Cater, Hales, Kensbock, & Hornby, 2015). Coad, Pellegrino, and Savona (2016) analyzed the effect of financial knowledge, demand, market structure, and regulation barriers to innovation on a company's economic performance, finding that cost and financing availability negatively affected productivity across distribution. Saxena (2015) provided supporting evidence, arguing that challenges to innovation in Indian businesses include a lack of financial support from the government for research, for training of researchers, and for leadership

training of employees. In the Nizhny Novgorod region of Russia, impediments include lack of trust, poor collaboration within the innovation system, poor information support, excessive bureaucracy, legislative obstacles to innovations, legislative obstacles to intellectual property protection, and a lack of interest on the part of large companies in collaborating with small ones (Butryumova, Karpycheva, Grisheva, & Kasyanova, 2015). Kuznecova and Cirule (2015) contend that in the Baltic States and the European Union, the inclination is to engage young people in social innovation, although individuals over 30 typically have the necessary motivation, knowledge, business experience necessary for meeting the social and economic goals. The researchers suggested that the broader focus should include encouraging mature people with more life experience to serve as sustainable social entrepreneurs to influence policy makers and public institutions (Kuznecova & Cirule, 2015). The lack of qualified employees can hinder high productivity firms while removing the financial and bureaucratic barriers can accelerate innovation efforts.

Resistance to innovation strategy adoption. Business leaders need to address employee resistance to innovation strategies. Negative links to innovation include employees adopting unambitious goals and standards, too much formalization, and promoting the repetitive systems (Harris et al., 2016). To deal with this challenge, Stoker (2016) recommended that business leaders foster change and innovation by leveraging rewards and recognition, addressing communication strategies, and providing discussions that help employees understand and embrace the change. If business leaders fail to answer employees' questions regarding planned transformations, employees will

negatively arrive at their conclusions (Stoker, 2016). Business leaders and employees can address several questions to help companies face change successfully:

- Why are we doing the change?
- What will success look like?
- What role do you expect each individual to play?
- How will people know how they are doing?
- What is in it for each person?
- Will they have your support? (Stoker, 2016).

These articles are relevant to my research because these articles illustrate how employee resistance to innovation influences leadership teams as well as the overall businesses.

Innovation consumers can also resist innovation. B. McCarthy and Schurmann (2015) studied Australian farmers' resistance to innovation, exploring the factors that prevent Australian farmers from adopting more sustainable farming practices in North Queensland. The researchers concluded that the farmers' resistance to innovation came mainly from the technology and the costs associated with making the switch to chemical-free farming methods (B. McCarthy & Schurmann, 2015). Additionally, those farmers who were interested in organic farming lacked the information and reported that the long learning curve was a deterrent (B. McCarthy & Schurmann, 2015). The lack of institutional support, the presence of powerful players in the supply chain, and the fear of losing competitive advantage while sharing information also contributed towards resistance to change (B. McCarthy & Schurmann, 2015). The research by B. McCarthy and Schurmann is relevant to my study because of the findings that consumers' resistance

to innovation comes mainly from the learning curve associated with new technology and from the prohibitive costs.

Consumers may resist innovation actively or passively. Although consumers may seem to open to change and interested in evaluating new products, they also regularly refuse innovations without considering their potential (Heidenreich & Kraemer, 2016; Talke & Heidenreich, 2014). Active innovation resistance is an attitudinal outcome that results from unfavorable new product evaluations (Talke & Heidenreich, 2014). By contrast, passive innovation resistance results from a consumer's generic tendency to resist innovations (Heidenreich & Handrich, 2015; Heidenreich & Kraemer, 2016; Talke & Heidenreich, 2014). Business leaders can facilitate the adoption of new products by attempting to understand why consumers may not value a newly launched product and by managing customers' active resistance to innovation. Firm leaders also should understand the impact of consumers' passive resistance to innovation.

Passive resistance to innovation can impact innovation adoption and performance. Heidenreich et al. (2016) studied passive innovation resistance and found that consumers with high cognitive resistance or situational passive resistance displayed negative results of similar magnitudes, whereas consumers with high levels of both dimensions exhibited strong tendencies to resist innovations. Because consumers represent the most critical aspect of new product launches, dealing with their cognitive and situational resistance to innovations is essential. By understanding how different types of passive innovation resistance can affect innovation adoption, business leaders can improve the design and development of new products to increase profitability in the market (Heidenreich et al.,

2016). Mental stimulation is the most effective instrument for overcoming cognitive passive resistance, whereas benefit comparison is most effective in cases of situational passive resistance (Heidenreich & Kraemer, 2016). The findings that business leaders need to recognize and deal with consumers' passive resistance, e.g., cognitive and situational passive resistance, to drive the acceptance of a newly developed product, is useful in understanding strategies to increase profit.

A lack of confidence in privacy and information security also can impact the rate of consumers' innovation adoption. Sunday and Vera (2018) analyzed the factors that influence an SME's adoption of information and communication technologies (ICT) in the UK. A lack of confidence in the security and privacy of ICTs and negative perceptions of ICT cost-benefit balances negatively affect the implementation of technology innovations (Sunday & Vera, 2018). In an emerging country, companies may lack the experimental work necessary for analyzing the implementation of technology, in which case the creation of knowledge could help businesses attempting to explain the application of ICT (Sunday & Vera, 2018). The article by Sunday and Vera is relevant to this study because of the researchers' conclusion that maintaining the privacy and information security of consumers' data is essential for motivating consumers to adopt newly developed products.

Recurring Themes From the Scholarly Literature

Multiple recurring themes in the literature review included: (a) product and process innovation strategy, (b) service model innovation, (c) business model innovation, (d) technology innovation, (e) supply chain innovation, (f) managing risk to control profit

margins, (g) cultural diversity as a mechanism for innovation, and (h) innovation theory for SMEs. The international marketplace in which companies operate and compete for influences the competitiveness through innovation strategies because innovation strategies that are useful in one environment may not prove effective in others (Prajogo, 2016). C. Karlsson and Tavassoli (2016) argued that innovation strategies happen simultaneously but exclude the sequential manner of innovation strategy options in real-time. Innovation strategies can influence a strategic competitive benefit in the marketplace that positively impacts business performance because customers may see the values in market offerings and make the purchasing decisions.

Product and process innovation strategy. Innovation strategies may come in many types such as product innovation and process innovation. Product innovation strategy offers a strategic competitive advantage in the marketplace because customers can see their value and convinces them to make purchasing decisions that positively impact business performance (Prajogo, 2016; Riyadi & Sumardi, 2017). In contrast, process innovations have an advantage over product innovations as a result of being hidden within organizations and therefore being difficult for competitors to replicate (Prajogo, 2016; Riyadi & Sumardi, 2017). The implementation of more efficient and effective processes reduces costs and facilitates the development of better products, both of which lead to increased revenue (Chowhan, 2016). Therefore, while companies focusing on process innovations may not develop new products aggressively, they may, instead compete in mature markets where the primary objective is to provide higher customer values such as faster, more flexible, or cheaper services (Chowhan, 2016;

Prajogo, 2016). Researchers demonstrated that both product innovation and process innovation are means by which business leaders can improve their firms' performance. High-equity brands suffer less than low-equity brands from the adverse effects of innovation failures, but innovation failures are more detrimental to high-equity brands that have pre-announced the innovation and to low-equity brands that do not receive word-of-mouth support from opinion leaders after the failures occur (Cleeren, Dekimpe, & Heerde, 2017). These articles pertaining to product and process innovation are relevant to this research because the research demonstrates that the introduction of a new or improved product or service can influence business performance in areas including competitive advantage and profit margin.

Innovation may or may not come in the form of new products and processes. Companies can innovate by finding alternative business techniques, developing new tools for internal use, transforming company processes, or renovating business models (Ausloos, Bartolacci, Castellano, & Cerqueti, 2018; Drucker, 1985; Saguya & Taoukisb, 2017). Changes to the way a company does business may reduce costs as an alternative to developing new products. Cost reductions and product development both generate new revenue sources, yielding financial benefit to the company (Armour & Teece, 1980; Drucker, 1985). Innovation practices are typically selected to create intellectual property and to identify different means that firms can use to leverage property (Chesbrough et al., 2006). Product and process innovation strategies have positive effects on business profitability and performance, but yield limited understanding regarding external market conditions (Prajogo, 2016). Newman (2016) did not include data regarding ways to

handle challenging economic conditions when companies are in survival mode. These articles are relevant to this research study because the research shows the usefulness of product and process innovation strategies. Additionally, the studies describe the varied forms that innovation strategies can take and that business leaders can use to advantage.

Service model innovation. Customer experience creates exceptional value and also is extremely difficult to cope with. A company's competitive edge depends on delivering superior customer value and garnering resulting customer satisfaction (Murali, Pugazhendhi, & Muralidharan, 2016; Riyadi & Sumardi, 2017; Ul Hassan & Rehman, 2016; Yague & Romero, 2016). Customers' purchasing decisions depend on the customers' perceptions of the value in a provider's new or improved products or services (Hsieh et al., 2016; Karia & Asaari, 2016; Komarov & Avdeeva, 2015; Lemon & Verhoef, 2016; Neupane, 2015; Paluch & Wünderlich, 2016; Simester, 2016; Young-Joong, 2015). An understanding of customer expectations is fundamental to planning customer satisfaction strategies for delivering the best customer experience. Dissatisfied customers will relay their negative perceptions and experiences to other customers and to other potential customers (Andersch, Lindenmeier, Liberatore, & Tscheulin, 2018; Collier, Barnes, Abney, & Pelletier, 2018; Gilal, Zhang, & Gilal, 2018; Rousseau, 2015). Service quality and the resulting customer satisfaction are principal drivers of financial performance, so managing the performance of service attributes can increase service quality (Murali et al., 2016). Negative word-of-mouth communication can harm a company's reputation, profitability, and existence.

Word of mouth and understanding customer expectations matter in business climate. Word of mouth is essential for increasing market share and expanding overall business (Gilal et al., 2018; Shin, Thai, Grewal, & Kim, 2017). When customers receive high-quality services and become satisfied with products or services, they communicate that satisfaction to other customers and to potential customers, thereby influencing an increase in the provider's market share. Innovative new products and services may fail in the marketplace when business leaders do not understand how customers evaluate products and make purchase decisions (Rousseau, 2015; Simester, 2016). Because achieving customer satisfaction is not easy, business leaders must pay sufficient attention to understanding the ways that customers evaluate products and make purchase decisions.

The growth of a firm depends on the abilities of its organizational leaders to satisfy existing customers and acquire new ones. The measurement of success for any business is its customer base (D. M. McCarthy, Fader, & Hardie, 2017; Sachdeva & Goel, 2015). The ability of an SME to meet growing consumer expectations largely depends on its capability of innovating and delivering products and services that customers value (Taneja et al., 2016). Christensen et al. (2015) reported that when business leaders of established incumbent firms focus on improving their most profitable products and services, they ignore the needs of some market segments. Business leaders have decisions to make about which market segment to focus on when launching new or improved products and services and determine the value that customers will receive. The abilities of business leaders to formulate and implement strategies for satisfying existing customers and acquiring new ones will determine their organizations' levels of financial

success (Mohamadi, Ab Yazid, Khatibi, & Ferdous Azam, 2017; Pansari & Kumar, 2017). Additionally, Pansari and Kumar (2017) reported that creating and marketing value in today's increasingly service- and knowledge-intensive economy requires motivated and competent employees, a loyal and profitable customer base, and the development and implementation of a coherent service strategy for the powerful design and packaging of intangible benefits and products, high-quality service operations, and customer information management processes. Erkut (2016) reported that staying close to customers can give decision makers new insights into successful innovation management, especially in the absence of hierarchies. Customers want to shop in the least complicated manner and expect high-quality services. Therefore, business leaders need to have strategies for increasing customer satisfaction through the introduction of new or improved products and services and for transforming organizational assets into improved business performance.

Business model innovation. Business leaders may improve their companies' business models for delivering value to customers and generating profits for their companies. A business model is a set of organizational structures designed to maximize opportunities that arise in the market (García-Gutiérrez & Martínez-Borreguero, 2016; Karimi & Walter, 2016; Kim & Min, 2015; Markides, 2013). Business model innovation (BMI) can boost the commercial success of technology and products (Ammar & Chereau, 2018; "Bridging the Gap," 2016; Hu & Chen, 2016; Olofsson, Hoveskog, & Halila, 2018; Scannella, 2015). For example, a new product commercialized with a superior business

model may likely become more valuable to a company than a breakthrough product innovation that is commercialized using a weak business model.

Business leaders may need to renovate business models to continue to provide value to their customers in changing business environments. A business model includes the means of creating and delivering consumer value, generating profits, and using existing resources and processes to create and sustain competitive advantage (Aghdaie & Alimardani, 2015; Baldassarre, Calabretta, Bocken, & Jaskiewicz, 2017; Foss & Saebi, 2016; Pedersen, Gwozdz, & Hvass, 2018; Scannella, 2015). Other researchers argued that business model innovation is essential for balancing economic, environmental, and social values (Neutzling, Land, Seuring, & do Nascimento, 2017; Rauter, Jonker, & Baumgartner, 2017). These findings indicate that business leaders use BMI to strengthen business models to boost product success.

Business leaders may experience the challenges to improve their companies' business models. The main barriers for BMI are the lack of awareness, existing business culture, and broad focus ("Bridging the Gap," 2016). The technological innovation by itself does not assure performance, and business leaders use business models to help facilitate the success of technological advances (Hu & Chen, 2016). Business models can influence disruptive innovation. An analysis of many industries experiencing disruption pointed out that disruptive innovation is a business model challenge rather than a technology problem (Karimi & Walter, 2016). The profit margins associated with new business models are often lower than those associated with the old business models, making business leaders hesitant to adopt the new business models (Karimi & Walter,

2016). While companies may not see immediately higher profit margins from the new business model, profits can increase in the long term because the new business model involves the facilitation of new inventions and delivering value to customers.

New businesses may achieve desired success using an efficient business model. For a startup business, the development and testing of an efficient business model design under conditions of great uncertainty related to both internal and external factors are essential to unlocking the potential value embedded in the innovation for all stakeholders (García-Gutiérrez & Martínez-Borreguero, 2016). Design and manufacturing tolerances have a significant effect on the performance of products and the associated manufacturing costs (Ledoux, Teissandier, & Sebastian, 2016). Manufacturing companies transform their business models that involve manufacturing design and production processes, yielding positive impacts on performance.

Business leaders may need to change their business model to deliver superior value to their customers. The ability to innovate, design, and build business models that support strategic sustainability thinking, and include business scalability and risks, will lead to better profit margins (França, Broman, Robèrt, Basile, & Trygg, 2016). For example, Kodak's financial demise in 2012 was the result of neglecting the transformation of the company's business model (Pasternak, 2015). Kodak had a skilled workforce but failed to adapt to market changes. Kodak did not integrate its business model with the inventions of new cameras and improvements to film quality, failing to reach end users. Company leadership teams should continue to explore new opportunities while also working to exploit existing capabilities.

Some companies can achieve success at both exploiting present capabilities and exploring future opportunities. Organizational ambidexterity studies present strategies for managing two conflicting business model designs such as spatial separation and contextual ambidexterity (Choudhary, Mital, Pani, Papa, & Vicentini, 2018; Markides, 2013; Xing, Javier, Geoffrey, & Marshall Van, 2017). The spatial separation business model involves the separation of conflicting business model designs and value activities into two different organizations or units (Markides, 2013). Contextual ambidexterity occurs when organizations create appropriate organizational contexts, cultures, values, structures, and procedures for simultaneously operating the two conflicting business model designs (Markides, 2013). These findings indicate that business leaders can separate new exploratory units from traditional exploitative ones.

Business leaders can use separate processes, structures, and cultures for new exploratory business models and for traditional exploitative business models. The advantages of a business model that simultaneously involves efficiency and novelty themes include: a reduced threat from other firms' market entry, maximum use of organizational assets, and diversification of revenues and profits (Markides, 2013). The leadership, organizational culture, legal regulations, and coherence of corporate strategy and the business model for sustainability are the relevant drivers in developing business models for sustainability (Rauter et al., 2017). These findings indicated the possibility of pioneering radical or disruptive innovations while chasing incremental gains. Companies may not generate substantial returns using product and technology innovation when they lack effective business models and strong leadership.

Technology innovation. Technology innovation is one of the ways that company leaders can create a competitive edge in unstable market. The development of new technologies and products constitutes a critical component in innovation (Kingston, 2015; Oh, Cho, & Kim, 2015). Firms in growing industries face better opportunities for technological innovation, lower barriers to innovative entry, and consequently higher returns on innovation investment (Tavassoli, 2015). Companies can use technology innovation to penetrate new markets faster, with Google being a proven example of this. Google's information search engine became extremely popular and positively influenced the company's profit margins in dramatic ways. Google's strength came from its leaders' skills in identifying creativity. Similarly, the consumer goods company Hindustan Unilever benefited from its capacity for conducting innovative research (Saxena, 2015). Wang, Chau, and Chen (2016) highlighted the importance of security in technological innovation, noting that in agile and Internet world, network virtualization is essential for technological innovation. These findings indicate that business leaders can experience higher returns on investment when they use technology innovation and secure their customers' data.

Customers are typically concerned about the privacy and security of their personal data, making it necessary for firms to employ many data security measures to secure customer data. Technology innovation increases a company's ability to compete (Abdallah, Phan, & Matsui, 2016; Denicolai, Hagen, & Pisoni, 2015; Kwon, Park, Ohm, & Yoo, 2015; Riyadi & Sumardi, 2017). Some Chinese companies entered the market with third-generation (3G) technology innovation and fourth-generation (4G) mobile

communication. Chinese technological latecomers became successful in high-tech and radical innovation using 3G mobile communications technology standards (Long & Laestadius, 2016). Furthermore, 4G technology evolved from 3G, which evolved from second generation technology (Long & Laestadius, 2016). These findings indicated that business leaders can achieve competitive advantage through innovation strategies.

Business leaders may use technology innovation as a means of transforming business practices. Long and Laestadius (2016) reported three theories: (a) that modularity-in-design opens new windows of opportunity for technological catch-up, (b) that the lack of essential intellectual property rights acts as an important stimulus to influence the speed and direction of innovation, and (c) that the long extension of an old technology affects new innovation take-off, essentially via shortening the required technological distance. Theories by Long and Laestadius are relevant to any company using technology because business leaders may face technology debt if they do not quickly adjust their practices with newer technologies.

The effective integration of technological innovation is important to the success of SMEs. The emergence of technologies definition includes five categories: (a) radical innovation, (b) relatively fast growth, (c) coherence, (d) subtle impact, and (e) uncertainty and ambiguity (Rotolo, Hicks, & Martin, 2015). The success of a firm also depends on the level of its technology innovation and external sources of knowledge. SMEs integrate technology innovation strategies to streamline business, to compete, and to achieve business objectives (Dooley, Kenny, & O'Sullivan, 2017; Gomes & Wojahn, 2017; Héctor, Gabriela, & María del Carmen, 2016; H. Lee, Cha, & Park, 2016;

Martinez-Roman & Romero, 2017; Verbano & Crema, 2016; Xu, 2017). Some small businesses fail at integrating technological innovation because of a lack of appropriate resources, a lack of technical aptitude, and the absence of internal strategies (Bala Subrahmanya, 2015). Business leaders should focus on developing the capacity to innovate. These findings indicated that companies may not achieve desired success from the integration of technological innovation, despite an interest in streamlining business.

For SMEs, the availability of skilled employees is critical for integrating technology innovation to compete in the market and survive. SMEs need streamlined processes to create a sustainable strategy (Ardito, Carrillo-Hermosilla, del Río, & Pontrandolfo, 2018; Caldera, Desha, & Dawes, 2018; Habidin, Mohd Zubir, Mohd Fuzi, Md Latip, & Azman, 2018; Peterlin, Dimovski, Tvaronavičienė, Grah, & Kaklauskas, 2018; Seidel-Sterzik, McLaren, & Garnevska, 2018). Other researchers concluded that successful implementations of technological innovations generally has a relation with quality and cost performance (Aboelmaged, 2018; Azarenkova, Golovko, & Ponomarenko, 2015; Maryska & Doucek, 2015; Saridakis, Lai, Mohammed, & Hansen, 2018). Business leaders should focus on increasing productivity and reducing cost in order to accomplish ultimate operational performance. To sustain business growth, SME leaders must seize opportunities to integrate technological innovations that can transform business at a fast pace to keep companies ahead of competitors.

Supply chain innovation. Business leaders implement supply chain innovation to optimize supply chain operations. The supply chain management is one of the most effective innovation initiatives to achieve operational excellence (Abbey & Guide, 2018;

Abdelkafi & Pero, 2018; Y. Lee & Rim, 2016; Miri-Lavassani & Movahedi, 2018; Nimeh, Abdallah, & Sweis, 2018). Supply chain management and logistics are critical for supporting competitive advantages such as enduring superiority over competitors regarding customer preference and is achievable through better management of logistics and the supply chain (Neutzling et al., 2017; Yu & Huo, 2018). These articles are relevant to my study because they explain that the use of supply chain management facilitates and optimizes the flow of products, information, and finances, allowing companies to create better relationship value and improve overall business efficiency.

Supply chain management plays a crucial role in addressing the growing complexity of today's global supply chains. Traditional supply chains focus on minimizing costs and increasing profitability (Diabat & Al-Salem, 2015). Therefore, the traditional supply chains are insufficient in the face of current uncertainty and complexity. The greater diversity of customer needs and the persistent long-term recession increases the intensity of enterprise competition (Y. Lee & Rim, 2016). To survive global competition, each company must focus on achieving innovation excellence and operational excellence as a core competency for sustaining competitive advantage (Y. Lee & Rim, 2016; Vijayan & Kamarulzaman, 2016). Business partners can use supply chain innovation to strengthen supply-demand operations. Sebastian, Fuentes, and Marin (2015) reported the importance of integrating web technology into manufacturing businesses. Businesses can track the supply chain (e.g., the flow of products, information, and financial data) using Internet and web technology. Manufacturing companies deal with the supply chain. The focus of this study on a manufacturing company makes these

articles relevant to this study. These researchers demonstrate that innovation excellence, operational excellence, and technology integration are important core competencies for business leaders to use to account for uncertainty and complexity in the supply chain.

Improved supply visibility leads to improved workflow and an increase in profit margins. Supply chain visibility (SCV) impacts supply chain performance (Busse, Schleper, Weilenmann, & Wagner, 2017; Kraft, Valdés, & Zheng, 2018; Youngsu & Suk-Chul, 2016). In addition, the use of SCV ensures improvement in service to customers (Kraft et al., 2018). A company can attain SCV through streamlining, standardizing, simplifying operational portfolio, leveraging latest technologies, and determining which functions to keep in-house and which to outsource (Somapa, Cools, & Dullaert, 2018). Although there is a lot of excitement about global SCV and improved decision making, cybersecurity and privacy are top concerns (Kshetri, 2018). Companies can become fast and flexible using the visibility in their supply chain as a competitive advantage. Firm leaders can improve supply chain efficiency by promoting performance management tools that employees can use to take proactive steps for identifying exceptions. One of the challenges involved in managing a complex supply chain is the network of resources scattered across different cities and countries.

Business leaders use supply chain innovation to reduce the supply chain operational cost. The benefits of supply chain integration include reducing operational, shipping, and inventory costs (Ataseven & Nair, 2017; Neutzling et al., 2017). Instead of integrating the whole supply chain, companies drive company performance by integrating business performance and ICT capabilities and linking to suppliers or customers

(Gonzálvez-Gallego, Molina-Castillo, Soto-Acosta, Varajao, & Trigo, 2015; Scuotto & Shukla, 2015). These findings include the importance of SCV for increasing supply chain performance and stress the need for business leaders to maintain the privacy and security of data. Because data is the fundamental element for gathering the insights for supply chains, companies must embrace a data-driven approach to realize the full potential of supply chain management efforts.

Risk management to control the profit margins. A major challenge for those dealing with innovation practices is uncertainty. The technological and economic landscapes have vastly changed the demand and expectation of innovation, especially in the service industries (Bogers et al., 2018). Customers purchase new, innovative products after recognizing their value (Karia & Asaari, 2016; Paluch & Wünderlich, 2016; Simester, 2016). However, the variability and uncertainty associated with global supply chain risks make the prediction of disruptions difficult (Scheibe & Blackhurst, 2018) and the disruption of the business operations can result in massive losses (Chen, Wei, & Xie, 2017; Lui, Ngai, & Lo, 2015). These findings indicate that business leaders should have a plan to deal with uncertainty in constantly changing business environment.

Business leaders may need policies to embrace uncertainty. Emerging markets are less susceptible to global contagion than advanced economies (Disyatat & Rungcharoenkitkul, 2017), and a United States' monetary policy can lead to an exchange rate depreciation (Banerjee, Devereux, & Lombardo, 2016). Business insurance is an efficient way of transferring risk, since insuring for business interruptions can reduce the adverse effect of the loss of expected business profit (Chen et al., 2017; Cole, Giné, &

Vickery, 2017). The disruption to business can happen at any time, making it critical for business leaders to use insurance as a tool for protecting companies from negative impacts on profits.

Business leaders may analyze and assess different risks to reach a clear and realistic understanding of operational issues and market opportunities. To develop a risk management strategy, a firm's management team must consider the amount of risk the organization can bear and determine how much to invest in mitigating the risk (Scheibe & Blackhurst, 2018). Findings are noteworthy in understanding that risk management is essential for business leaders, to prepare their organizations to take advantage of the radical change ahead of the competition to foster survival and growth.

Cultural diversity as a mechanism for innovation. The cultural differences may pose challenges to international companies. The greater diversity of customer needs and the persistent long-term recession increases the intensity of enterprise competition (Y. Lee & Rim, 2016). Global businesses are at risk because of the information gaps between collaborating locations (Keig, Brouthers, & Marshall, 2015). Differences in cultures and inadequate diversity policies can result in poor communication, misunderstood intent, interpersonal conflicts, mistrust between counterparties, poor information flow, and limited learning between the parties (Khanna, 2016; Zeng, Shenkar, Lee, & Song, 2013). These findings point out the cultural differences in international business environments that can lead to poor communication and interpersonal conflicts, which can, in turn, impact teamwork and employee engagement.

Global mindsets and cultural diversity may increase a company's innovativeness. A cultural diversity policy is an important part of creating an environment that increases creativity (Lambert, 2016; Urbiola, Willis, Ruiz-Romero, Moya, & Esses, 2017) and that drives innovation in the organization (Khanna, 2016). A cultural diversity policy is useful for increasing the effectiveness of a virtual team within a multinational company when the national culture has more effect on employees than their organizational culture (Khanna, 2016; Zapata-Barrero, 2016). These findings included the importance of cultural diversity in workplace for increasing innovation.

Culturally diverse companies may experience improved performance when an innovation strategy is in place. The connection between cultural diversity and creativity is important for increasing the type of innovative work behavior that can influence a firm's performance (Fernandez-Esquinas, van Oostrom, & Pinto, 2017; Lambert, 2016; Lozano & Escrich, 2017) and provide superior services for customers (Clark & Polesello, 2017; Cooper, 2017; Stock, 2015). Culturally diverse company can benefit from the variety of thoughts and ideas that employees from different cultural backgrounds may have regarding business problems the companies face. Companies should foster cultural diversity in order to become increasingly innovative, using their employees' abilities to transform creativity into valuable ideas, products, and services (Khanna, 2016; Lambert, 2016). N. Zhou and Guillén (2015) described the diversity of foreign experiences as a determinant of the foreign market. Global companies can improve their global innovation positions by including insights from team members of diverse nationalities with diverse knowledge about markets and cultures (Bouncken, Brem, & Kraus, 2016). Findings

highlight the importance of workplace diversity for increasing innovation. Cultural diversity is a valuable resource for employee creativity because the use of cultural diversity promotes the varying problem-solving styles, knowledge, perspectives, and skills of a diverse workforce, encouraging employees to create new ideas and influencing company performance.

Talent management in the multicultural environment can drive organizational success. Companies face challenges in hiring enough people with the right skills (Anbuoli, Thenpandian, & Sakthivel, 2016; Bradley, Elenis, Hoyer, Martin, & Waller, 2017). Global talent management is a necessity for ensuring that the right employees are in the right positions to generate optimal growth in a multicultural environment (Collings & Isichei, 2018; Karin, 2015; Mehmet Saim, 2017). Supplier diversity as an extension of cultural diversity involves making the explicit linkage between workplace and marketplace in order to enhance innovation and teamwork and to engage the best talent (Kaufmann & Wagner, 2017). For example, professional networking companies like LinkedIn provide opportunities for global companies to hire foreign employees more quickly, often resulting in an ability to execute projects more expediently and increase company profits. Effective management of a diverse workforce increases the collaboration among diverse team members, increases the team's performance, and ultimately leads to superior business results (Randel et al., 2018). Creating a positive psychological state for employees is essential for cultivating innovative work behavior, as is customer support (Stock, 2015). Many companies face challenges with recruiting the right individuals with the right skills. Aligning global talent management to a firm's

strategy is essential for ensuring the availability of the key skills. For example, firm leaders may use suppliers to hire the right skills or may encourage talented employees to take expatriate assignments. When properly handled, diversity and inclusion can influence creativity and provide a source of competitive advantage for an organization.

Innovation theory for SMEs. SMEs face challenges in increasing their levels of innovation. Small firms are often resource-constrained and are more vulnerable to adverse conditions (Bamiatzi & Kirchmaier, 2014; O'Connor & Kelly, 2017; Petkovska, 2015; Taneja et al., 2016; Tavassoli, 2015). SMEs face difficulty in increasing the level of innovation as a result of increasing competition, globalization, and technology development (Harris et al., 2016; Taneja et al., 2016). Small companies must determine the degree of investment to pour into internally focused efforts versus externally focused efforts (Usman & Vanhaverbeke, 2017). SMEs are more flexible than larger enterprises and are more sensitive to changes in the business climate (Petkovska, 2015).

SMEs may use innovation as the main source of growth. The factors stimulating the firm's performance in SMEs remains unclear because most research focuses on large companies (Baggen, Lans, Biemans, Kampen, & Mulder, 2016). Continuous improvement encourages change and creative thinking in both workplace and product improvement (Harris et al., 2016). Regardless of size and location, small businesses must continuously innovate and adapt to changes in the marketplace by improving their learning capabilities to survive and to surpass the competition (Taneja et al., 2016). These findings include the need for SMEs to continuously innovate in order to deal with increasing competition, technology development, and globalization. Some companies

may prefer product innovation over process innovation, or vice versa, depending on their innovation strategies.

Small companies typically favor product innovation over process innovation. Small companies typically prefer product innovation, as opposed to process innovation because they seek unique products with which to distinguish themselves in the market (Agostini, Nosella, & Filippini, 2017), and often can invent quickly and take their ideas to the market with minimal internal conflict (Jinke et al., 2018; Petkovska, 2015). Small companies are an ideal breeding ground for disruptive innovations that initially fill a need in a small market (Christensen, 2011). Larger companies, on the other hand, are better able to expend resources to make marginal improvements to the quality of products (Agostini et al., 2017) instead of making disruptive innovations that do not contribute to the sustainment of existing technologies (Christensen, 2011). Small firms, because of their size, can adapt to technological changes in the industry more easily than large businesses can (Bouncken & Fredrich, 2016). These findings are relevant to my research study because they indicate that small firms can increase market share and profitability through product innovation, technology innovation, and disruptive innovation. Product innovation is often an entry point into the market for small firms because they can invent quickly and introduce new products to the market with minimal internal conflict.

Small businesses use open innovation to increase competitive advantage. Chesbrough et al. (2006) reported that open innovation is beneficial to small technology-oriented firms and firms that can quickly leverage the external knowledge that is being made available through widely accessible means such as the internet. Open innovation

paradigm is relevant to small firms (Cornell, 2012; Spithoven et al., 2013). For example, because SMEs generally also have smaller customer bases and less robust supply chains, they benefit from entering supply chain relationships with larger firms, enabling them to leverage the larger firms' more robust commercialization capabilities (Harris et al., 2016). Large companies have a significant, monopolistic advantage for innovation due to their access to more substantial resources and because of their greater power in the marketplace (Schumpeter, 1950). However, the Internet, population growth, and the availability of education have provided small companies with many opportunities to remain competitive through knowledge sharing and alternative pathways to the market (Chesbrough et al., 2006; Cornell, 2012). As a result, many companies may rely on customers and partnerships with other companies outside of their industries to fuel innovation and to remain competitive. About 90% of all businesses in the global economy are SMEs, and these small companies contribute up to 81% of all private sector employment (Petkovska, 2015). Thus, small businesses can use open innovation to leverage their external knowledge of their business environments to gain a competitive advantage.

SMEs can benefit from different capability strategies depending on their ages. Existing internal skills and knowledge in dynamic environments play a crucial role in fostering knowledge creation for innovation and growth in SMEs (Scuotto, Santoro, Bresciani, & Del Giudice, 2017), even in declining markets (Bamiatzi & Kirchmaier, 2014). Training is an important prerequisite for innovation and performance (Frederiksen & Knudsen, 2017; Petkovska, 2015; Protogerou, Caloghirou, & Vonortas, 2017; Soto-

Acosta, Popa, & Palacios-Marqués, 2016). SMEs must mix open and closed innovation strategies to achieve peak R&D performance because SMEs particularly benefit from open innovation to increase sales of collaborative products, reduce cost, and increase total profit. (Santoro et al., 2018; Scuotto et al., 2017; V. Singh & Agrawal, 2017; Vrontis, Thrassou, Santoro, & Papa, 2017). These findings indicate that SMEs also can mix open and closed innovation strategies to achieve peak R&D performance and should foster knowledge creation for innovation.

SMEs may benefit from collaborating with outside firms. Joint R&D projects are less costly and can be completed more quickly but can also yield smaller potential profits since results are shared as well (Petkovska, 2015). Younger SMEs benefit from accessing external resources (e.g., collaboration with outside firms), whereas older SMEs benefit from combining strategies such as collaboration and training (Whittaker, Fath, & Fiedler, 2016). SMEs can use the knowledge and technologies of other companies shared through partnerships and alliances to pursue innovative processes (Hsieh et al., 2016; Petkovska, 2015; Scuotto et al., 2017). These findings include the strategies SMEs can use to increase business performance. SMEs can undertake small, incremental innovations instead of trying to implement major radical innovations.

SMEs may exploit their R&D to survive in the global market. Increased internationalization leads non high-tech SMEs to exploit their R&D investments more effectively in order to enhance firm performance (Booltink & Saka-Helmhout, 2017). Non high-tech firms emphasizing value-added niches with investments in highly skilled labor, advanced machinery, and R&D are replacing labor-intensive, non-high-tech firms

(Hansen & Winther, 2014). R&D and higher absorptive capacity increase the probability of innovation and reduce export barriers (Harris et al., 2016; Love & Roper, 2015). For example, SMEs with innovation experience are more likely to export successfully and are more likely to generate growth exports than non-innovating firms. Non high-tech SMEs should develop capabilities and competencies for competitive advantage (Love & Roper, 2015), including product development via customer involvement, informal business ties, acquisition of knowledge capability, R&D collaborations, and increasing R&D intensity (Janger, Schubert, Andries, Rammer, & Hoskens, 2017; Whittaker et al., 2016). These findings help explain the abilities of non-high-tech SMEs to exploit R&D investment more effectively to enhance firm performance in the global marketplace. R&D is important key to the efforts of all manufacturing companies to increase innovation levels and to launch new products or services. SMEs can exploit their R&D investment through the effective use of open innovation strategies that involve customer involvement, informal business ties, and collaborating with other companies for R&D.

Conclusion

The literature review included the details of the holistic innovation model and disruptive innovation theory as the conceptual framework used to answer the primary research question. The focus was on the research question of what innovation strategies do leaders of global machinery manufacturing business use to increase profit margins. The importance of innovation strategies in the business is included. The literature review on the innovation strategies includes recurring themes in existing scholarly articles. The themes include: the link between business performance and innovation strategies, product

and process innovation strategy, service model innovation, business model innovation, technology innovation, supply chain innovation, risk management to control profit margins, cultural diversity as a mechanism for innovation, and innovation theory for SMEs.

Transition

Section 1 included the background of the problem, problem statement, purpose statement, and nature of the study. The section also included the research and interview questions, conceptual framework, operational definitions, assumptions, limitations, delimitations, and significance of the study. Section 1 concluded with a review of the professional and academic literature.

Section 2 includes the following sections: purpose statement, role of the researcher, participants, research method and design, population and sampling, ethical research, data collection instruments, data collection technique, data organization technique, data analysis, and reliability and validity. Section 3 contains an overview of the study, a presentation of the findings from the research, applications to professional practice, implications for social change, recommendations for action, recommendations for further research, reflections, and the conclusions.

Section 2: The Project

The focus of this qualitative case study was to explore the innovation strategies some leaders of a global machinery manufacturing business use to increase their firm's profit margin. This section includes a restatement of the purpose and description of the role of the researcher, participants, method and design, and population and sampling. Furthermore, the section includes information regarding ethical research, data collection instruments, data collection technique, data organization technique, and data analysis. The final sections address the reliability and validity of the study and provide a summary.

Purpose Statement

The purpose of this qualitative single case study was to explore the innovation strategies that some leaders of a global machinery manufacturing business use to increase the organization's profit margin. The targeted population for the study included business leaders (e.g., executives, directors, and senior managers) of a global manufacturing company in northwest Illinois who had successfully increased the organization's profit margin over the past 5 years. The findings from this study may contribute new insights that could help global machinery manufacturing business leaders increase profit margins and sustainability, which may lead to economic strength and sustainable development in their communities.

Role of the Researcher

A researcher's role is critical in the data collection process because researchers act as the main research instrument responsible for developing the interview protocol, conducting interviews, collecting data, analyzing data, and interpreting the data.

Researchers are facilitators (C. Marshall & Rossman, 2016) and the main research instrument (W. C. Morse, Lowery, & Steury, 2014). A researcher is the person responsible for conducting interviews and collecting data, in addition to analyzing and interpreting data (Arriaza, Nedjat-Haiem, Lee, & Martin, 2015; Cleary, Horsfall, & Hayter, 2014; Hlady-Rispal & Jouison-Laffitte, 2014). The roles of a researcher help determine research results (Collins & Cooper, 2014), and the researcher plays a vital role in understanding, assessing, and appreciating the experiences and reactions of research participants (Bashir, Sirlin, & Reeder, 2014). Researchers are the main research instrument and have many responsibilities to complete the study.

Researchers have a responsibility to ensure the accuracy of the gathered information. Data collection involves gathering information through multiple sources such as semistructured interviews and observations (Cleary et al., 2014). Researchers use a case study design for analyzing participants' views and experiences that can lead to identifying emerging themes (Dasgupta, 2015). My role in this qualitative single case study was to interview the participants, collect data through semistructured interviews and from a review of business documents, analyze the data, and manage the interview process while protecting the privacy of the participants. The member-checking process involves participants reviewing and correcting the researcher's interpretation of interview responses (Fusch & Ness, 2015; Noble & Smith, 2015; Yin, 2016). I conducted member checking to allow participants to review and correct interview notes.

