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Strategies Small Business Leaders Implement for Outsourced IT Solutions for Business Sustainability

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This is to certify that the doctoral study by

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2020

Abstract

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MS, Walden University, 2008

BS, DeVry University, 2007

BS, University of Houston, 2005

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

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Abstract

Small businesses in the United States have a high failure rate within their first 5 years of operation. Small business success is vital to the economy because it drives revenue, income, and job creation. Grounded in rational decision-making theory, the purpose of this qualitative multiple case study was to explore strategies small business owners and leaders implement for effective outsourced IT solutions for business sustainability. Data were collected from in-depth interviews with 10 purposefully selected business owners and leaders in the Houston, Texas, metro area and from a review of documentation from archival records. Yin's 5-step analysis guided the coding process, and the transcribed data were validated by member checking. The major themes revealed that strategies for outsourcing IT service require (a) finding a reliable service, (b) procuring services that are cost effective, (c) outsourcing to experts, and (d) maintaining stability. A key recommendation is for small business owners and leaders to consider flat-fee outsourced IT services for their business needs. Social change implications include the potential contribution to social stability and continuing economic growth through the successful outsourcing of IT solutions, which may increase jobs, create tax revenue, and stimulate economic activity locally and nationally.

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Dedication

To all those who were ever told they could not advance in their education, you can do anything you put your mind to.

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Section 1: Foundation of the Study

Small businesses account for about 8.4 million of net new jobs, driving the U.S.'s competitiveness and innovation (U.S. Small Business Administration [SBA], 2018). Although the expansion of small businesses is vast, their failure rate is high (SBA, 2018). More than half of small businesses fail within the first 5 years of startup (SBA, 2018). Information technology (IT) plays a critical component in small business sustainability (Wang & Wang, 2015). Some companies choose to outsource IT, while others prefer to manage IT within the company (Bahli & Rivard, 2017). The focus of the current study was to find the preemptive and cost-effective IT solutions for business sustainability.

Background of the Problem

The definition of a small business is a firm with fewer than 500 employees (SBA, 2018). Successful small business owners provide job opportunities, economic contributions, and enhanced communities (Miles, 2013). There are nearly 27 million small businesses in the United States, and they generate about 50% of its gross domestic product (GDP; SBA, 2018). Keeping small businesses viable is a key component of positive social change in the United States (Colombo, Laursen, Magnusson, & Rossi-Lamastra, 2012). Many small business owners do not have the financial resources to employ IT specialists in-house and therefore outsource this service to maintain their technical functionality (Dhar, 2012). With technology advancements, the management of IT in small businesses can lead to the success or failure of a business.

Problem Statement

Approximately 5.5 million commercial enterprises outsource at least one managed IT service, and 55% of these businesses indicated they would like to increase their use of IT (Karamouzis & Da Rold, 2014; SBA, 2018). Many small businesses without funds to support an IT department or an onsite technician outsource their IT practice to an hourly or managed IT service (Dhar, 2012). The general business problem was that ineffective IT outsourcing increases the costs and jeopardizes the sustainability of small businesses. The specific business problem was that some small business owners lack strategies to obtain cost-effective outsourced IT solutions for business sustainability.

Purpose Statement

The purpose of this qualitative multicase study was to explore strategies some small business owners implement to obtain cost-effective outsourced IT solutions for business sustainability. The target population was small business owners in the Houston, Texas area who outsource their IT services. The implications for positive social change include the potential for small business leaders to develop strategies to improve outsourced IT services and reduce operating costs. Small business owners may use the findings to enhance profitability and help to address social issues such as employment and poverty in communities.

Nature of the Study

The research method for this study was qualitative. Researchers have three types of research methods available: qualitative, quantitative, and mixed methods (McCusker & Gunaydin, 2015). Qualitative researchers explore subject matter beyond the boundaries of

hard data collection by conducting interviews and surveys with open-ended, nondirectional questions (Denzin & Lincoln, 2011). The quantitative research method is used to collect and analyze numerical data to explain, describe, control, or predict the research topic of interest (Wester, Borders, Boul, & Horton, 2013), but that was not the focus of the current study. A mixed-methods approach was not necessary because the research question required a qualitative approach.

Various designs are available in qualitative methodology: (a) phenomenology, (b) exploratory case study, (c) ethnography, (d) narrative, and (e) heuristic (Denzin & Lincoln, 2011). The phenomenological design is used to explore the lived experiences of many individuals (Smith, 2015). An exploratory case study is used to investigate real-life issues and phenomena (Gelo, Braakmann, & Benetka, 2009).