The Belmont Report includes basic ethical principles a researcher should follow when researching human subjects, including ensuring respect for vulnerable populations,

avoiding deception, and providing equal treatment for all participants (U.S. Department of Health and Human Services, 1979). To adhere to The Belmont Report protocol, researchers must follow ethical standards and guidelines for the protection of research participants (Honig, Campel, Siegel, & Drnevich, 2014; L. Zhou & Nunes, 2013; Zucker, 2014). I followed the ethical principles mentioned in The Belmont Report and the ethics training I received from the National Institutes of Health.

Mitigating researcher bias is essential. Bias occurs when a researcher uses preconceived experiences to interpret interview notes (Bashir et al., 2014; Malone, Nicholl, & Tracey, 2014). Case studies have little to no value if the researcher has preconceived beliefs about the phenomenon under study and leans toward supporting evidence while ignoring opposing data (Baskarada, 2014; Yin, 2018). Researchers should exhibit active listening, avoid casting judgments, and remain vested in the responses of each participant (Bashir et al., 2014). I avoided preconceived beliefs from previous experiences and remained vested in the participants' responses.

I have worked in a machinery manufacturing company for the past 13 years. I possess extensive experience in technological innovation integration, and I have played an integral role in integrating technological innovations in businesses within the private sectors. Researchers can use participants from outside the researchers' organization to ensure objectivity (Alimo, 2015). Researchers can use an interview protocol to maintain consistency and accuracy while mitigating bias throughout the research process and with each interviewee (France et al., 2015; A. Yazdani et al., 2018; Yin, 2018). Butler, Hall, and Copnell (2016) noted that the researcher's review process should be well developed

and preplanned to reduce researcher bias and eliminate irrelevant information. The topic of this study and the research area were new to me. To mitigate researcher bias, I did not conduct this study with business leaders for whom I have worked or employees with whom I have worked. I avoided referring to my personal beliefs and opinions from previous experiences of working in a machinery manufacturing company, and I used a well-structured interview protocol (see Appendix) to maintain consistency and accuracy while collecting data.

An interview protocol is useful for ensuring fairness, uniformity, and the quality of exploratory interviews. A structured research protocol is a useful tool to ensure the quality of research results (Kono, Izumi, Kanaya, Tsumura, & Rubenstein, 2014; Platt & Skowron, 2013). According to Yin (2014), an interview protocol is important to ensure data address the actual research question. To ensure high quality of research results, I used an interview protocol (see Appendix) to conduct the interviews in proper order and kept the participants' information confidential.

Participants

There were nine participants for this study who were business directors, factory managers, and senior managers of a global manufacturing company in northwest Illinois. Researchers can use business owners and management officials in a study because of their firsthand and thorough understanding of business challenges (Emmel, 2015; Fugard & Potts, 2015; B. Marshall, Cardon, Poddar, & Fontenot, 2013). To enable researchers to answer the research question, participants in a qualitative study need to meet the eligibility criteria of having experience and knowledge with the research phenomenon

(Palinkas et al., 2015; Robinson, 2014; Yin, 2014). Participants with knowledge and experience of a phenomenon are generally more willing to participate in research (C. Marshall & Rossman, 2015; McCullagh, Sanon, & Cohen, 2014; Pierre-Etienne & Verret-Hamelin, 2017). The participants' eligibility criteria in this study were as follows: business leaders with more than 5 years of experience in the machinery manufacturing company in northwest Illinois and more than 2 years of experience using innovation strategies to increase the organization's profit margins.

To foster a working relationship with participants, I contacted the potential participants via e-mails, telephone calls, and office visits to introduce myself and explain the purpose of the research and informed consent procedure. The success of a research study is dependent on the relationship between the researcher and the participant (Hansson & Polk, 2018; Manning & Kunkel, 2014; Yin, 2014). Researchers include or exclude study participants using the purposive sampling procedure (Emmel, 2015; Palinkas et al., 2015; M. Q. Patton, 2015). One of the potential participants declined participation; therefore, I used the next randomly selected participant on the list. Qualitative researchers ensure privacy and confidentiality, which are critical aspects of research (Carbonetti, 2016; J. M. Morse & Coulehan, 2014; Tetnowski, 2015; Yin, 2014). I conducted confidential interviews and ensured all data collection methods were confidential.

Researchers should follow a research protocol that requires participants to sign informed consent forms to participate in the study (Broom, Broom, Kirby, & Post, 2018; Chapple & Ziebland, 2018; Levitt et al., 2018). The Belmont Report serves as a guide to

institutional review board's (IRB's) deliberations to ensure researchers conduct ethical research (Honig et al., 2014; J. M. Morse & Coulehan, 2014; L. Zhou & Nunes, 2013). After receiving approval from the IRB, I asked participants to provide consent to an e-mail I sent that contained an attached informed consent form. The participants provided consent via e-mail responses before the interviews.

I ensured confidentiality and privacy using alphanumeric symbols P1 through P9 for Participant 1 through Participant 9. Researchers guarantee privacy, confidentiality, confidence, and trust and use pseudonyms to classify participants and businesses during research investigations (Allen & Wiles, 2015; J. M. Morse & Coulehan, 2014; Parkinson & Wood, 2015). Study participants are concerned about the confidentiality and privacy of the data (Bromley, Mikesell, Jones, & Khodyakov, 2015; C. Marshall & Rossman, 2016; Namageyo-Funa et al., 2014). Information collected will be secured in a safety deposit box for a minimum of 5 years, and only I have access to this safety deposit box.

Research Method and Design

The success of a research project depends on using the correct research method and design (Yin, 2018). The three research methods are qualitative, quantitative, and mixed (Rich, 2017). The selected research method for this study was qualitative, and the chosen design was a single case study.

Research Method

Researchers can use different research methods based on the problem statement and the potential contribution of study results to business practice (Kozleski, 2017). A qualitative research method is appropriate to obtain an in-depth understanding or

explanation of participants' experiences within a specified context (Vass, Rigby, & Payne, 2017). Researchers use a qualitative method to interpret the meaning of participants' experiences based on personal experience and collaboration (Neusar, 2014; D. U. Patton, Hong, Patel, & Kral, 2017; Rich, 2017). Involvement with the data is an essential aspect of qualitative research, and the emergent themes or different patterns observed in a data set depend on the integration of many perspectives (Fugard & Potts, 2015; D. U. Patton et al., 2017). Researchers can use software to interpret the findings from interviews (Engle, 2015; Kozleski, 2017). A qualitative method is suitable for exploring the unique perspectives and experiences of study participants (Pugach, Mukhopadhyay, & Gomez-Najarro, 2014). To explore the innovation strategies to increase profit margin, I used the qualitative method.

Researchers who conduct quantitative research perform statistical tests and quantify the problem. Quantitative researchers test and confirm theories, whereas qualitative research is exploratory and concerned with theory building (Dasgupta, 2015). Researchers use quantitative studies for testing hypotheses about the relationships among variables (Counsell & Harlow, 2017). Many researchers ask closed questions and test a hypothesis in a quantitative study (Balkin, 2014). Quantitative researchers can measure and describe participants' actions but cannot describe experiences (Rich, 2017). A quantitative research method was not appropriate for this study because the focus was to understand participants' experiences and explore themes, not to test a hypothesis.

Researchers who conduct mixed-methods research use more than one research method and may need more time than is available for one doctoral study. Mixed-methods

researchers include both qualitative and quantitative methods and examine behavior in more than one context or condition (Brown, Strickland-Munro, Kobryn, & Moore, 2017; D. U. Patton et al., 2017). Researchers use the mixed-methods approach for collecting, analyzing, and combining qualitative and quantitative data in one research study (Kachouie & Sedighadeli, 2015; Sánchez-Gómez, Pinto-Llorente, & García-Peñalvo, 2017; Yin, 2016). I did not require quantitative analysis because the qualitative method alone was needed to answer the research question.

Researchers who conduct mixed-methods research use a quantitative method to test a hypothesis. Research may yield a richer explanation of a phenomenon through a mixed-methods approach with the merits of both quantitative and qualitative tools (Counsell & Harlow, 2017). Data validity can become challenging in a mixed-methods approach because of both qualitative and quantitative data sets (Brown et al., 2017). Sparkes (2014) asserted that mixed-methods research involves measuring the relationships that exist among variables. A mixed-methods approach was not appropriate for this study because the focus was identifying and exploring strategies and themes, not testing a hypothesis. Given the differences between these three approaches, a qualitative methodology was most appropriate for exploring the innovation strategies global machinery manufacturers use to increase the profit margins of their business in northwest Illinois.

Research Design

Researchers have a decision to make regarding the selection of an appropriate design for their study. If the research design is not appropriate, then the collected data

may not adequately address the research problem (Yin, 2018). Qualitative researchers typically use four research designs: phenomenology, narrative, ethnography, and case study (Levitt, Motulsky, Wertz, Morrow, & Ponterotto, 2017). Researchers can use different types of research designs to collect and analyze the data in different ways.

Researchers use the case study design for an in-depth study of a particular situation at a given point in time. Case study research involves narrowing a broad field into one researchable topic and focusing on a situation, event, organization, or process at a given point in time with the purpose of capturing unique perspectives of human behavior and experience from a social perspective or naturalist worldview (Westerman, 2014; Yin, 2018). The case study design involves in-depth investigation and analysis of a subject to promote possibilities of further study (Cronin, 2014). The case study design is useful to narrow a broad field of research into one easily researchable topic and to capture human behavior and experience through an in-depth study.

Researchers use a research design that fits their research question and purpose of the study. Rahi (2017) described a case study design as the preferred strategy when the researcher has little control over events. Researchers use the design that will fit their research questions (Arino, LeBaron, & Milliken, 2016; Denzin, 2014; C. Marshall & Rossman, 2016) and use the case study design to respond to *how* and *why* research questions (Dumez, 2015; Tetnowski, 2015; Yin, 2014). I used a single case study design to explore what innovation strategies leaders of global machinery manufacturing business use to increase profit margins.

Case study researchers collect data from multiple sources to strengthen the credibility of their research findings. Collecting data using multiple sources for each case is a characteristic feature of the case study design (Carolan, Forbat, & Smith, 2016). Triangulation improves the certainty and integrity of the case study by strengthening the credibility of the research findings (Cronin, 2014; Yin, 2018). For example, researchers use the case study design to explore real-time cases at a given point in time through historic documentation reviews, observations, and interviews (Creamer & Tendhar, 2016; Yin, 2018). I collected data using multiple sources such as relevant company documents and participants' interviews.

Other qualitative research designs, such as ethnography, phenomenology, and narrative research, would not have addressed the research problem and questions. A phenomenological design is ideal when a study involves many participants (Wagstaff & Williams, 2014). Researchers who use a phenomenological design include discussions on current phenomena in real-life contexts (N. N. Chan & Walker, 2015; Z. C. Chan, Fung, & Chien, 2013; Davidsen, 2013) to understand lived experiences (Bevan, 2014; Khan, 2014; Levitt et al., 2017; Sloan & Bowe, 2014). Therefore, a phenomenological design was not appropriate for this study, which involved exploring the innovation strategies business managers use to increase profit margins.

Researchers use an ethnography design to understand the shared culture and everyday life and experiences of the research participants. Researchers use an ethnography design to share life experiences with research participants, to gain insight into the understanding of participants, and to use the humanness of participants as a

research instrument (Wijngaarden, 2017). An ethnography design fits well to understand shared culture and the way the social behavior in different ethnic groups can differ on a subject over a prolonged period (Armstrong, 2015; Mannay & Morgan, 2015; Shimei, et al., 2016; Vernon, 2015). Ethnography was not a choice for this study because the focus of this study was not to understand shared culture but instead learn of innovation strategies from the participants. Furthermore, researchers conducting ethnographic research develop a single narrative that applies to the entire population (Yin, 2014), whereas the focus of this study was to explore different perspectives and possible approaches to the research problem.

Researchers use narrative research design to focus on gathering data through the collection of participants' stories and reporting the meaning of experiences for the participants. Researchers who use a narrative research design discuss and articulate participants' life stories (Creswell & Poth, 2017; Kuronen, 2014; Raeburn, Schmied, Hungerford, & Cleary, 2015; Von Contzen & Alders, 2015). The narrative design would not have fit well for understanding participants' profound views of the phenomenon because researchers need to capture the detailed stories or life experiences of participants.

Population and Sampling

The target population for this qualitative single case study was business leaders of a global machinery manufacturing company in northwest Illinois, who had experience using innovation strategies to increase the organization's profit margins. The number of participants in a study depends on the purpose of the research and the desired analytic level (Apostolopoulos & Liargovas, 2016; Tran, Porcher, Falissard, & Ravaud, 2016).

Participant selection criteria consisted of business leaders, e.g., executives, directors, and senior managers, who had experience using innovation strategies to increase the organization's profit margins. A population of management-level individuals was appropriate for the study because owners, executives, and managers have a thorough and firsthand understanding of business challenges (Emmel, 2015; Fugard & Potts, 2015; B. Marshall et al., 2013). Population criteria are useful to ensure participants have experienced the phenomenon under study and can answer the research question (Rahi, 2017; Robinson, 2014). The population aligned with the overarching research question because I expected the targeted participants for this study to have profound experience and in-depth knowledge using innovation strategies to increase an organization's profit margins.

Researchers use a sampling method to ensure the selection of appropriate participants who have experience and knowledge about a study topic (Emmel, 2015; Fugard & Potts, 2015; Grossoehme, 2014; Rahi, 2017). Qualitative researchers use purposive sampling to analyze and anchor the objectives of a research problem and allow transferability of research findings (Duan, Bhaumik, Palinkas, & Hoagwood, 2014; B. Marshall et al., 2013; C. Marshall & Rossman, 2015; Yin, 2014). M. Q. Patton (2015) described purposeful sampling for an in-depth case study as information rich. I used purposeful sampling to select the participants for this study. The purposive sampling method is most suitable for gathering lived experiences from qualified participants about a topic (Grossoehme, 2014; B. Marshall et al., 2013; McBeth et al., 2014; Palinkas et al., 2015; Yin, 2014). I selected business directors, factory managers, and senior managers,

who fit into two categories: (a) those who had experience using innovation strategies and agreed to willingly share their experiences and (b) those who had more than 5 years of experience in the manufacturing industry and more than 2 years of experience using innovation strategies to increase the organization's profit margins.

Sample size refers to the number of units a researcher will observe (B. Marshall et al., 2013). Sampling is a decision about sample size and about ensuring the integrity of the research objective, the depth of data, and the fit of the data with the theory (Roy, Zvonkovic, Goldberg, Sharp, & LaRossa, 2015). A small sample size is adequate for qualitative studies (Palinkas et al., 2015) and for the purposeful sampling (Yin, 2014). Use of a small sample is justifiable when a researcher wants to achieve quality and to obtain a full understanding of a study phenomenon (C. Marshall & Rossman, 2016). Qualitative researchers achieve data saturation with a sample size of between five and 50 participants (Emmel, 2015). I interviewed nine business leaders with requisite knowledge and experience from the total potential population of this qualitative single case study.

Qualitative researchers aim to enhance the accuracy of their research. Data saturation occurs when a researcher can no longer find new information, new coding, or new themes and when there is a commonality in responses from the participants (Fusch & Ness, 2015). Researchers aim to achieve data saturation to enhance the rigor of qualitative research (J. M. Morse, 2015). Sample size can influence bias in most qualitative studies (Anderson & Hartzler, 2014). Conversely, B. Marshall et al. (2013) found that the composition of the sample size, not the size of the sample, helps to reach data saturation. I collected data using multiple sources such as relevant company

documents and participants' interviews. I interviewed nine business leaders, asked probing questions, and continued data collection until there was new information. I achieved data saturation after the seventh interview for this study, as the eighth and ninth interviewees repeated key information collected during the first seven interviews.

Qualitative researchers may validate their interpretation of the interview data with participants. Experienced participants can provide data rich enough to achieve saturation and to satisfy the requirements of a study (Palinkas et al., 2015). Member checking is useful for reaching data saturation (Fusch & Ness, 2015). Data saturation occurs when interview responses become replicable (Elsawah, Guillaume, Filatova, Rook, & Jakeman, 2015). The member-checking process involves follow-up interviews with participants to confirm the researcher's interpretation and to enhance the reliability and validity of the study (Behr, 2014; Horton, 2014; Noble & Smith, 2015). After completing nine interviews at the case study organization, I conducted member checking to further ensure data saturation occurred and to confirm the accuracy of the interview data.

Qualitative researchers often use semistructured interviews to collect data from participants with varying viewpoints on the same topic (De Massis & Kotlar, 2014; Namageyo-Funa et al., 2014; Yin, 2014). I allocated 60 minutes for conducting face-to-face semistructured interviews at the convenience of participants. A consent form is a tool that researchers use to ensure confidentiality and the protection of participant rights during the data collection process (Gibson, Benson, & Brand, 2013; Koonrungsesomboon, Laothavorn, & Karbwang, 2015; Newington & Metcalfe, 2014). I used the consent form as a tool to ensure participants of confidentiality, data security, and

their freedom to withdraw from the study without penalties. I collected information from company documents such as multiyear strategic plans, annual reports, past marketing campaign fliers, sustainability reports, customer needs documentation, statements, and other relevant information from the company's website, in addition to nine participants' responses to interview questions.

Ethical Research

The informed consent process involves explaining to all participants (a) the purpose of the proposed research study, (b) how the proposed study might be beneficial to their business, (c) the process for conducting the study, and (d) the voluntary nature of the proposed study (Zucker, 2014). Researchers use consent forms to provide information to participants to ensure confidentiality and the protection of participants' rights during the data collection process (Gibson et al., 2013; Koonrungsesomboon et al., 2015; Newington & Metcalfe, 2014). I sent consent forms to all study participants via e-mail and asked participants to respond "I consent" in replying to the e-mail, should they agree to participate in this study.

Researchers must ensure they follow informed-consent rules that include obtaining participants' consent to the research; furthermore, participants can withdraw at their discretion, must receive protection and confidentiality, and face minimal or no risks regarding their participation (Bromley et al., 2015; Honig et al., 2014). Participants should know they have the right to withdraw from a study (Connelly, 2014). Participants in a study have the right to withdraw at any time during the study without penalties (Haahr, Norlyk, & Hall, 2014; J. M. Morse & Coulehan, 2014). I informed study

participants that they were free to withdraw their participation at any time, by informing me via e-mail or phone or in-person. Researchers must contact participants to address compensation methods and participants' right to end their participation (Gibson et al., 2013; J. M. Morse & Coulehan, 2014; L. Zhou & Nunes, 2013). I did not provide compensation for participating in this research because participation in this study was voluntary.

The ethical protection of participants in research is vital (Honig et al., 2014) because researchers face ethical challenges in all stages of a study, from designing to reporting, and the challenges include privacy, confidentiality, informed consent, and researchers' potential influence on the participants and vice versa (Sanjari, Bahramnezhad, Fomani, Shoghi, & Cheraghi, 2014). The three basic areas of ethics in research involving human subjects are (a) autonomy, (b) beneficence, and (c) justice (U.S. Department of Health and Human Services, 1979). Researchers can provide ethical protection to participants using three basic ethics principles mentioned in The Belmont Report: (a) autonomy, where a participant reserves the right to participate or not participate in a study; (b) beneficence, where a researcher minimizes potential risk or harm to participants; and (c) justice, which involves potential benefits for research participants (Honig et al., 2014; J. M. Morse & Coulehan, 2014; L. Zhou & Nunes, 2013). I adhered to The Belmont Report to ensure the ethical protection of participants. Bias is an influential risk that may distort study results or conclusions (Whiting et al., 2016). Researchers must make a deliberate effort to avoid biasing the respondents (Gittelman et al., 2015). Researchers should reduce bias by avoiding their personal

beliefs and opinions gained from experience (Yin, 2014). I avoided my personal beliefs and opinions gained from working in a machinery manufacturing company, and I reviewed the interview questions with the doctoral committee appraising my doctoral study.

Ethical issues are necessary to consider when conducting interviews (Gelling, 2016). Taking the utmost care always during data gathering, data storage, and data analysis is paramount in protecting the rights of the participants and preserving their privacy (Levitt et al., 2017). Participants share a concern for confidentiality and anonymity during the data collection process (Bromley et al., 2015; C. Marshall & Rossman, 2016; Namageyo-Funa et al., 2014). Therefore, I stored all electronic data in a password-protected external hard drive, and the hard drive will be secured in a safety deposit box for a minimum of 5 years to protect the confidentiality of the participants. Researchers use electronic files and digital formats to maintain the safety of research data (Alimo, 2015; Richardson, 2014; Trace & Karadkar, 2017).

I scanned my handwritten notes that were captured during the interviews to convert them into digital files, stored the digital files in a password-protected external hard drive, and then shredded the paper documents to protect the confidentiality of participants. Research projects with poor quality research designs, poor quality data analysis, and poor-quality reporting of the research findings lack ethical support (Brzeziński, 2016). The Belmont Report serves as a guide to IRB deliberations to ensure researchers conduct ethical research (Honig et al., 2014). I conducted this study after

receiving an approval from the IRB at Walden University. I included the Walden University IRB approval number 05-16-19-0615528 on the final doctoral manuscript.

Researchers keep the identities of participants confidential to maintain the participants' privacy and safeguard the integrity of research (C. Marshall & Rossman, 2016). Using pseudonyms to identify participants and businesses during research helps to ensure privacy, confidentiality, confidence, and trust (Gibson et al., 2013; J. M. Morse & Coulehan, 2014; L. Zhou & Nunes, 2013). To ensure the confidentiality of participants and business, I used alphanumeric labels such as P1 and P9 to represent Participant 1 and Participant 9, respectively, and BUS to reference the company.

Data Collection Instruments

I was the primary data collection instrument in this study because of my direct involvement in gathering and interpreting the data firsthand. The researcher is the primary data collection instrument in qualitative research (De Massis & Kotlar, 2014; Holmes, 2014; Noble & Smith, 2015) because the researcher has firsthand experience with the research subject and participates in hearing, seeing, and interpreting the data (Denzin, 2014; C. Marshall & Rossman, 2016; Yin, 2014). Interviews are one of the effective ways to collect data from participants with different viewpoints on similar concepts.

I collected data through semistructured interviews. Semistructured interviews involve asking the same set of questions to each study participant (Wilson, 2014). Semistructured interviews are an effective way to collect data from participants with varying viewpoints on similar concepts (De Massis & Kotlar, 2014; Namageyo-Funa et

al., 2014; Yin, 2018). Participants tend to give more detailed explanations when responding to open-ended questions (Manning & Kunkel, 2014; Newington & Metcalfe, 2014; Yin, 2014). I asked open-ended questions (see Appendix) in the semistructured interviews to explore the innovation strategies business leaders used to increase the company's profit margins.

Researchers use company or archival documents as an instrument for collecting data (Behr, 2014; C. Marshall & Rossman, 2016; A. Smith, 2016). Case study researchers collect data from documentation that adds supporting evidence to semistructured interviews (Kornbluh, 2015; J. M. Morse & Coulehan, 2014; Yin, 2018). In order to gain extra insight into the research question, I reviewed company documents such as multiyear strategic plans, annual reports, past marketing campaign fliers, sustainability reports, customer needs documentation, statements, and other relevant information from the company's website. I accessed these documents by asking each of the interviewees to voluntarily provide materials worth analyzing, such as multiyear strategic plan, materials on the company's website, and social media sites. Archival documents provide historical data and can improve value to case studies (De Massis & Kotlar, 2014; El Haddad, 2015). Qualitative researchers collect data from multiple sources to enable triangulation (Baskarada, 2014; Santiago-Delfosse, Gavin, Bruchez, Rous, & Stephen, 2016). Conducting triangulation minimizes the threat to validity (C. Marshall & Rossman, 2015; J. M. Morse & Coulehan, 2014; Noble & Smith, 2015; Yin, 2014). I collected data from multiple sources of evidence to use methodological triangulation. After interviewing the participants and member checking, I performed methodological triangulation analysis on

the nine interview transcripts, company documents, statements, and other relevant information from the company's website, to determine whether I had attained data saturation.

Member checking and triangulation enhance reliability and validity (Behr, 2014; Harvey, 2014; Van Rensburg & Ukpere, 2014). Furthermore, researchers achieve data saturation when themes are recurrent or have a high degree of similarity (Kornbluh, 2015; J. M. Morse & Coulehan, 2014; Yin, 2018). I provided study participants an opportunity to review and change the answers they gave during their interview. Member checking involves follow-up interviews that benefit researchers by enhancing the reliability and validity of the study (Behr, 2014; Horton, 2014; Noble & Smith, 2015). To ensure reliability and validity in the data collection process, I asked open-ended questions (see Appendix) and used member checking, triangulation, and recorded similar themes to achieve data saturation.

Data Collection Technique

After receiving approval from the Walden University IRB, I started the process of enrolling participants. I conducted semistructured interviews at a location and time convenient to participants. Steps involved in data collection techniques included making initial contact with participants by e-mail, scheduling and conducting the interview, and recording and taking detailed notes during the interview process. Interviews lasted no more than 60 minutes. These steps were in accordance with suggestions made by Miller and Dorman (2014). Interviews occurred at a location identified by the participants after the participants provided consent via e-mail.

Methodological triangulation is a combination of different types of data collection (Ruiz, Martínez, & Bravo, 2016). Researchers may use the within-method triangulation by using at least two data collection procedures, and the same design approach (Hussein, 2015). Qualitative research includes a variety of data collection techniques such as face-to-face interviews, questionnaires, reviews of documentation and physical artifacts, focus groups, and observation (Pasila, Elo, & Kääriäinen, 2017). I used methodological triangulation in this study, which included two different data collection techniques. Sources in this study included semistructured interviews with company leaders and a review of pertinent company documents such as multiyear strategic plans, annual reports, past marketing campaign fliers, sustainability reports, customer needs documentation, statements, and other relevant information from the company's website.

Detailed data collection in a qualitative study involves a variety of research tactics such as interviewing, survey, observation, and document or artifact review (Bailey, 2014; Gergen, Josselson, & Freeman, 2015). Although qualitative research can involve many ways of conducting investigational research, the common types of data collection are interviews, observations, and review of documents (Jamshed, 2014; C. Marshall & Rossman, 2016; Yin, 2014). I collected data from multiple sources of evidence to use methodological triangulation.

Interviewing is one of the most popular forms of collecting data for qualitative research (Cairney & St Denny, 2015) and to reach data saturation (Fusch & Ness, 2015). Qualitative researchers use semistructured interviews as a primary tool for data collection (Denzin, 2014; Holmes, 2014; C. Marshall & Rossman, 2015; J. M. Morse & Coulehan,

2014; Uribe-Jongbloed, 2014). Face-to-face interviews are the preferred means for collecting qualitative data (Deakin & Wakefield, 2014). Therefore, I used face-to-face semistructured interviews and asked study participants open-ended questions to explore the innovation strategies some leaders of a global machinery manufacturing business used to increase the organization's profit margin.

I used a digital recording device for audio recording the semistructured interviews and later transcribed the audio recordings to preserve the content of all interviews and to facilitate automated cataloging and analysis of the data as recommended by researchers such as Fredrick (2015), M. Q. Patton (2015), Richardson (2014), and Starr (2014). During interviews, digital recording and noting interviewees' body language are effective tools for qualitative data collection (Rosenblum & Hughes, 2017). Transcribing involves experiential (event or action), interpersonal (the relationship between participants and a researcher), and annotating textual data (transcribed data) undertakings (Widodo, 2014). I audio recorded the personal interviews after participants provided consent and then transcribed the audio recordings into usable documents in Microsoft Word. I had 91 pages in Microsoft Word document after transcribing audio recording of nine interviews.

Qualitative researchers use semistructured interviews due to many advantages. The advantages of using semistructured interviewing include (a) obtaining detailed information about the research participant, (b) asking questions in detail, and (c) obtaining thorough responses from participants (Harvey, 2014; Leedy & Ormrod, 2013; Yin, 2014). The use of semistructured interviews may also be disadvantageous because (a) participants may not feel comfortable answering questions in a formal setting and (b)

answers may not truly reflect participants' real views or opinions (Harvey, 2014; Leedy & Ormrod, 2013; J. M. Morse & Coulehan, 2014; Yin, 2014).

Researchers often collect and review company documents in qualitative studies (Kornbluh, 2015; C. Marshall & Rossman, 2016; Yin, 2016). Case study researchers collect data from documentation that adds supporting evidence to semistructured interviews (Kornbluh, 2015; J. M. Morse & Coulehan, 2014; Yin, 2018). This study included the analysis of company documents such as multiyear strategic plans, annual reports, past marketing campaign fliers, sustainability reports, customer needs documentation, statements, and other relevant information from the company's website.

Qualitative researchers use relevant company documents due to many advantages. The advantages of using documentation include the researcher can review information multiple times to ensure accuracy and the researcher may have access to information that the public may not have (De Massis & Kotlar, 2014; Kornbluh, 2015; Yin, 2014). The disadvantages of using documentation are the researcher may only have access to outdated documents and participants may not want to disclose documentation they perceive as confidential (De Massis & Kotlar, 2014; Kornbluh, 2015; Yin, 2014). Researchers can use documents, archival records, and physical artifacts to triangulate the data, but the data may be redundant (Yin, 2014). The review of company documents, the use of interview data, and the observations are critical in reaching triangulation (C. Marshall & Rossman, 2016; A. S. Singh, 2014; Yin, 2016). I achieved triangulation by noting participants' responses to interview questions and company documents.

Member checking refers to the research process of obtaining feedback from participants to enhance validity, accuracy, credibility, and applicability (Andrasik et al., 2014; Emrich, 2015; Harvey, 2014; Leedy & Ormrod, 2013; Nyhan, 2015). Researchers audio record interviews to ensure research participants' views are accurate and detailed (J. M. Morse & Coulehan, 2014; Yin, 2018). I provided participants an opportunity to review and correct my written interpretation of their responses to ensure accuracy.

Data Organization Technique

I transcribed the collected data in the form of audio recordings to identify the themes. Korhonen (2014) stressed the importance of organizing data because researchers can use properly stored data and analyzed data to understand emerging themes. New themes can emerge in the coding process after the collection of data is complete (Chowdhury, 2015; Pasila et al., 2017; Yin, 2014). I identified themes using a coding method. Researchers can use electronic files and digital formats to keep data safe (Alimo, 2015; Richardson, 2014). Researchers often scan paper documents to convert them into electronic files to organize the data (Trace & Karadkar, 2017). I scanned paper documents to convert them into digital files, stored the digital files in password-protected electronic folders to organize the data, and shredded the paper documents after converting them into digital files to maintain the confidentiality of the data.

Thomas (2015) noted that qualitative researchers use a filing system to maintain confidentiality and enhance integrity. Copying the data in different locations and forms such as in a hard drive, pen drives, and cloud drives could help in data recovery when disasters occur (Madu, 2016; Trace & Karadkar, 2017). Research participants often share

a concern for confidentiality and privacy during the data collection process (Bromley et al., 2015; C. Marshall & Rossman, 2016; Namageyo-Funa et al., 2014). I maintained all electronic data in a password-protected external hard drive and will secure the hard drive containing all digital data in a safety deposit box for a minimum of 5 years, before deleting all the stored data.

Researchers should categorize stored data (Alimo, 2015; Yin, 2014). Researchers can use a coding system to uphold research integrity, validity, and reliability (Ingham-Broomfield, 2015; Thomas, 2015; Yin, 2014). I used a coding process that involved categorizing and aggregating the text into small groups of information, finding evidence for the code, and assigning a label to the code. For example, I categorized the study participants using unique labels such as P1 to refer to Participant 1.

I organized the data and ensured the confidentiality of the data. Researchers properly organize data when they document the research process, make checklists, and use computer software to store the data (Alimo, 2015). Researchers can use Microsoft Excel or Microsoft Word to organize research data (Ose, 2016; Scotson et al., 2017). I stored the study data using Microsoft Excel and Microsoft Word. I also used NVivo qualitative data analysis software to upload data from Microsoft Excel and Microsoft Word and then analyzed the data. Researchers use NVivo to analyze data in research (Sarma, 2015; Sotiriadou, Brouwers, & Le, 2014; Woods, Paulus, Atkins, & Macklin, 2015). Researchers can maintain the privacy and confidentiality of the data using password-protected electronic folders that have unique identification numbers (Connelly, 2014; Grossoehme, 2014; Leins, Fisher, Pludwinski, Rivard, & Robertson, 2014). I

organized the data in password-protected electronic folders to ensure privacy and confidentiality.

Data Analysis

I performed data analysis using a constant comparative method for the data collected from participants. When analyzing qualitative data, researchers must begin by organizing the data and applying meaning to the data using a systematic process (Vaughn & Turner, 2016). The four types of triangulation are (a) data triangulation, (b) investigator triangulation, (c) theory triangulation, and (d) method triangulation (Yin, 2014). Researchers may use methodological triangulation for collecting and analyzing data from multiple sources such as interviews and documents (Joslin & Müller, 2016; Manganelli et al., 2014; Spadafino et al., 2016; Yin, 2018). Researchers should use multiple sources of evidence for a case study (Yazan, 2015).

I used methodological triangulation to analyze the semistructured interview data and data from company documents, such as multiyear strategic plans, annual reports, past marketing campaign fliers, sustainability reports, customer needs documentation, statements, and other relevant information from the company's website. Qualitative researchers use coding to protect the identities of study participants (Cleary et al., 2014; Emmel, 2015; Houghton, Casey, Shaw, & Murphy, 2013). Qualitative researchers use coding to reinforce the reliability and validity of data analysis (Munn, Porritt, Lockwood, Aromataris, & Pearson, 2014; Stuckey, 2015; Yin, 2014). I used coding to protect the identity of company and study participants and for identifying major themes emerging from the interview process.

Transcribing the collected data and member checking are essential activities during data analysis. Transcribing data is a powerful act of data representation, analysis, and interpretation in such a way that it exerts considerable influence on how to conceptualize the data (Widodo, 2014). The review of transcripts ensures all responses and themes are part of the analysis and the new themes can emerge in the coding process after the collection of data (Pasila et al., 2017; Yin, 2018). I transcribed the interview responses and reviewed them with participants to ensure my interpretation was correct for member checking. Researchers use member checking to improve the credibility, validity, accuracy, and applicability of qualitative research by providing an opportunity for participants to confirm data collected is accurate (Harvey, 2014; Holmes, 2014; Houghton et al., 2013). I started the data analysis process after participants confirmed that my interpretation was correct.

I used Yin's five phases to analyze the data. These included: (a) compiling, (b) disassembling, (c) reassembling, (d) interpreting, and (e) concluding (Yin, 2014). Qualitative researchers can use Microsoft Excel and Microsoft Word to analyze and transcribe research data (Ose, 2016; Scotson et al., 2017; Y. Yang et al., 2018). I transcribed the audio recordings of interviews into Microsoft Word. Researchers can use qualitative software such as NVivo for sorting, grouping, and arranging data during the data analysis process (Stevens, Moser, Köke, van der Weijden, & Beurskens, 2017; Thiem, 2015; Wood, Gnonhosou, & Bowling, 2015; Woods et al., 2015; Zamawe, 2015). For this case study, I compiled company documents, interview transcripts, and member-checking data confirmed during follow-up interviews. I manually disassembled,

reassembled, and analyzed the data to identify key themes. I also used NVivo throughout the data analysis process for compiling data into a logical order, computer-aided disassembling, reassembling, coding, interpretation, and theme development.

After compiling the data, I disassembled the data into smaller sets. Disassembling data involves creating meaningful groupings after taking the data apart (Castleberry & Nolen, 2018). Researchers use coding to protect participants' data and to identify the relationships between the coded data and the phenomenon (Emmel, 2015; Kelsey, Karen, & Hude, 2017). Researchers often use coding for disassembling and reassembling data (Castleberry & Nolen, 2018). I used smaller sets of data to create meaningful groupings after disassembling.

After disassembling data, I used coding to reassemble closely related data into categories. Researchers code themes to relate the responses to the themes (St. Pierre & Jackson, 2014). The identification of themes is an important step in a qualitative study (Grossoehme, 2014). Researchers use coding to discover the relationships between coded data and a phenomenon under study (Elo et al., 2014). After reassembling the data, I interpreted the data to discover themes using thematic analysis, which involved an abstraction and synthesis of themes. Researchers interpret data to identify themes using thematic analysis, which involves abstracting and synthesizing themes (Castleberry & Nolen, 2018; Padilla-Diaz, 2015; Sloan & Bowe, 2014). Waters (2016) noted that researchers use participants' experiences to identify the themes and associate themes with phenomena.

I verified the findings after organizing the data, analyzing the data broadly, and noticing regularities and what patterns stood out in the data among participants' responses. Researchers can use participants' quotes to achieve authenticity (Cope, 2014; Madu, 2016). Researchers use member checking to increase the validity of research results (Horton, 2014). Oghuma, Libaque-Saenz, Wong, and Chang (2016) noted that researchers correlate the identified themes with the literature and the conceptual framework. After using NVivo, I compared the NVivo-generated themes with the themes I developed manually to identify consistencies. Finally, I correlated relevant themes from interviews and relevant company documents with the recurring themes from the literature review and the conceptual framework. The findings from data analysis provided successful innovation strategies that business leaders used to increase company's profit margins, competitiveness, and sustaining profitable growth.

Reliability and Validity

Ensuring the reliability and validity of the data are equally important during data collection. Validity refers to the precision in which the findings accurately reflect the data, and reliability refers to the consistency of the analytical procedures, including accounting for personal and research method biases that may have influenced the findings (Noble & Smith, 2015). The basic criteria for achieving quality and rigor in a qualitative study are dependability, credibility, transferability, and confirmability (C. Marshall & Rossman, 2016). These criteria are not measurable and need to form using qualitative methods such as member checking and triangulation.

Member checking is the process of reviewing the ideas of participants for their confirmation and to gather material to elaborate categories (Harvey, 2014). Reliability and validity are characteristic of quantitative research (Zohrabi, 2013), whereas the criteria of qualitative research are dependability, credibility, transferability, and confirmability (Avenier & Thomas, 2015; El Hussein, Jakubec, & Osuji, 2015; Onwuegbuzie & Byers, 2014). I used Onwuegbuzie and Byers's (2014) criteria to ensure the reliability and validity of the study.

A clear reflection of data collection, sampling, and analysis can increase the validity and reliability of a study (Kasim & Al-Gahuri, 2015). The strategies used to maintain validity and reliability include (a) acknowledging personal biases, (b) verbatim transcriptions of participants' interviews, (c) use of peer reviews for questions or debriefing, (d) use of member checking, and (e) data triangulation (J. M. Morse, 2015; Noble & Smith, 2015). J. M. Morse (2015) included additional strategies such as prolonged engagement, rich description, negative case analysis, and external audits.

Reliability

Gathering high-quality data was essential. Reliability refers to the consistency of the analytical methods, including accounting for personal and research method biases that may influence the findings (J. M. Morse, 2015; Noble & Smith, 2015). Researchers achieve precision in qualitative studies using unbiased research information (Gringeri, Barusch, & Cambron, 2013), and researchers achieve reliability when research information is not biased (Hess, McNab, & Basoglu, 2014). After achieving reliability, researchers can replicate the research results (Baskarada, 2014; Noble & Smith, 2015).

Case study research is reliable if a future researcher or auditor can achieve similar findings and conclusions after repeating the procedures (Yin, 2018). I focused on achieving reliability so that future researchers can replicate the research results.

Dependability is a concept in a qualitative study that is similar to reliability. Dependability refers to the reproducibility of study findings using a transparent process that includes limitations and the anticipated contribution of the study (Van Rensburg & Ukpere, 2014). Ways to enhance the dependability of a study include member checking of data interpretation, transcript review, pilot test, expert validation of the interview questions, interview protocol, focus group protocol, and participant observation protocol (Harvey, 2014). Achieving reliability in a qualitative study requires a researcher to maintain dependability and consistency throughout the research process (Hess et al., 2014). Reliability ensures the dependability of the results of a qualitative study (Garside, 2014). The use of member checking in a qualitative study confirms the dependability and reliability of participants' information (Harvey, 2014).

Researchers can ensure dependability using an audit trail process (Connelly, 2016). C. Marshall and Rossman (2016) supported the process of member checking as ideal for enhancing academic accuracy. I enhanced dependability through member checking and creating and maintaining an audit trail of the research process. I created and maintained research notes and followed the order of the study using an interview protocol. Yin (2014) supported the use of proper documentation to record the research process. Dependability is achievable using a step-by-step process from data collection to

making a final decision on the study (De Ceunynck, Kusumastuti, Hannes, Janssens, & Wets, 2013). I used the interview protocol to achieve dependability (see Appendix).

I used consistent data instruments to ensure the reliability of this study. The use of the same open-ended interview questions and asking questions in the same order with each participant, ensures reliability (Harvey, 2014; Yin, 2018; Zohrabi, 2013). I used the same interview questions for each interview with nine participants until I reach data saturation. I collected interview data with a set of interview questions and ensured reliability by following the interview protocol (see Appendix).

Audio recording, note taking, and coding enhance reliability (Gringeri at al., 2013). It is imperative to seek consent from the participants for audio recording of the interviews to ensure research validity and reliability (Mitchell et al., 2018; Wright et al., 2018; Yin, 2018). I obtained permission from the participants for an audio recording of the interviews to assure research validity and reliability. Member checking is the process that involves participants to review and correct the researcher's version of the interview notes (Birt, Scott, Cavers, Campbell, & Walter, 2016; Nyhan, 2015; B. Smith & McGannon, 2018; Yin, 2016). After the interviews, I collected the participants' feedback on the interpretation of the interview and asked them to validate the findings and themes for accuracy, reasonableness, and credibility and to look for errors and additional information.

Reaching data saturation helped ensure the dependability of the study findings. A case study should consist of multiple sources of evidence (Yazan, 2015). Methodological triangulation enhances quality research findings because the data collected are from

different sources (Wilson, 2014). Triangulation is the way to achieve dependability in a study (Yin, 2018; Zohrabi, 2013). I achieved methodological triangulation using relevant company documents and responses to semistructured interview questions.

Validity

Validity is an assessment of truth and honesty when concentrating on study findings to reflect the data correctly (Bengtsson, 2016; Noble & Smith, 2015). Validity in qualitative study refers to the credibility, transferability, and confirmability of the findings (Brown et al., 2017; Cope, 2014). Credibility and transferability are synonymous with validity in quantitative studies, while confirmability is a philosophical perspective for objectivity (De Ceunynck et al., 2013; Houghton et al., 2013; Kornbluh, 2015). This study included a level of sincerity in finding literature, collecting data, organizing data, and analyzing data.

The credibility of qualitative findings is enhanced by using reliable assessment coding (MacPhail, Khoza, Abler, & Ranganathan, 2016). Credibility is achievable when study participants agree with the findings from a study (Daniel, 2018; Yin, 2018). Member checking and persistent observation of participants during the interviews enhance the credibility of research results (Houghton et al., 2013). Member checking is the process of providing interview participants with a summarization of the researcher's interpretations to verify accuracy and data saturation (Abedini, Stack, Goodman, & Steinberg, 2018). Researchers such as Stevenson, Israelsson, Petersson, and Bath (2018) used member-checking to validate the accuracy of their study results. The member-checking process is the same for credibility and dependability (Van Rensburg & Ukpere,

2014). Researchers use member checking and triangulation to enhance reliability and validity (Behr, 2014). Therefore, I enhanced credibility through the member-checking process.

Triangulation improves the certainty and integrity of a case study by strengthening the credibility of the research findings (Cronin, 2014; Kornbluh, 2015; Yin, 2018). Researchers can use different types of triangulation in a study, such as data triangulation, investigator triangulation, theoretical triangulation, and methodological triangulation (Wilson, 2014; Yin, 2014). Methodological triangulation enhances credibility (Harvey, 2014; Wilson, 2014), and helps the qualitative researchers to obtain various perspectives of participants during a research.

Data triangulation is a way to explore different levels and perspectives of the same phenomenon and is a method to ensure the validity of the study results (Fusch & Ness, 2015). Wilson (2014) used methodological triangulation to understand data and for enhancing the quality of research findings. Theoretical triangulation is useful for capturing the changing role of expertise (Burau & Andersen, 2014). All types of triangulation are useful for maintaining consistency in qualitative data analysis, as long as a researcher is mindful of the applicability of the research design in relation to the type of triangulation chosen (Yin, 2014). Methodological triangulation can reinforce the validity and the credibility of a research study because cross-verifying data using two or more methods will provide more credibility (Carter, Bryant-Lukosius, DiCenso, Blythe, & Neville, 2014; Lodhi, 2016). Therefore, I used methodological triangulation to enhance validity and credibility. Specifically, I used responses to semistructured interview

questions and data from company documents such as multiyear strategic plans, annual reports, past marketing campaign fliers, sustainability reports, customer needs documentation, statements, and other relevant information from the company's website.

Transferability is achievable when the readers of a study can decide on the applicability of the research findings in other settings (Bellemare et al., 2018; Bryman & Bell, 2015; Korstjens & Moser, 2018; Sinclair et al., 2018). Transferability depends on the judgment of decision makers (Bærøe, 2018). I used the same interview protocol with each study participant, which involved audio recording and member checking. I triangulated nine participants' interview responses and company documents such as multiyear strategic plans, annual reports, past marketing campaign fliers, sustainability reports, customer needs documentation, statements, and other relevant information from the company's website. Transferability is more likely if data saturation is achieved (Bekhet & Zauszniewski, 2012). Failing to reach data saturation has an impact on the quality of the research conducted and hampers content validity (Fusch & Ness, 2015). Evidence of data saturation is essential to improving the validity of a qualitative study (J. M. Morse, 2015; Noble & Smith, 2015). Researchers reach data saturation when there are no new data, no new themes, and no new coding emerge and when other researchers are able to replicate a study (Fusch & Ness, 2015). I ensured the attainment of data saturation to help future readers and researchers make decisions on the transferability of the research results.

A direct link exists between data triangulation and data saturation. Data triangulation is a method to attain to data saturation (Fusch & Ness, 2015). Saturation of

data occurs when information collected for a study reaches a level of breadth and depth (O'Reilly & Parker, 2013). Data saturation occurs when collected information becomes redundant or repetitive (B. Marshall et al., 2013), and important aspects of reaching data saturation are the nature of the interview questions, the researcher's level of experience in qualitative research, the philosophical understanding of the method, and the use of a guiding theoretical framework (Aldiabat & Navenec, 2018). I used various steps to reach the data saturation that included (a) reviewing and interpreting interview transcripts, (b) writing each question and synthesizing interview data in one paragraph, (c) providing a copy of the synthesis to each participant, (d) asking participants for feedback to understand if the synthesis correctly represented the answers or if there was additional information, (e) confirming and correcting the interpretations of the data based on participant responses, and (f) member checking until there were no new data to collect.

Confirmability is achievable when other researchers can use the same data to collaborate the findings (C. Marshall & Rossman, 2016). Neutrality and accuracy of data ensure objectivity and enhance confirmability (Houghton et al., 2013). Researchers can achieve neutrality and accuracy through their analysis documentation that includes the ways of reaching a decision (Houghton et al., 2013). Bekhet and Zauszniewski (2012) maintained neutrality and objectivity to achieve confirmability. Research data must accurately reflect participants' responses (Elo et al., 2014). Researchers can provide participants' quotes to achieve authenticity (Cope, 2014). I enhanced confirmability by being neutral and objective throughout the research process, using an audit trail, and using quotations. Researchers describe the conclusions and interpretations of participants'

responses to achieve confirmability (Cope, 2014). I adhered to the purpose of the study to ensure the confirmability of the data by following the objectives of the study, using semistructured interviews, recording the interviews on digital recording devices, using member checking, and sharing some direct quotations to enhance confirmability.

Sample size does not ensure data saturation (Fusch & Ness, 2015). A researcher can reach data saturation even with a small but adequate sample, as long as the sample comprises experts in the field of interest (J. M. Morse, 2015). Participants had experience using innovation strategies to increase organizations' profit margins, and I reached data saturation with a sample size of nine participants. Researchers must prevent bias in their analysis to increase validity (J. M. Morse, 2015) and should demonstrate the validity of the analysis and the conclusions using a qualitative method (Hammarberg, Kirkman, & de Lacey, 2016). This study involved verifying the data with participants to increase the likelihood of accuracy.

Transition and Summary

In Section 2, I discussed the (a) role of the researcher; (b) participants; (c) research method and design; (d) population and sampling; (e) ethical research; (f) data collection instruments and technique; (g) data organization technique; (h) data analysis; and (i) reliability and validity. Section 3 contains (a) an overview of the study, (b) the presentation of findings from the research, (c) applications to professional practice, (d) implications for social change, (e) recommendations for action and further research, (f) personal reflections, and (g) conclusions.

Section 3: Application to Professional Practice and Implications for Change

This section includes a summary of the innovation strategies used by business leaders of a global machinery manufacturing company in northwest Illinois to increase the organization's profit margins. Section 3 contains (a) an introduction of the study, (b) presentation of the findings, (c) application to professional practice, (d) implications for social change, (e) recommendations for action, (f) recommendations for further research, and (g) reflections on my experience as a researcher. I end this section with conclusion to the study.

Introduction

The purpose of this qualitative single case study was to explore the innovation strategies some business leaders of a global machinery manufacturing business in northwest Illinois used to increase the organization's profit margins. The data came from face-to-face semistructured interviews with business leaders and from a review of business documents. None of the participants had additional comments or changes to the transcripts during member checking, and each participant confirmed my interpretation was accurate.

After the analysis of interview responses and business documents, I identified one overarching theme and eight subthemes. The importance of increasing a firm's competitiveness and sustaining profitable growth was the overarching theme. The eight subthemes were (a) distinctive customer experience, (b) technology-based modernization, (c) distinctive product quality, (d) business model advantage, (e) diversity of thoughts and inclusion, (f) strategic partnerships and alliances, (g) speed, and (h) win in

aftermarket. Findings from the study indicated that the most highlighted component from the study results was the importance of increasing a firm's competitiveness and sustaining profitable growth.

Presentation of the Findings

The research question of this study was what innovation strategies do leaders of a global machinery manufacturing businesses use to increase profit margins? One overarching theme (the importance of increasing a firm's competitiveness and sustaining profitable growth) and eight subthemes (distinctive customer experience, technology-based modernization, distinctive product quality, business model advantage, diversity of thoughts and inclusion, strategic partnerships and alliances, speed, and win in aftermarket) emerged from the analysis of interview responses and business documents such as multiyear strategic plans, annual reports, past marketing campaign fliers, sustainability reports, customer needs documentation, statements, and other relevant information from the company's website. Table 1 includes business leaders' demographic information. Table 2 includes the findings that led to the overarching theme. There were eight references to the idea of increasing a firm's competitiveness and sustaining profitable growth.

Table 1

Business Leaders' Demographic Information

Participants code name	Highest level of education	Gender	Years of experience as a business leader
P1	Master's degree	Male	>15
P2	Master's degree	Male	>18
P3	Master's degree	Female	>15
P4	Master's degree	Female	>18
P5	Master's degree	Male	>12
P6	Master's degree	Female	>15
P7	Master's degree	Male	>12
P8	Master's degree	Male	>18
P9	Master's degree	Male	>16

Table 2

References to Increasing a Firm's Competitiveness and Sustaining Profitable Growth

Overarching Theme	Subthemes	Frequencies	Percentage of respondents agreement
The importance of increasing a firm's competitiveness and sustaining profitable growth		9	100
	Distinctive customer experience	9	100
	Technology-based modernization	9	100
	Distinctive product quality	8	89
	Business model advantage	7	78
	Diversity of thoughts and inclusion	6	67
	Strategic partnerships and alliances	6	67
	Speed	6	67
	Win in aftermarket	5	56

Note. $N = 9$.

Overarching Theme: The Importance of Increasing a Firm's Competitiveness and Sustaining Profitable Growth

Interview participants from the machinery manufacturing business (henceforth referred to as BUS) mentioned that increasing the firm's competitiveness and sustaining profitable growth were crucial components in determining which innovation strategies to implement to increase profit margins. Study findings revealed that the way to increasing competitiveness and sustaining profitable growth is complex and comprises transformation of products, services, operating business models, delivery of distinctive customer experience, effective use of modern technologies, strategic partnerships and

alliances, diversity of thoughts and inclusion, and speed to market and improved quality, which are vital for formulating innovation strategies to increase profit margins (see Table 2). This knowledge may aid machinery manufacturing business leaders in developing innovation strategies and objectives to increase their organization's competitiveness, profit margins, and sustain profitable growth.

In their responses to Interview Questions 1 through 6, all participants highlighted that increasing profit margins, market share, shareholder value added, and operating return on assets (OROA) were the drivers for them to use innovation strategies to find innovative ways to serve customers and stay ahead of competitors. The capacity of the company to launch creative solutions for their customers' pain points while maintaining a competitive advantage on their market leads to profitable growth (Moeuf, Pellerin, Lamouri, Tamayo-Giraldo, & Barbaray, 2018). Participants in the current study determined which innovation strategies worked to increase profit margins using indicators of strengthened competitiveness and profitability such as an increase in market share, shareholder value added, OROA, and measurable value to customers and stockholders, which were essential to sustaining profitable growth.

Sustainable and profitable growth is about staying ahead of the competition and remaining profitable. In responses to Interview Question 6, all participants mentioned that their desire to compete with similar businesses and remain profitable drove their decision-making for innovation strategies. P1 through P5 said that the biggest concern was not necessarily competitors in the industry, but rather the competitors that they did not know about. The threat of new product entry to manufacturers is from not only their

traditional competitors, including manufacturers from other countries, but also from unknown competitors, including their customers (Tyagi & Raju, 2018). Current study findings revealed that poising company strategy to adapt innovation strategies to develop products according to emerging trends in the industry and the needs of the ever-changing customer leads to profitability.

Bias toward profitability is critical for business growth, which is a requisite element for survival. In response to Interview Question 1, P1 reflected on the experience of serving the customers with product features that they did not have before, and this participant stated that providing a solution to customers' pain point faster had an incremental margin of return that was exponentially greater for the company because when market share increased they were able to command more pricing. Innovation strategies and R&D investment drive a firm to increase its market share in the international market by increasing its new product sales across the globe (Ma & Jin, 2019). P1 expressed, "we needed to have a bias towards increasing profit margin in the longer term so that we can continue to invest in future innovation. Therefore, understanding customer value was critical."

The success of manufacturers depends on their dynamic capability to assimilate and use industry knowledge according to the demands of the market. In responses to Interview Question 6, all participants mentioned that focusing on market share enabled them to pursue profitable growth because they concentrated on increasing measurable value to customers through superior product and services. In an unpredictable and turbulent business environment, dynamic capacity is essential for firms' revival (Oliver &

Parrett, 2018), which leads to the achievement of a competitive advantage in a global market (Szymanski, Fitzsimmons, & Danis, 2019). As a result, companies get remembered and chosen by satisfied customers among others existing in the same place or region (Ngo, Bucic, Sinha, & Lu, 2019). P3 and P5 stated that their ability to understand the market, invest in R&D, and launch breakthrough products and services desired by customers led to profitable growth.

The success of machinery manufacturers is contingent on successfully launching product innovations, as well as customers' response to the products and services they offer. In responses to Interview Questions 1, 3, and 6, Participants P1 through P8 mentioned that they implemented innovation strategies to create distinctive product quality, which increased the perceived value of products for their customers leading to increased competitive advantage, profit margins, and growth in market share. My findings aligned with the findings from previous researchers who found that product innovation strategy provides a strategic competitive advantage in the marketplace because customers are convinced to make purchasing decisions when they see value, and consequently, product innovation strategy positively impacts growth in sales revenue and market share (Bustinza, Vendrell-Herrero, & Gomes, 2019; David, 2019).

Study findings revealed that using product differentiation to enhance customer value positively impacts profitable growth. In responses to Interview Questions 1, 3, and 6, all nine participants from BUS mentioned that the implementation of innovation strategies to differentiate their products and services from those of their competitors helped them to increase their firm's competitiveness and sustain profitable growth.

Asheim (2019) identified significant aspects of competitive advantage and indicators of differentiation strategies, which include a wide assortment of goods, use of cutting-edge knowledge and technologies, skilled employees, leadership, financial capabilities, and density of innovation and production networks within value chains. After-sales services are also essential to creating and seizing value from product innovation and can generate growth in profit margins (Story, Raddas, Burton, Zolkiewski, & Baines, 2016).

Being on par with competitors in quality, performance, and price of the products is essential to enter into the market, whereas efficient after-sales services are essential for winning in the aftermarket. In responses to Interview Questions 1, 3, 4, 5, and 7, Participants P1, P2, P4, P6, and P8 highlighted that they needed to maintain the delicate balance between newly launched product innovations and associated aftermarket services proficiency, which they referred to as "win-in-aftermarket services." They mentioned that enhanced aftermarket service quality to provide world-class customer experience helped them to increase the perceived value of products for their customers, leading to increased competitive advantage, profit margins, and growth in market share. Aftermarket services are a source of competitive advantage because this type of service enables firms to access information directly from customers and capture additional value, creating new streams of revenue from services (Vendrell-Herrero, Bustinza, Parry, & Georgantzis, 2017).

Positive customer experience and brand personality influence customer loyalty and result in repeat business, which is compatible with firms' competitiveness and profitable growth. In responses to Interview Questions 1, 3, and 6, all participants mentioned that sales volume and profitability increased when customers responded

positively to their product and service innovation. Customers' loyalty stems from complex variables like consumer involvement, trust, satisfaction, commitment, and engagement (Hajli, Shanmugam, Papagiannidis, Zahay, & Richard, 2017), and it benefits manufacturers because customers spread good words and repurchase the same brand (Han et al. 2018). Participants added that customers who had positive experiences with products and services became their repeat customers and remained loyal to the brand, a trend that positively impacted their firm's profitable growth.

In response to Interview Question 2, Participants P2, P4, P5, P6, and P9 mentioned that customer research and industry benchmarking were invaluable to look at what competitors were doing and focus on what they knew about their customers' needs. My findings aligned with the findings from previous researchers who found that innovative new products and services may fail in the marketplace when business leaders do not understand how customers evaluate products and make purchase decisions (Moretta Tartaglione, Cavacece, Russo, & Granata, 2019). Customer-focused learning activities play an essential role in the strategic knowledge development process (Salunke, Weerawardena, & McColl-Kennedy, 2019).

Firms' capability to innovate and launch effective business models that support strategic sustainability thinking, and include business scalability and risk appetite, leads them to increased competitiveness and sustainable profitable growth. Study findings revealed that innovating business models to increase firms' ability to reconfigure, build, and integrate competencies through internal and external collaboration to adapt to changes in its turbulent business environment is a crucial capability for strengthening its

competitiveness and profitability. In responses to Interview Questions 1, 3, 5, and 6, Participants P1 through P6, as well as P9, mentioned that they transformed their global business operating models to adapt to the industry changes, which involved using more efficient business practices to improve the production efficiency and quality by making the manufacturing and overall business processes more modern, scalable, and innovative, thereby positively impacting BUS's profitability.

Participants used business model transformation and successfully reduced the global operating costs and facilitated the development of better products, both of which lead to increased revenue for R&D. The reduced cost provided them opportunities to position their product slightly differently in the marketplace from a pricing standpoint. My findings of business model advantage aligned with the conclusions of previous researchers who found that business model innovation is critical for firms to gain competitive advantages and improve their financial performance (Tian, Zhang, Yu, & Cao, 2019), and the effective execution of a business model involves constantly advancing and increasing a company's dynamic capacity (Gupta & Agarwal, 2019). Designing suitable business models as tools for innovating and delivering value is essential for business leaders to foster innovation practices in ways that go beyond short-term goals, making their mission profitable rather than making profit their only goal (Alberti & Varon Garrido, 2017), and also requiring revision of operational processes and activities for global delivery (Parida, Sjödin, & Reim, 2019).

Industry revolution shapes the manufacturing of products and other services in an exponential speed and digital transformation can impact firm's competitiveness and

profitable growth. In their responses to Interview Questions 1, 2, 3, and 4, all participants mentioned that using digitalization and advanced technologies were vital for increasing efficiency of their global business operations and continually maximizing their firm's competitiveness, which had a positive impact on profitable growth. Digital transformation results in a fundamental change in business and organizational activities, processes, competencies, and business models, enabling higher productivity (Govindarajan & Immelt, 2019). Participants P1 through P6 highlighted the use of artificial intelligence (AI), advanced analytics and machine learning for continuously exploring the ways of improving the performance and reliability of machines in real time and grabbing the opportunity to boost customers' productivity continually.

In responses to Interview Questions 1, 6, and 7, Participants P2 and P5 mentioned that ability to use the data from machines for remote diagnosis, helping them to be proactive with their customers in terms of trying to fix problems on machines before (ideally) customers even knew. Participants linked the communications stream among the factories, dealers, equipments, and customers to remotely troubleshoot devices. A digital transformation involves reimagining products and services as digitally-enabled assets, generating new value by linking physical and digital assets through data, and building ecosystems to make that viable (Govindarajan & Immelt, 2019). My findings are identical with other researchers who considered the impact of AI, data science, and machine learning are critical for the innovation strategies, and companies need to understand these tools so that they will not be left behind by well-executed AI projects from competitors (Kiron & Unruh, 2019).

Strategic partnerships and alliances are useful for firms to create value: firms can grab opportunities for downsizing, externalize risks, and share knowledge. Supporting external collaboration for innovation, P3, in response to Interview Question 1, added that their collaboration with suppliers on the multimillion-dollar project for AI related technology innovation resulted in successfully increasing efficiency and effectiveness of the business process that positively impacted OROA. Strategic alliances positively influence the firm's R&D intensity and profitability (Fernández, Triguero, & Alfaro-Cortés, 2019), and firms are successful in choosing the right partners when they decide what they want to own before thinking about partnerships (Govindarajan & Immelt, 2019). In response to Interview Question 3, P7 stated that collaborating with another company to increase the value in the remanufacturing business led to increased profit margins.

Study findings revealed that keeping pace with new areas of expertise could be a challenge, and even the experts in the field might become out of date. Hence, diversity of thinking and inclusion of varied perspectives is essential for competitiveness and profitability. Diversity involves recognizing, respecting, accepting and tolerating individual uniqueness and differences of thoughts, and it is a construct that describes the differences in individuals' gender, race, ethnicity, age, religious beliefs, physical abilities, sexual orientation, socioeconomic status, and other factors (Ohunakin, Adeniji, Ogunnaike, Igbadume, & Akintayo, 2019). P1 emphasized the need for advanced skills and bringing different points of view through including people from different generations, different parts of the world, different genders, and different socioeconomic

backgrounds, because that inclusion fundamentally helped them to come up with crucial innovation strategies to serve the customers with what they want, consequently leading to increased sales revenue and profitable growth.

Study findings revealed that speed to launch innovative products and services, speed to increase the quality of existing product and services, and leveraging digitization for speed are critical for increasing competitiveness and profitable growth. P6, in response to Interview Question 7, mentioned that they did market research and used available information to innovate and deliver products and services quickly, with high quality, and on par with the customer expectations, by leveraging digital transformation, which had a positive impact on competitiveness and profitability. Govindarajan and Immelt (2019) suggested that manufacturers must embrace approaches such as speed, agility, simplicity, and responsiveness to deliver cost-effective quality products at foreseeable intervals.

Evidence from the literature in section 1 relating to successful business performance with product innovation strategy, service model innovation, business model innovation, technology innovation, supply chain innovation, managing risk to control profit margins, diversity and inclusion, and positive impact of competitive advantage on profitability coincides with the overarching theme which emerged from data collection. Rapidly-changing business environments increase uncertainty for companies due to the disruption caused by new business models, technology innovations, deregulation, and the threat of new competitive entrants (Oliver & Parrett, 2018). Therefore, designing the

right value propositions is a crucial source to increase the profits from products and services (Mora Cortez & Johnston, 2019).

Although many studies have been carried out about the significant essence of competitive advantage for business performance (Y. Chang, Wong, Eze, & Lee, 2019; GS et al., 2019; Kneipp, Gomes, Bichueti, Frizzo, & Perlin, 2019; Na, Kang, & Jeong, 2019; Udriyah, Tham, & Azam, 2019), there has been a lack of scholarly attention elaborating on the practical importance of innovation strategies for profitable growth, and the alignment of profitable growth with sustainability, which may become an insightful point of view to the potential performance in terms of survival of businesses. Findings of this study revealed that maintaining the dynamic capacity to provide higher customer value by offering differentiated products and services, effectively dealing with emerging industry trends, and striving to sustain profitable growth, is essential for business survival.

The findings also relate to the theories of holistic innovation and disruptive innovation, used as the conceptual framework, which describe innovation practices of manufacturing and services companies highlight a process of transformation, that lead business leaders, to create new ways of doing business and increasing performance. Holistic innovation model explains how manufacturing firms could benefit from the use of innovation practices and includes total, collaborative, open innovation driven by a strategic vision in an era of strategic innovation, which aims for a sustainable and competitive advantage (Chen, Yin, & Mei, 2018). Innovation knowledge integration capability is vital in building new knowledge configurations to deliver new service-

solutions of higher value to customers (Salunke et al., 2019). Capabilities of sensing emerging technology and market trends drive explorative and exploitative innovation activities, which then determine firm performance in an emerging market (Ngo et al., 2019). Dogru, Mody, and Suess (2019) found that disruptive innovation theory is a practical and useful framework for business leaders to understand the market, develop a business strategy, and address the potential threats and opportunities involved.

Subtheme 1: Distinctive Customer Experience

Study findings revealed that the world-class customer experience is complex and comprises behavioral and attitudinal components, which are vital for formulating innovation strategies to deliver distinctive customer experiences because positive customer experiences with products and services trigger customers' long-lasting emotional attachment to a company brand. All nine participants mentioned that commitment to the distinctive customer experience was the distinguishing feature in the drive to attain more market share and retain existing customers. Perceived functional and emotional value toward the products in use become competitive mediator and impact on customers' readiness for an upgrade, brand loyalty intention, and their commitment toward service providers (Poushneh & Vasquez-Parraga, 2019).

One path to profitable growth is through providing a distinctive customer experience. In response to Interview Question 1, P1 stated that precision of their products and timely prescription allowed their customers to do things that they had never thought possible before, resulting in a significant reduction of their input costs and increase in output generation. This occurrence was favorable to the firm's competitiveness and profit

margins. The majority of customer experience lies in delivering a customized approach to satisfying the needs of customers (S. Zhao, Zhang, Peng, & Fan, 2019).

Understanding customers' pain points and wants, and then delivering innovative solutions that matter to customers, leads to increased competitiveness and sustaining profitable growth. In responses to Interview Questions 1, 2, and 3, Participants P4 and P8 indicated that their enterprise customer acquisition process allowed them to assess what they knew about customers' needs and wants, determine the best solutions to meet those customers' needs and wants, and then pursue product development, marketing, and sales. Efficient complaint management can be a competitive advantage, and minimizing customer dissatisfaction usually proves to be more profitable than maximizing the satisfaction of already satisfied customers (Cieśla, 2019). P4 continued to note that, "by using a consolidated view of customers' needs across product segments and customer-focused innovation, I saw positive results such as increased customer satisfaction and sales revenue."

Customer-focused innovation is essential to generate higher profitability. In response to Interview Question 1, P1 stated that after understanding customers' pain points, employees thought of innovative ways from a R&D standpoint how they could bring new ways of doing things to the field so that their customers could experience the benefits from innovation. Resolving customer issues that enhances customer value proposition may lead to product market success (Sokolinskiy, Sopranzetti, Rogers, & Leuschner, 2019), and improving customer experience involves value creation, cognitive responses, and discrete emotions at touchpoints across the customer journey (McColl-

Kennedy, Zaki, Urmetzer, Neely, & Lemon, 2019). P1 highlighted, “we listened to customers to understand their pain points and needs. We served customers with new and innovative ways that could improve the way to do things and ultimately their bottom line.”

Customer experience is relational, instead of functional, and it is more complicated than simply customer service and customer satisfaction. In response to Interview Question 7, P6 expressed that employees must stay diligent of really understanding their customers. They cannot over-collect customer feedback. P6 used every chance to collect feedback and spent time with customers, whether was through trade shows, visiting them directly, or gathering input from the field teams and channel dealers that supported them all the time. Business leaders need to formulate effective customer experience strategies that are broad and far-reaching beyond the scope of traditional service encounter strategies (Georgantzas & Katsamakas, 2016). In responses to Interview Questions 1 and 7, Participants P1 and P6 mentioned that field personnel regularly visited their customers to understand customers’ experience with the products and ultimately aiming to increase customer value proposition, which consequently, lead to profitable growth.

Customer experience involves some level of preconception by customers, and their multifaceted needs. In responses to Interview Questions 1, 2, 3 and 7, Participants P2, P4, P5, and P6 stated that they developed, implemented, and regularly evaluated products and proactive customer experience strategies to align with the customers’ journey and their multifaceted needs. The sales channel was integral in relaying

promotions to customers on a timely basis. Delivering superior customer experience requires managing customers' journeys by prioritizing actions to improve customer experience through understanding customer perspectives, capturing customers' emotional and cognitive responses, identifying at-risk segments of customer satisfaction and solving root causes, and identifying and preventing decreasing sales (McColl-Kennedy et al., 2019). The use of customer satisfaction and feedback was significant in determining innovation ideas to provide higher value to their customers.

Study findings revealed that sustained or improved customer loyalty was one of the measurements that participants used to determine the success of customer experience strategies. All BUS participants indicated that a consistent review of their customer experience strategy took place to ensure customer value proposition and retain customers. Customer delight has a positive effect on customer loyalty, and parallel and separate to that of satisfaction (Ahrholdt, Gudergan, & Ringle, 2019). In response to Interview Question 4, P5 mentioned that if a firm does not provide unique value to customers through its products and services, the firm's competitive advantage is diminished. On a related note, Participants P1, P2, and P6 responded to Interview Questions 1, 2, 3 and 7 by stating that differentiating products and services was vital for them in sustaining customer loyalty and attaining the competitive advantage, positively impacting the firm's profitable growth.

Evidence from the literature review, which discussed service model innovation as an avenue for attaining competitive advantage and building brand loyalty, was supportive of the distinctive customer experience subtheme. Business leaders rely on the formulation

of a distinctive customer experience strategy as an avenue to differentiate their products and gain a competitive advantage (Hailey, 2015), because customers who frequently have good experiences with a brand tend to be the most loyal (Moretta Tartaglione et al., 2019). Business-to-business (B2B) firms, such as Caterpillar, Michelin, and Rolls-Royce, understand the importance of customer-focused innovative solutions (Windler, Jüttner, Michel, Maklan, & Macdonald, 2017).

Services literature clearly recognizes the shift to customer-focused innovations (D'Antone & Santos, 2016; Story et al., 2016). However, among these studies, none provide deep insight into using distinctive customer experience or commitment to sustain profitable growth, which is essential for the survival of businesses. My study added a new viewpoint on business sustainability by suggesting that commitment to customers, and delivering the distinctive experience throughout the customers' journey that increases measurable value for customers, is critical for increasing competitiveness and sustaining profitable growth.

The holistic innovation model and disruptive innovation theory, which formed the conceptual framework for this study, endorsed the study results on distinctive customer experience. The effects of innovation intensity and creativity on innovation strategy depend on customer demand (Liao & Tsai, 2019). A process of customer value ingestion involves all activities related to designing, creating, and delivering value to customers by using specific capabilities such as customer relationships, marketing channels, customer experience, and new product development (Mora Cortez & Johnston, 2019).

Exploratory innovation identifies new customers using disruptive or new technologies, and therefore, breakthroughs and radical innovations are often associated with explorative activities (Ngo et al., 2019). Customer integration which includes customer-based idea evaluation, participation in direct and indirect idea generation, R&D partnerships with customers, having a customer orientation, and disseminating customer knowledge via R&D-marketing collaborations can lead to the creation of radical new product innovations that increase measurable customer value (Schweitzer, Van den Hende, & Hultink, 2019), and as a result, firms can achieve competitive advantage and profitability (Martinelli & Tunisini, 2019).

Subtheme 2: Technology-Based Modernization

Modernizing the manufacturing business through the effective use of modern technologies can help business leaders to create a competitive edge in an unstable market, which is essential for profitable growth. In responses to Interview Questions 1, 2, 3, and 4, all participants mentioned that the use of advanced technologies was vital for bringing unprecedented efficiency to global business operations that contributed towards profitable growth. P3 highlighted the necessity of advanced technologies for worldwide production and distribution systems, and P5 used advanced technology in designing and implementing incremental and radical innovations to maximize the firm's competitiveness continually, as well as in determining and evaluating future innovation strategies. Nazir (2019) recognized that technology innovations are reshaping and transforming businesses across the world and are critical for companies to stay on top of

technological changes and advancements to future-proof business for their customers across the globe.

The integration of advanced technology such as AI, as well as predictive and prescriptive analytics, into products and services increases the business operational efficiency and profitability. P1, in response to Interview Questions 6 and 7, and P3, in response to Interview Questions 1 and 3, mentioned that the integration of acquired machine learning and AI technology into the products helped them to make real-time decisions in the field, whether the technology is sensor technology, object detection technology or virtual reality enhancement, therefore positively impacting the profitability. Because of the increased use of sensors and networked machines in manufacturing operations, AI techniques play a pivotal role in deriving meaningful value from big data infrastructure (W. J. Lee, Mendis, & Sutherland, 2019; Lin & Chen, 2019). Businesses, with the use of advanced technology, can now hone in on customers' tastes and preferences to optimize repeat sales and improve profitability (Peppers & Rogers, 2017). In response to Interview Question 1, P3 stated, "OROA was the major driver for using technology innovation to automatically sort the material coming in, going to the production-ready lasers. The use of AI technology increased the efficiency and effectiveness of automatic sorting by 27%, and therefore, increased our overall laser capacity."

Securing customers' digital data using modern technology is one of the ways to achieve a competitive advantage. In response to Interview Question 5, P2 stated that BUS has a global distribution model, and its employees worked hard to protect global

customers' data. In response to Interview Question 7, Participants P3 and P5 mentioned that they used advanced technologies and tools to secure customers' data given the increasing cybersecurity threats. My findings aligned with the conclusions of the previous researchers who highlighted the importance of data security in network virtualization for technological innovation, because when data security breaches occur in virtual networks, the firm's competitors have opportunities to absorb market power (Dong, Wu, & Zhang, 2019; Jeong, Lee, & Lim, 2019), and therefore, this can lead to profit loss and drops in stock price.

Technological modernization can have a stronger impact on business operations, and benefit customers by faster problem-solving, and benefit businesses with higher profitability. In response to Interview Question 1, P1 said that the use of modern technology increased firm employees' capabilities to unlock their ability to make machines smarter, easier to use, and more precise, for a faster and stronger impact on business operations. C. Lee et al. (2017) advised business leaders to create an R&D plan and incorporate a detailed strategic proposal as a guide to acquiring and integrating technological innovations for improving profitability. In responses to Interview Questions 6 and 7, Participants P1 and P3 mentioned that they could monitor the performance of their equipments remotely and often learned of potential downtime issues even before the customer becomes aware of it. In response to Interview Question 1, P1 added, "technology-based modernization is allowing the customers to do things that they had never thought possible before because, through data mining and data acquisition, we could be more prescriptive to customers. Thus, advanced technologies helped to provide

a solution faster to customers' pain points and to have a positive impact on profit margins."

Proactive thinking about what can be done differently within the digital space to help customers complete the work that they are already inclined to do is essential for increasing profit margins. Participants P2, P4, and P5, in responses to Interview Questions 1, 4, and 6, mentioned that the use of data and analytics for digitalization and aftermarket parts services helped them to make firm business decisions to meet customers' needs while transforming the business model. Digitalization of the innovation process through information technology tools is more finely nuanced than a "the more, the better" logic often promoted in the digitalization context (Huesig & Endres, 2019). A big data analytics capability enables firms to generate insight that can help strengthen their dynamic skills, which, in turn, positively impact marketing and technological capabilities (Mikalef, Krogstie, Pappas, & Pavlou, 2019). P4 added, "the use of digital experience formed a relationship with customers when dealers were at capacity within their service and unable to take on work and build a relationship. We used machine data analytics to tie machine hours to the service needs of the machine to the recommended parts."

Evidence from the literature review, which included that successful implementations of technological innovations generally has a relation with quality and cost performance, was supportive of the technology-based modernization subtheme, which developed from the results of the study. Other researchers similarly found that the use of strategies for innovative technologies and processes leads a company to maintain a

competitive edge over other companies and results in increased market value (Klimontowicz & Harasim, 2019; Martinelli & Tunisini, 2019; Schweitzer et al., 2019). A strategic vision requires that business leaders should embed technological innovation management in the entire management process and the overall goal of business development (Chen et al., 2018). Successful integration of technology requires business leaders to undertake thorough planning to minimize technology synchronization problems (Abdallah et al., 2016).

The conceptual framework of this study, based on the holistic innovation model and disruptive innovation theory, supported the technology-based modernization subtheme that emerged from the data. Innovation processes incorporating technological innovations into non-technological innovation improve firm's performance (Heredia Pérez, Geldes, Kunc, & Flores, 2019). Business leaders may use the knowledge of disruptive innovation to identify innovation techniques, evaluate the firm's ability for successfully integrating technological innovation, and avoid the challenges of adoption, acceptance, and assimilation of innovation within the business (Daidj, 2015). Business leaders should evaluate new and trending technology innovation before integrating it in their business and should not acquire it simply because companies from similar industries implemented the technology (Bokhonko, 2017), which may lead to technological integration failure.