The multicase study design is used to investigate a phenomenon that previously lacked detailed research, or the environment had limited the choice of method (Hancock & Algozzine, 2015). The case study design applies to studies lacking a clear formulation of hypotheses or parameters and allows flexibility to the researcher (Yin, 2017). The multicase study may be a preliminary study that warrants further investigation of the research topic (Hancock & Algozzine, 2015). In a multiple case study, the researcher studies multiple cases to understand the similarities and differences between the cases (Yin, 2017). The multicase study design was appropriate for the current study to enhance existing research on the phenomenon of small business owners with outsourced IT solutions seeking to interpret the effectiveness of the solution. Combining the qualitative

methodology with the multicase study design provided findings for appropriate IT solutions.

When studying the shared experience of a group over time, the ethnographic design is appropriate (Gelo et al., 2009; Pinsky, 2015). However, that was not the purpose of the current study. The narrative design is used to chronicle individual life stories (Lewis, 2015) and was therefore inappropriate for the current study. Researchers use the heuristic design for experimental investigation problems in which the individual subjectivity of the inquirer is given expression in and through the experience of the individual (Ozertugrul, 2015; Smith, 2015), which was not in accord with the goals of the current study.

Research Question

What strategies do small business owners implement for an effective outsourced IT solution for business sustainability?

Interview Questions

1. What influenced your decision to select the hourly versus the flat fee outsourced IT services you use in your business?
2. How do you determine the best or optimal IT solution for your business?
3. Please explain the path you used to make decisions regarding your IT solutions.
4. What has worked well in implementing your IT services?
5. What challenges have you faced with your IT services?
6. How did you overcome these challenges regarding IT services?

7. What strategies do you use to secure that your IT services (hourly or flat fee option) are financially efficacious?
8. What else can you tell me about the strategies you use to implement effective IT solutions for your business sustainability?

Conceptual Framework

The rational decision-making model was the conceptual framework of this study. Rational decision-making is a process in which each step follows a logical order from the step before (Ivey, 2015). The purpose of rational decision-making is to come to the best solution based on a clearly defined and orderly path (Treur & Umair, 2015). The selection of managed IT services comes with a rational choice that satisfies the objectives of the small business owner. The primary aim is to satisfy the IT needs of the company. This objective is met with information gathered, and all other options are considered carefully before the final decision is made. The rational decision-making model was appropriate to reveal the decision-making process of small business owners and leaders in their selection of outsourced IT services. The small business owners' decision on selecting outsourced IT services can be measured, and the purpose of this study was to evaluate the rational decision-making process and financial efficacy of the decision made.

Operational Definitions

Business failure: A company that has losses for 2 years or more, and the result is the closure or termination of the business, is a business failure (Lussier & Halabi, 2010).

Business success: A business with a recorded net profit for more than 3 years is a business success (Lussier & Halabi, 2010).

Cloud: Cloud storage is technology that allows for stored data to be retrieved through Internet connectivity (Zhang & Gu, 2013).

Information technology (IT): Information technology is technology enabled within a business that manages information (Lacity & Willcocks, 2014).

Information technology outsourcing (ITO): Information technology outsourcing is the contracted partnership with third-party companies to conduct the IT implementations and maintenance for businesses (Lacity & Willcocks, 2014).

Managed services: Managed services is an IT outsourcing concept that involves an IT consulting firm managing the IT infrastructure and support of another business (Rivard & Aubert, 2015).

Management accounting systems (MAS): Management accounting systems are systems that integrate financials, processes, customers, and human resources for successful accounting processes within a business (McLellan, 2014).

Nearshoring: Nearshoring is the use of services of contractors in neighboring countries such as Mexico and Canada for businesses in the United States (Siepmann, 2013).

Offshoring: Offshoring is outsourcing services to a third-party vendor in another country (St. John, Vedder, & Guynes, 2013).

Onshoring: Onshoring is investing in third-party vendor services in the same country as the business (Siepmann, 2013).

Assumptions, Limitations, and Delimitations

Assumptions

Assumptions are claims accepted as valid without evidence (Denscombe, 2013). The first assumption in this study was that participants would provide truthful responses to the interview questions and not intentionally introduce bias. This assumption was supported by voluntary participation and the guarantee of confidentiality. The second assumption was that the rational decision-making model would be the appropriate conceptual framework for this study. The third assumption was that the selection of small business owners and leaders would reflect the proper cross-sectional sampling needed for saturation, as recommended by Kisely and Kendall (2011).

Limitations

Limitations are potential weaknesses in the study (Mitchell & Jolley, 2012). Having the appropriate population is a limitation whereby research results may not be applicable to a larger population (Yin, 2017). A qualitative study, including participant interviews, can introduce potential bias to the study with the participants being able to skew the data collected with inaccurate information. The provision of full disclosure by the participants could also be a limitation (Lewis, 2015). Current participants were able to select phone or video conference for the interviews to minimize limitations regarding the study participants.

Delimitations

Delimitations are restrictions and boundaries set by the researcher to focus on the scope of the study (Mitchell & Jolley, 2012). The first delimitation was the restriction of

the size of the small business leaders sought as participants. The small businesses had to be located in the greater Houston metro area. The study participants had to outsource at least one of their IT functions and not have an IT staff member working onsite. Invited participants completed a demographic survey indicating the type of outsourced IT services they used.

Significance of the Study

Contribution to Business Practice

Since the beginning of the 21st century, a paradigm shift in businesses occurred with technology use and the need for technology to keep a business running and successful (Dhar, 2012). Many small business leaders lack a thorough understanding of the efficacy of outsourcing IT services (Wang & Wang, 2015). The current study focused on the need for technology for sustainability for small businesses with no more than 50 employees.

Many small businesses unable to function when their workstations or servers are out of operation face the realization that the need for technology is critical to staying competitive in their market share. However, many of these small businesses do not have the financial overhead to retain an IT specialist on staff and have opted to outsource their IT needs (Dhar, 2012). Outsourcing IT needs could become a sustainability factor for small businesses.

The current study focused on managed services as a proactive solution. Managed services are a proactive solution because the small business has a contractual agreement with the IT consulting firm as to what the monthly charge is for their IT services and

what coverage falls under this agreement (Mankasingh & Ramsoomair, 2017). The small business knows its cost and liability upfront and pays a monthly fee whether needing services or not. Another outsourcing option is hourly IT service. Hourly IT service is considered a reactive solution because there is no need for an IT consultant until something does not work. The consultant then goes to the business, defines the issue, and repairs as needed on an hourly basis (Mankasingh & Ramsoomair, 2017). This option could be costly if many issues arise in 1 month; however, this strategy can be very cost-effective if there are no issues. The current study did not focus on outsourced hourly IT services.

Contrary to business practice with the technology shift still in progress, many small business owners do not have the knowledge or the insight as to what their IT solutions might be. Many business owners fail at the user acceptance of technology because they lack the realization of how important their IT health is to their business success (Venkatesh & Davis, 1996). The current study focused on providing a scholarly resource for business owners to educate themselves on IT dependency for their business and the methods of outsourcing leading to success in the community. Positive social change comes with every small business that survives past 3 years of startup because of job creation and retention and flourishing communities.

Implications for Social Change

The results of the study may influence positive social change. Small business leaders may gain new insights into the reasons for the unsuccessful implementation of managed IT services and achieve financial leverage toward the success of their business.

Leaders who choose effective IT services may improve their responses to changing customer needs.

A Review of the Professional and Academic Literature

The purpose of a literature review is to summarize existing studies as they relate to the research topic (Wakefield, 2015). The review of literature enables researchers to avoid duplication in their research and enhance professional development (Wakefield, 2015). The research question and problem statement form the theme of the literature review (Massaro, Dumay, & Guthrie, 2016). The research question for the current study addressed the strategies small business owners implement for an effective IT solution for business sustainability and a comparison of solutions for implementation.

The purpose of this qualitative multicase study was to explore strategies that small business owners may implement for a preemptive and cost-effective IT solution for business sustainability. Data collection came from 10 small business owners and leaders in the Houston, Texas area. The rational decision-making model provided the framework for this study. Analysis of the qualitative data collected in this study allowed for the identification of themes.

Literature Search Strategy

The search strategy for this literature review consisted of a broad and focused query of sources across multiple disciplines, including scholarly journal articles, books, and electronic media. Research databases from the Walden University library included Business Source Complete, ABI/INFORM Complete, EBSCOhost, ProQuest, SAGE Premier, ScienceDirect, and Wiley Online. The literature review consisted of keyword

searches that included *business financial success, consulting*, *financial efficacy*, *importance of technology, information technology, IT consulting, IT consulting firms, managed IT services, managed services, managed service providers*, *MSP's, offshoring, outsourcing, outsourcing IT, rational decision-making model, small business*, *small business finances, small business IT, small business sustainability*, *small business sustainability and technology, technology*, *technology acceptance model*, *technology affordability*, *technology adaptation,* and *theory of planned behavior*. I identified and evaluated more than 200 articles over 4 months and used 126 sources in this literature review. The extensive review of articles included 69 peer-reviewed articles published from 2015 to 2019 and 29 from 2014 or earlier. Additionally, the review included 16 book references, one doctoral dissertation, and five government websites.