Subtheme 3: Distinctive Product Quality

A firm's competitiveness and profitable growth depend on its ability to offer distinctive product quality to the customers. Study findings revealed that extensive

product evaluations to understand the type of products and the type of product features that promise to add the most value to customers lead to competitive advantage and profitable growth. Participants P1 through P8 from BUS (89%) answered Interview Questions 1, 3, and 6 by stating that the implementation of distinctive product quality strategy was integral in differentiating their products, gaining the competitive advantage, sustaining customer loyalty, and profitable growth. Improving the quality of the products and services provided to the customers leads to achieving product reliability, competitive advantage, and long-term profitability (Ladewski & Al-Bayati, 2019). In response to Interview Question 6, P3 defined distinctive product quality as doing the product right the first time because their customers depend on it.

Understanding market needs and gaps are essential to deliver distinctive product quality and increase profitability. In response to Interview Questions 1, 2, and 3, P8 stated that they maintained market leadership by gaining a profound understanding of what is currently available in the market for the product line that they were interested in, and by understanding what gaps existed according to their customers. Superior product quality has a positive impact on firm performance in transition economies, complemented by the significant effect of size, total labor cost, and capital of the firm (Ramadani et al., 2019). Businesses formulate and implement precise strategies to cope with changes in the business environment, and to improve proficiency and increase profitability (Vargas, 2015) because the degree of product innovations failure is higher without an understanding of industry trends (Q. Zhang, Cao, & Doll, 2019).

Both incremental and disruptive innovations are critical for distinctive product quality. In response to Interview Question 1, P5 stated that incremental innovation process helped to develop better products and services, and disruptive innovation for launching breakthrough innovative product ideas. Superior products satisfy customers, drive sales, even in flat markets, which will yield more profit over time (Govindarajan & Immelt, 2019). P3 responded to Interview Question 3 by highlighting their groundbreaking innovation that disrupted the industry, whereby they doubled the speed and accuracy at which machine can operate and the price of the machine increased by close to 40% and the profit margin increased by a lot more than that. P3 related the success of improving product quality to listening to what customers needed.

Differentiated product quality is essential for higher value proposition, improving customer experience, and consequently for increasing profit margins. Competitive advantage involves offering a unique product or service that an organization can provide as a strategy to meet or exceed its customers' needs (Hailey, 2015). In response to Interview Question 7, P8 recommended providing real substantial value through every feature of the product when charging more to customers. In response to Interview Question 6, P4 highlighted the importance of product quality and further stated, "customers told us that they didn't want to shop for parts because that's not valuable time and money spent for them. It didn't mean that they expect that the machine will never break. But when they need the machine to run, it should be ready to run."

High product availability became a necessity for profitable business. In response to Interview Question 6, P3 described distinctive quality as a robust infrastructure for

high product availability or zero downtime, promoting customer delight and enabling agility of the workforce. Customer expectations of high-quality products and services put pressure on business leaders for high product availability and innovation and firms sometimes need to trim their product lines to maintain high overall performance and competitiveness (Pourhejazy, Sarkis, & Zhu, 2019). In response to Interview Question 1, P2 described their product support process referring as "connected customer support," which was the ability to use the data from machines in the field to be more proactive with the customers in terms of anticipating and fixing problems on customers' machines.

Modern technologies are critical for ensuring distinctive product quality. Participants P3, P5, and P7 used technology to automate some business operations as a means to improve product quality. In response to Interview Question 1, Participants P1, P2, and P3 mentioned that the use of advanced technologies such as AI, data science, and advanced analytics helped them to enable precision products, increase product quality, decrease input cost for their products and services and increase output, and consequently improve profit margins. Digitalization of the manufacturing systems is a solution to react to the rapidly varying demands and make the use of resources more flexible to increase product quality (Schumacher, Erol, & Sihn, 2016). P1 added, "precision products can be sold to the customer at a much higher margin, especially when you have the architecture in place to focus on the software behind it to improve from generation to generation, which is fundamentally much faster and much cheaper than a hardware revolution."

Evidence from the literature review, which indicated that introduction of a new or improved product positively impacts business performance, was supportive of the

distinctive product quality subtheme which developed from the results of the study. Each employee of the company must understand the customer expectations and try to provide a positive purchasing experience to their customers through the quality product and services (Bendaravičienė & Vilkytė, 2019). Radical new products include both technological and market innovativeness, as well as the different perspectives on customer integration which include customer-based idea evaluation, participation in direct and indirect idea generation, R&D partnerships with customers, having a customer orientation, and disseminating customer knowledge via R&D-marketing collaborations (Schweitzer et al., 2019).

The holistic innovation model and disruptive innovation theory, which formed the conceptual framework for this study, supported the distinctive product quality subtheme that emerged from data. Innovation exploration and exploitation are inherently different capabilities related to product development (Aoki & Wilhelm, 2017). Exploitative innovation leverages current skills to develop products and services to serve existing customers better, and firms often find themselves disrupted by new entrants when their focus is more on exploitative innovations (Ngo et al., 2019). Disruptive innovation is a form of radical innovation that simplifies processes, and is user-friendly as well as less expensive (Gandhe, 2015). Manufacturers must use a sequential innovation exploitation and exploration pathway to improve product and service innovations outputs (Bustinza et al., 2019).

Subtheme 4: Business Model Advantage

In order to stay competitive and profitable, companies need to regularly modernize and innovate their business models by being agile. Data analysis revealed that Participants P1 through P6, as well as P9 supported transforming the business models in the pursuit of increasing the firm's dynamic capacity for addressing business operational inefficiencies and remaining competitive in creating higher customer value, which impacts firm's profitability. Organizational agility and entrepreneurial orientation have a significant effect on competitive advantage and profitability because a firm will thereby have the capacity to identify and deal more effectively with many business opportunities, customer relationships, and resources (Qosasi et al., 2019).

Manufacturers need to prepare themselves to change or give up an existing business model to create and capture new value to increase competitive advantage (Govindarajan & Immelt, 2019). In response to Interview Question 6, Participants P2, P4, and P6 mentioned that the business model that worked for them in the past may not be the best business model for the future and may require change management. Business models incorporating mobile technology into operations are favorable for creating a competitive advantage and value for customers (Klimontowicz & Harasim, 2019). In response to Interview Question 6, P4 expressed, "competitor's bold statements about transforming their service business model to sell their machine parts online, and some dealers being far ahead of us in the digital space, and customers' expectations built by the e-commerce industry leader (e.g., Amazon), forces us to re-look at our business model. Therefore, how customers interact with dealers in the future for parts sales could be

different, and some dealers will need the mindset change because they can't assume that the customers will always come into their dealership for parts."

Integrating advanced technologies into business models can help companies to enhance dynamic capacity to gain competitive advantage and improve their financial performance. Study findings revealed that industry trends and participants' desire to remain competitive and profitable drove them to transform their business model by integrating modern technologies such as AI, data science, and machine learning. New business models are created to improve the value chain by analyzing machine data, the use of sensors, and the intelligent real-time processing of vast amounts of data in the cloud (Tohanean & Weiss, 2019).

In the economic downturn, continuing to push forward a robust innovative idea leads to an increase in profitability. Participants P1, P2, and P4 recognized the need to manage value throughout the business cycle because of the cyclical nature of their machinery business. Emerging new technologies such as internet of things, cyber-physical systems, cloud computing, and big data can improve the transmission of information throughout the entire system, which enables the adaptation of better control and operations in real time according to varying demand (Moeuf et al., 2018). P6 mentioned that the relevant business model drove the firm's competitiveness, generated profit, and impacted business growth in a specific strategic area. In response to Interview Question 4, P6 expressed, "understanding emerging economic, industry, or technology trends was essential before we head into it. The more innovative you are, the more adaptive to change you must be, to have a positive impact from a financial perspective."

Effective business models that generate profit margins involve working through the intricacies of how the profit stream can benefit all parties involved in business operations. In response to Interview Question 3, P2 asserted that understanding the entire profit stream was essential, and the profit stream of BUS included the profitability of BUS, its dealers, and its customers. Furthermore, for an innovative idea to root itself into driving profit, a clear path was useful in guiding all three components of the profit stream that benefited from the innovation. Value from servitization exhibits a *win-win-win* outcome for the manufacturer, customer, and product and service supply networks (Erkoyuncu et al., 2019), and study results also indicated that the business model must benefit all parties involved in business operations.

A crucial element of the firm's business model is its distribution model to serve the local customer globally. In response to Interview Question 5, P2 mentioned that because of the firm's world-class global distribution, the products were delivered promptly to a customer globally through their partners, i.e., dealers. Customers' needs are becoming increasingly more complex, putting pressure on the manufacturer's distribution channel to integrate products with advanced services into customized solutions (Hakanen, Helander, & Valkokari, 2017). Manufacturers often respond to these challenges by designing advanced service solutions and delivering those themselves, through their dealers, and independent distributors (Hullova, Laczko, & Frishammar, 2019). In response to Interview Question 4, P1 emphasized that they understood the customers' changing behavior and industry trends when deciding the appropriate business model, in terms of addressing the customers' need in the rapidly evolving global marketplace.

Openness to accept the risk to continue to explore new opportunities while also working to exploit existing capabilities is essential to increasing the firm's profit margins. Innovation development can fail early on or at later stages and depends on both the external environment and internal practices; however, certain forms of failure may not be a detriment to performance (Friend, Ranjan, & Johnson, 2019). P1, in response to Interview Question 7, and P9, in response to Interview Question 4, stated that innovation initiatives have a certain amount of risk of failure, but they were not afraid to take risks to increase business efficiency. P3, in response to Interview Questions 6 and 7, highlighted that their business environment promoted failing fast to learn fast from the experiences so that they could take short-term risk to understand the pilot opportunities that may not always show a return on investments.

Industry change is inevitable and requires firms to have flexible business models for taking risks to invest in innovation. Effective risk management often leads to an increase in competitiveness with the consequence of profitable growth and improvement of business sustainability (Amankwah-Amoah, 2019). P6, in response to Interview Question 6, mentioned that understanding organization's level of risk acceptance, having the risk plan in place whereby one can pivot and "pull levers" to reduce risk, and having a more flexible business model to start doing those things earlier, helped them to have a positive impact on the profit margins. In response to Interview Question 3, P6 stated, "some of our most profitable innovations involved taking a risk and deciding that the value to the customers was more significant than short-term financial gain. Customer focused innovations turned out to be some of the best investments because the loyalty and

the partnership that we established with our customers drove a significant increase in competitive advantage and profitable growth."

Innovating business process models that support open innovation practices increase business operation efficiency and quality while paving the way to new products at competitive costs, leading to profitable growth. Study findings revealed that business process models need to be value-driven, partnership-focused, and centered on increasing dynamic capacity to respond to uncertainty and emerging threats. Business process models encompass inter-model consistency problems which mainly arise due to the existence of multiple variations of the same business process such as multiperspective modeling, the presence of many models illustrating the same business process, and the merger of business process models (Awadid & Nurcan, 2019). In response to Interview Question 1, P5 stated that their business model was flexible and allowed external collaboration such as strategic partnership and alliances, and it helped them to build capabilities, increasing benefit-to-cost ratio, and ultimately improving their products and services.

Evidence from the literature review, which highlighted that business models include the means of creating and delivering customer value, generating profits, and sustaining competitive advantage, was supportive of the business model advantage subtheme, which developed from the results of the study. Industrial paradigm shifts involve changes in technical and product development, and therefore, the ways of value creation evolve and bring enormous organizational consequences and opportunities (Teece, 2019). In order to achieve profitability, business models' design needs to include

a balance between being similar to and different from competitors (E. Y. Zhao, Ishihara, Jennings, & Lounsbury, 2018), and risk management is essential because of a positive relationship with the firms' competitive advantage and profitability (Saeidi et al., 2019). Ultimate operational performance is an indicator of the increase in productivity and reduction in cost (Petrillo, De Felice, & Zomparelli, 2019). Both internal and external implementations of successful innovation strategies are generally associated with proper planning, collaboration, communication, quality, and adequate budgeting (Ahn, Roijakkers, Fini, & Mortara, 2019).

The findings also relate to the theories of holistic innovation and disruptive innovation, used as the conceptual framework for this study. Sustainable business models involve both incremental and radical innovation approaches, and innovation practices require the effective use of organizational and managerial capabilities for successful transformation (Inigo, Albareda, & Ritala, 2017). Disruptive innovations and dynamic competitive business environment increase the level of uncertainty, and therefore, to deliver on corporate mission, business leaders require dynamic capacity for the strategic development of the firm, precisely in terms of the future direction, innovation practices and strategies, and innovation intensity (Oliver & Parrett, 2018).

Business leaders should plan and prepare the business to respond to disruptive innovation by ensuring the business model captures the value of disruptive innovation that may produce new metrics for the business (Murthy & Kumar, 2015). Disruptive innovation is a product or a service offering with a business model that is based on a unique value proposition to enhance customer experiences and co-creation expectations

using advanced technologies, and that causes disruptive challenges among incumbents while improving the industry setting and yielding profitable growth (Tabbah & Maritz, 2019). Dogru et al. (2019) found that disruptive innovation theory is a practical and useful framework for business leaders to understand the market, develop a business strategy, and address the potential threats and opportunities.

Subtheme 5: Diversity of Thoughts and Inclusion

Diversity of thoughts and inclusion of diverse perspectives are essential to further the growth, development, and financial success of the business. Participants P1 through P6 mentioned that generating knowledge of innovative activities was critical for remaining competitive and increasing profit margins. P1 through P6 from BUS answered Interview Questions 1, 2, 3, 4, 5, 7, and 8 by stating that the inclusion of diverse thoughts involved diversity of work experiences, age, gender, race, ethnicity, education, and socioeconomic status. Therefore, inclusion of diverse thoughts helped them to generate the innovative ideas that could increase competitive advantage and profitability. Diversity involves differences in individuals' socioeconomic status, gender, race, ethnicity, age, religion, physical abilities, and sexual orientation (Ohunakin et al., 2019). P4 stated that having the right talent in place to be able to make firm business decisions was essential to meet customers' needs.

Diversity in work experience and age is favorable for the diversity of innovation ideas, and therefore it may positively impact competitive advantage and profitability. To have a diversity of thoughts and maintain the competitive advantage, P2 hired students to work on specific projects on a part-time basis as a means for them to address challenges

in new areas of expertise that are moving fast. In response to Interview Question 1, P3 asserted that the experience of senior managers and the latest education and knowledge of millennials were favorable for the diversity of thoughts. My findings are identical with the findings of other researchers who found that non-millennials are more strongly driven by their self-direction values, and diversity in work experiences and age increases firm's innovation capacity (Dust, Gerhardt, Hebbalalu, & Murray, 2019).

Educational diversity is essential for the diversity of thoughts and innovation capacity, which may positively impact competitive advantage and profitability. Educational diversity provides business leaders with a broader range of knowledge and information sources to identify innovative opportunities from the international market (Li & Huang, 2019). In response to Interview Question 7, P1 stated that the industry needs an advanced skillset, and one way to generate a diversity of thoughts was sending employees to school to learn advanced skills such as systems engineering, code texture design, and artificial intelligence. Education in advanced skillsets helped with creative problem solving as well as creating processes and strategies that impacted competitive advantage and profitability.

The responses of Participants P1 through P6 to Interview Question 2 were consistent on the goal of fostering diversity, which was identifying and understanding the current pain points, getting diverse perspectives together to figure out how to creatively solve those pain points, and identifying future opportunities, all in the context of value to customers. Inclusive leadership behaviors facilitate diverse perspectives among group members, which in turn lead to psychological empowerment and behavioral outcomes

such as innovative ideas and increased productivity (Roscoe et al., 2019). P6 stated, "the focus of ideation or any innovation project that we considered, remained on the problem we were trying to solve, the value we were trying to deliver to customers, and then defined up front what that meant from a profitability perspective. If one of these components is not solidly considered to identify value and measuring the success, innovation will likely not ever be adopted."

In response to Interview Question 3, P2 asserted that getting the right people engaged brings credibility to the ideas, otherwise, ideas are just thoughts and get rejected. P3 used inclusion of diverse thoughts as one of the innovation strategies to increase the efficiency and effectiveness of manufacturing operations, and increased operational performance positively impacted profit margins. In response to Interview Question 1, P3 stated, "using a diversity of thoughts and inclusion, we figured out how to be more productive and efficient, and addressed the challenge of continually connecting our manufacturing engineering to quality engineering to supply management team, being on multiple shifts. As a result, we never have downtime now because there's always somebody to answer, and our metrics improved in the area of safety, quality, cost, and delivery."

P4 and P6 stressed that involving customers in generating ideas for innovation was vital because it significantly increased the odds of developing successful new products. In response to Interview Question 2, P4 stated that sometimes it was hard for some employees to believe potential value from innovation until they heard it directly from customers. Engaging customers in value co-creation initiatives devoted to new

product development results in creating, expanding, and enlarging value for all participating parties (Bettiga & Ciccullo, 2019).

Understanding the dynamics of cost versus value and framing problems as opportunities for cross-functional teams to work on unlocks possibilities for increasing profit margins. In response to Interview Question 2, Participants P1 and P3 highlighted that they collaborated with cross-functional teams representing given the product lines while ideating to understand holistically and address the inefficiencies of different parts of the business operations, which helped them maximize the value of the cost investments and increasing profitability. Team learning and inclusion arbitrate the effect of cognitive diversity on innovation (Chow, 2018). P1 emphasized on ensuring the presence of a finance controller while collaborating with cross functional teams, because a finance controller provided a very detailed view of the financial state from the standpoint of overall profit per model within a product line, material costs, spend, and total overhead, whether direct or variable.

Study findings revealed that both bottom-up and top-down approaches are useful for generating innovative ideas for problem resolution. In response to Interview Question 2, P3 stated that ideas had to come top-down as well as bottom-up in order to maintain a prioritized backlog of innovative ideas. Management practices must include bottom-up process improvement and regular top-down strategy review (Hutton & Eldridge, 2019). Participants P3 and P5 conducted hackathons to generate innovation ideas from the bottom up, whereby employees were challenged to come up with the problem statements and possible solutions.

The world of hackathons brings opportunities for business leaders to balance creative autonomy with productivity in order to achieve their corporate mission. Study findings revealed the importance of hackathons for creating value from the bottom up and unleashing people with different viewpoints to see the pain points and do something about it. Managing hackathons requires bringing together myriad technologists, designers, and other professionals, and supporting their free exploration, while simultaneously helping them finish with working prototypes (Lifshitz-Assaf, Lebovitz, & Zalmanson, 2019). P3 answered Interview Question 2 by highlighting the importance of hackathons and mentioned that people worked above and beyond in their typical day job to find a solution for the pain point that was continually hindering them. And three of their 19 ideas that came from hackathon were game changers.

Evidence from the literature review, which highlighted the importance of workplace diversity for increasing innovation, was supportive of the diversity of thoughts and inclusion subtheme which developed from the results of the study. Generations differ in their thinking and the way they cognitively process information because of their unique set of experiences and collective memories that influence how they portray situations, new information, and experiences (Dust et al., 2019). Brainstormed ideas from different functional domains are more likely to be selected by managers (Beretta, 2019). In a global business environment, locally developed knowledge is not necessarily shared with different regional teams (Hwang, Singh, & Argote, 2015), and therefore, multiple collaborative approaches significantly enhance the relationship between cognitive diversity and innovation (Chow, 2018). The success of collaborative innovation depends

on critical aspects of the operation, such as intellectual diversity, knowledge, and networking (Chu et al., 2019). Positive associations exist between the pairs among diversity, quality, and financial performance (Gomez & Bernet, 2019).

The conceptual framework of this study, based on the holistic innovation model and disruptive innovation theory, supported the diversity of thoughts and inclusion subtheme. New ideas open up opportunities for new directions and better business value (Aytekin, Değerli, & Değerli, 2015). The capability to integrate external knowledge into the innovation process plays a key role in business service innovation (Salunke et al., 2019). The users' tendency to accept or adopt innovation typically depends on characteristics of the particular innovation, their organizational culture, or the indirect messages conveyed to them by management (McMullen, Griffiths, Leber, & Greenhalgh, 2015). Radical innovation development processes include three phases such as discovery, incubation, and acceleration, and they influence customer integration success (Schweitzer et al., 2019).

Subtheme 6: Strategic Partnerships and Alliances

Strategic partnerships and alliances allow for the development of capabilities to detect new opportunities and can become a source of increasing competitive advantage and profitability. In response to Interview Question 2, Participants P1, P2, P3, P5, P7, and P9, mentioned that strategic partnerships and alliances were critical in the context of co-creating value and generating breakthrough product and services, and consequently for increasing a firm's competitiveness and growing market share. A strategic alliance is a flexible vehicle of learning, a way to transfer useful knowledge in partner firms and to

generate combinations of resources, and a superior means of access to technological capabilities and other complex capabilities (Mamédio, Rocha, Szczepanik, & Kato, 2019).

The strategic alliance between large and small companies can benefit both parties. In response to Interview Question 3, P1 mentioned that they partnered with a small company for product innovation that resulted in increasing the speed and accuracy of the machine by close to 40%, which disrupted the industry and increased profit margins by even more. P3 also described the same phenomenon while highlighting the distinctive product quality. Freytag (2019) stated that partnerships between innovative startups and large established businesses improve chances of success and benefits both sides by considering the interests of both parties.

Balancing the use of incubators with a high level of work autonomy for employees leads to profitability. P1, in response to Interview Question 3, and P2, in response to Interview Question 2, said that incubators served a purpose to build up technical knowledge for their large organization. Additionally, they identified the need of providing space to their employees to think about the solutions differently because the person doing the job can have insights about how to do the job better. To overcome the challenges of complex organizational structures, corporate cultures, and technological inertia associated with the automotive industry, the manufacturers set up corporate incubators and accelerator programs to engage with external startup companies (Anders, Gustaf, & Aravind, 2019).

Working with external stakeholders is critical for increasing a firm's competitiveness and profitability, and it requires resilience. In response to Interview Question 4, Participants P3 and P5 expressed that they used crowdsourcing innovation to solve some of the complex problems expediently. Companies use crowdsourcing to keep pace with a fast-changing business climate by solving business problems, supporting R&D activities, and fostering innovation in an inexpensive, flexible, and dynamic fashion (Devece, Palacios, & Ribeiro-Navarrete, 2019). In crowdsourcing innovation, higher participation intensity leads to higher idea quality and better business performance (Camacho, Nam, Kannan, & Stremersch, 2019).

The use of crowdfunding can help to generate the funds for innovation. P9, in response to Interview Question 1, and P5, in response to Interview Question 8, mentioned the challenge of financial availability and recommended a crowdfunding model for generating funds for innovation ideas that need larger capital inputs. According to this model, people voluntarily fund the innovation project or provide input to the innovation process, and all parties are rewarded upon the success of an innovation project. Crowdfunding is an open innovation concept which is based on volunteerism and requires a deep understanding and appreciation of what the initiator seeks to achieve for motivating potential volunteers (Chu, Cheng, Tsai, Tsai, & Lu, 2019). In reward-based crowdfunding, companies with innovation projects reach a funding goal by seeking capital from potential consumers, and in return, offer them future products or services (Dai & Zhang, 2019).

Manufacturers collaborate with their strategic business partners to share expertise, costs, and risks. P1 conducted 'supplier days' at the product line level, where they brought in suppliers to engage them in innovations. Furthermore, P1 described that the focus of collaboration remained on cost reduction to make the overall product cheaper, a win for all the involved parties. Alliances involves the agreement of the partner's long-term strategic plans, and a main goal of collaboration was addressing the increase in the cost of productive efficiency (Kyrylenko, Riazanovska, & Novak, 2019). Other goals were increasing innovations and knowledge, flexibility and scale of activity, stability in resource provision, and strengthening competitive advantages (Kyrylenko et al., 2019).

External partnerships are useful to increase production efficiency and build a diverse workforce. Participants P3 and P5, in response to Interview Question 4, stated that external partnerships helped them in building an extraordinary diverse workforce. In response to Interview Question 7, P7 mentioned that supplier's skills, core competencies, and recommendations were useful to increase firm's dynamic capacity and efficiency of remanufacturing, consequently leading to increased profit margins.

Taking a risk to collaborate externally for developing technology, products, and processes can help spark an increase in the profit margins. In response to Interview Question 6, P3 mentioned that they felt comfortable enough to establish the boundaries or rules of engagement with their partners so that they could take risks and be successful. P3 further highlighted that some risks would fail but that one should learn from it and should not stop from taking other risks. In partnerships and alliances, knowledge transfer poses a series of risks for both sides because of the valuable and non-withdrawable nature of

knowledge (Q. Yang, Liu, & Li, 2019). In response to Interview Question 7, P7 highlighted that they had non-disclosure agreements and professional service agreements in place with suppliers, which governed and helped mitigate risk to the BUS. The inclusion of critical stakeholders in the decision-making process of a business is vital in increasing profit margins.

Findings from the literature review, which discussed partnerships and alliances, were supportive of the strategic partnerships and alliances subtheme that emerged from the study. The entrepreneurial managers play a vital role in the new knowledge development process, leading to profitability (Salunke et al., 2019). The use of strategic partnerships and alliances for collaborative knowledge helps business leaders to manage disruption (v. Alberti-Alhtaybat, Al-Htaybat, & Hutaibat, 2019). Although many researchers studied the significant essence of partnerships and alliances for successful business performance (Camacho et al., 2019; Devece et al., 2019; Fernández et al., 2019; Freytag, 2019; Mamédio et al., 2019), there is a lack of scholarly attention to elaborate in practical terms on both partnerships and competitive alliances, which may become an insightful approach to increase innovation intensity for a firm's profitable growth.

The holistic innovation model theory formed the conceptual framework for this study and included both open innovation and closed innovation approaches. Disruptive innovation theory which also formed the conceptual framework for this study can presents opportunities for businesses; however, unexpected threats may emerge, which may affect profitability and productivity (Lui et al., 2015). Both theories relate to the study findings. The businesses cohabiting the open innovation ecosystem should look at

innovation from a holistic, strategic, and global perspective (Chen et al., 2018), because, in open innovation networks, companies disclose their needs, data, and operations for others in the network to boost their change process and innovation (Leminen, Nyström, & Westerlund, 2019). Firms that take advantage of the variety of inter-organizational relationships to achieve knowledge exploration develop more radical innovations, and therefore, clustered firms should build their network with a great diversity of relationships to obtain knowledge exploration since it is critical for developing radical innovation (Martínez-Pérez, Elche, & García-Villaverde, 2019).

Subtheme 7: Speed

Speed to market is critical for early mover advantage, which can generate growth in profit margins and market share. P8, in response to Interview Question 4, expressed that they tried to be faster to bring offerings to the market because of the pressure from competitors. Speed for rapid launch of product and services is a matter of survival and requires leveraging pre-existing networks (Stayton & Mangematin, 2019). In responses to Interview Questions 5, 6, and 7, Participants P2, P3, P5, and P6 mentioned that when they were faster to launch the innovation in the market as compared to competitors, it positively impacted profit margins and market share, because when it takes a long time to launch innovation into the marketplace, it is less innovative and can cause the loss of early mover advantage and hence of market share.

The slow speed of understanding customer needs and launching innovations to the market will cause firms to lose profitability. In response to Interview Question 7, P6 said that being slow to the market reduces profitability because of not able to recoup any of

that cost of investments or obtain the value of new technology development. Increasing speed and productivity performance requires realigning the firm's manufacturing strategy to include a range of prioritized actions, including capital investment and changes in management practices concerning bottom-up process improvement and regular, top-down strategy review (Hutton & Eldridge, 2019). In response to Interview Question 1, P1 asserted that the bias towards speed was essential to increase customer value and generate more profit margins because they were faster than the competition in understanding and addressing customers' pain points and wants, and enabling them to do specific tasks much faster than they used to do it.

The problem-solving speed that increases the quality of the existing product and services is critical for profitable growth. P3, in response to Interview Question 5 and P5, in response to Interview Question 4, stated that the speed to distinctive quality, which is the speed of solving the actual root cause of the problems with products and services offerings was essential and vital for increasing market share. Managing the complex relationships between capabilities such as quality, speed, and cost improves business performance (Hutton & Eldridge, 2019). In response to Interview Question 8, P8 mentioned that they did not sacrifice the quality of products and services and value to customers for the speed because innovative solutions do not mean a thing if they do not work like they are supposed to. P3 stated, "when we had machine quality issues, we saw our market share deteriorating multiple points because of the impact on the quality side. One of the highest market shares that we have had when the customers were ecstatic."

Speed through digitization is critical for profitability. In response to Interview Question 7, P3 mentioned that manufacturing businesses are going through the fourth revolution in the industry and every business is going to get there with the digitalization, but speed, and how to connect and use the data in the right way, is so critical for the competitive advantage and is essential for profitability. Industry 4.0 refers to technological advances where the internet and supporting technologies (e.g., embedded systems) serve as a backbone to integrating intelligent machines, physical objects, product lines, and processes across organizational boundaries to form a new type of smart, networked, and agile value chain (Schumacher et al., 2016). P3 highlighted that digitization was essential for BUS to remain competitive and profitable, further adding that other companies would bypass them if they did not have the speed to change the architecture.

Evidence from the literature review, which indicated the challenges of innovation such as shorter delivery times, shorter product life cycles, and requirements for high quality, were supportive of the speed subtheme, which developed from the results of the study. The turbulence of markets requires that companies adjust their activities at a higher pace, and therefore, capabilities should be reconfigured based on market evolution (Mora Cortez & Johnston, 2019). Manufacturers collaborating with customers in the new product development process at higher levels can increase the speed of new product development and commercialize products at a faster rate (Morgan, Anokhin, Song, & Chistyakova, 2019). Digitalization has an impact on the speed of globalization because of the speed of more efficiently identifying new market opportunities in global markets

(Neubert, 2018). Problem-solving speed involves a firm's ability to find useful information for resolving problems and implement solutions rapidly to reach organizational goals (Giampaoli, Ciambotti, & Bontis, 2017).

The holistic innovation model and disruptive innovation theory, which formed the conceptual framework for this study, includes innovation intensity that can alter the way a company operates and performs. Therefore, the conceptual framework supported the speed subtheme that emerged from data. The use of explorative and exploitative innovation activities can impact the firm's performance in an emerging market (Ngo et al., 2019). Given the global business environment, science and technology, and collaborative innovation featuring openness, cooperation, and sharing have proven effective in improving the efficiency of innovation (Chen et al., 2018). Breakthroughs and radical innovations are often associated with exploratory activities (Ngo et al., 2019), and therefore, companies race to understand customers with sufficient depth in new markets and thrive in the global economy by filling gaps in their globalization capabilities through innovation practices (Ramamurti & Williamson, 2019).

Subtheme 8: Win in Aftermarket

Product innovations cannot be profitable without complementary aftermarket services. Participants P1, P2, P4, P6, and P8 mentioned that winning in the aftermarket was essential in order to grow their aftermarket business by addressing their customers' critical needs beyond the product warranty. The crucial role of the after-sales service offerings is to protect firm's traditional products (Raddats, Kowalkowski, Benedettini, Burton, & Gebauer, 2019). In response to Interview Question 7, P2 stated that in order to

generate better profit margins, they needed to somehow close the gap between the complexity of equipment and the capability of their dealers, themselves, and customers. Manufacturing companies feel pressure to improve after-sales operations due to intensified competition on the global manufacturing markets, and larger companies are more likely to have the market power and organizational slack that are favorable conditions for success (Kowalkowski, Gebauer, & Oliva, 2017). Aftermarket services, too, can become a source of differentiation and can lead to higher profitability.

Aftermarket services are a high-profit margin business and account for a large portion of corporate profits. In response to Interview Question 3, P1 said that parts and service yielded more profits as compared to whole goods, and therefore to increase profit margins, quality of aftermarket services was vital whether that means maintenance or service parts or just keeping the machine up. In the process of aftermarket service, the quality of machine maintenance is affected not only by a manufacturer's effort level, but also by proper operation and predictive maintenance, which help manufacturers to continue to fulfill the continuously changing customers' needs (Liang, Xie, Liu, & Xia, 2017). In response to Interview Question 1, P2 stated that they leveraged data to be more forward-looking in their parts forecasting, from a strategy standpoint regarding the value proposition to customers.

Manufacturers develop or adjust global aftermarket services to create universal value propositions. P1, in response to Interview Question 3, and P4, in response to Interview Questions 1, 4, and 5, highlighted the importance of parts business for profitability and mentioned that they developed quality aftermarket services after

understanding the pain points of customers worldwide. My findings aligned with the findings from previous researchers who said that enhancing local value co-creation with customers to build global operating models, ensures global brand coherency (Hakanen et al., 2017), and effects on revenue, profit, and growth (Baines et al., 2017).

In a global B2B distribution, ensuring that channel partners understand the potential value from service innovation is essential for manufacturers to yield profit from service innovation. In response to Interview Question 1, P6 asserted that innovations impacted their distribution channel because they did not distribute directly for most cases. This participant also emphasized the importance of articulating the value of potential customer experience from service innovation. Hakanen et al. (2017) found that servitization influences global B2B distribution, and value co-creation and customer experience activities become central for manufacturers to service in global distribution.

The quality of aftermarket services depends on identifying and solving customers pain points. In response to Interview Question 4, P8 stated that their customers became more and more dependent upon their dealers to be a solutions provider rather than just an equipment provider. Therefore, their sales teams and territory customer support managers gathered feedback from dealers and directly from customers about where they are finding value, specifically, and what they think is working or failing to work. Then, they used that feedback to provide the right solutions, so that customers can continue to go to their dealer as a trusted advisor. My findings aligned with the findings from previous researchers who said that improving customer experience involves value

creation, cognitive responses, and discrete emotions at touchpoints across the customer journey (McColl-Kennedy et al., 2019).

Study findings revealed that aftermarket service quality and the resulting customer satisfaction and brand loyalty are principal drivers of profitability in the aftermarket area. Customer satisfaction is a quality measure and the basis for customer loyalty to the brand, which is useful to predict customers purchasing intentions (Moretta Tartaglione et al., 2019). P4 and P6 mentioned that when their customer and product support employees and dealer organizations provided a world-class experience to their customers by resolving their product problems effectively, it increased customer satisfaction, and their brand loyalty.

Faster problem solving is essential in the aftermarket area. P1, in response to Interview Question 3, stated that when a machine failed due to extreme weather conditions, they brought the customer's machine back up and running faster because time was money for both customers and them, in terms of high availability of machinery. A unique combination of differentiation and exclusivity by service employees will be difficult to emulate by competitors (Rosenzweig, Queenan, & Kelley, 2019), and enhanced customer experience may lead to product market success (Sokolinskiy et al., 2019). In response to adapting the strategies to changes in the industry, P4 added, "it became a requirement to look at service models outside of our industry to understand how others are enabling do-it-yourself type behavior for their customers, to figure out what to do next."

Many manufacturers face a significant challenge in managing spare parts inventory (Togwe, Eveleigh, & Tanju, 2019). In response to Interview Question 5, P4 highlighted the importance of addressing the challenge of having parts always being available at the dealership without increasing inventory. P4 also stressed the importance of striving to keep the relationship with customers intact so that they remain satisfied with parts availability and loyal to the brand. P4 stated, "although parts logistics cost could be significantly higher, our goal was to get the parts as close to customers as we could, because growth in part sales was one of the key measurements to determine our success."

Evidence from the literature review, which described that service quality and the resulting customer satisfaction are principal drivers of financial performance, was supportive of the win in aftermarket subtheme which developed from the results of the study. Manufacturers, instead of focusing entirely on products, strive to complement their products with value-added services and to re-position themselves as world-class solution providers (Kuijken, Gemser, & Wijnberg, 2017; Luoto, Brax, & Kohtamäki, 2017; Valtakoski, 2017). The ability to construct and effectively operate global product distribution channels is a critical determinant of a manufacturer's competitiveness and profitability (Baines et al., 2017; Hakanen et al., 2017). However, the literature still has gaps in addressing this aspect of servitization (Kowalkowski et al., 2017). The findings of my study indicated that developing a new service model or adjusting a current one may involve manufacturers' global B2B distribution channel. Furthermore, it is of vital

importance for manufacturers to select distributors that best improve the sales and are capable of co-producing value for the end customer.

The theories of holistic innovation model and disruptive innovation, used as the conceptual framework for this study, includes exploratory and exploitative innovation, as well as nonproduct innovations. Therefore, the conceptual framework supported the win in aftermarket subtheme that emerged from data. Incremental service innovations are more successful for manufacturers when customers participate in new service development, while developing radical service innovations leads to higher firm performance (Johansson, Raddats, & Witell, 2019). Manufacturers must use a sequential innovation exploitation and exploration pathway to improve product and service innovations outputs (Bustinza et al., 2019). Significant mobility of machines and users causes frequent communication network disruptions and wide variability in channel performance (Tortonesi et al., 2019), and therefore, risk planning for service model disruption in regards to dealing with disaster management issues is critical for minimizing the impact of service disruption (Hasani & Mokhtari, 2019).

Applications to Professional Practice

The innovation strategies emphasized in this research study toward increasing the organization's profit margins might assist business leaders in reducing their firms' risk of failure, in increasing competitiveness and profit margins, and in sustaining profitable growth. The objective of this study was to explore the innovation strategies that business leaders of a global machinery manufacturing company in northwest Illinois used to increase the organization's profit margins. The findings of this study promise to be

helpful to business leaders in seeking to explore and employ innovation strategies for improving the profit margins of a global machinery manufacturing company. The results of this study might also help owners and business leaders of machinery manufacturing businesses to formulate an introspective analysis of their current innovation strategies and determine how effective they are in improving sales revenue and increasing their firm's profit margins. This self-reflection might be vital in attaining or sustaining competitive advantage and profitable growth.

Integrating innovation as one of the core values and using relevant innovation strategies is essential for crafting an enduring foundation of a company's competitiveness and profitable growth, because the use of innovation strategies can help business leaders to enhance their firm's competitiveness both locally and globally (Kneipp et al., 2019), as well as to sustain and increase desired profits (Na et al., 2019). Innovative products can become obsolete (Ribeiro, Santos, & Dutra, 2019), or can fail, resulting in significant economic burdens (O'Donnell, Ives, Mohiuddin, & Bunnell, 2019). Therefore, innovation strategies should remain vital and relevant to deal with the dynamic nature of the business, to increase the firm's competitiveness and sustain profitable growth.

Distinctive product quality was one of the subthemes that emerged from the data collection. Because of the dynamic nature of the global business environment and competitive pressure, providing distinctive quality products is critical for increasing a firm's competitive advantage and profit margins. Hailey (2015) stated that competitive advantage involves offering a unique product or service that an organization can provide as a strategy to meet or exceed its customers' needs.

Superior value originates from offering superior-quality products and unique benefits that more than offset a higher price, or from providing a lower price than competitors for equivalent benefits. The main approaches to the competitive strategy include low-cost leadership, differentiation, and market focus strategies (David, 2019). Machinery manufacturing business leaders may implement the innovation strategies to enhance the efficiency of machines, and to differentiate their products and services from those of their competitors, and therefore they might increase firms' competitiveness, customer experience, sales revenue, and sustenance of profitable growth.

Distinctive customer experience was another subtheme that emerged from the data collection. To achieve competitive advantage and profitable growth, delivering distinctive customer experience must be the premiere strategy and must include customer feedback, employee commitment to customers, leadership, and technology. Business leaders should leverage the collective experience of a cross-functional team such as manufacturing operations, finance, sales and marketing, R&D, risk, product supply, customer and product support, and technology, to understand the consolidated view of customers' pain point and then finding innovative solutions to increase measurable customer value. The execution of these action plans to deliver distinctive customer experience may increase a firm's competitive advantage and profitability. Business leaders can explore innovation strategies to create measurable customer value and deliver distinctive customer experience as an avenue in achieving competitiveness, increasing sales revenue, and profitable growth.

Business leaders should scrutinize customer feedback, identify the areas of improvement, and create action plans for ensuring that customer concerns are heard and resolving customer issues promptly. Managing customer experience in this manner may influence customers' behavior by improving trust in the brand, loyalty, satisfaction, and financial performance. Havir (2017) recommended that business leaders practice a formal process of analyzing customer experience feedback to get a more comprehensive view of the dimensions and factors of customer experience. Territory customer support managers' role is essential in implementing innovation strategies to push value-driven organizational change further, enhance customer experience, and improve customer loyalty.

Building relationships with existing customers and designing new strategies to increase customer value propositions are essential to maximizing sales and profitability (Ramaj & Ismaili, 2015; Shukla & Pattnaik, 2019). Business leaders need to understand the critical link between distinctive customer experience, competitive advantage, and profitability, because the main avenues for increasing profitability and sustaining profitable growth include differentiated products and services that customers want to buy as well as building customer loyalty and retaining customers by delivering distinctive customer experiences. To remain profitable, business leaders must invest in relevant innovation strategies that will help them achieve business objectives.

Technology-based modernization was another subtheme that emerged from the data collection. Investing in technological innovation and the effective use of modern technologies have a positive impact on competitive advantage and profitability. Advanced technologies are useful for companies to understand customers' tastes and

preferences and therefore are favorable to optimize repeat sales and improve profitability (Peppers & Rogers, 2017). Furthermore, the slow acceptance of technological innovation might erode firms' competitiveness and may create technical debt.

The use of appropriate advanced software technologies can make a direct and measurable contribution to the success of manufacturing business operations, because business leaders can monitor the performance of their equipment remotely and often learn potential downtime issues even before the customer becomes aware of it. For example, the use of AI technology can increase the efficiency and effectiveness of business operations via remote diagnostics and increased use of sensors and networked machines in manufacturing processes (W. J. Lee et al., 2019; Lin & Chen, 2019).

Business model advantage was another subtheme that emerged from the data collection. Business model innovation is critical for firms to gain competitive advantages and improve their financial performance (Tian et al., 2019). Participants P1, P2, P3, and P5 transformed their global business operating models to their advantage by adapting to industry changes, and by making the manufacturing and overall business processes more modern, scalable, and innovative. The increased production efficiency and quality, as a result, helped them to reduce the global operating costs and facilitated the development of better products, both of which led to increased revenue for R&D.

Business leaders transform business models to continually advance and increase their company's dynamic capacity (Gupta & Agarwal, 2019). Increasing dynamic capacity involves leveraging business models to increase manufacturers' ability to reconfigure, build, and integrate both internal and external competencies to adapt to

changes in an uncertain business environment, and is a key competency for strengthening a firm's competitiveness and profitability. Business models that support strategic sustainability thinking, and include business scalability and risk appetite, are favorable for increasing competitiveness and sustainable profitable growth.

Diversity of thoughts and inclusion was another subtheme that emerged from the data collection. Keeping pace with emerging trends and new areas of expertise could be a challenge, and the subject matters experts in the field might become out of date, so the diversity of perspectives is essential for competitiveness and profitability. Generations differ in their thinking, and the way they cognitively process information, because of their unique set of experiences and collective memories that influences how they portray situations, new information, and experiences (Dust et al., 2019). Therefore, generating knowledge of innovative activities using a diversity of thoughts from different social positions has a competitive advantage, and therefore is critical for increasing profit margins.

Availability of the right talent to make firm business decisions is essential to meet customers' needs. Participants P1 through P6 emphasized the necessity of diverse thoughts and their inclusion toward finding innovative solutions for customers' pain points and needs. The success of collaborative innovation depends on critical aspects of the operation, such as intellectual diversity, knowledge, and networking (Chu et al., 2019). P1 through P6 shared that the inclusion of a diversity of work experiences, age, gender, race, ethnicity, education, and socioeconomic status, helped them to generate

diverse perspectives and more innovation ideas that impacted competitive advantage and profitability.

Strategic partnerships and alliances with suppliers or external firms can help business leaders to increase their firm's competitiveness, profitability, and market share, because collaborating partner firms benefit from sharing costs, risks, and expertise. External partnerships and alliances are useful to strengthen competitive advantage, and external collaboration offers many benefits such as increase in the productive efficiency, increase of innovations and knowledge, flexibility and scale of activity, increase stability in resource provision, and cost reduction (Kyrylenko et al., 2019). P7 collaborated with the supplier with a transparent approach, and leveraged the supplier's skills, core competencies, and recommendations to increase the efficiency of remanufacturing, leading to increased profit margins.

Speed was another subtheme that emerged from the data collection. The turbulence of markets requires that companies adjust their activities at a faster pace, and therefore, capabilities should be reconfigured based on market evolution (Mora Cortez & Johnston, 2019). The speed to market is requisite when launching innovation; it impacts profit margins and market share, because when it takes a long time to launch innovation into the marketplace, it is less innovative and businesses may lose early mover advantage, leading to loss of market share. P8 mentioned that one must run fast but cannot sacrifice quality and value to customers, because innovative solutions mean nothing if they do not work like they are supposed to.

Win in aftermarket was another subtheme that emerged from the data collection. A world-class aftermarket service is critical to effectively serve customers in the parts and services business, which leads to profitable growth in the aftermarket business. Customer experience management focuses on every facet of the company's operations and is critical in viewing the organization as a synergistic whole from the customer's viewpoint (San-Martín, Jiménez, & Puente, 2019). Business leaders use customer experience management to efficiently manage points of interface with the customer using a proactive approach (San-Martín et al., 2019). P6 indicated that there was a consistent review of feedback from customers and customer experience strategy to achieve desirable profits by delivering unique value to customers through customer-focused innovation.

Study findings revealed that speed to market and quality through digitization are critical for increasing competitiveness and profitable growth. Speed to distinctive quality, which is the speed of solving the true root cause of the problems, is essential for increasing market share. Managing the complex relationships between capabilities such as quality, speed, and cost increases business performance (Hutton & Eldridge, 2019). Using digitalization, business leaders can connect and use the data in the right way, at a faster speed. Therefore, speed of globalization increases firms' ability to more efficiently identify new market opportunities in global markets (Neubert, 2018).

An additional contribution of this study is an illustration of how the innovation strategies from this case aligned with the theories of holistic innovation model and disruptive innovation, which initiate a process of transformation that leads business leaders to create new ways of doing business and increasing performance (Christensen,

2011; Cornell, 2012; Van de Vrande et al., 2009). Both innovation and the degree of innovation can alter the way a company operates and performs (Christensen, 2011), and creation of innovation knowledge or ideas (i.e., innovation exploration) is essential to transform that knowledge into goal-driven outcomes (i.e., innovation exploitation) (Cornell, 2012; Van de Vrande et al., 2009). In this case, positioning innovation strategies for disruption, strategic partnerships and alliances, transformation of products, services, operating business models, delivery of distinctive customer experience, effective use of modern technologies, diversity of thoughts and inclusion, and speed to market and improved quality, were consistent themes that emerged from the data for increasing firm's competitiveness and profitable growth.

Implications for Social Change

The implications for social change include the potential to create developmental or transformational changes in the business community that could improve business performance and increase profit, leading businesses to create opportunities for, and contribute to, their communities. Increased business growth via innovation strategies can lead to more revenue for the community, provide more job prospects, and increase tax revenues to help the local governments to increase or strengthen community services. Thus, social impact includes improved economic strength and sustainable development in the community. The findings of this study might encourage business leaders in the community to adopt and implement relevant innovation strategies, leading to business growth and an increase in profitability.

Recommendations for Action

Some business leaders of a global machinery manufacturing company in northwest Illinois use innovation strategies to increase the organization's profit margins. When the business leaders use such strategies, they help not only to increase the profitability but also to improve businesses' competitiveness, which leads to sustainable profitable growth. Therefore, the need to increase the firm's profitability cannot be overemphasized. Current and future business leaders of all machinery manufacturing companies should focus on recommendations arising from the overarching theme that emerged (the importance of increasing a firm's competitiveness and sustaining profitable growth) and eight subthemes (distinctive customer experience, technology-based modernization, distinctive product quality, business model advantage, diversity of thoughts and inclusion, strategic partnerships and alliances, speed, and win in aftermarket). Following are recommendations for action in formulating innovation strategies that assist in increasing organizations' profit margins:

1. Business leaders should make crucial decisions regarding integrating innovation as one of the core values and using relevant innovation strategies for an enduring foundation of company's competitiveness and profitable growth, because the use of innovation strategies can help them to enhance their firm's competitiveness both locally and globally, increase profit margins, and sustain profitable growth.
2. Business leaders should understand customers' pain points, and then invent, design, and develop breakthrough products and services that customers want

to buy, which will lead to increasing their firm's profit margins and achieving profitable growth.

3. Business leaders should foster a culture of innovation exploration and innovation exploitation to deliver on the corporate mission's profitability, in order to increase their firm's profit margins, to enhance competitive advantage and to reduce the risk of failure.
4. Business leaders should ensure that innovation strategies remain vital and relevant to increase dynamic capacity for increasing their firm's competitiveness and profitability because innovative products also can become obsolete.
5. Business leaders should invest in and promote the cutting edge of technology innovation to gain competitive advantage. The slow acceptance of technology innovation may erode the business' competitive edge.
6. Business leaders should understand where cost is locked up in their business operations and where the value lies, framing operational inefficiencies as opportunities for cross-functional teams to work on, unlocking possibilities for increasing profit margins.
7. Business leaders should fully incorporate distinctive customer experience as a competitive element to create measurable customer value, to attain more market share, and to retain existing customers. Incorporating distinctive customer experience will require business leaders to understand changing

customers' motivation and the impact of rapid or slow-creeping change on customer satisfaction.

8. Business leaders should invest in strategic partnerships and alliances for sharing expertise, cost, and risks, which increases the opportunities for increasing the firm's competitiveness and gaining more market share.
9. Business leaders should promote diversity of thoughts and the inclusion of diverse perspectives. Generating diversity of thoughts should include the diversity of socioeconomic backgrounds, work experience, age, gender, race, ethnicity, and education.
10. Business leaders should include all stakeholders at the appropriate time for collaboration and communication. The inclusion of diverse expertise and the experiences of all stakeholders possessing a clear understanding of the business processes and objectives produces faster, less expensive, and better results, and therefore it will have a positive impact on profitability.
11. Business leaders should ensure that the current business model aligns with the strategic objectives of the business, which will serve as a platform for good business practice.

Business leaders might use rational insights from this study to develop or transform the business community and society. I will disseminate the results to different learning institutes and organizations, and through publication research journals. I believe that the application of this study's findings will encourage business leaders to implement

innovation strategies to increase their firm's competitiveness, increase profit margins, and sustain profitable growth.

Recommendations for Further Research

I conducted a qualitative single case study in a global machinery manufacturing company in northwest Illinois. This study provides the basis for future research in sustainable innovation practices for profitable growth in the manufacturing sector. This study had two key limitations. The first limitation was that the participants who finish the study might not be truly representative of the population. The second limitation was that the business leaders answering the interview questions might not represent universally-accepted expert opinions. Therefore, the recommendation for future research is to conduct a qualitative multiple case study in machinery manufacturing companies in all regions of northwest Illinois to increase the chances of acceptance of study results by other researchers. Additional research with small or medium-size firms and those located in other regions may provide added insights into what innovation strategies are being implemented or overlooked by business leaders. The following is a list of recommendations for further research related to improving business performance using innovation strategies:

1. Future researchers could explore the impact of innovation strategies when collaborating between small and medium firms.
2. Future researchers could explore the possible ways to avoid product innovations becoming obsolete.

3. Future researchers could explore the effectiveness of crowdfunding on the profitability of small and medium firms.
4. Future researchers could investigate the impact of introducing public-private partnerships on the financial viability of machinery manufacturers.
5. Finally, future researchers could explore innovation strategies for increasing profit margins or sustaining profitable growth in non-machinery manufacturers, such as parts supply companies or technology suppliers, in order to compare and contrast the findings for the possibility of mutual benefit.

Reflections

I preferred to pursue a Doctor of Business Administration (DBA) degree instead of a Ph.D. because of the focus on studying a business problem. I appreciated the DBA program approach because it related to me more as a professional, especially coming from the business world with 20 years of experience. This research on innovation strategies for a global manufacturing business was informative and provided a great deal of knowledge regarding innovation strategies to increase profit margins. The results of the study confirmed my perception that a qualitative case study approach is an effective method to explore the experiences of business leaders. I also gained a depth of knowledge and understanding from many different scholarly articles. Furthermore, I recognized the value of research work and how to integrate the process together.

The process of completing the DBA doctoral study broadened my knowledge of qualitative research methodology as I practiced conducting practitioner-scholarly

research. The value of using insider research lies in bridging the gap between professional practice and academia (Milano, Lawless, & Eades, 2015). However, the continuous use of reflexivity and reflectivity throughout the insider research process is essential (Tuesner, 2016). Reflexivity is the ability to see around and beyond what is in front of you; to halt the action and think about what is working or not working (Vettraino, Linds, & Downie, 2019). Acting on that process can cause a useful transformation in the research process (Vettraino et al., 2019). Reflectivity enhances researchers' reflective practice and creates new opportunities to develop greater self-awareness (Vettraino et al., 2019). Reflections about the DBA research process had to do with personal bias, my effect, as the researcher, on participants, and changes to my thinking upon completing the study.

Insider researchers' implied knowledge facilitates an understanding of the organizational culture and the study's participants; however, this benefit also increases the risk of personal bias (Tuesner, 2016). Therefore, Tuesner recommended using reflexivity and reflectivity throughout the research process to ensure the mitigation of personal bias before and after interacting with every participant. I used reflexivity to consider my relationship with participants and their assigned departments, as well as my understanding of departmental processes, before conducting each interview. I repeated the same process shortly after each interview; however, I focused on my new or improved understanding of the processes used by participants. Using reflexivity and reflectivity helped me to separate my opinions and personal bias from the research

process, which allowed me to focus on the participants' responses. I also considered how my effect on participants might affect response bias.

Research participants might withhold or change responses based on their relationship status with the researcher (Tuesner, 2016). To mitigate researcher bias, I did not conduct this study with business leaders for whom I have worked or employees with whom I have worked. I had, in fact, a neutral relationship with participants because we had never worked for the same department. I explained the research process to the participants to answer their questions and eliminate confusion.

Bias occurs when a researcher uses preconceived experiences to interpret interview notes (Buetow, 2019). The topic of this study and the research area were new to me. I avoided preconceived beliefs acquired from previous experiences of working in a machinery manufacturing company and remained grounded solely in the participants' responses. I used an interview protocol (see Appendix) to maintain consistency and accuracy. I asked the interview questions in the same order and did not introduce bias into the data collection or data analysis process. I avoided assumptions by asking probes and follow-up questions to obtain clarification during the interviews, as though I was an outsider.

Using the process of reflexivity, reflectivity, and member checking to verify the accuracy of the interview data allowed me to determine that the data did not support my preconceived notions. I found that as an insider to the organization, I was still an outsider to multiple departments and needed to adjust accordingly to the advantages and disadvantages of my researcher role with each participant. Furthermore, learning from the

research process and the experiences from this study positioned me for future research as a scholar.

Conclusion

The use of expedient innovation strategies can differentiate a business' products and services from competitors, as well as sustaining and growing profit margins. Business leaders must implement appropriate innovation strategy which increases revenue and sustains business performance (Fernandes & Solimun, 2017; Taneja et al., 2016). The findings of this research study reveal that the success of generating higher profits from the products and services, depends heavily on innovation strategies business leaders implement to differentiate the products and create measurable customer value. The findings also reveal that business leaders' ability to invent, design, and develop breakthrough products and services that customers want to buy lead the firm to profitable growth. Furthermore, even the most innovative product becomes obsolete; therefore, business leaders must ensure that innovation strategies remain vital and relevant to increase their firm's competitiveness and profitability, both locally and globally.

Machinery manufacturing business leaders must conceive of sustainable profitable growth as a broad strategy which includes competitive advantage, distinctive customer experience, effective use of modern technology, distinctive product quality, business model advantage, diversity of thoughts and inclusion, strategic partnerships and alliances, speed, win in aftermarket, and so on, and not just as an individual innovation strategy. For example, distinctive product quality should be viewed as a subset in the broader sustainable profitable growth strategy, and not as the entire sustainable profitable

growth strategy. The findings of this research study reveal that machinery manufacturing business leaders must evaluate and select the most viable innovation strategies based on their type of innovation and market research, as well as insights about customers, competitors, and channel members.

Business leaders' ability to translate innovation strategies into profitable solutions help them win customers, attract high-caliber employees, develop extraordinary global talent, and achieve desired profitable growth. Business leaders must identify the need to launch radical or incremental innovation since different types of innovation require a different set of innovation strategies. Business leaders must consistently value the need for innovation exploration and exploitation on the critical facet of an organization's competitiveness and profitable growth. A failure to do so could result in a loss of competitive advantage, reduced customer loyalty, loss of sales revenue, decreased profitability, and even business closure (Prajogo, 2016; Visnjic et al., 2016), which may further intensify social issues such as weakened economy, unsustainable development in communities, unemployment and poverty (Eschker, Gold, & Lane, 2017).

References

Abbate, T., De Luca, D., Gaeta, A., Lepore, M., Miranda, S., & Perano, M. (2015). Analysis of open innovation intermediaries platforms by considering the smart service system perspective. *Procedia Manufacturing, 3*(6th International Conference on Applied Human Factors and Ergonomics (AHFE 2015) and the Affiliated Conferences, AHFE 2015), 3575-3582. doi:10.1016/j.promfg.2015.07.719

Abbey, J. D., & Guide, V. J. (2018). A typology of remanufacturing in closed-loop supply chains. *International Journal of Production Research, 56*, 374-384. doi:10.1080/00207543.2017.1384078

Abdallah, A. B., Phan, A. C., & Matsui, Y. (2016). Investigating the effects of managerial and technological innovations on operational performance and customer satisfaction of manufacturing companies. *International Journal of Business Innovation and Research, 10*, 153-158. doi:10.1504/ijbir.2016.074824

Abdelkafi, N., & Pero, M. (2018). Supply chain innovation-driven business models: Exploratory analysis and implications for management. *Business Process Management Journal, 24*, 589-608. doi:10.1108/BPMJ-05-2016-0109

Abedini, N. C., Stack, S. W., Goodman, J. L., & Steinberg, K. P. (2018). It's not just time off: A framework for understanding factors promoting recovery from burnout among internal medicine residents. *Journal of Graduate Medical Education*, *10*(1), 26-32. doi:10.4300/JGME-D-17-00440.1

Aboelmaged, M. (2018). The drivers of sustainable manufacturing practices in Egyptian SMEs and their impact on competitive capabilities: A pls-sem model. *Journal of Cleaner Production, 175*, 207-221. doi:10.1016/j.jclepro.2017.12.053

Acharya, V., & Xu, Z. (2017). Financial dependence and innovation: The case of public versus private firms. *Journal of Financial Economics*, *124*, 223-243. doi:10.1016/j.jfineco.2016.02.010

Aeron, P., & Jain, R. (2015). A study on technological capability among product-based telecom start-ups in India: Role of technological learning and bricolage. *International Journal of Technological Learning, Innovation and Development, 7*, 336-340. doi:10.1504/ijtlid.2015.073039

Aghdaie, M. H., & Alimardani, M. (2015). Target market selection based on market segment evaluation: A multiple attribute decision making approach. *International Journal of Operational Research, 24*, 262-292. doi:10.1504/ijor.2015.072231

Agostini, L., Nosella, A., & Filippini, R. (2017). Does intellectual capital allow improving innovation performance? A quantitative analysis in the SME context. *Journal of Intellectual Capital*, *18*, 400-418. doi:10.1108/JIC-05-2016-0056

Ahn, J. M., Roijakkers, N., Fini, R., & Mortara, L. (2019). Leveraging open innovation to improve society: Past achievements and future trajectories. *R&D Management, 43,* 267-278. doi:10.1111/radm.12373

Ahrholdt, D. C., Gudergan, S. P., & Ringle, C. M. (2019). Enhancing loyalty: When improving consumer satisfaction and delight matters. *Journal of Business Research, 94*, 18-27. doi:10.1016/j.jbusres.2018.08.040

Alberti, F. G., & Varon Garrido, M. A. (2017). Can profit and sustainability goals co-exist? new business models for hybrid firms. *Journal of Business Strategy, 38*, 3-13. doi:10.1108/JBS-12-2015-0124

Aldiabat, K. M., & Navenec, L. (2018). Data saturation: The mysterious step in grounded theory method. *Qualitative Report, 23*, 245-261. Retrieved from https://nsuworks.nova.edu

Alimo, M. T. (2015). *The experiences of successful small business owners in Ghana* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Full Text database. (UMI No. 3706325)

Allen, R. E. S., & Wiles, J. L. (2015). A rose by any other name: Participants choosing research pseudonyms. *Qualitative Research in Psychology, 13*, 149-165. doi:10.1080/14780887.2015.1133746

Amankwah-Amoah, J., & Wang, X. (2019). Opening editorial: Contemporary business risks: An overview and new research agenda. *Journal of Business Research*, *97*, 208-211. doi:10.1016/j.jbusres.2019.01.036

Ammar, O., & Chereau, P. (2018). Business model innovation from the strategic posture perspective: An exploration in manufacturing SMEs. *European Business Review, 30*, 38-65. doi:10.1108/EBR-09-2016-0119

Anbuoli, P., Thenpandian, N., & Sakthivel, M. (2016). HR challenges and opportunities 2020. *International Education and Research Journal, 2*(8), 105-107. Retrieved from http://ierj.in

Anders, H. J., Gustaf, J., & Aravind, K. (2019). *Digital innovation and incubators: A comparative interview study from the perspective of the automotive industry.* Proceedings of the 52nd Hawaii International Conference on System Sciences, Hawaii, 2019. 6001-6010. doi:10.24251/HICSS.2019.723

Andersch, H., Lindenmeier, J., Liberatore, F., & Tscheulin, D. K. (2018). Resistance against corporate misconduct: An analysis of ethical ideologies' direct and moderating effects on different forms of active rebellion. *Journal of Business Economics, 88*, 695-730. doi:10.1007/s11573-017-0876-2

Anderson, R. B., & Hartzler, B. M. (2014). Belief bias in the perception of sample size adequacy. *Thinking & Reasoning*, *20*, 297-314. doi:10.1080/13546783.2013.787121

Andrasik, M. P., Chandler, C., Powell, B., Humes, D., Wakefield, S., Kripke, K., & Eckstein, D. (2014). Bridging the divide: HIV prevention research and black men who have sex with men. *American Journal of Public Health*, *104*, 708-714. doi:10.2105/AJPH.2013.301653

Aoki, K., & Wilhelm, M. (2017). The role of ambidexterity in managing buyer-supplier relationships: The Toyota case. *Organization Science, 28*, 1080-1097. doi:10.1287/orsc.2017.1156

Apostolopoulos, N., & Liargovas, P. (2016). Regional parameters and solar energy enterprises: Purposive sampling and group AHP approach. *International Journal of Energy Sector Management*, *10*(1), 19-37. doi:10.1108/IJESM-11-2014-0009

Ardito, L., Carrillo-Hermosilla, J., del Río, P., & Pontrandolfo, P. (2018). Corporate social responsibility and environmental management invites contributions for a special issue on 'Sustainable innovation: Processes, strategies, and outcomes.' *Corporate Social Responsibility and Environmental Management, 25*, 106-109. doi:10.1002/csr.1487

Arino, A., LeBaron, C., & Milliken, F. J. (2016). Publishing qualitative research in academy of management discoveries. *Academy of Management Discoveries, 2*, 109-113. doi:10.5465/amd.2016.0034

Armour, H. O., & Teece, D. J. (1980). Vertical integration and technological innovation. *Review of Economics & Statistics, 62*, 470-474. doi:10.2307/1927118

Armstrong, J. (2015). Coordination, triangulation, and language use. *Inquiry, 59*(1), 80-112. doi:10.1080/0020174x.2015.1115270

Arriaza, P., Nedjat-Haiem, F., Lee, H. Y., & Martin, S. S. (2015). Guidelines for conducting rigorous health care psychosocial cross-cultural/language qualitative research. *Social Work in Public Health, 30*(1), 75-87. doi:10.1080/19371918.2014.938394

Asheim, B. T. (2019). Smart specialisation, innovation policy and regional innovation systems: What about new path development in less innovative

regions? *Innovation: European Journal of Social Sciences, 32*, 8-25. doi:10.1080/13511610.2018.1491001

Ataseven, C., & Nair, A. (2017). Assessment of supply chain integration and performance relationships: A meta-analytic investigation of the literature. *International Journal of Production Economics, 185*, 252-265. doi:10.1016/j.ijpe.2017.01.007

Ausloos, M., Bartolacci, F., Castellano, N. G., & Cerqueti, R. (2018). Exploring how innovation strategies at time of crisis influence performance: A cluster analysis perspective. *Technology Analysis & Strategic Management, 30*, 484-497. doi:10.1080/09537325.2017.1337889

Avenier, M. J., & Thomas, C. (2015). Finding one's way around various methods and guidelines for doing rigorous qualitative research: A comparison of four epistemological frameworks. *Systemes d'Information et Management (French Journal of Management Information Systems), 20*(1), 61-102. doi:10.9876/sim.v20i1.632

Awadid, A., & Nurcan, S. (2019). Consistency requirements in business process modeling: A thorough overview. *Software & Systems Modeling, 18*, 1097-1115. doi:10.1007/s10270-017-0629-2

Aytekin, C., Değerli, A., & Değerli, B. (2015). Analyzing information technology status and networked readiness index in context of diffusion of innovations theory. *Journal of Procedia Social and Behavioral Sciences, 195*, 1553-1562. doi:10.1016/j.sbspro.2015.06.19

Azar, G., & Ciabuschi, F. (2017). Organizational innovation, technological innovation, and export performance: The effects of innovation radicalness and extensiveness. *International Business Review, 26*, 324-336. doi:10.1016/j.ibusrev.2016.09.002

Azarenkova, G. M., Golovko, O. G., & Ponomarenko, V. A. (2015). Improving financial strategy to ensure the stability of the enterprise. *Financial and Credit Activity: Problems of Theory and Practice, 1*, 103-107. doi:10.18371/fcaptp.v1i18.46135

Bærøe, K. (2018). On fundamental premises for addressing "context" and "contextual factors" influencing value decisions in healthcare comment on "contextual factors influencing cost and quality decisions in health and care: A structured evidence review and narrative synthesis." *International Journal of Health Policy and Management*, *7*, 958-960. doi:10.15171/ijhpm.2018.62

Baggen, Y., Lans, T., Biemans, H. J., Kampen, J., & Mulder, M. (2016). Fostering entrepreneurial learning on-the-job: Evidence from innovative small and medium-sized companies in Europe. *European Journal of Education*, *51*, 193-209. doi:10.1111/ejed.12171

Bailey, L. F. (2014). The origin and success of qualitative research. *International Journal of Market Research, 56*, 167-184. doi:10.2501/ijmr-2014-013

Baines, T., Bigdeli, A. Z., Bustinza, O. F., Shi, V. G., Baldwin, J., & Ridgway, K. (2017). Servitization: Revisiting the state-of-the-art and research priorities. *International Journal of Operations & Production Management, 37*, 256-278. doi:10.1108/IJOPM-06-2015-0312

Baker, W. E., Grinstein, A., & Harmancioglu, N. (2016). Whose innovation performance benefits more from external networks: Entrepreneurial or conservative firms? *Journal of Product Innovation Management, 33*, 104-120. doi:10.1111/jpim.12263

Bala Subrahmanya, M. H. (2015). Innovation and growth of engineering SMEs in Bangalore: Why do only some innovate and only some grow faster? *Journal of Engineering and Technology Management, 36*, 24-40. doi:10.1016/j.jengtecman.2015.05.001

Bala Subrahmanya, M. H., Balachandra, P., & Mathirajan, M. (2004). Technological innovations in small-scale industries: Case studies of two foundries in Karnataka. *South Asian Journal of Management, 11*, 111-120. Retrieved from http://www.sajm-amdisa.org/

Baldassarre, B., Calabretta, G., Bocken, N. M. P., & Jaskiewicz, T. (2017). Bridging sustainable business model innovation and user-driven innovation: A process for sustainable value proposition design. *Journal of Cleaner Production, 147*, 175-186. doi:10.1016/j.jclepro.2017.01.081

Balkin, R. S. (2014). Principles of quantitative research in counseling: A humanistic perspective. *Journal of Humanistic Counseling, 53*, 240-248. doi:10.1002/j.2161-1939.2014.00059.x

Bamiatzi, V. C., & Kirchmaier, T. (2014). Strategies for superior performance under adverse conditions: A focus on small and medium-sized high-growth firms.

International Small Business Journal, *32*, 259-284. doi:10.1177/0266242612459534

Banerjee, R., Devereux, M. B., & Lombardo, G. (2016). Self-oriented monetary policy, global financial markets and excess volatility of international capital flows. *Journal of International Money and Finance*, *68*, 275-297. doi:10.1016/j.jimonfin.2016.02.007

Bashir, M. R., Sirlin, C. B., & Reeder, S. B. (2014). On confirmation bias in imaging research. *Journal of Magnetic Resonance Imaging, 41*, 1163-1164. doi:10.1002/jmri.24720

Baskarada, S. (2014). Qualitative case study guidelines. *Qualitative Report*, *19*(40),1-25. Retrieved from http://tqr.nova.edu

Batongbacal, J. L. (2015). Extended continental shelf claims in the South China Sea: Implications for future maritime boundary delimitations. *Ocean Yearbook Online, 29*(1), 21-43. doi:10.1163/22116001-0290100

Behr, D. (2014). Translating answers to open-ended survey questions in cross-cultural research: A case study on the interplay between translation, coding, and analysis. *Field Methods, 27*, 284-299. doi:10.1177/1525822x14553175

Bekhet, A. K., & Zauszniewski, J. B. A. (2012). Methodological triangulation: An approach to understanding data. *Nurse Researcher*, *20*, 40-43. doi:10.7748/nr2012.11.20.2.40.c9442

Bellemare, C. A., Dagenais, P., K.-Bedard, S., Beland, J.-P., Bernier, L., Daniel, C.-E., … Patenaude, J. (2018). Ethics in health technology assessment: A systematic

review. *International Journal of Technology Assessment in Health Care, 34*, 447-457. doi:10.1017/S0266462318000508

Belmont Report (1979). *The Belmont Report: Ethical principles and guidelines for the protection of human subjects of research*. Retrieved from www.hhs.gov/ohrp/humansubjects/guidance/belmont.html/

Bendaravičienė, R., & Vilkytė, B. (2019). Measurement of customer satisfaction with service quality: Study of fashion chain stores in Lithuania. *International Journal of Management, Accounting & Economics, 6*, 113-128. Retrieved from http://www.ijmae.com

Bengtsson, M. (2016). How to plan and perform a qualitative study using content analysis. *NursingPlus Open, 2*, 8-14. doi:10.1016/j.npls.2016.01.001

Beretta, M. (2019). Idea selection in web-enabled ideation systems. *Journal of Product Innovation Management, 36*, 5-23. doi:10.1111/jpim.12439

Bettiga, D., & Ciccullo, F. (2019). Co-creation with customers and suppliers: An exploratory study. *Business Process Management Journal, 25*, 250-270. doi:10.1108/BPMJ-12-2016-0246

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

Birt, L., Scott, S., Cavers, D., Campbell, C., & Walter, F. (2016). Member checking a tool to enhance trustworthiness or merely a nod to validation? *Qualitative Health Research, 26*, 1802-1811. doi:10.1177/104973231654870.

Bitektine, A., & Haack, P. (2015). The "macro" and the "micro" of legitimacy: Toward a multilevel theory of the legitimacy process. *Academy of Management Review, 40*, 49-75. doi:10.5465/amr.2013.0318

Bogers, M., Chesbrough, H., & Moedas, C. (2018). Open innovation: Research, practices, and policies. *California Management Review, 60*(2), 5-16. doi:10.1177/0008125617745086

Bokhonko, Y. (2017). Foreign experience in training future engineering educators for modeling technological processes. *Comparative Professional Pedagogy, 7*, 8-10. doi:10.1515/rpp-2017-0015

Booltink, L. W., & Saka-Helmhout, A. (2017). The effects of R&D intensity and internationalization on the performance of non-high-tech SMEs. *International Small Business Journal*, *36*, 81-103. doi:10.1177/0266242617707566

Bouncken, R., Brem, A., & Kraus, S. (2016). Multi-cultural teams as sources for creativity and innovation: The role of cultural diversity on team performance. *International Journal of Innovation Management*, *20*(1), 1-34. doi:10.1142/S1363919616500122

Bouncken, R. B., & Fredrich, V. (2016). Business model innovation in alliances: Successful configurations. *Journal of Business Research, 69,* 3584-3590. doi:10.1016/j.jbusres.2016.01.004

Bowden, C., & Galindo-Gonzalez, S. (2015). Interviewing when you're not face-to-face: The use of email interviews in a phenomenological study. *International Journal of Doctoral Studies*, *10,* 79-92. doi:10.28945/2104

Bradley, D. M., Elenis, T., Hoyer, G., Martin, D., & Waller, J. (2017). Human capital challenges in the food and beverage service industry of Canada: Finding innovative solutions. *Worldwide Hospitality and Tourism Themes, 9*, 411-423. doi:10.1108/WHATT-04-2017-0017

Bromley, E., Mikesell, L., Jones, F., & Khodyakov, D. (2015). From subject to participant: Ethics and the evolving role of community in health research. *American Journal of Public Health, 105*, 900-908. doi:10.2105/AJPH.2014.302403

Brown, G., Strickland-Munro, J., Kobryn, H., & Moore, S. A. (2017). Mixed methods participatory GIS: An evaluation of the validity of qualitative and quantitative mapping methods. *Applied Geography*, *79*, 153-166. doi:10.1016/j.apgeog.2016.12.015

Bryman, A., & Bell, E. (2015). *Business research methods* (4th ed.). Oxford, UK: Oxford University Press.

Brzeziński, J. M. (2016). Towards a comprehensive model of scientific research and professional practice in psychology. *Current Issues in Personality Psychology*, *4*(1), 1-10. doi:10.5114/cipp.2016.58442

Bridging the gap between potential and innovation. (2016). *Strategic Direction, 32*(3), 4-6. doi:10.1108/SD-12-2015-0183

Broom, J. K., Broom, A. F., Kirby, E. R., & Post, J. J. (2018). How do professional relationships influence surgical antibiotic prophylaxis decision making? A

qualitative study. *American Journal of Infection Control, 46*, 311-315. doi:10.1016/j.ajic.2017.09.004

Buchner, A., Mohamed, A., & Schwienbacher, A. (2016). Does risk explain persistence in private equity performance? *Journal of Corporate Finance, 39*, 18-35. doi:10.1016/j.jcorpfin.20 16.05.003

Buetow, S. (2019). Apophenia, unconscious bias and reflexivity in nursing qualitative research. *International Journal of Nursing Studies, 89*, 8-13. doi:10.1016/j.ijnurstu.2018.09.013

Burau, V., & Andersen, L. B. (2014). Professional and professionals: Capturing the changing role of expertise through theoretical triangulation. *American Journal of Economics & Sociology, 73*, 264-293. doi:10.1111/ajes.12062

Burgess, C. (2013). Factors influencing middle managers' ability to contribute to corporate entrepreneurship. *International Journal of Hospitality Management, 32*, 193-201. doi:10.1016/j.ijhm.2012.05.009

Busse, C., Schleper, M. C., Weilenmann, J., & Wagner, S. M. (2017). Extending the supply chain visibility boundary utilizing stakeholders for identifying supply chain sustainability risks. *International Journal of Physical Distribution & Logistics Management, 47*(1), 18-40. doi:10.1108/IJPDLM-02-2015-0043

Bustinza, O. F., Vendrell-Herrero, F., & Gomes, E. (2019). Unpacking the effect of strategic ambidexterity on performance: A cross-country comparison of MMNEs developing product-service innovation. *International Business Review,* 1-12. doi:10.1016/j.ibusrev.2019.01.004

Butler, A., Hall, H., & Copnell, B. (2016). A guide to writing a qualitative systematic review protocol to enhance evidence-based practice in nursing and health care. *Worldviews on Evidence Based Nursing, 13*(3), 241-249. doi:10.1111/wvn.1234

Butryumova, N., Karpycheva, S., Grisheva, K., & Kasyanova, E. (2015). Obstacles to small innovative companies' development: Case study of Nizhny Novgorod Region. *Journal of Technology Management & Innovation, 10*(4), 74-84. doi:10.4067/S0718-27242015000400008

Cairney, P., & St Denny, E. (2015). Reviews of what is qualitative research and what is qualitative interviewing. *International Journal of Social Research Methodology*, *18*, 117-125. doi:10.1080/13645579.2014.957434

Caldera, H. T. S., Desha, C., & Dawes, L. (2018). Exploring the characteristics of sustainable business practice in small and medium-sized enterprises: Experiences from the Australian manufacturing industry. *Journal of Cleaner Production, 177*, 338-349. doi:10.1016/j.jclepro.2017.12.265

Camacho, N., Nam, H., Kannan, P. K., & Stremersch, S. (2019). Tournaments to crowdsource innovation: The role of moderator feedback and participation intensity. *Journal of Marketing, 83*, 138-157. doi:10.1177/0022242918809673

Capello, R., & Kroll, H. (2016). From theory to practice in smart specialization strategy: Emerging limits and possible future trajectories. *European Planning Studies*, *24*, 1393-1406. doi:10.1080/09654313.2016.1156058

Carbonetti, B. C. (2016). Research data and methods policy update for the Journal of Human Rights. *Journal of Human Rights, 15*, 157-162. doi:10.1080/14754835.2016.1145539

Carmeli, A., & Dothan, A. (2017). Generative work relationships as a source of direct and indirect learning from experiences of failure: Implications for innovation agility and product innovation. *Technological Forecasting and Social Change*, *119*, 27-38. doi:10.1016/j.techfore.2017.03.007

Carolan, C. M., Forbat, L., & Smith, A. (2016). Developing the DESCARTE model: The design of case study research in health care. *Qualitative Health Research*, *26*, 626-639. doi:10.1177/1049732315602488

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

Castleberry, A., & Nolen, A. (2018). Methodology matters: Thematic analysis of qualitative research data: Is it as easy as it sounds? *Currents in Pharmacy Teaching and Learning*, *10*, 807-815. doi:10.1016/j.cptl.2018.03.019

Çetinkaya Bozkurt, Ö., & Kalkan, A. (2014). Business strategies of SME's, innovation types and factors influencing their innovation: Burdur model. *Edge Academic Review, 14*, 189-198. doi:10.21121/eab.2014218050

Chan, N. N., & Walker, C. (2015). An exploration of students' lived experiences of using smartphones in diverse learning contexts using a hermeneutic phenomenological

approach. *Computers & Education, 82*, 96-106. doi:10.1016j.compedu.2014.11.001

Chan, Z. C., Fung, Y. L., & Chien, W. T. (2013). Bracketing in phenomenology: Only undertaken in the data collection and analysis process? *Qualitative Report, 18*(30), 1-9. Retrieved from http://nsuworks.nova.edu

Chandler, A. (1990). *Scale and scope: The dynamics of industrial capitalism.* Cambridge, MA: Belknap.

Chang, Y., Wong, S. F., Eze, U., & Lee, H. (2019). The effect of IT ambidexterity and cloud computing absorptive capacity on competitive advantage. *Industrial Management & Data Systems, 119,* 613-638. doi:10.1108/IMDS-05-2018-0196

Chapple, A., & Ziebland, S. (2018). Methodological and practical issues in cross-national qualitative research: Lessons from the literature and a comparative study of the experiences of people receiving a diagnosis of cancer. *Qualitative Health Research, 28*, 789-799. doi:10.1177/1049732317736284

Chen, J., Wei, H., & Xie, L. (2017). The role of business insurance in managing a manufacturer's product quality risk. *Operations Research Letters, 45*, 635-641. doi:10.1016/j.orl.2017.10.006

Chen, J., Yin, X., & Mei, L. (2018). Holistic innovation: An emerging innovation paradigm. *International Journal of Innovation Studies, 2*, 1-13. doi:10.1016/j.ijis.2018.02.001

Chen, J., Zhu, Z., & Zhang, Y. (2017). A study of factors influencing disruptive innovation in Chinese SMEs. *Asian Journal of Technology Innovation, 25*(1), 140-157. doi:10.1080/19761597.2017.1302552

Chesbrough, H. W. (2003). *Open innovation: The new imperative for creating and profiting from technology*. Boston, MA: Harvard Business School Press.

Chesbrough, H. W., Vanhaverbeke, W., & West, J. (2006). *Open innovation researching a new paradigm.* Oxford: Oxford University Press.

Choi, S. B., & Williams, C. (2014). The impact of innovation intensity, scope, and spillovers on sales growth in Chinese firms. *Asia Pacific Journal of Management, 31*(1), 25-46. doi:10.1007/s10490-012-9329-1

Choudhary, P., Mital, M., Pani, A. K., Papa, A., & Vicentini, F. (2018). Impact of enterprise mobile system implementation on organizational ambidexterity mediated through BPM customizability. *Business Process Management Journal, 24*, 1235-1254. doi:10.1108/BPMJ-07-2017-0209

Chow, I. H. S. (2018). Cognitive diversity and creativity in teams: The mediating roles of team learning and inclusion. *Chinese Management Studies, 12*, 369-383. doi:10.1108/CMS-09-2017-0262

Chowdhury, M. F. (2015). Coding, sorting and sifting of qualitative data analysis: Debates and discussion. *Quality & Quantity, 49*, 1135-1143. doi:10.1007/s11135-014-0039-2

Chowhan, J. (2016). Unpacking the black box: Understanding the relationship between strategy, HRM practices, innovation and organizational performance. *Human Resource Management Journal, 26,* 112-133. doi:10.1111/1748-8583.12097

Christensen, C. M. (2011). *The innovator's dilemma*. New York, NY: HarperCollins Publishers.

Christensen, C. M., Raynor, M., & McDonald, R. (2015). What is disruptive innovation? *Harvard Business Review, 93*(12), 44-53. Retrieved from https://hbr.org

Chu, C. C., Cheng, Y. F., Tsai, F. S., Tsai, S. B., & Lu, K. H. (2019). Open Innovation in crowdfunding context: Diversity, knowledge, and networks. *Sustainability, 11,* 180. doi:10.3390/su11010180

Chuang, S., & Lin, H. (2017). Performance implications of information-value offering in e-service systems: Examining the resource-based perspective and innovation strategy. *Journal of Strategic Information Systems, 26*(1), 22-38. doi:10.1016/j.jsis.2016.09.001

Cieśla, M. (2019). Complaint management system in building material factory. *Management & Production Engineering Review, 10*, 50-57. doi:10.24425/mper.2019.128243

Čiutienė, R., & Thattakath, E. W. (2014). Influence of dynamic capabilities in creating disruptive innovation. *Economics and Business, 26,* 15-21. doi:10.7250/eb.2014.015

Clark, J. M., & Polesello, D. (2017). Emotional and cultural intelligence in diverse workplaces: Getting out of the box. *Industrial & Commercial Training, 49*, 337-349. doi:10.1108/ICT-06-2017-0040

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

Cleeren, K., Dekimpe, M., & Heerde, H. (2017). Marketing research on product-harm crises: A review, managerial implications, and an agenda for future research. *Journal of The Academy of Marketing Science, 45*, 593-615. doi:10.1007/s11747-017-0558-1

Coad, A., Pellegrino, G., & Savona, M. (2016). Barriers to innovation and firm productivity. *Economics of Innovation and New Technology, 25,* 321-334. doi:10.1080/10438599.2015.1076193

Cole, S., Giné, X., & Vickery, J. (2017). How does risk management influence production decisions? evidence from a field experiment. *Review of Financial Studies, 30*, 1935-1970. doi:10.1093/rfs/hhw080

Collier, J. E., Barnes, D. C., Abney, A. K., & Pelletier, M. J. (2018). Idiosyncratic service experiences: When customers desire the extraordinary in a service encounter. *Journal of Business Research, 84*, 150-161. doi:10.1016/j.jbusres.2017.11.016

Collings, D. G., & Isichei, M. (2018). The shifting boundaries of global staffing: Integrating global talent management, alternative forms of international assignments and non-employees into the discussion. *International Journal of*

Human Resource Management, 29(1), 165-187. doi:10.1080/09585192.2017.1380064

Collins, C. S., & Cooper, J. E. (2014). Emotional intelligence and the qualitative researcher. *International Journal of Qualitative Methods, 13*, 88-103. doi:10.1177/160940691401300134

Connelly, L. M. (2014). Ethical considerations in research studies. *MEDSURG Nursing*, *23*, 54-55. Retrieved from http://www.medsurgnursing.net

Connelly, L. M. (2016). Trustworthiness in qualitative research. *MEDSURG Nursing, 25*, 435-436. Retrieved from http://www.medsurgnursing.net

Connolly, A. J., Turner, J., & Potocki, A. D. (2018). Ignite your corporate innovation: Insights from setting up an ag-tech start-up accelerator. *International Food and Agribusiness Management Review, 21*, 833-846. doi:10.22434/IFAMR2017.0089

Cooper, M. (2017). Diversity means business. *ITNOW, 59*(1), 60-61. doi:10.1093/itnow/bwx027

Cope, D. G. (2014). Methods and meanings: Credibility and trustworthiness of qualitative research. *Oncology Nursing Forum*, *41*(1), 89-91. doi:10.1188/14.ONF.89-91

Cornell, B. T. (2012). *Open innovation strategies for overcoming competitive challenges facing small and mid-sized enterprises* (Doctoral dissertation). Available from ProQuest Dissertations & Theses database. (UMI No. 3567900).

Counsell, A., & Harlow, L. L. (2017). Reporting practices and use of quantitative methods in Canadian journal articles in psychology. *Canadian Psychology/psychologie canadienne*, *58*, 140-147. doi:10.1037/cap0000074

Creamer, E. G., & Tendhar, C. (2016). Using inferences to evaluate the value added of mixed methods research: A content analysis. *International Journal of Multiple Research Approaches, 9*(1), 57-72. doi:10.1080/18340806.2015.1129286

Creswell, J. W., & Poth, C. N. (2017). *Qualitative inquiry and research design: Choosing among five approaches*. Thousand Oaks, CA: Sage Publications.

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

Dahlander, L., & Gann, D. M. (2010). How open is innovation? *Research Policy, 39*, 699-709. doi:10.1016/j.respol.2012.01.013

Dai, H., & Zhang, D. J. (2019). Prosocial goal pursuit in crowdfunding: Evidence from kickstarter. *Journal of Marketing Research*, *56*, 498-517. doi:10.1177/0022243718821697

Daidj, N. (2015). Disruptive technologies, innovation, and competition in the digital economy. *In Developing strategic business models and competitive advantage in the digital sector* (pp. 183-211). Hershey, PA: Business Science Reference. doi:10.4018/978-1-4666-6513-2.ch007

Daniel, B. K. (2018). Empirical verification of the TACT framework for teaching rigour in qualitative research methodology. *Qualitative Research Journal*, *18*, 262-275, doi:10.1108/QRJ-D-17-00012

D'Antone, S., & Santos, J. B. (2016). When purchasing professional services supports innovation. *Industrial Marketing Management, 58*, 172-186. doi:10.1016/j.indmarman.2016.05.024

Das, P., Verburg, R., Verbraeck, A., & Bonebakker, L. (2018). Barriers to innovation within large financial services firms: An in-depth study into disruptive and radical innovation projects at a bank. *European Journal of Innovation Management, 21*(1), 96-112. doi:10.1108/EJIM-03-2017-0028

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

David, A. M. (2019). Porter's competitive strategies influence on performance of mobile telecommunication companies in Kenya. *International Journal of Scientific Research and Management, 7,* 1013-1022. doi:10.18535/ijsrm/v7i2.em05

Davidsen, A. (2013). Phenomenological approaches in anthropology and health sciences. *Qualitative Research in Psychology, 10*, 318-339. doi:10.1080/14780887.2011.608466

Deakin, H., & Wakefield, K. (2014). Skype interviewing: Reflections of two PhD researchers. *Qualitative Research, 14*, 603-616. doi:10.1177/1468794113488126

De Ceunynck, T., Kusumastuti, D., Hannes, E., Janssens, D., & Wets, G. (2013). Mapping leisure shopping trip decision making: Validation of the CNET interview protocol. *Quality & Quantity*, *47*, 1831-1849. doi:10.1007/s11135-011-9629-4

de Jesus Pacheco, D. A., ten Caten, C. S., Jung, C. F., Guitiss Navas, H. V., & Cruz-Machado, V. A. (2018). Eco-innovation determinants in manufacturing SMEs from emerging markets: Systematic literature review and challenges. *Journal of*

Engineering and Technology Management, *48*, 44-63. doi:10.1016/j.jengtecman.2018.04.002

De Massis, A., & Kotlar, J. (2014). The case study method in family planning business research: Guidelines for qualitative scholarship. *Journal of Family Business Strategy, 5*(1), 15-29. doi:10.1016/j.jfbs.2014.01.007

de Roest, K., Ferrari, P., & Knickel, K. (2018). Specialisation and economies of scale or diversification and economies of scope? Assessing different agricultural development pathways. *Journal of Rural Studies, 59*, 222-231. doi:10.1016/j.jrurstud.2017.04.013

Del Vecchio, P., Di Minin, A., Petruzzelli, A. M., Panniello, U., & Pirri, S. (2017). Big data for open innovation in smes and large corporations: Trends, opportunities, and challenges. *Creativity and Innovation Management, 27*(1), 6-22. doi:10.1111/caim.12224

Demirkan, H., & Spohrer, J. (2016). Emerging service orientations and transformations (SOT). *Information Systems Frontiers, 18,* 407-411. doi:10.1007/s10796-016-9656-8

Denning, S. (2016). Christensen updates disruption theory. *Strategy & Leadership*, *44*(2), 10-16. doi:10.1108/SL-01-2016-0005

Denicolai, S., Hagen, B., & Pisoni, A. (2015). Be international or be innovative? Be both? The role of the entrepreneurial profile. *Journal of International Entrepreneurship, 13*, 390-417. doi:10.1007/s10843-015-0143-y

Denscombe, M. (2013). The role of the research proposal in business and management education. *International Journal of Management Education, 11*, 142-149. doi:10.1016/j.ijme.2013.03.001

Denzin, N. K. (2014). Triangulation 2.0. *Journal of Mixed Methods Research, 6*, 80-88. doi:10.1177?1558689812437186

Devece, C., Palacios, D., & Ribeiro-Navarrete, B. (2019). The effectiveness of crowdsourcing in knowledge-based industries: The moderating role of transformational leadership and organisational learning. *Economic Research-Ekonomska Istraživanja*, *32*, 335-351. doi:10.1080/1331677X.2018.1547204

Diabat, A., & Al-Salem, M. (2015). An integrated supply chain problem with environmental considerations. *International Journal of Production Economics, 164*, 330-338. doi:10.1016/j.ijpe.2014.12.004

Disyatat, P., & Rungcharoenkitkul, P. (2017). Monetary policy and financial spillovers: Losing traction? *Journal of International Money and Finance, 74*, 115-136. doi:10.1016/j.jimonfin.2017.03.007

Dogru, T., Mody, M., & Suess, C. (2019). Adding evidence to the debate: Quantifying Airbnb's disruptive impact on ten key hotel markets. *Tourism Management, 72*, 27-38. doi:10.1016/j.tourman.2018.11.008

Dohse, D., & Niebuhr, A. (2018). How different kinds of innovation affect exporting. *Economics Letters, 163*, 182-185. doi:10.1016/j.econlet.2017.12.017

Dong, J. Q., Wu, W., & Zhang, Y. (2019). The faster the better? Innovation speed and user interest in open source software. *Information & Management, 56*, 669-680. doi:10.1016/j.im.2018.11.002

Dooley, L., Kenny, B., & O'Sullivan, D. (2017). Innovation capability development: Case studies of small enterprises in the lmt manufacturing sector. *Small Enterprise Research, 24*, 233-256. doi:10.1080/13215906.2017.1396242

Drucker, P. F. (1985). *Innovation and entrepreneurship: Practice and principles*. New York, NY: Harper & Row.

Duan, N., Bhaumik, D. K., Palinkas, L. A., & Hoagwood, K. (2014). Optimal design and purposeful sampling: Complementary methodologies for implementation research. *Administration and Policy in Mental Health and Health Services Research, 2*, 1-9. doi:10.1007/s10488-014-0596-7

Dumez, H. (2015). What is a case, and what is a case study? *Bulletin of Sociological Methodology, 127*(1), 43-57. doi:10.1177/0759106315582200

Dust, S. B., Gerhardt, M. W., Hebbalalu, D., & Murray, M. (2019). Protecting my turf: The moderating role of generational differences on the relationships between self-direction and hedonism values and reactions to generational diversity. *Journal of Social Psychology, 159*, 153-169. doi:10.1080/00224545.2019.1570903

Edquist, C., & Zabala-Iturriagagoitia, J. M. (2015). The innovation union scoreboard is flawed: The case of Sweden - not being the innovation leader of the EU (CIRCLE Papers in Innovation Studies, no 2015/16), Lund: Lund University.

Efthyvoulou, G. & Vahter, P. (2016). Financial constraints, innovation performance and sectoral disaggregation. *Manchester School, 84*, 125-158. doi:10.1111/manc.12089

Elo, S., Kaariainen, M., Kanste, O., Polkki, T., Utrianinen, K., & Kyngas, H. (2014). Qualitative content analysis: A focus on trustworthiness. *SAGE Open*, *4*, 1-10. doi:10.1177/2158244014522633

El Haddad, R. (2015). Exploration of revenue management practices-case of an upscale budget hotel chain. *International Journal of Contemporary Hospitality Management, 27*, 1791-1813. doi:10.1108/IJCHM-08-2013-0390

El Hussein, M., Jakubec, S. L., & Osuji, J. (2015). Assessing the FACTS: A mnemonic for teaching and learning the rapid assessment of rigor in qualitative research studies. *Qualitative Report*, *20*, 1182-1184. Retrieved from http://nsuworks.nova.edu

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

Emmel, N. (2015). Themes, variables, and the limits to calculating sample size in qualitative research: A response to Fugard and Potts. *International Journal of Social Research Methodology, 18*, 685-686. doi:10.1080/13645579.2015.1005457

Emrich, K. (2015). *Profitability and the financial strategies of women-owned small businesses* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Full Text database. (UMI No. 3680364)

Engle, M. (2015). Qualitative data analysis: A methods sourcebook: The coding manual for qualitative researchers. [Review of the books *Qualitative data analysis: A methods sourcebook*, by M. B. Miles & A. M. Huberman; *The coding manual for qualitative researchers*, by J. Saldana]. *American Journal of Evaluation, 36*, 137-140. doi:10.1177/1098214014556146

Erkoyuncu, J. A., Roy, R., Shehab, E., Durugbo, C., Khan, S., & Datta, P. (2019). An effective uncertainty based framework for sustainable industrial product-service system transformation. *Journal of Cleaner Production, 208,* 160-177. doi:10.1016/j.jclepro.2018.09.182

Erkut, B. (2016). Perceiving innovation: Who makes SAP labs India and how? *South Asian Journal of Business & Management Cases*, *5*(1), 116-125. doi:10.1177/2277977916636981

Eschker, E., Gold, G., & Lane, M. D. (2017). Rural entrepreneurs: What are the best indicators of their success? *Journal of Small Business and Enterprise Development*, *24*, 278-296. doi:10.1108/JSBED-07-2016-0112

Fernandes, A. R., & Solimun. (2017). Moderating effects orientation and innovation strategy on the effect of uncertainty on the performance of business environment. *International Journal of Law & Management, 59*, 1211-1219. doi:10.1108/IJLMA-10-2016-0088

Fernández, S., Triguero, A., & Alfaro-Cortés, E. (2019). M&A effects on innovation and profitability in large european firms. *Management Decision*, *57*, 100-114. doi:10.1108/MD-08-2017-0730

Fernandez-Esquinas, M., van Oostrom, M., & Pinto, H. (2017). Key issues on innovation, culture and institutions: Implications for SMEs and micro firms. *European Planning Studies, 25*, 1897-1907. doi:10.1080/09654313.2017.1364770

Ferreira, J. J. M., Fernandes, C. I., Alves, H., & Raposo, M. L. (2015). Drivers of innovation strategies: Testing the Tidd and Bessant (2009) model. *Journal of Business Research, 68*, 1395-1403. doi:10.1016/j.jbusres.2015.01.021

Foss, N. J., & Saebi, T. (2017). Fifteen years of research on business model innovation: How far have we come, and where should we go? *Journal of Management, 43*, 200-227. doi:10.1177/0149206316675927

França, C. L., Broman, G., Robèrt, K. H., Basile, G., & Trygg, L. (2016). An approach to business model innovation and design for strategic sustainable development. *Journal of Cleaner Production*, *140,* 155-166. doi:10.1016/j.jclepro.2016.06.124

France, E. F., Ring, N., Noyes, J., Maxwell, M., Jepson, R., Duncan, E., … Turley, R. (2015). Protocol-developing meta-ethnography reporting guidelines (eMERGe). *BMC Medical Research Methodology, 15*, 1-14. doi:10.1186/s12874-015-0068-0

Frederiksen, M. H., & Knudsen, M. P. (2017). From creative ideas to innovation performance: The role of assessment criteria. *Creativity and Innovation Management, 26*(1), 60-74. doi:10.1111/caim.12204

Fredrick, J. A. (2015). *Exploring strategies for implementing barcode medication administration systems* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Full Text database. (UMI No. 3687752)

Freytag, R. (2019). Strategic negotiations: Three essentials for successful partnerships with startups. *Strategy & Leadership*, *47*, 19-25. doi:10.1108/SL-11-2018-0115

Friend, S. B., Ranjan, K. R., & Johnson, J. S. (2019). Fail fast, sell well: The contingent impact of failing fast on salesperson performance. *Industrial Marketing Management.* doi:10.1016/j.indmarman.2019.01.007

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

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

Gabriel, M., & Pessl, E. (2016). Industry 4.0 and sustainability impacts: Critical discussion of sustainability aspects with a special focus on furniture of work and ecological consequences. *Annals of the Faculty of Engineering Hunedoara - International Journal of Engineering*, *14*(2), 131-136. Retrieved from http://annals.fih.upt.ro

Gandhe, G. (2015). Disruptive innovation. *Auto Tech Review, 4*, 12-13. doi:10.1365/s40112-015-1047-x

Gans, J. S., Murray, F. E., & Stern, S. (2017). Contracting over the disclosure of scientific knowledge: Intellectual property and academic publication. *Research Policy*, *46*, 820-835. doi:10.1016/j.respol.2017.02.005

Galavotti, I., Depperu, D., & Cerrato, D. (2017). Acquirer-to-target relatedness and target country unfamiliarity in acquisitions. *Management Decision, 55*, 892-914. doi:10.1108/MD-12-2015-0607

García-Gutiérrez, I., & Martínez-Borreguero, F. J. (2016). The innovation pivot framework: Fostering business model innovation in startups: A new tool helps entrepreneurs design business models by identifying the sources of competitive advantage embedded in an innovation. *Research Technology Management*, *59*(5), 48-56. doi:10.1080/08956308.2016.1208043

Garcia-Quevedo, J., Segarra-Blasco, A., & Teruel, M. (2018). Financial constraints and the failure of innovation projects. *Technological Forecasting and Social Change, 127*, 127-140. doi:10.1016/j.techfore.2017.05.029

Garside, R. (2014). Should we appraise the qualitative research reports for systematic reviews, and if so, how? *Innovation: European Journal of Social Science Research*, *27*, 61-79. doi:10.1080/13511610.2013.777270

Gelling, L. (2016). Applying for ethical approval for research: The main issues. *Nursing Standard, 30*(20), 40-44. doi:10.7748/ns.30.20.40.s46

Genc, O. F., & Zakaria, R. (2017). A comparative analysis of international and domestic acquisitions: What drives acquirer competitiveness? *Journal for Global Business Advancement, 10*, 583-603. doi:10.1504/JGBA.2017.088908

Georgantzas, N. C., & Katsamakas, E. (2016). How service customers tidy their service quality perceptions. *Human Systems Management, 35*, 129-139. doi:10.3233/hsm-160860

Gergen, J., Josselson, R., & Freeman, M. (2015). The promises of qualitative inquiry. *American Psychologist, 70*(1), 1-9. doi:10.1037/a0038597

Giampaoli, D., Ciambotti, M., & Bontis, N. (2017). Knowledge management, problem solving and performance in top Italian firms. *Journal of Knowledge Management, 21*, 355-375. doi:10.1108/JKM-03-2016-0113

Gibson, S., Benson, O., & Brand, S. (2013). Talking about suicide: Confidentiality and anonymity in qualitative research. *Nursing Ethics, 20*, 18-29. doi:10.1177/0969733012452684

Gilal, N. G., Zhang, J., & Gilal, F. G. (2018). Linking product design to consumer behavior: The moderating role of consumption experience. *Psychology Research and Behavior Management, 11*, 169-185. doi:10.2147/PRBM.S161384

Gilbert, R. J. (2015). E-Books: A tale of digital disruption. *Journal of Economic Perspectives*, *29*, 165-184. doi:10.1257/jep.29.3.165

Gittelman, S., Lange, V., Cook, W. A., Frede, S. M., Lavrakas, P. J., Pierce, C., & Thomas, R. K. (2015). Accounting for social-desirability bias in survey sampling. *Journal of Advertising Research, 55*, 242-254. doi:10.2501/JAR-2015-006

Gobble, M. M. (2015). The case against disruptive innovation. *Research Technology Management, 58*(1), 59-61. doi:10.5437/08956308X5801005

Gomber, P., Kauffman, R. J., Parker, C., & Weber, B. W. (2018). On the fintech revolution: Interpreting the forces of innovation, disruption, and transformation in financial services. *Journal of Management Information Systems, 35*(1), 220-265. doi:10.1080/07421222.2018.1440766

Gomes, G., & Wojahn, R. M. (2017). Technology management: Organizational learning capability, innovation and performance: Study in small and medium-sized enterprises (SMES). *Revista De Administracao*, *52*, 163-175. doi:10.1016/j.rausp.2016.12.003

Gomez, L. E., & Bernet, P. (2019). Diversity improves performance and outcomes. *Journal of the National Medical Association.* doi:10.1016/j.jnma.2019.01.006

Gonzálvez-Gallego, N., Molina-Castillo, F. J., Soto-Acosta, P., Varajao, J., & Trigo, A. (2015). Using integrated information systems in supply chain management. *Enterprise Information Systems, 9*, 210-232. doi:10.1080/17517575.2013.879209

Govindarajan, V., & Immelt, J. R. (2019). The only way manufacturers can survive. *MIT Sloan Management Review*, *60*, 24-33. Retrieved from https://sloanreview.mit.edu

Gringeri, C., Barusch, A., & Cambron, C. (2013). Examining foundations of qualitative research: A review of social work dissertations, 2008-2010. *Journal of Social Work Education*, *49*, 760-773. doi:10.1080/10437797.2013.812910

Grossoehme, D. H. (2014). Overview of qualitative research. *Journal of Health Care Chaplaincy, 20*, 109-122. doi:10.1080/08854726.2014.925660

GS, A. D., Kurniasih, N., Reni, A., Istanti, E., Zuhroh, D., & Qomariah, N. (2019). The effect of business sphere on competitive advantage and business performance of SMEs. *Management Science Letters, 9,* 1153-1160. doi:10.5267/j.msl.2019.4.025

Gupta, B., & Agarwal, R. (2019). Building dynamic capability with business model innovation: A new imperative for uae markets. *Asian Journal of Multidimensional Research, 8,* 185-192. doi:10.5958/2278-4853.2019.00149.6

Haahr, A., Norlyk, A., & Hall, E. O. C. (2014). Ethical challenges embedded in qualitative research interviews with close relatives. *Nursing Ethics, 21*(1), 6-15. doi:10.1177/0969733013486370

Habidin, N. F., Mohd Zubir, A. F., Mohd Fuzi, N., Md Latip, N. A., & Azman, M. A. (2018). Critical success factors of sustainable manufacturing practices in Malaysian automotive industry. *International Journal of Sustainable Engineering, 11*, 217-222. doi:10.1080/19397038.2017.1293185

Hailey, V. (2015). A correlation study of customer relationship management resources and retailer omni channel strategy performance (Doctoral Dissertation). Available from ProQuest Dissertations (AAT 3687831)

Hajli, N., Shanmugam, M., Papagiannidis, S., Zahay, D., & Richard, M. (2017). Branding co-creation with members of online brand communities. *Journal of Business Research, 70*, 136-44. doi:10.1016/j.jbusres.2016.08.026

Hakanen, T., Helander, N., & Valkokari, K. (2017). Servitization in global business-to-business distribution: The central activities of manufacturers. *Industrial Marketing Management, 60*, 167-178. doi:10.1016/j.indmarman.2016.10.011

Hammarberg, K., Kirkman, M., & de Lacey, S. (2016). Qualitative research methods: When to use them and how to judge them. *Human Reproduction, 31*, 498-501. doi:10.1093/humrep/dev334

Han, H., Nguyen, H. N., Song, H., Chua, B., Lee, S., & Kim, W. (2018). Drivers of brand loyalty in the chain coffee shop industry. *International Journal of Hospitality Management, 72,* 86-97. doi:10.1016/j.ijhm.2017.12.011

Hanedaa, S., & Ito, K. (2018). Organizational and human resource management and innovation: Which management practices are linked to product and/or process innovation? *Research Policy, 47*(1), 194-208. doi:10.1016/j.respol.2017.10.008

Hansen, T., & Winther, L. (2014). Competitive low-tech manufacturing and challenges for regional policy in the European context - lessons from the Danish experience. *Cambridge Journal of Regions, Economy and Society, 7*, 449-470. doi:10.1093/cjres/rsu015

Hansson, S., & Polk, M. (2018). Assessing the impact of transdisciplinary research: The usefulness of relevance, credibility, and legitimacy for understanding the link between process and impact. *Research Evaluation*, *27*, 132-144. doi:10.1093/reseval/rvy004

Harris, R., McAdam, R., & Reid, R. (2016). The effect of business improvement methods on innovation in small and medium-sized enterprises in peripheral regions. *Regional Studies*, *50*, 2040-2054. doi:10.1080/00343404.2015.1083971

Harvey, L. (2014). Beyond member checking: A dialogic approach to the research interview. *International Journal of Research & Method in Education*, *38*, 23-38. doi:10.1080/1743727X.2014.914487

Hasani, A., & Mokhtari, H. (2019). An integrated relief network design model under uncertainty: A case of Iran. *Safety Science, 111*, 22-36. doi:10.1016/j.ssci.2018.09.004

Hatzikian, Y., & Bampasis, E. (2017). Exploring the relationship of innovation intensity, knowledge production and productivity in Greek SMEs before the eruption of debt crisis. *Journal of the Knowledge Economy, 8*, 294-318. doi:10.1007/s13132-015-0266-3

Havir, D. (2017). A comparison of the approaches to customer experience analysis. *Economics and Business, 31,* 83-85. doi:10.1515/eb-2017-0020

Héctor, C., Gabriela, L., & María del Carmen, M. S. (2016). The influence of information and communication technologies on organizational innovation. A perspective of Mexican SMEs. *Risk Governance & Control: Financial Markets & Institutions*, *6*, 155-160. doi:10.22495/rcgv6i4c1art6

Heidenreich, S., & Handrich, M. (2015). What about passive innovation resistance? Investigating adoption-related behavior from a resistance perspective. *Journal of Product Innovation Management*, *32*, 878-903. doi:10.1111/jpim.12161

Heidenreich, S., & Kraemer, T. (2016). Innovations-doomed to fail? Investigating strategies to overcome passive innovation resistance. *Journal of Product Innovation Management*, *33*, 277-297. doi:10.1111/jpim.12273

Heidenreich, S., Kraemer, T., & Handrich, M. (2016). Satisfied and unwilling: Exploring cognitive and situational resistance to innovations. *Journal of Business Research, 69*, 2440-2447. doi:10.1016/j.jbusres.2016.01.014

Hemmert, M. (2003). International organization of R&D and technology acquisition performance of high-tech business units. *Management International Review, 43*, 361-382. Retrieved from https://www.jstor.org

Heredia Pérez, J. A., Geldes, C., Kunc, M. H., & Flores, A. (2019). New approach to the innovation process in emerging economies: The manufacturing sector case in Chile and Peru. *Technovation, 79*, 35-55. doi:10.1016/j.technovation.2018.02.012

Herrmann, P., & Nadkarni, S. (2014). Managing strategic change: The duality of CEO personality. *Strategic Management Journal, 35*, 1318-1342. doi:10.1002/smj.2156

Hess, T. J., McNab, A. L., & Basoglu, K. A. (2014). Reliability generalization of perceived ease of use, perceived usefulness, and behavioral intentions. *MIS Quarterly*, *38*, 1-28. doi:10.25300/MISQ/2014/38.1.01

Heyden, M. L., Reimer, M., & Van Doorn, S. (2017). Innovating beyond the horizon: CEO career horizon, top management composition, and R&D intensity. *Human Resource Management*, *56*, 205-224. doi:10.1002/hrm.21730

Hibbert, P., Sillince, J., Diefenbach, T., & Cunliffe, A. L. (2014). Relationally reflexive practice: A generative approach to theory development in qualitative research. *Organizational Research Methods, 17*, 278-298. doi:10.1177/1094428114524829

Hlady-Rispal, M., & Jouison-Laffitte, E. (2014). Qualitative research methods and epistemological frameworks: A review of publication trends in entrepreneurship. *Journal of Small Business Management, 52*, 594-614. doi:10.1111/jsbm.12123

Holmes, M. (2014). Researching emotional reflexivity. *Emotion Review, 7*(1), 61-66. doi:10.1177/1754073914544478

Honig, B., Lampel, J., Siegel, D., & Drnevich, P. (2014). Ethics in the production and dissemination of management research: Institutional failure or individual fallibility? *Journal of Management Studies*, *51*(1), 118-142. doi:10.1111/joms.12056

Horton, S. E. (2014). What is personal health responsibility? *Journal of the Association of Black Nursing Faculty, 25*(1), 5-9. Retrieved from http://tuckerpub.com

Houghton, C., Casey, D., Shaw, D., & Murphy, K. (2013). Rigor in qualitative case study research. *Nurse Researcher, 20*, 12-17. doi:10.7748/nr2013.0320.4.12.e326

Howell, S. T. (2017). Financing innovation: Evidence from R&D grants. *American Economic Review, 107*, 1136-1164. doi:10.1257/aer.20150808

Hsieh, C. T., Huang, H. C., & Lee, W. L. (2016). Using transaction cost economics to explain open innovation in start-ups. *Management Decision*, *54*, 2133-2156. doi:10.1108/MD-01-2016-0012

Hu, B., & Chen, W. (2016). Business model ambidexterity and technological innovation performance: Evidence from China. *Technology Analysis & Strategic Management, 28*, 583-600. doi:10.1080/09537325.2015.1122186

Hua, S. Y., & Wemmerlöv, U. (2006). Product change intensity, product advantage, and market performance: An empirical investigation of the PC industry. *Journal of Product Innovation Management, 23*, 316-329. doi:10.1111/j.1540-5885.2006.00204.

Huesig, S., & Endres, H. (2019). Exploring the digital innovation process. *European Journal of Innovation Management, 22*, 302-314. doi:10.1108/EJIM-02-2018-0051

Hullova, D., Laczko, P., & Frishammar, J. (2019). Independent distributors in servitization: An assessment of key internal and ecosystem-related problems. *Journal of Business Research*. doi:10.1016/j.jbusres.2019.01.012

Hussein, A. (2015). The use of triangulation in social sciences research: Can qualitative and quantitative methods be combined? *Journal of Comparative Social Work, 4*(1). Retrieved from http://journal.uia.no

Hutton, S., & Eldridge, S. (2019). Improving productivity through strategic alignment of competitive capabilities. *International Journal of Productivity & Performance Management, 68*, 644-668. doi:10.1108/IJPPM-11-2017-0277

Hwang, E. H., Singh, P. V., & Argote, L. (2015). Knowledge sharing in online communities: Learning to cross geographic and hierarchical boundaries. *Organization Science, 26,* 1553-1804. doi:10.1287/orsc.2015.1009

Ingham-Broomfield, R. (2015). A nurses' guide to qualitative research. *Australian Journal of Advanced Nursing, 32*(3), 34-40. Retrieved from http://www.ajan.com.au

Inigo, E. A., Albareda, L., & Ritala P. (2017). Business model innovation for sustainability: Exploring evolutionary and radical approaches through dynamic capabilities. *Industry & Innovation, 24,* 515-542. doi:10.1080/13662716.2017.1310034

Jajja, M. S., Kannan, V. R., Brah, S. A., & Hassan, S. Z. (2017). Linkages between firm innovation strategy, suppliers, product innovation, and business performance: Insights from resource dependence theory. *International Journal of Operations & Production Management, 37*, 1054-1075. doi:10.1108/IJOPM-09-2014-0424

Jamshed, S. (2014). Qualitative research method-interviewing and observation. *Journal of Basic and Clinical Pharmacy, 5*, 87-88. doi:10.4103/0976-0105.141942

Janger, J., Schubert, T., Andries, P., Rammer, C., & Hoskens, M. (2017). The EU 2020 innovation indicator: A step forward in measuring innovation outputs and outcomes? *Research Policy*, *46*(1), 30-42. doi:10.1016/j.respol.2016.10.001

Jennings, G., Cater, C., Hales, R., Kensbock, S., & Hornby, G. (2015). Partnering for real world learning, sustainability, tourism education. *Quality Assurance in Education, 23*, 378-394. doi:10.1108/QAE-03-2015-0010

Jeong, C. Y., Lee, S. T., & Lim, J. (2019). Information security breaches and IT security investments: Impacts on competitors. *Information & Management, 56*, 681-695. doi:10.1016/j.im.2018.11.003

Jinke, C., Jiankang, H., Mao, M., Wenxing, Z., Qi, L., Xiao, L., ... Xin, Z. (2018). Advanced material strategies for next-generation additive manufacturing. *Materials, 11*(1), 166. doi:10.3390/ma11010166

Johansson, A. E., Raddats, C., & Witell, L. (2019). The role of customer knowledge development for incremental and radical service innovation in servitized manufacturers. *Journal of Business Research, 98*, 328-338. doi:10.1016/j.jbusres.2019.02.019

Joslin, R., & Müller, R. (2016). Identifying interesting project phenomena using philosophical and methodological triangulation. *International Journal of Project Management, 34*, 1043-1056. doi:10.1016/j.ijproman.2016.05.005

Jugend, D., de Araujo, T. R., Pimenta, M. L., Gobbo Jr, J. A., & Hilletofth, P. (2018). The role of cross-functional integration in new product development: Differences between incremental and radical innovation projects, *Innovation, 20*(1), 42-60. doi:10.1080/14479338.2017.1364971

Kachouie, R., & Sedighadeli, S. (2015). New product development success factors in prospector organisations: Mixed method approach. *International Journal of Innovation Management, 19*, 150-155. doi:10.1142/s1363919615500401

Kamoto, S. (2017). Managerial innovation incentives, management buyouts, and shareholders' intolerance of failure. *Journal of Corporate Finance*, *42*, 55-74. doi:10.1016/j.jcorpfin.2016.11.002

Karabulut, A. T. (2015). Effects of innovation strategy on firm performance: A study conducted on manufacturing firms in Turkey. *Procedia - Social and Behavioral Sciences, 195*(World Conference on Technology, Innovation and Entrepreneurship), 1338-1347. doi:10.1016/j.sbspro.2015.06.314

Karia, N., & Asaari, M. H. (2016). Halal value creation: Its role in adding value and enabling logistics service. *Production Planning & Control, 27*, 677-685. doi:10.1080/09537287.2016.1166276

Karimi, J., & Walter, Z. (2015). The role of dynamic capabilities in responding to digital disruption: A factor-based study of the newspaper industry. *Journal of Management Information Systems, 32*(1), 39-81. doi:10.1080/07421222.2015.1029380

Karimi, J., & Walter, Z. (2016). Corporate entrepreneurship, disruptive business model innovation adoption, and its performance: The case of the newspaper industry. *Long Range Planning, 49*, 342-360. doi:10.1016/j.lrp.2015.09.004

Karin, A. K. (2015). Global talent management: Introducing a strategic framework and multiple-actors model. *Journal of Global Mobility, 3*, 273-288. doi:10.1108/JGM-02-2015-0002

Karlsson, A., Larsson, L., & Rönnbäck, A. Ö. (2018). Product-service system innovation capabilities: Linkages between the fuzzy front end and subsequent development phases. *International Journal of Production Research, 56*, 2218-2232. doi:10.1080/00207543.2017.1365181

Karlsson, C., & Tavassoli, S. (2016). Innovation strategies of firms: What strategies and why? *Journal of Technology Transfer*, *41*, 1483-1506. doi:10.1007/s10961-015-9453-4

Kasim, A., & Al-Gahuri, H. A. (2015). Overcoming challenges in qualitative inquiry within a conservative society. *Tourism Management, 50*, 124-129. doi:10.1016/j.tourman.2015.01.004

Kaufmann, L., & Wagner, C. M. (2017). Affective diversity and emotional intelligence in cross-functional sourcing teams. *Journal of Purchasing and Supply Management, 23*(1), 5-16. doi:10.1016/j.pursup.2016.07.004

Kelsey, L., Karen, T., & Hude, Q. (2017). Barriers to data quality resulting from the process of coding health information to administrative data: A qualitative study. *BMC Health Services Research, 17*(1), 1-10. doi:10.1186/s12913-017-2697-y

Khan, S. N. (2014). Qualitative research method - phenomenology. *Asian Social Science*, *10*, 298-310. doi:10.5539/ass.v10n21p298

Khanna, S. M. (2016). Diversity to tend attrition. *Human Capital, 20*(1), 34-35. Retrieved from http://www.humancapitalonline.com

Keig, D. L., Brouthers, L., & Marshall, V. B. (2015). Formal and informal corruption environments and multinational enterprise social irresponsibility. *Journal of Management Studies, 52*(1), 89-116. doi:10.1111/joms.12102

Kim, S. K., & Min, S. (2015). Business model innovation performance: When does adding a new business model benefit an incumbent? *Strategic Entrepreneurship Journal, 9*(1), 34-57. doi:10.1002/sej.1193

King, A. A., & Baatartogtokh, B. (2015). How useful is the theory of disruptive innovation? *MIT Sloan Management Review, 57*(1), 77-90. Retrieved from http://sloanreview.mit.edu

Kingston, W. (2015). Restoring the primacy of technological innovation. *Prometheus, 32*(3), 1-21. doi:10.1080/08109028.2015.1060702

Kirkwood, A., & Price, L. (2013). Examining some assumptions and limitations of research on the effects of emerging technologies for teaching and learning in higher education. *British Journal of Educational Technology, 44*, 536-543. doi:10.1111/bjet.12049

Kiron, D., & Unruh, G. (2019). Even if AI can cure loneliness - should it? *MIT Sloan Management Review, 60*, 1-4. Retrieved from https://sloanreview.mit.edu

Klimontowicz, M., & Harasim, J. (2019). Mobile technology as part of banks' business model. *Folia Oeconomica,* 73-90. doi:10.18778/0208-6018.340.05

Kneipp, J. M., Gomes, C. M., Bichueti, R. S., Frizzo, K., & Perlin, A. P. (2019). Sustainable innovation practices and their relationship with the performance of industrial companies. *REGE Revista de Gestão, 26*, 94-111. doi:10.1108/REGE-01-2018-0005

Kocak, A., Carsrud, A., & Oflazoglu, S. (2017). Market, entrepreneurial, and technology orientations: Impact on innovation and firm performance. *Management Decision*, *55*, 248-270. doi:10.1108/MD-04-2015-0146

Komarov, M., & Avdeeva, Z. (2015). Customer experience management for smart commerce based on cognitive maps. *Procedia Computer Science, 55*, 970-979. doi:10.1016/j.procs.2015.07.106

Kono, A., Izumi, K., Kanaya, Y., Tsumura, C., & Rubenstein, L. Z. (2014). Assessing the quality and effectiveness of an updated preventive home visit program for

ambulatory frail older Japanese people: Research protocol for a randomized controlled trial. *Journal of Advanced Nursing, 70*, 2363-2372. doi:10.1111/jan.12390

Koonrungsesomboon, N., Laothavorn, J., & Karbwang, J. (2015). Understanding of essential elements required in informed consent form among researchers and institutional review board members. *Tropical Medicine and Health, 43*, 117-122. doi:10.2149/tmh.2014-36

Korhonen, J. J. (2014). Big data: Big deal for organization design? *Journal of Organizational Design, 3*, 31-36. doi:10.146/jod.3.1.13261

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

Korstjens, I., & Moser, A. (2018). Series: Practical guidance to qualitative research. Part 4: Trustworthiness and publishing. *European Journal of General Practice, 24*, 120-124. doi:10.1080/13814788.2017.1375092

Kowalkowski, C., Gebauer, H., & Oliva, R. (2017). Service growth in product firms: Past, present, and future. *Industrial Marketing Management, 60*, 82-88. doi:10.1016/j.indmarman.2016.10.015

Kozleski, E. B. (2017). The uses of qualitative research: Powerful methods to inform evidence-based practice in education. *Research and Practice for Persons with Severe Disabilities*, *42*(1), 19-32. doi:10.1177/1540796916683710

Kraft, T., Valdés, L., & Zheng, Y. (2018). Supply chain visibility and social responsibility: Investigating consumers' behaviors and motives. *Manufacturing & Service Operations Management, 20*, 617-636. doi:10.1287/msom.2017.0685

Kshetri, N. (2018). Blockchain's roles in meeting key supply chain management objectives. *International Journal of Information Management, 39*, 80-89. doi:10.1016/j.ijinfomgt.2017.12.005

Kuijken, B., Gemser, G., & Wijnberg, N. M. (2017). Effective product-service systems: A value-based framework. *Industrial Marketing Management, 60*, 33-41. doi:10.1016/j.indmarman.2016.04.013

Kumar, P., & Zattoni, A. (2014). Ownership, managerial entrenchment, and corporate performance. *Corporate Governance: An International Review, 22*(1), 1-3. doi:10.1111/corg.12053

Kuronen, T. (2014). Visual discourse analysis in historical research: A case of visual archaeology? *Management & Organizational History, 10*(1), 52-70. doi:10.1080/17449359.2014.989233

Kuznecova, J., & Cirule, I. (2015). The age of marriage matters: Social entrepreneurs' mature age and business sustainability. *Journal of Business and Management,* 37-46. doi:10.1016/j.sbspro.2013.10.579. 38

Kwon, S. J., Park, E., Ohm, J. Y., & Yoo, K. (2015). Innovation activities and the creation of new employment: An empirical assessment of South Korea's manufacturing industry. *Social Science Information, 54*, 354-368. doi:10.1177/0539018415580190

Kyrylenko, O., Riazanovska, V., & Novak, V. (2019). Strategic airline alliances as a special form of company integration. *Baltic Journal of Economic Studies*, *5*, 75-80. doi:10.30525/2256-0742/2019-5-1-75-80

La, S., & Yi, Y. (2015). A critical review of customer satisfaction, customer loyalty, relationship marketing, and customer relationship management. *Korean Marketing Review, 30*(1), 53-53. doi:10.15830/kmr.2015.30.1.53

Ladewski, B. J., & Al-Bayati, A. J. (2019). Quality and safety management practices: The theory of quality management approach. *Journal of Safety Research, 69*, 193-200. doi:10.1016/j.jsr.2019.03.004

Lambert, J. (2016). Cultural diversity as a mechanism for innovation: Workplace diversity and the absorptive capacity framework. *Journal of Organizational Culture, Communications & Conflict, 20*(1), 68-77. Retrieved from https://www.abacademies.org

Lebor, M. (2015). What did disruptive students say they wanted from their classes? A survey of student voices. *Teaching in lifelong learning: A journal to inform and improve practice*, *6*(2), 16-24. doi:10.5920/till.2015.6216

Lee, C., Park, G., Marhold, K., & Kang, J. (2017). Top management team's innovation-related characteristics and the firm's explorative R&D: An analysis based on patent data. *Scientometrics, 111*, 639-663. doi:10.1007/s11192-017-2322-1

Lee, H., Cha, S., & Park, H. (2016). The effect of technology-exploration on product innovation: An analysis based on Korean manufacturing SMEs. *International Journal of Quality Innovation, 2*(1), 1-15. doi:10.1186/s40887-016-0009-y

Lee, Y., & Rim, S. (2016). Quantitative model for supply chain visibility: Process capability perspective. *Mathematical Problems in Engineering*, 1-11. doi:10.1155/2016/4049174

Lee, W. J., Mendis, G. P., & Sutherland, J. W. (2019). Development of an intelligent tool condition monitoring system to identify manufacturing tradeoffs and optimal machining conditions. *Procedia Manufacturing, 33*, 256-263. doi:10.1016/j.promfg.2019.04.031

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

Ledoux, Y., Teissandier, D., & Sebastian, P. (2016). Global optimisation of functional requirements and tolerance allocations based on designer preference modelling. *Journal of Engineering Design, 27*, 591-612. doi:10.1080/09544828.2016.1191625

Leins, D. A., Fisher, R. P., Pludwinski, L., Rivard, J., & Robertson, B. (2014). Interview protocols to facilitate intelligence sources' recollections of meetings. *Applied Cognitive Psychology, 28*, 926-935. doi:10.1002/acp.3041

Leminen, S., Nyström, A-G., & Westerlund, M. (2019). Change processes in open innovation networks - exploring living labs. *Industrial Marketing Management,* 1-16. doi:10.1016/j.indmarman.2019.01.013

Lemon, K. N., & Verhoef, P. C. (2016). Understanding customer experience throughout the customer journey. *Journal of Marketing, 80*(6), 69-96. doi:10.1509/jm.15.042

Levin, R. C. (1978). Technical change, barriers to entry, and market structure. *Economica, 45*, 347-361. doi:10.2307/2553450

Levitt, H. M., Bamberg, M., Frost, D. M., Creswell, J. W., Josselson, R., & Suarez-Orozco, C. (2018). Journal article reporting standards for qualitative primary, qualitative meta-analytic, and mixed methods research in psychology: The APA publications and communications board task force report. *The American Psychologist, 73*(1), 26-46. doi:10.1037/amp0000151

Levitt, H. M., Motulsky, S. L., Wertz, F. J., Morrow, S. L., & Ponterotto, J. G. (2017). Recommendations for designing and reviewing qualitative research in psychology: Promoting methodological integrity. *Qualitative Psychology, 4*(1), 2-22. doi:10.1037/qup0000082

Li, P., & Huang, K. (2019). The antecedents of innovation performance: The moderating role of top management team diversity. *Baltic Journal of Management, 14*, 291-311. doi:10.1108/BJM-07-2017-0202

Liang, L., Xie, J., Liu, L., & Xia, Y. (2017). Revenue sharing contract coordination of wind turbine order policy and aftermarket service based on joint effort. *Industrial Management & Data Systems, 117*, 320-345. doi:10.1108/IMDS-03-2016-0088

Liao, Y., & Tsai, K. (2019). Innovation intensity, creativity enhancement, and eco-innovation strategy: The roles of customer demand and environmental regulation. *Business Strategy and the Environment, 28*, 316-326. doi:10.1002/bse.2232

Lifshitz-Assaf, H., Lebovitz, S., & Zalmanson, L. (2019). The art of balancing autonomy and control. *MIT Sloan Management Review, 60*, 1-6. Retrieved from https://sloanreview.mit.edu

Lin, S., & Chen, M. (2019). Artificial intelligence in smart health: Investigation of theory and practice. *Journal of Nursing, 66*, 7-13. doi:10.6224/JN.201904_66(2).02

Lodhi, M. F. K. (2016). Quality issues in higher education: The role of methodological triangulation in enhancing the quality of a doctoral thesis. *Journal of Research in Social Sciences, 4*(1), 62-74. Retrieved from https://www.numl.edu.pk

Long, V., & Laestadius, S. (2016). An indigenous innovation: An example from mobile communication technology. *Oxford Development Studies, 44*(1), 113-133. doi:10.1080/13600818.2015.1111319

Lopes, C. M., Scavarda, A., Hofmeister, L. F., Thomé, A. M. T., & Vaccaro, G. L. R. (2017). An analysis of the interplay between organizational sustainability, knowledge management, and open innovation. *Journal of Cleaner Production*, *142*, 476-488. doi:10.1016/j.jclepro.2016.10.083

Love, J. H., & Roper, S. (2015). SME innovation, exporting and growth: A review of existing evidence. *International Small Business Journal*, *33*(1), 28-48. doi:10.1177/0266242614550190

Lozano, J. F., & Escrich, T. (2017). Cultural diversity in business: A critical reflection on the ideology of tolerance. *Journal of Business Ethics, 142*, 679-696. doi:10.1007/s10551-016-3113-y

Lui, A. K. H., Ngai, E. W. T., & Lo, C. K. Y. (2015). Disruptive information technology innovations and the cost of equity capital: The moderating effect of CEO incentives and institutional pressures. *Information & Management, 53*, 345-354. doi:10.1016/j.im.2015.09.009

Luoto, S., Brax, S., & Kohtamäki, M. (2017). Critical meta-analysis of servitization research: Constructing a model-narrative to reveal paradigmatic assumptions. *Industrial Marketing Management, 60*, 89-100. doi:10.1016/j.indmarman.2016.04.008

Lusch, R. F., & Nambisan, S. (2015). Service innovation: A service-dominant logic perspective. *MIS Quarterly*, *39*(1), 155-176. Retrieved from http://www.misq.org

Ma, Z., & Jin, Q. (2019). Success factors for product innovation in China's manufacturing sector: Strategic choice and environment constraints. *International Studies of Management & Organization, 49*, 213-231. doi:10.1080/00208825.2019.1608397

MacPhail, C., Khoza, N., Abler, L., & Ranganathan, M. (2016). Process guidelines for establishing intercoder reliability in qualitative studies. *Qualitative Research*, *16*, 198-212. doi:10.1177/1468794115577012

Madu, M. (2016). *Success strategies for small business owners in Philadelphia, Pennsylvania* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Full Text database. (UMI No. 10017016)

Mahoney, J., & Vanderpoel, R. S. (2015). Set diagrams and qualitative research. *Comparative Political Studies*, *48*(1), 65-100. doi:10.1177/0010414013519410

Malone, H., Nicholl, H., & Tracey, C. (2014). Awareness and minimization of systematic bias in research. *British Journal of Nursing (Mark Allen Publishing).* Retrieved from http://www.britishjournalofnursing.com

Mamédio, D., Rocha, C., Szczepanik, D., & Kato, H. (2019). Strategic alliances and dynamic capabilities: A systematic review. *Journal of Strategy and Management*, *12*, 83-102. doi:10.1108/JSMA-08-2018-0089

Manganelli, J., Threatt, A., Brooks, J. O., Healy, S., Merino, J., Yanik, P., & Green, K. (2014). Confirming, classifying, and prioritizing needed over-the-bed table improvements via methodological triangulation. *Health Environments Research & Design Journal, 8*(1), 94-114. doi:10.1177/193758671400800108

Mannay, D., & Morgan, M. (2015). Doing ethnography or applying a qualitative technique? Reflections from the 'waiting field'. *Qualitative Research*, *15*, 166-182. doi:10.1177/1468794113517391

Manning, J., & Kunkel, A. (Eds.). (2014). Method and analysis in qualitative relationships. *Researching interpersonal relationships: Qualitative methods, studies, and analysis* (pp. 23-48). Thousand Oaks, CA: Sage Publications.

Manzini, R., Lazzarotti, V., & Pellegrini, L. (2017). How to remain as closed as possible in the open innovation era: The case of Lindt & Sprüngli. *Long range planning*, *50*, 260-281. doi:10.1016/j.lrp.2015.12.011

Marcelino Sadaba, S., Perez-Ezcurdia, A., Echeverría-Lazcano, A. M., & Benito Amurrio, M. (2015). Definition of innovation projects in small firms: A Spanish

study. *Research & Development Management, 46*, 36-48. doi:10.1111/radm.12109

Markides, C. C. (2013). Business model innovation: What can the ambidexterity literature teach us? *The Academy of Management Perspectives, 27*, 313-323. doi:10.5465/amp.2012.0172

Martinelli, E. M., & Tunisini, A. (2019). Customer integration into supply chains: Literature review and research propositions. *Journal of Business & Industrial Marketing, 34,* 24-38. doi:10.1108/JBIM-07-2017-0162

Martínez-Pérez, Á., Elche, D., & García-Villaverde, P. M. (2019). From diversity of interorganizational relationships to radical innovation in tourism destination: The role of knowledge exploration. *Journal of Destination Marketing & Management, 11*, 80-88. doi:10.1016/j.jdmm.2018.12.002

Martinez-Roman, J. A., & Romero, I. (2017). Determinants of innovativeness in SMEs: Disentangling core innovation and technology adoption capabilities. *Review of Managerial Science, 11*, 543-569. doi:10.1007/s11846-016-0196-x

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

Marshall, C., & Rossman, G. B. (2015). *Designing qualitative research* (5th ed.). Thousand Oaks, CA: Sage Publications.

Marshall, C., & Rossman, G. B. (2016). *Designing qualitative research* (6th ed.). Thousand Oaks, CA: Sage Publications.

Martin-Rios, C., & Parga-Dans, E. (2016). Service response to economic decline: Innovation actions for achieving strategic renewal. *Journal of Business Research, 69*, 2890-2900. doi:10.1016/j.jbusres.2015.12.058

Maryska, M., & Doucek, P. (2015). Reference model of cost allocation and profitability for efficient management of corporate ICT. *Procedia Economics and Finance, 23*, 1009-1016. doi:10.1016/s2212-5671(15)00324-x

McBeth, A., Gumley, A., Schwannauer, M., Carcione, A., Fisher, R., McLeod, H. J., & Dimaggio, G. (2014). Metacognition, symptoms, and premorbid functioning in a first episode psychosis sample. *Comprehensive Psychiatry*, *55*, 268-273. doi:10.1016/j.comppsych.2013.08.027

McCarthy, B., & Schurmann, A. (2015). Sustainable horticulture in north Queensland: Resistance to the adoption of innovations? *Journal of New Business Ideas & Trends, 13*(2), 15-38. Retrieved from http://www.jnbit.org

McCarthy, D. M., Fader, P. S., & Hardie, B. G. S. (2017). Valuing subscription-based businesses using publicly disclosed customer data. *Journal of Marketing*, *81*(1), 17-35. doi:10.1509/jm.15.0519

McColl-Kennedy, J. R., Zaki, M., Urmetzer, F., Neely, A., & Lemon, K. N. (2019). Gaining customer experience insights that matter. *Journal of Service Research, 22*, 8-26. doi:10.1177/1094670518812182

McCullagh, M. C., Sanon, M., & Cohen, M. A. (2014). Strategies to enhance participant recruitment and retention in research involving a community-based population. *Applied Nursing Research, 27*, 249-253. doi:10.1016/j.apnr.2014.02.007

McCusker, K., & Gunaydin, S. (2015). Research using qualitative, quantitative or mixed methods and choice based on the research. *Perfusion, 30*, 537-542. doi:10.1177/0267659114559116

McMullen, H., Griffiths, C., Leber, W., & Greenhalgh, T. (2015). Explaining high and low performers in complex intervention trials: A new model based on diffusion of innovations theory. *Trials, 16*(1), 5-7. doi:10.1186/s13063-015-0755-5

Mehmet Saim, A. (2017). A strategic differentiator in global competition: Talent management. *International Journal of Commerce and Finance, 3*(1), 51-58. Retrieved from http://ijcf.ticaret.edu.tr

Messeni Petruzzelli, A., & Rotolo, D. (2015). Institutional diversity, internal search behaviour, and joint-innovations: Evidence from the US biotechnology industry. *Management Decision*, *53*, 2088-2106. doi:10.1108/MD-05-2014-0256

Mikalef, P., Krogstie, J., Pappas, I. O., & Pavlou, P. (2019, May). Exploring the relationship between big data analytics capability and competitive performance: The mediating roles of dynamic and operational capabilities. *Information & Management*. doi:10.1016/j.im.2019.05.004

Milano, C., Lawless, A., & Eades, E. (2015). Insider research as part of a master's programme: Opportunities lost and found within action learning sets. *Action Learning: Research and Practice, 12*, 317-324. doi:10.1080/14767333.2015.1094618

Miller, S., & Dorman, S. (2014). Resuscitation decisions for patients dying in the community: A qualitative interview study of general practitioner perspectives. *Palliative Medicine*, *28*, 1053-1061. doi:10.1177/0269216314531521

Miri-Lavassani, K., & Movahedi, B. (2018). Achieving higher supply chain performance via business process orientation. *Business Process Management Journal, 24*, 671-694. doi:10.1108/BPMJ-07-2016-0140

Mitchell, F., Stalker, K., Matthews, L., Mutrie, N., Melling, C., McConnachie, A., … Melville, C. A. (2018). A qualitative exploration of participants' experiences of taking part in a walking programme: Perceived benefits, barriers, choices and use of intervention resources. *Journal of Applied Research in Intellectual Disabilities, 31*(1), 110-121. doi:10.1111/jar.12326

Moeuf, A., Pellerin, R., Lamouri, S., Tamayo-Giraldo, S., & Barbaray, R. (2018). The industrial management of SMEs in the era of industry 4.0. *International Journal of Production Research, 56*, 1118-1136. doi:10.1080/00207543.2017.1372647

Mohamadi, H. A. D., Ab Yazid, M. S., Khatibi, A., & Ferdous Azam, S. M. (2017). Measuring the mediating role of customer satisfaction between service quality and customer loyalty in UAE hotel industry. *European Journal of Management and Marketing Studies, 2*(3), 188-203. doi:10.5281/zenodo.1066582

Mora Cortez, R., & Johnston, W. J. (2019). Marketing role in B2B settings: Evidence from advanced, emerging and developing markets. *Journal of Business & Industrial Marketing, 34*, 605-617. doi:10.1108/JBIM-04-2017-0089

Moretta Tartaglione, A., Cavacece, Y., Russo, G., & Granata, G. (2019). A systematic mapping study on customer loyalty and brand management. *Administrative Sciences*, *9*, 8. doi:10.3390/admsci9010008

Morgan, T., Anokhin, S. A., Song, C., & Chistyakova, N. (2019). The role of customer participation in building new product development speed capabilities in turbulent environments. *International Entrepreneurship and Management Journal, 15,* 119-133. doi:10.1007/s11365-018-0549-9

Morse, J. M. (2015). Critical analysis of strategies for determining rigor in qualitative inquiry. *Qualitative health research*, *25*, 1212-1222. doi:10.1177/1049732315588501

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

Morse, W. C., Lowery, D. R., & Steury, T. (2014). Exploring saturation of themes and special locations in qualitative public participation geographical information systems research. *Society & Natural Resources, 27*, 557-571. doi:10.1080/08941920.2014.888791

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

Murali, S., Pugazhendhi, S., & Muralidharan, C. (2016). Modelling and investigating the relationship of after sales service quality with customer satisfaction, retention and

loyalty - A case study of home appliances business. *Journal of Retailing & Consumer Services*, *30,* 67-83. doi:10.1016/j.jretconser.2016.01.001

Muqattash, R. S. (2017). Determinants affecting the decision to outsource the internal audit function in Abu Dhabi stock exchange. *International Journal of Economics and Business Research*, *13*, 317-334. doi:10.1504/IJEBR.2017.084378

Murthy, D. N., & Kumar, B. V. (2015). Internet of things (IoT): Is IoT a disruptive technology or a disruptive business model? *Indian Journal of Marketing, 45*, 18. doi:10.17010/ijom/2015/v45/i8/79915

Na, Y. K., Kang, S., & Jeong, H. Y. (2019). The effect of market orientation on performance of sharing economy business: Focusing on marketing innovation and sustainable competitive advantage. *Sustainability, 11*, 729. doi:10.3390/su11030729

Nagy, D., Schuessler, J., & Dubinsky, A. (2016). Defining and identifying disruptive innovations. *Industrial Marketing Management*, *57*, 119-126. doi:10.1016/j.indmarman.2015.11.017

Najafi-Tavani, S., Najafi-Tavani, Z., Naude, P., Oghazi, P., & Zeynaloo, E. (2018). How collaborative innovation networks affect new product performance: Product innovation capability, process innovation capability, and absorptive capacity. *Industrial Marketing Management, 73*, 193-205. doi:10.1016/j.indmarman.2018.02.009

Namageyo-Funa, A., Rimando, M., Brace, A. M., Christiana, R. W., Fowles, T. L., Davis, T. L., … Sealy, D. (2014). Recruitment in qualitative public health

research: Lessons learned during dissertation sample recruitment. *Qualitative Report, 19*(4), 1-17. Retrieved from http://www.nova.edu

National Science Foundation. (2015). Business research and development and innovation: 2012. Retrieved from http://www.nsf.gov/statistics/2016/nsf16301/#chp1&chp2&chp3

Nazir, S. (2019). CIO interview with ali aurangzeb, head of global marketing and deputy head of digital transformation, netsol technologies, Inc. *Journal of Global Information Technology Management, 22*, 146-149. doi:10.1080/1097198X.2019.1603738

Neubert, M. (2018). The impact of digitalization on the speed of internationalization of lean global startups. *Technology Innovation Management Review, 8*, 44-54. doi:10.22215/timreview/1158

Neupane, R. (2015). The effects of brand image on customer satisfaction and loyalty intention in retail supermarket chain UK. *International Journal of Social Sciences and Management, 2*(1), 9-26. doi:10.3126/ijssm.v2i1.11814

Neusar, A. (2014). To trust or not to trust? Interpretations in qualitative research. *Human Affairs, 24*, 178-188. doi:10.2478/s13374-014-218-9

Neutzling, D. M., Land, A., Seuring, S., & do Nascimento, L. F. M. (2017). Linking sustainability-oriented innovation to supply chain relationship integration. *Journal of Cleaner Production*, *172*, 3448-3458. doi:10.1016/j.jclepro.2017.11.091

Newington, L., & Metcalfe, A. (2014). Factors influencing recruitment to research: Qualitative study of the experiences and perceptions of research terms. *BMC Medical Research Methodology, 14*(1), 1-20. doi:10.1186/1471-2288-14-10

Newman, V. (2016). Mapping innovation practice among practitioners. *InImpact: Journal of Innovation Impact*, *7*(1), 1-20. Retrieved from http://inimpact.innovationkt.org

Ngo, L. V., Bucic, T., Sinha, A., & Lu, V. N. (2019). Effective sense-and-respond strategies: Mediating roles of exploratory and exploitative innovation. *Journal of Business Research, 94*, 154-161. doi:10.1016/j.jbusres.2017.10.050

Nimeh, H. A., Abdallah, A. B., & Sweis, R. (2018). Lean supply chain management practices and performance: Empirical evidence from manufacturing companies. *International Journal of Supply Chain Management, 7*(1), 1-15. Retrieved from http://ojs.excelingtech.co.uk

Noble, H., & Smith, J. (2015). Issues of validity and reliability in qualitative research. *Evidence Based Nursing*, *18*(2), 34-35. doi:10.1136/eb-2015-102054

North, K., & Kumta, G. (2018). Context-specific knowledge management strategies. *Journal of Knowledge Management*, 201-242. doi:10.1007/978-3-319-59978-6_6

Nyhan, B. (2015). Increasing the credibility of political science research: A proposal for journal reforms. *Political Science, 48*(1), 78-83. doi:10.1017/s1049096515000463

O'Connor, C., & Kelly, S. (2017). Facilitating knowledge management through filtered big data: SME competitiveness in an agri-food sector. *Journal of Knowledge Management, 21*(1), 156-179. doi:10.1108/JKM-08-2016-0357

O'Donnell, B. T., Ives, C. J., Mohiuddin, O. A., & Bunnell, B. A. (2019). Beyond the present constraints that prevent a wide spread of tissue engineering and regenerative medicine approaches. *Frontiers in Bioengineering and Biotechnology, 7,* 1-12. doi:10.3389/fbioe.2019.00095

Oghuma, A. P., Libaque-Saenz, C. F., Wong, S. F., & Chang, Y. (2016). An expectation confirmation model of continuance intention to use mobile instant messaging. *Telematics and Informatics, 33*(1), 34-47. doi:10.1016/j.tele.2015.05.006

Oh, C., Cho, Y., & Kim, W. (2015). The effect of a firm's strategic innovation decisions on its market performance. *Technology Analysis & Strategic Management*, *27*(1), 39-53. doi:10.1080/09537325.2014.945413

Ohunakin, F., Adeniji, A., Ogunnaike, O. O., Igbadume, F., & Akintayo, D. I. (2019). The effects of diversity management and inclusion on organisational outcomes: A case of multinational corporation. *Business: Theory & Practice, 20,* 93-102. doi:10.3846/btp.2019.09

Oliver, J. J., & Parrett, E. (2018). Managing future uncertainty: Reevaluating the role of scenario planning. *Business Horizons, 61*, 339-352. doi:10.1016/j.bushor.2017.11.013

Olofsson, S., Hoveskog, M., & Halila, F. (2018). Journey and impact of business model innovation: The case of a social enterprise in the Scandinavian electricity retail market. *Journal of Cleaner Production, 175*, 70-81. doi:10.1016/j.jclepro.2017.11.081

Onwuegbuzie, A. J., & Byers, V. T. (2014). An exemplar for combining the collection, analysis, and interpretation of verbal and nonverbal data in qualitative research. *International Journal of Education*, *6*, 183-246. doi:10.5296/ije.v6i1.4399

Ose, S. O. (2016). Using excel and word to structure qualitative data. *Journal of Applied Social Sciences (19367244), 10*, 147-162. doi:10.1177/1936724416664948

O'Reilly, M., & Parker, N. (2013). Unsatisfactory saturation: A critical exploration of the notion of saturated sample sizes in qualitative research. *Qualitative Research*, *13*, 190-197. doi:10.1177/1468794112446106

Padilla-Diaz, M. (2015). Phenomenology in educational qualitative research: Philosophy as science or philosophical science? *International Journal of Educational Excellence, 1*(2), 101-110. doi:10.18562/IJEE.2015.0009

Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and Policy in Mental Health and Mental Health Services Research*, *42*, 533-544. doi:10.1007/s10488-013-0528-y

Paluch, S., & Wünderlich, N. V. (2016). Contrasting risk perceptions of technology-based service innovations in inter-organizational settings. *Journal of Business Research, 69*, 2424-2431. doi:10.1016/j.jbusres.2016.01.012

Pansari, A., & Kumar, V. (2017). Customer engagement: The construct, antecedents, and consequences. *Journal of the Academy of Marketing Science, 45*, 294-311. doi:10.1007/s11747-016-0485-6

Parida, V., Sjödin, D., & Reim, W. (2019). Reviewing literature on digitalization, business model innovation, and sustainable industry: Past achievements and future promises. *Sustainability, 11*, 391. doi:10.3390/su11020391

Parkinson, S. E., & Wood, E. J. (2015). Transparency in intensive research on violence: Ethical dilemmas and unforeseen consequences. *Qualitative & Multi-Method Research, 13*(1), 22-27. doi:10.5281/zenodo.893081

Pasila, K., Elo, S., & Kääriäinen, M. (2017). Newly graduated nurses' orientation experiences: A systematic review of qualitative studies. *International Journal of Nursing Studies*, *71*, 17-27. doi:10.1016/j.ijnurstu.2017.02.021

Pasternak, G. (2015). Taking snapshots, living the picture: The Kodak company's making photographic biography. *Life Writing, 12*, 431-446. doi:10.1080/14484528.2015.1084604

Patton, M. Q. (2015). *Qualitative research & evaluation methods* (5th ed.). Thousand Oaks, CA: Sage Publications.

Patton, D. U., Hong, J. S., Patel, S., & Kral, M. J. (2017). A systematic review of research strategies used in qualitative studies on school bullying and victimization. *Trauma, Violence & Abuse, 18*(1), 3-16. doi:10.1177/1524838015588502

Pedersen, E. R. G., Gwozdz, W., & Hvass, K. K. (2018). Exploring the relationship between business model innovation, corporate sustainability, and organisational values within the fashion industry. *Journal of Business Ethics, 149*, 267-284. doi:10.1007/s10551-016-3044-7

Pellegrino, G., & Savona, M. (2017). No money, no honey? Financial versus knowledge and demand constraints on innovation. *Research Policy, 46*, 510-521. doi:10.1016/j.respol.2017.01.001

Penrose, E. T. (1959). *The theory of the growth of the firm*. New York, NY: John Wiley.

Peppers, D., & Rogers, M. (2017). *Managing customer experience and relationships: A strategic framework* (3rd ed.). Hoboken, NJ: Wiley Publications.

Peterlin, J., Dimovski, V., Tvaronavičienė, M., Grah, B., & Kaklauskas, A. (2018). The strategic process of developing social aspects of sustainability through the vision reflection in business education. *Technological and Economic Development of Economy, 24*, 1718-1736. doi:10.3846/tede.2018.5198

Petkovska, T. (2015). The role and importance of innovation in business of small and medium enterprises. *Economic Development, 17*(1/2), 55-74. Retrieved from http://www.ek-inst.ukim.edu.mk

Petrillo, A., De Felice, F., & Zomparelli, F. (2019). Performance measurement for world-class manufacturing: A model for the Italian automotive industry. *Total Quality Management & Business Excellence, 30*, 908-935. doi:10.1080/14783363.2017.1408402

Pierre-Etienne, V., & Verret-Hamelin, A. (2017). A randomly selected chamber: Promises and challenges. *Journal of Public Deliberation, 13*(1), 1-24. Retrieved from https://www.publicdeliberation.net

Platt, L. S., & Skowron, E. A. (2013). The family genogram interview: Reliability and validity of new interview protocol. *Family Journal: Counseling and Therapy for Couples and Families, 21*(1), 35-45. doi:10.1177/1066480712456817

Popa, S., Soto-Acosta, P., & Perez-Gonzalez, D. (2018). An investigation of the effect of electronic business on financial performance of Spanish manufacturing SMEs. *Technological Forecasting and Social Change*, *136*, 355-362. doi:10.1016/j.techfore.2016.08.012

Pourhejazy, P., Sarkis, J., & Zhu, Q. (2019). A fuzzy-based decision aid method for product deletion of fast moving consumer goods. *Expert Systems with Applications, 119*, 272-288. doi:10.1016/j.eswa.2018.11.001

Poushneh, A., & Vasquez-Parraga, A. Z. (2019). Emotional bonds with technology: The impact of customer readiness on upgrade intention, brand loyalty, and affective commitment through mediation impact of customer value. *Journal of Theoretical & Applied Electronic Commerce Research, 14*, 90-105. doi:10.4067/S0718-18762019000200108

Prajogo, D. I. (2016). The strategic fit between innovation strategies and business environment in delivering business performance. *International Journal of Production Economics*, *171*, 241-249. doi:10.1016/j.ijpe.2015.07.037

Protogerou, A., Caloghirou, Y., & Vonortas, N. S. (2017). Determinants of young firms' innovative performance: Empirical evidence from Europe. *Research Policy*, *46*. 1312-1326. doi:10.1016/j.respol.2017.05.011

Pugach, M. C., Mukhopadhyay, A., & Gomez-Najarro, J. (2014). Finally making good on the promise of qualitative research in special education? A response to the special issue. *Remedial and Special Education, 35*, 340-343. doi:10.1177/0741932514545790

Qosasi, A., Maulina, E., Purnomo, M., Muftiadi, A., Permana, E., & Febrian, F. (2019). The impact of information and communication technology capability on the competitive advantage of small businesses. *International Journal of Technology, 10*, 167-177. doi:10.14716/ijtech.v10i1.2332

Raddats, C., Kowalkowski, C., Benedettini, O., Burton, J., & Gebauer, H. (2019). Servitization: A contemporary thematic review of four major research streams. *Industrial Marketing Management,* 1-17*,* doi:10.1016/j.indmarman.2019.03.015

Raeburn, T., Schmied, V., Hungerford, C., & Cleary, M. (2015). The contribution of case study design to supporting research on clubhouse psychosocial rehabilitation. *BMC Research Notes, 8*(1), 1-7. doi:10.1186/s13104-015-1521-1

Rahi, S. (2017). Research design and methods: A systematic review of research paradigms, sampling issues and instruments development. *International Journal of Economics & Management Sciences, 6*, 403. doi:10.4172/2162-6359.1000403

Rahman, N. A., Hassan, S., & Said, J. (2015). Promoting sustainability of microfinance via innovation risks, best practices and management accounting practices. *Procedia Economics and Finance, 31*(International Accounting and

Business Conference 2015, IABC 2015), 470-484. doi:10.1016/S2212-5671(15)01180-6

Ramadani, V., Hisrich, R. D., Abazi-Alili, H., Dana, L.-P., Panthi, L., & Abazi-Bexheti, L. (2019). Product innovation and firm performance in transition economies: A multi-stage estimation approach. *Technological Forecasting & Social Change*, *140*, 271-280. doi:10.1016/j.techfore.2018.12.010

Ramaj, A., & Asmaili, R. (2015). Customer relationship management, customer satisfaction and loyalty. *Academic Journal of Interdisciplinary Studies, 4*, 594-597. doi:10.5901/ajis.2015.v4n3s1p594

Ramamurti, R., & Williamson, P. J. (2019). Rivalry between emerging-market MNEs and developed-country MNEs: Capability holes and the race to the future. *Business Horizons, 62*, 157-169. doi:10.1016/j.bushor.2018.11.001

Randel, A. E., Galvin, B. M., Shore, L. M., Ehrhart, K. H., Chung, B. G., Dean, M. A., & Kedharnath, U. (2018). Inclusive leadership: Realizing positive outcomes through belongingness and being valued for uniqueness. *Human Resource Management Review, 28*, 190-203. doi:10.1016/j.hrmr.2017.07.002

Rauter, R., Jonker, J., & Baumgartner, R. J. (2017). Going one's own way: Drivers in developing business models for sustainability. *Journal of Cleaner Production*, *140*, 144-154. doi:10.1016/j.jclepro.2015.04.104

Restuccia, M., de Brentani, U., Legoux, R., & Ouellet, J. (2016). Product life-cycle management and distributor contribution to new product development. *Journal of Product Innovation Management, 33*(1), 69-89. doi:10.1111/jpim.12261

Rialp-Criado, A., & Komochkova, K. (2017). Innovation strategy and export intensity of Chinese SMEs: The moderating role of the home-country business environment. *Asian Business & Management, 16*, 158-186. doi:10.1057/s41291-017-0018-2

Ribeiro, P. P. M., Santos, I. D. D., & Dutra, A. J. B. (2019). Copper and metals concentration from printed circuit boards using a zig-zag classifier. *Journal of Materials Research and Technology, 8*, 513-520. doi:10.1016/j.jmrt.2018.05.003

Rich, G. J. (2017). The promise of qualitative inquiry for positive psychology: Diversifying methods. *Journal of Positive Psychology*, *12*, 220-231. doi:10.1080/17439760.2016.1225119

Richardson, F. W. (2014). *Enhancing strategies to improve workplace performance* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Full Text database. (UMI No. 3669117)

Riyadi, S., & Sumardi, S. (2017). The impact of innovation strategy toward business competitiveness of manufacturing industry in Surabaya, Indonesia. *Hasanuddin Economics and Business Review, 1*(1), 83-89. doi:10.26487/hebr.v1i1.1159

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

Rodner, V. (2015). Finding the perfect fit-paradigmatic choices for novice and experienced qualitative researchers. *Symbolic Interaction, 38*(1), 161-164. doi:10.1002/symb.140

Rogers, E. M. (2003). *Diffusion of innovations*, 5th Edition. New York, NY: Free Press.

Roscoe, R. D., Becker, D. V., Branaghan, R. J., Chiou, E. K., Gray, R., Craig, S. D., … Cooke, N. J. (2019). Bridging psychology and engineering to make technology work for people. *American Psychologist, 74*, 394-406. doi:10.1037/amp0000444

Rosenblum, J., & Hughes, J. E. (2017). Digital recording technologies in phenomenological investigations. *Journal of Ethnographic & Qualitative Research, 12*, 29-49. Retrieved from http://www.jeqr.org

Rosenzweig, E., Queenan, C., & Kelley, K. (2019). Virtuous cycles of service quality: An empirical test. *International Journal of Operations & Production Management*, *39*, 357-380. doi:10.1108/IJOPM-11-2017-0678

Rotolo, D., Hicks, D., & Martin, B. R. (2015). What is an emerging technology? *Research Policy, 44*, 1827-1843. doi:10.1016/j.respol.2015.06.006.

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

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

Rubera, G., & Kirca, A. H. (2017). You gotta serve somebody: The effects of firm innovation on customer satisfaction and firm value. *Journal of the Academy of Marketing Science, 45*, 741-761. doi:10.1007/s11747-016-0512-7

Ruiz, I. J., Martínez, P. A., & Bravo, M. D. M. P. (2016). Key points for abolishing female genital mutilation from the perspective of the men involved. *Midwifery, 34*, 30-35. doi:10.1016/j.midw.2016.01.017

Sachdeva, I., & Goel, S. (2015). Retail store environment and customer experience: A paradigm. *Journal of Fashion Marketing and Management, 19*, 290-298. doi:10.1108/JFMM-032015-0021

Saebi, T., & Foss, N. J. (2015). Business models for open innovations: Matching heterogeneous open innovation strategies with business model dimensions. *European Management Journal*, *33*, 201-213. doi:10.1016/j.emj.2014.11.002

Saeidi, P., Saeidi, S. P., Sofian, S., Saeidi, S. P., Nilashi, M., & Mardani, A. (2019). The impact of enterprise risk management on competitive advantage by moderating role of information technology. *Computer Standards & Interfaces, 63*, 67-82. doi:10.1016/j.csi.2018.11.009

Saguya, S., & Taoukisb, P. S. (2017). From open innovation to enginomics: Paradigm shifts. *Trends in Food Science & Technology, 60*, 64-70. doi:10.1016/j.tifs.2016.08.008

Salunke, S., Weerawardena, J., & McColl-Kennedy, J. R. (2019). The central role of knowledge integration capability in service innovation-based competitive strategy. *Industrial Marketing Management, 76*, 144-156. doi:10.1016/j.indmarman.2018.07.004

Sánchez-Gómez, M. C., Pinto-Llorente, A. M., & García-Peñalvo, F. J. (2017). The impact of wikis and discussion boards on learning English as a second language.

A mixed methods research. *Digital Education Review*, *32*, 35-59. Retrieved from http://revistes.ub.edu

Sanjari, M., Bahramnezhad, F., Fomani, F. K., Shoghi, M., & Cheraghi, M. A. (2014). Ethical challenges of researchers in qualitative studies: The necessity to develop a specific guideline. *Journal of Medical Ethics and History of Medicine, 7*(14), 1-6. Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4263394/

San-Martín, S., Jiménez, N., & Puente, N. (2019). Bridging the gap between customer experience management and mobile shopping. *Revista Brasileira de Gestão de Negócios, 21*, 213-233. doi:10.7819/rbgn.v21i2.3971

Santiago-Delfosse, M., Gavin, A., Bruchez, C., Rous, P., & Stephen, S. L. (2016). Quality of qualitative research in the health sciences: Analysis of the common criteria present in 58 assessment guidelines by expert users. *Social Science & Medicine, 148,* 142-151. doi:10.1016/j.socscimed.2015.11.007

Santoro, G., Ferraris, A., Giacosa, E., & Giovando, G. (2018). How SMEs engage in open innovation: A survey. *Journal of the Knowledge Economy, 28*, 561-574. doi:10.1007/s13132-015-0350-8

Saridakis, G., Lai, Y., Mohammed, A., & Hansen, J. M. (2018). Industry characteristics, stages of e-commerce communications, and entrepreneurs and SMEs revenue growth. *Technological Forecasting and Social Change, 128*, 56-66. doi:10.1016/j.techfore.2017.10.017

Sarma, S. K. (2015). Qualitative research: Examining the misconceptions. *South Asian Journal of Management, 22*, 176-191. Retrieved from http://www.sajm-amdisa.org

Saxena, A. (2015). From creativity to innovation. *Human Capital*, *19*(4), 42-45. Retrieved from http://www.humancapitalonline.com

Scannella, E. (2015). What drives the disintegration of the loan origination value chain in the banking business. *Business Process Management Journal, 21*, 288-311. doi:10.1108/bpmj-02-2014-0017

Scheibe, K. P., & Blackhurst, J. (2018). Supply chain disruption propagation: A systemic risk and normal accident theory perspective. *International Journal of Production Research, 56*(1-2), 43-59. doi:10.1080/00207543.2017.1355123

Schumacher, A., Erol, S., & Sihn, W. (2016). A maturity model for assessing industry 4.0 readiness and maturity of manufacturing enterprises. *Procedia CIRP, 52*, 161-166. doi:10.1016/j.procir.2016.07.040

Schumpeter, J. A. (1934). *The theory of economic development: An inquiry into profits, capital, credit, interest, and the business cycle:* Cambridge, MA: Harvard University Press.

Schumpeter, J. A. (1950). *Capitalism, socialism, and democracy* (3rd ed.). New York, NY: Harper & Row.

Schweitzer, F., Van den Hende, E. A., & Hultink, E. (2019). There's more than one perspective to take into account for successful customer integration into radical

new product innovation: A framework and research agenda. *IEEE Transactions on Engineering Management,* 1-17. doi:10.1109/TEM.2019.2893060

Scotson, L., Johnston, L. R., Iannarilli, F., Wearn, O. R., Mohd-Azlan, J., Wong, W. M., … Fieberg, J. (2017). Best practices and software for the management and sharing of camera trap data for small and large scales studies. *Remote Sensing in Ecology & Conservation, 3*, 158-172. doi:10.1002/rse2.54

Scuotto, V., Del Giudice, M., & Carayannis, E. G. (2017). The effect of social networking sites and absorptive capacity on SMES' innovation performance. *Journal of Technology Transfer, 42*, 409-424. doi:10.1007/s10961-016-9517-0

Scuotto, V., Santoro, G., Bresciani, S., & Del Giudice, M. (2017). Shifting intra- and inter-organizational innovation processes towards digital business: An empirical analysis of SMEs. *Creativity and Innovation Management, 26*, 247-255. doi:10.1111/caim.12221

Scuotto, V., & Shukla, S. (2018). Being innovator or 'imovator': Current dilemma? *Journal of the Knowledge Economy, 28*, 212-227. doi:10.1007/s13132-015-0336-6

Sebastian, B. C., Fuentes, J. M., & Marin, J. M. M. (2015). Cloud computing, web 2.0, and operational performance. *International Journal of Logistics and Management, 26*, 426-458. doi:10/1108/IJLM-07-2013-0085

Seibert, S. E., Sargent, L. D., Kraimer, M. L., & Kiazad, K. (2017). Linking developmental experiences to leader effectiveness and promotability: The

mediating role of leadership self-efficacy and mentor network. *Personnel Psychology, 70*, 357-397. doi:10.1111/peps.12145

Seidel-Sterzik, H., McLaren, S., & Garnevska, E. (2018). Effective life cycle management in SMEs: Use of a sector-based approach to overcome barriers. *Sustainability, 10*(2)*,* 1-22. doi:10.3390/su10020359

Shanker, R., Bhanugopan, R., van der Heijden, B. M., & Farrell, M. (2017). Organizational climate for innovation and organizational performance: The mediating effect of innovative work behavior. *Journal of Vocational Behavior, 100*, 67-77. doi:10.1016/j.jvb.2017.02.004

Shimei, N., Krumer-Nevo, M., Saar-Heiman, Y., Russo-Carmel, S., Mirmovitch, I., & Zaitoun-Aricha, L. (2016). Critical social work: A performance ethnography. *Qualitative Inquiry, 22*, 615-623. doi:10.1177/1077800416629696

Shin, Y., Thai, V. V., Grewal, D., & Kim, Y. (2017). Do corporate sustainable management activities improve customer satisfaction, word of mouth intention and repurchase intention? Empirical evidence from the shipping industry. *International Journal of Logistics Management, 28*, 555-570. doi:10.1108/IJLM-11-2015-0220

Shukla, M. K., & Pattnaik, P. N. (2019). Managing customer relations in a modern business environment: Towards an ecosystem-based sustainable CRM model. *Journal of Relationship Marketing, 18*, 17-33. doi:10.1080/15332667.2018.1534057

Silverman, D. (Ed.). (2016). *Qualitative research*. Thousand Oaks, CA: Sage Publications.

Simester, D. (2016). Why great new products fail. *MIT Sloan Management Review*, *57*(3), 33-39. Retrieved from http://sloanreview.mit.edu

Sinclair, S., Jaggi, P., Hack, T. F., McClement, S. E., Raffin-Bouchal, S., & Singh, P. (2018). Assessing the credibility and transferability of the patient compassion model in non-cancer palliative populations. *BMC Palliative Care, 17*(1), 1-10. doi:10.1186/s12904-018-0358-5

Singh, A. S. (2014). Conducting case study research in non-profit organizations. *Qualitative Market Research: An International Journal, 17*, 77-84. doi:10.1108/QMR-04-2013-0024

Singh, V., & Agrawal, A. (2017). Impact of business environment on balancing innovation process in Indian SMEs. *International Journal of Business Innovation and Research, 12*, 224-239. doi:10.1504/IJBIR.2017.081404

Sloan, A., & Bowe, B. (2014). Phenomenology and hermeneutic phenomenology: The philosophy, the methodologies and using hermeneutic phenomenology to investigate lecturers' experiences of curriculum design. *Quality & Quantity, 48*, 1291-1303. doi:10.1007/s11135-013-9835-3

Smith, A. (2016). Data collection dangers. *ITNOW, 57*(1), 10-12. doi:10.1093/itnow/bwv004

Smith, B., & McGannon, K. R. (2018). Developing rigor in qualitative research: Problems and opportunities within sport and exercise psychology. *International*

Review of Sport and Exercise Psychology, 11(1), 101-121. doi:10.1080/1750984X.2017.1317357

Snihur, Y., & Wiklund, J. (2019). Searching for innovation: Product, process, and business model innovations and search behavior in established firms. *Long Range Planning*, *52*, 305-325. doi:10.1016/j.lrp.2018.05.003

Sokolinskiy, O., Sopranzetti, B., Rogers, D. S., & Leuschner, R. (2019). Inventory management and endogenous demand: Investigating the role of customer referrals, defections, and product market failure. *Decision Sciences, 50*, 118-141. doi:10.1111/deci.12316

Somapa, S., Cools, M., & Dullaert, W. (2018). Characterizing supply chain visibility - a literature review. *International Journal of Logistics Management, 29*, 308-339. doi:10.1108/IJLM-06-2016-0150

Song, W., Cao, J., & Zheng, M. (2016). Towards an integrative framework of innovation network for new product development project. *Production Planning & Control, 27*, 967-978. doi:10.1080/09537287.2016.1167980

Soo-Myung, C., Seong-Taek, P., & Young-Ki, K. (2017). A study on effects of exploration and exploitation on patent activities and innovation. *Research Journal of Pharmacy and Technology, 10*, 2735-2742. doi:10.5958/0974-360X.2017.00486.3

Sotiriadou, P., Brouwers, J., & Le, T.-A. (2014). Choosing a qualitative data analysis tool: A comparison of NVivo and Leximancer. *Annals of Leisure Research, 17*, 218-234. doi:10.1080/11745398.2014.902292

Soto-Acosta, P., Popa, S., & Palacios-Marqués, D. (2016). E-business, organizational innovation and firm performance in manufacturing SMEs: An empirical study in Spain. *Technological and Economic Development of Economy, 22*, 885-904. doi:10.3846/20294913.2015.1074126

Souto, J. E. (2015). Business model innovation and business concept innovation as the context of incremental innovation and radical innovation. *Tourism Management, 51*, 142-155. doi:10.1016/j.tourman.2015.05.017

Spadafino, J. T., Martinez, O., Levine, E. C., Dodge, B., Muñoz-Laboy, M., & Fernandez, M. I. (2016). Correlates of HIV and STI testing among Latino men who have sex with men in New York City. *AIDS Care, 28*, 695-698. doi:10.1080/09540121.2016.1147017

Sparkes, A. C. (2014). Developing mixed methods research in sport and exercise psychology: Critical reflections on five points of controversy. *Psychology of Sport and Exercise, 16*, 48-49. doi:10.1016/j.psychsport.2014.08.014

Spithoven, A., Vanhaverbeke, W., & Roijakkers, N. (2013). Open innovation practices in SMEs and large enterprises. *Small Business Economics*, *41*, 537-562. doi:10.1007/s11187-012-9453-9

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

Starr, M. A. (2014). Qualitative and mixed-methods research in economics: Surprising growth, promising future. *Journal of Economic Surveys*, *28*, 238-264. doi:10.1111/joes.12004

Stayton, J., & Mangematin, V. (2019). Seed accelerators and the speed of new venture creation. *Journal of Technology Transfer, 44,* 1163-1187. doi:10.1007/s10961-017-9646-0

Stevens, A., Moser, A., Köke, A., van der Weijden, T., & Beurskens, A. (2017). The use and perceived usefulness of a patient-specific measurement instrument in physiotherapy goal setting. A qualitative study. *Musculoskeletal Science and Practice*, *27*, 23-31. doi:10.1016/j.msksp.2016.12.005

Stevenson, J. E., Israelsson, J., Petersson, G., & Bath, P. A. (2018). Factors influencing the quality of vital sign data in electronic health records: A qualitative study. *Journal of Clinical Nursing, 27*, 1276-1286. doi:10.1111/jocn.14174

Stock, R. M. (2015). Is boreout a threat to frontline employees' innovative work behavior? *Journal of Product Innovation Management, 32*, 574-592. doi:10.1111/jpim.12239

Stoker, J. R. (2016). Are your people on board? *Personal Excellence Essentials, 21*(6), 11-12. Retrieved from https://www.hr.com

Story, V. M., Raddas, C., Burton, J., Zolkiewski, J., & Baines, T. (2016). Capabilities for advanced services: A multi-actor perspective. *Industrial Marketing Management, 60*, 54-68. doi:10.1016/j.indmarman.2016.04.015

Stuckey, H. (2015). The second step in data analysis: Coding qualitative research data. *Journal of Social Health and Diabetes, 3*(1), 7-7. doi:10.4103/2321-0656.140875

Sunday, C. E., & Vera, C. C. E. (2018). Examining information and communication technology (ICT) adoption in SMEs: A dynamic capabilities approach. *Journal of*

Enterprise Information Management, 31, 338-356. doi:10.1108/JEIM-12-2014-0125

Suwannathat, P., Decharin, P., & Somboonsavatdee, A. (2015). Fostering innovation in public businesses in Thailand. *International Journal of Organizational Analysis, 23*, 528-544. doi:10.1108/ijoa-03-2012-0563

Szakonyi, R. (1994). Measuring R&D effectiveness - I. *Research Technology Management, 37*(2), 27-32. doi:10.1080/08956308.1994.11670966

Szymanski, M., Fitzsimmons, S. R., & Danis, W. M. (2019). Multicultural managers and competitive advantage: Evidence from elite football teams. *International Business Review, 28*, 305-315. doi:10.1016/j.ibusrev.2018.10.003

Tabbah, R., & Maritz, A. (2019). Demystifying disruptive innovation phenomenon: Economic and societal impacts. *Revista de Cercetare Si Interventie Sociala, 64*, 9-24. doi:10.33788/rcis.64.1

Talke, K., & Heidenreich, S. (2014). How to overcome pro-change bias: Incorporating passive and active innovation resistance in innovation decision models. *Journal of Product Innovation Management, 31*, 894-907. doi:10.1111/jpim.12130

Taneja, S., Pryor, M. G., & Hayek, M. (2016). Leaping innovation barriers to small business longevity. *Journal of Business Strategy, 37*(3), 44-51. doi:10.1108/JBS-12-2014-0145

Tavassoli, S. (2015). Innovation determinants over industry life cycle. *Technological Forecasting and Social Change, 91*, 18-32. doi:10.1016/j.techfore.2013.12.027

Teece, D. J. (1980). Economies of scope and the scope of the enterprise. *Journal of Economic Behavior & Organization, 1*, 223-247. doi:10.1016/0167-2681(80)90002-5

Teece, D. J. (2019). China and the reshaping of the auto industry: A dynamic capabilities perspective. *Management and Organization Review, 15,* 177-199. doi:10.1017/mor.2019.4

Tetnowski, J. (2015). Qualitative case study research design. *SIG 4 Perspectives on Fluency and Fluency Disorders, 25*(1), 39-45. doi:10.1044/ffd25.1.39

Thiem, A. (2015). Using qualitative comparative analysis for identifying causal chains in configurational data: A methodological commentary on Baumgartner and Epple (2014). *Sociological Methods & Research, 44*, 723-736. doi:10.1177/0049124115589032

Thomas, S. J. (2015). *Exploring strategies for retaining information technology professionals: A case study:* (Doctoral dissertation). Retrieved from ProQuest Digital Dissertations and Theses database. (UMI No. 3681815)

Tian, Q., Zhang, S., Yu, H., & Cao, G. (2019). Exploring the factors influencing business model innovation using grounded theory: The case of a Chinese high-end equipment manufacturer. *Sustainability, 11*, 1455. doi:10.3390/su11051455

Togwe, T., Eveleigh, T. J., & Tanju, B. (2019). An additive manufacturing spare parts inventory model for an aviation use case. *Engineering Management Journal, 31*, 69-80. doi:10.1080/10429247.2019.1565618

Tohanean, D., & Weiss, P. (2019). Digital entrepreneurship and green business model innovation: Lean startup approaches. *Quality - Access to Success*, *20*, 630-634. Retrieved from https://www.srac.ro/calitatea/en/index.html

Tonkin-Crine, S., Anthierens, S., Hood, K., Yardley, L., Cals, J. W., Francis, N. A., & Butler, C. C. (2016). Discrepancies between qualitative and quantitative evaluation of randomised controlled trial results: Achieving clarity through mixed methods triangulation. *Implementation Science*, *11*(1), 1. doi:10.1186/s13012-016-0436-0

Tortonesi, M., Govoni, M., Morelli, A., Riberto, G., Stefanelli, C., & Suri, N. (2019). Taming the IoT data deluge: An innovative information-centric service model for fog computing applications. *Future Generation Computer Systems, 93*, 888-902. doi:10.1016/j.future.2018.06.009

Trace, C. B., & Karadkar, U. P. (2017). Information management in the humanities: Scholarly processes, tools, and the construction of personal collections. *Journal of the Association for Information Science & Technology, 68*, 491-507. doi:10.1002/asi.23678

Tran, V., Porcher, R., Falissard, B., & Ravaud, P. (2016). Point of data saturation was assessed using resampling methods in a survey with open-ended questions. *Journal of Clinical Epidemiology, 80*, 88-96. doi:10.1016/j.jclinepi.2016.07.014

Tuapawa, K. (2017). Interpreting experiences of students using educational online technologies to interact with teachers in blended tertiary environments: A

phenomenological study. *Australasian Journal of Educational Technology, 33*(1), 163-175. doi:10.14742/ajet.2964

Tuesner, A. (2016). Insider research, validity issues, and the OHS professional: One person's journey. *International Journal of Social Research Methodology, 19*, 85-96. doi:10.1080/13645579.2015.101926

Tyagi, R., & Raju, J. (2018). The effect of entrant brand's ownership on national brands' positioning strategies. *Managerial & Decision Economics, 39*, 475-485. doi:10.1002/mde.2919

Udriyah, U., Tham, J., & Azam, S. (2019). The effects of market orientation and innovation on competitive advantage and business performance of textile SMEs. *Management Science Letters, 9*, 1419-1428. doi:10.5267/j.msl.2019.5.009

Ul Hassan, S. Q., & Rehman, A. C. (2016). The impact of competitive advantage, customer satisfaction and customer relationship management on customer loyalty: An empirical analysis of banking sector of Pakistan. *Singaporean Journal of Business Economics and Management Studies, 5*(3), 31-40. doi:10.12816/0031490

Un, C. A., & Rodríguez, A. (2018). Local and global knowledge complementarity: R&D collaborations and innovation of foreign and domestic firms. *Journal of International Management, 24*, 137-152. doi:10.1016/j.intman.2017.09.001

Urbiola, A., Willis, G. B., Ruiz-Romero, J., Moya, M., & Esses, V. (2017). Valuing diversity in Spain and Canada: The role of multicultural ideology in intergroup

attitudes and intentions to reduce inequalities. *International Journal of Intercultural Relations, 56,* 25-38. doi:10.1016/j.ijintrel.2016.10.006

Uribe-Jongbloed, E. (2014). A qualitative methodology for minority language media production research. *International Journal of Qualitative Methods, 13*, 135-150. doi:10.1177/146879410100100303

U.S. Department of Health and Human Services, Office of the Secretary, National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. (1979). *The Belmont Report: Ethical principles and guidelines for the protection of human subjects of research* (45 CFR 46). Retrieved from http://www.hhs.gov/ohrp/humansubjects/guidance/belmont.html

U.S. Small Business Administration. (2015). *Small business innovation research.* Retrieved from http://www.sbir.gov/about/about-sbir

U.S. Small Business Administration. (2018). *Survival rates and firm age* [Fact sheet]. Retrieved from www.sba.gov

Usman, M., & Vanhaverbeke, W. (2017). How start-ups successfully organize and manage open innovation with large companies. *European Journal of Innovation Management, 20*, 171-186. doi:10.1108/EJIM-07-2016-0066

v. Alberti-Alhtaybat, L., Al-Htaybat, K., & Hutaibat, K. (2019). A knowledge management and sharing business model for dealing with disruption: The case of Aramex. *Journal of Business Research, 94*, 400-407. doi:10.1016/j.jbusres.2017.11.037

Valtakoski, A. (2017). Explaining servitization failure and deservitization: Aknowledge-based perspective. *Industrial Marketing Management, 60*, 138-150. doi:10.1016/j.indmarman.2016.04.009

Van de Vrande, V., de Jong, J., Vanhaverbeke, W., & de Rochemont, M. (2009). Open innovation in SMEs: Trends, motives and management challenges. *Technovation, 29*, 423-437. doi:10.1016/j.technovation.2008.10.001

Van Rensburg, A. J., & Ukpere, W. I. (2014). Application of grounded theory in career research reviewed. *Mediterranean Journal of Social Sciences*, *5*, 543-556. doi:10.5901/mjss.2014.v5n4p543

Vargas, M. I. R. (2015). Determinant factors for small business to achieve innovation, high performance and competitiveness: Organizational learning and business managers and supervisorship style. *Procedia - Social and Behavioral Sciences, 169*, 43-52. doi:10.1016/j.sbspro.2015.01.284

Vass, C., Rigby, D., & Payne, K. (2017). The role of qualitative research methods in discrete choice experiments: A systematic review and survey of authors. *Medical Decision Making*, *37*, 298-313. doi:10.1177/0272989X16683934

Vaughn, P., & Turner, C. (2016). Decoding via coding: Analyzing qualitative text data through thematic coding and survey methodologies. *Journal of Library Administration*, *56*, 41-51. doi:10.1080/01930826.2015.1105035

Vendrell-Herrero, F., Bustinza, O. F., Parry, G., & Georgantzis, N. (2017). Servitization, digitization and supply chain interdependency. *Industrial Marketing Management, 60,* 69-81. doi:10.1016/j.indmarman.2016.06.013

Vendrell-Herrero, F., Gomes, E., Bustinza, O. F., & Mellahi, K. (2018). Uncovering the role of cross-border strategic alliances and expertise decision centralization in enhancing product-service innovation in MMNEs. *International Business Review, 27*, 814-825. doi:10.1016/j.ibusrev.2018.01.005

Vendrell-Herrero, F., & Wilson, J. R. (2017). Servitization for territorial competitiveness: Taxonomy and research agenda. *Competitiveness Review: An International Business Journal*, *27*(1), 2-11. doi:10.1108/CR-02-2016-0005

Venkatesh, V., Brown, S. A., & Sullivan, Y. W. (2016). Guidelines for conducting mixed-methods research: An extension and illustration. *Journal of the Association for Information Systems*, *17*, 435-495. Retrieved from http://aisel.aisnet.org

Verbano, C., & Crema, M. (2016). Linking technology innovation strategy, intellectual capital and technology innovation performance in manufacturing SMEs. *Technology Analysis & Strategic Management, 28*, 524-540. doi:10.1080/09537325.2015.1117066

Verdu-Jover, A. J., Alos-Simo, L., & Gomez-Gras, J. (2018). Adaptive culture and product/service innovation outcomes. *European Management Journal, 36*, 330-340. doi:10.1016/j.emj.2017.07.004

Vernon, F. (2015). The diversity project: An ethnography of social justice experiential education programming. *Ethnography and Education, 11*, 298-315. doi:10.1080/17457823.2015.1101380

Vettraino, E., Linds, W., & Downie, H. (2019). Embodied reflexivity: Discerning ethical practice through the six-part story method. *Reflective Practice, 20*, 218-233. doi:10.1080/14623943.2019.1575197

Vijayan, G., & Kamarulzaman, N. H. (2016). An introduction to sustainable supply chain management and business implications. *Green Supply Chain Management for Sustainable Business Practice, 3*, 27-50. doi:10.4018/978-1-5225-0635-5.ch002

Villan, W. J., da Silva, S. B., & Camilo, S. P. O. (2016). The scientific production exploring innovation as competitive strategy. *Business Management Dynamics, 5*(9), 33-47. Retrieved from http://www.bmdynamics.com

Villasalero, M. (2018). Multi-business firms, knowledge flows and intra-network open innovations. *Journal of the Knowledge Economy, 9*(1), 162-179. doi:10.1007/s13132-015-0330-z

Visnjic, I., Wiengarten, F., & Neely, A. (2016). Only the brave: Product innovation, service business model innovation, and their impact on performance. *Journal of Product Innovation Management*, *33*(1), 36-52. doi:10.1111/jpim.12254

von Hippel, E. (1988). *The sources of innovation*. New York, NY: Free Press.

Von Contzen, E., & Alders, M. (2015). Collective experience in narrative: Conclusions and proposals. *Narrative, 23*, 226-229. doi:10.1353/nar.2015.0012

Vrontis, D., Thrassou, A., Santoro, G., & Papa, A. (2017). Ambidexterity, external knowledge and performance in knowledge-intensive firms. *Journal of Technology Transfer, 42*, 374-388. doi:10.1007/s10961-016-9502-7

Wagstaff, C., & Williams, B. (2014). Specific design features of an interpretative phenomenological analysis study. *Nurse Researcher*, *21*, 8-12. doi:10.7748/nr2014.01.21.3.8.e1226

Wang, Y., Chau, P., & Chen, F. (2016). Towards a secured network virtualization. *Computer Networks*, *104*, 55-65. doi:10.1016/j.comnet.2016.04.023

Waters, J. (2016). *Phenomenological research guidelines*. Retrieved from https://www.capilanou.ca

Westerman, M. A. (2014). Examining arguments against quantitative research: "Case studies" illustrating the challenge of finding a sound philosophical basis of a human sciences approach to psychology. *New Ideas in Psychology*, *32*, 42-58. doi:10.1016/jnewideapsych.2013.08.002

Whittaker, D. H., Fath, B. P., & Fiedler, A. (2016). Assembling capabilities for innovation: Evidence from New Zealand SMEs. *International Small Business Journal, 34*, 123-143. doi:10.1177 /0266242614548931

Whiting, P., Savović, J., Higgins, J. P., Caldwell, D. M., Reeves, B. C., Shea, B., & Churchill, R. (2016). ROBIS: A new tool to assess risk of bias in systematic reviews was developed. *Journal of clinical epidemiology*, *69*, 225-234. doi:10.1016/j.jclinepi.2015.06.005

Widodo, H. P. (2014). Methodological considerations in interview data transcription. *International Journal of Innovation in English Language Teaching and Research, 3*, 101-107. Retrieved from https://www.novapublishers.com/ catalog/product_info.php?products_id=50128

Wijngaarden, V. (2017). Q method and ethnography in tourism research: Enhancing insights, comparability and reflexivity. *Current Issues in Tourism*, *20*, 869-882. doi:10.1080/13683500.2016.1170771

Wilson, V. (2014). Research methods: Triangulation. *Evidence Based Library and Information Practice*, *9*(1), 74-75. doi:10.18438/B8WW3X

Windler, K., Jüttner, U., Michel, S., Maklan, S., & MacDonald, E. K. (2017). Identifying the right solution customers: A managerial methodology. *Industrial Marketing Management, 60*, 173-186. doi:10.1016/j.indmarman.2016.03.004

Wood, N. D., Gnonhosou, A., & Bowling, J. W. (2015). Combining parallel and exploratory factor analysis in identifying relationship scales in secondary data. *Marriage & Family Review, 51*, 385-395. doi:10.1080/01494929.2015.1059785

Woods, M., Paulus, T., Atkins, D. P., & Macklin, R. (2015). Advancing qualitative research using qualitative data analysis software (QDAS)? Reviewing potential versus practice in published studies using ATLAS.ti and NVivo, 1994-2013. *Social Science Computer Review, 34*, 597-617. doi:10.1177/0894439315596311

Wright, A. J., Sutton, S., Armstrong, D., Aveyard, P., Kinmonth, A. L., & Marteau, T. M. (2018). Factors influencing the impact of pharmacogenomic prescribing on adherence to nicotine replacement therapy: A qualitative study of participants from a randomized controlled trial. *Translational Behavioral Medicine, 8*(1), 18-28. doi:10.1093/tbm/ibx008

Xing, W., Javier, C., Geoffrey, P., & Marshall Van, A. (2017). Unraveling platform strategies: A review from an organizational ambidexterity perspective. *Sustainability, 9*, 734. doi:10.3390/su9050734

Xu, J. (2017). Research on upgrade path to technology innovation of resource-based SMEs in China. *IOP Conference Series: Earth & Environmental Science, 81*(1), 1-5. doi:10.1088/1755-1315/81/1/012074

Yague, M. J., & Romero, J. (2016). Co-building brand equity and customer equity through marketing capabilities: Impact on competitive advantage. *International Journal of Business Environment, 8*, 344-345. doi:10.1504/ijbe.2016.080878

Yang, Q., Liu, Y., & Li, Y. (2019). How do an alliance firm's strategic orientations drive its knowledge acquisition? Evidence from sino-foreign alliance partnership. *Journal of Business & Industrial Marketing, 34*, 505-517. doi:10.1108/JBIM-05-2018-0158

Yang, Y., Pankow, J., Swan, H., Willett, J., Mitchell, S. G., Rudes, D. S., & Knight, K. (2018). Preparing for analysis: A practical guide for a critical step for procedural rigor in large-scale multisite qualitative research studies. *Quality & Quantity, 52*, 815-828. doi:10.1007/s11135-017-0490-y

Yazan, B. (2015). Three approaches to case study methods in education: Yin, Merriam, and Stake. *Qualitative Report*, *20*, 134-152. Retrieved from http://nsuworks.nova.edu/tqr/vol20/iss2/12

Yazdani, A., Wells, R., Hilbrecht, M., Imbeau, D., Bigelow, P., Neumann, W. P., & Pagell, M. (2018). Integration of musculoskeletal disorders prevention into

management systems: A qualitative study of key informants' perspectives. *Safety Science, 104*, 110-118. doi:10.1016/j.ssci.2018.01.004

Yazdani, N., & Murad, H. S. (2015). Toward an ethical theory of organizing. *Journal of Business Ethics, 127*, 399-417. doi:10.1007/s10551-014-2049-3

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

Yin, R. K. (2016). *Qualitative research from start to finish* (2nd ed.). New York, NY: Guilford Press.

Yin, R. K. (2018). *Case study research and applications*: *Design and methods* (6th ed.). Thousand Oaks, CA: Sage Publications.

Yom, S. (2014). From methodology to practice induction iteration in comparative research. *Comparative Political Studies, 48*, 616-644. doi:10.1177/0010414014554685

Young-Joong, K. (2015). The influence of coffee shop physical environment, nonverbal communication on the customer emotional responses and customer satisfaction. *Journal of Tourism Sciences, 39*(8), 11-27. doi:10.17086/jts.2015.39.8.11.27

Youngsu, L., & Suk-Chul, R. (2016). Quantitative model for supply chain visibility: Process capability perspective. *Mathematical Problems in Engineering, 2016*, 1-11. doi:10.1155/2016/4049174

Yu, Y., & Huo, B. (2018). Supply chain quality integration: Relational antecedents and operational consequences. *Supply Chain Management: An International Journal, 23*, 188-206. doi:10.1108/SCM-08-2017-0280

Zamawe, F. C. (2015). The implication of using NVivo software in qualitative data analysis: Evidence-based reflections. *Malawi Medical Journal*, *27*(1), 13-15. doi:10.4314/mmj.v27il.4

Zapata-Barrero, R. (2016). Diversity and cultural policy: Cultural citizenship as a tool for inclusion. *International Journal of Cultural Policy, 22*, 534-552. doi:10.1080/10286632.2015.1015533

Zeng, Y., Shenkar, O., Lee, S. H., & Song, S. (2013). Cultural differences, MNE learning abilities, and the effect of experience on subsidiary mortality in a dissimilar culture: Evidence from Korean MNEs. *Journal of International Business Studies*, *44*(1), 42-65. doi:10.1057/jibs.2012.30

Zhang, J., & Zhu, M. (2015). Market orientation, product innovation and export performance: Evidence from Chinese manufacturers. *Journal of Strategic Marketing, 24*, 377-397. doi:10.1080/0965254x.2015.1052538

Zhang, Q., Cao, M., & Doll, W. (2019). Fuzzy front end of innovation: A dual theoretical rationale. *Journal of Business & Industrial Marketing, 34*, 176-191. doi:10.1108/JBIM-06-2017-0144

Zhao, E. Y., Ishihara, M., Jennings, P. D., & Lounsbury, M. (2018). Optimal distinctiveness in the console video game industry: An exemplar-based model of proto-category evolution. *Organization Science, 29*, 547-753, doi:10.1287/orsc.2017.1194

Zhao, S., Zhang, Q., Peng, Z., & Fan, Y. (2019). Integrating customer requirements into customized product configuration design based on Kano's model. *Journal of Intelligent Manufacturing,* 1-17, doi:10.1007/s10845-019-01467-y

Zhou, L., & Nunes, M. B. (2013). Doing qualitative research in Chinese contexts. *Library Hi Tech, 31*, 419-434. doi:10.1108/lht-11-2012-0104

Zhou, N., & Guillén, M. F. (2015). From home country to home base: A dynamic approach to the liability of foreignness. *Strategic Management Journal, 36*, 907-917. doi:10.1002/smj.2242

Zhou, Q., Fang, G., Yang, W., Wu, Y., & Ren, L. (2017). The performance effect of micro-innovation in SMEs: Evidence from China. *Chinese Management Studies, 11*(1), 123-138. doi:10.1108/CMS-12-2016-0264

Zohrabi, M. (2013). Mixed method research: Instruments, validity, reliability and reporting findings. *Theory & Practice in Language Studies*, *3*, 254-262. doi:10.4304/tpls.3.2.254-262

Zucker, D. (2014). The Belmont report. *Wiley StatsRef: Statistics reference online*. doi:10.1002/9781118445112.stat06924

Appendix: Semistructured Interview Protocol and Interview Questions

Interview Protocol	
What I will do	**What I will say – the script**
• Start with Script: Introduce the interview and set the stage: in a conference room to produce quality audio-recording • Get permission for audio recording • Use audio recorders and brief note taking	Good Morning or Good afternoon Mr., Ms., or Mrs._____ Thank you for agreeing to participate in this interview. My name is Sachin Ramteke and I am a doctoral student with Walden University. You were chosen to participate in this interview because of your experiences in determining or implementing innovation strategy. The interview will last between 45 to 60 minutes. I will be asking open-ended questions. The purpose of this study is to explore and explain the significant innovation strategies some leaders of a global manufacturing business in northwest Illinois used to increase organization's profit margin. This is by no means an assessment of the strategies you use. Is it ok that I record this interview to ensure that I capture all the information provided? This interview is strictly confidential, and nothing you say here will be used in this research study to identify you or your organization. This audio recording will only be accessed by me. After the interview, I will review the company documents. Any information gathered for this research, will be destroyed after five years. Are there any other questions? Ok, then let us begin.
• Ask interview questions • Identify non-verbal queues • Paraphrase as required	1. What innovation strategies did you use to increase profit margins in your company? 2. Please explain the initial innovative phase regarding how you generated knowledge of innovative activities that were helpful to increase your profit margin.

• Ask follow-up probing questions for more in-depth information	3. What innovation strategies and methods did you find worked best to increase profit margins? 4. How did you adapt your strategies to changes in your industry? 5. What key challenges has your company faced? How did your organization address these key challenges to increasing profit margin? 6. How did your desire to compete with similar businesses affect your decision to use innovative strategies? 7. What changes are necessary for innovation strategies to be applied in your industry to increase profit margins in the future? 8. What other insights would you like to provide that we have not already discussed in this interview regarding innovative strategies to increase profit margins?
• End interview with script: Let participant know how I will proceed from here and what to expect after the interview.	Thank you, Mr., Ms., or Mrs._____. for making meaningful contribution to the study. I truly appreciated your time and the information that you provided for me. I will analyze your responses within 14 days. On the 15th day I can come again with the interpretation for your validation.
• Schedule follow-up member checking interview	I will transcribe our interview and provide it for your review soon, so you can confirm that it accurately reflects our conversation today. After that, I will briefly summarize my interpretations for each question and would appreciate the opportunity to revisit with you for a short follow-up interview. When will you be available to review your responses?
Member Checking Follow-up Interview	
• Introduce follow-up interview - handshake	Hi Mr., Ms., or Mrs._____ Pleasure to see you again and thanks for your time once again. As I mentioned in our last interview, the purpose of this interview is to ensure I interpreted your responses accurately. This interview will be no longer than 30 minutes. May we begin?
• Provide participant a copy of the	These are the questions and synthesis of interpretations Please feel free to elaborate or change as needed.

synthesized individual questions	
• Information must be related and in accordance with the IRB approval. I will go through each question, provide my interpretation and ask the following: Did I leave out any information? Or, is there anything you would like to add?	1. Question 1 and succinct synthesis of interpretation 1 paragraph or more if required 2. Question 2 and succinct synthesis of interpretation 1 paragraph or more if required 3. Question 3 and succinct synthesis of interpretation 1 paragraph or more if required 4. Question 4 and succinct synthesis of interpretation 1 paragraph or more if required 5. Question 5 and succinct synthesis of interpretation 1 paragraph or more if required 6. Question 6 and succinct synthesis of interpretation 1 paragraph or more if required 7. Question 7 and succinct synthesis of interpretation 1 paragraph or more if required 8. Question 8 and succinct synthesis of interpretation 1 paragraph or more if required
• Provide participant with copy of research results	Thanks once again for your time and information. Upon completion, I will provide you with a copy of the research results.