Overview

The literature review consists of past studies and targets the theories presented in this study. In this study, the goal was to explore the sustainability of small businesses through effective IT management within their businesses using a rational decision-making model.

Conceptual Framework: Rational Decision-Making Model

Decision-making is a process of choosing from a set of options to obtain a final result (Androniceanu & Ristea, 2014). Simon (1960) posited that there are three phases of decision-making: (a) intelligent phase, (b) design phase, and (c) choice phase. The intelligent phase includes the period of information-gathering, the design phase comprises tentative decision-making, and the choice phase comprises selecting the final

course of action (Simon, 1960). The three principal elements contained in decision-making are (a) availability of the options for which a decision is made, (b) contextual factors from a set of alternative choice considerations, and (c) mental engagement of the decision-maker (Roy, 2016). The five sequential decision-making stages, per Dewey (1978), are (a) identification of the problem, (b) analysis of the problem, (c) generation of possible solutions, (d) evaluation of each option, and (e) final decision-making.

Different aspects of decision-making are modeled in diverse sequences (Witte, 1972). Mintzberg, Rainsingham, and Theoret (1976) agreed that a decision-making process happens in random phases that have no sequential relationship and used Simon's steps as identification, development, and selection. According to Spetzler, Myer, and Winter (2016), decision-making is a process of identifying and selecting alternatives that align with the preferred values of the decision-maker. A choice made from alternatives is the principal concept in decision-making. Only options that satisfy the highest probability of satisfaction or effectiveness of the decision-maker and the alternatives that align with the most suitable to the objectives, wants, needs, and values are taken into consideration (Spetzler et al., 2016). The conditions implied must have alternatives from which to decide, as well as specific options aligned with the interests and choices of the decision-maker (Spetzler et al., 2016). The rational decision-making model was appropriate to guide the current study to reveal the decision-making process of small business owners in their selection of outsourced IT services.

Decision-making consists of the reduction of doubt and uncertainty associated with alternatives, allowing a meaningful choice to be made (Hussung, 2017). Hussung

(2017) applied this analysis to define the role of information collection in the decision-making process. Considering all options and alternatives, decisions made with absolute uncertainty are rare due to the unavailability of information. Every decision entails a degree of risk, reducing uncertainty but not eliminating it (Hussung, 2017).

Zenko, Ekkekakis, and Kavetsos (2016) posited that there are two basic models of decision-making: rational and bounded. According to Zenko et al., the bounded rational decision-making model limits the decision-maker to deciding with limited available information. The current study focused on the rational decision-making of small business owners based on information that was available. Rational decision-making is a critical skill acquired and used in everyday life and requires completing tasks throughout the day (Smayda, Worthy, & Chandrasekaran, 2017). Small business owners make decisions concerning outsourced IT services under certainty, knowing the outcome of their selected option (Dhar, 2012). The small business owners are cognizant of their decision criteria, allowing them to maximize and implement their choices (Dhar, 2012).

The rational decision-making model requires the decision-maker to analyze different alternatives from various options before making a choice (Zenko et al., 2016). The decision-maker must evaluate the expected risks to determine the expected outcome for each option (Zenko et al., 2016). Finally, decision-makers used the rational decision-making model to select the most desired anticipated outcome from the optimal probability of options presented (Herrmann, 2017; Spetzler et al., 2016). The goal of rational behavior is to maximize the value of the outcome, thereby focusing on the selection process over the chosen alternative (Todt & Lujan, 2014).

The rational decision-making model allows for the examination of the relationship between outsourced IT services of small businesses and the weight of cost and efficacy factors that drive the business owners' choices, taken together with the tradeoffs involved in the selections. Leslie (2014) posited that the rational decision-making model contains analytical steps leading to a decision: (a) problem identification, (b) generation of alternatives, (c) evaluation of choices, (d) selection of an alternative, (e) implementation of the decision, and (f) evaluation of the effectiveness of the decision. The rational decision-making model can provide scientifically testable hypotheses about the efficacy of outsourcing of IT services for small businesses (Glava & Glava, 2015).

There are two main components in the decision-making process: the decision and the decision-maker's behavior. Human thoughts and reactions contribute to the decision-making process based on the external world and the psychological consequences of the decision-maker (Leslie, 2014). The core of decision-making is a combination of the beliefs surrounding specific incidents and reactions to those events (Leslie, 2014). Decisions are responses to situations with three potential aspects of consideration: (a) more than one possible outcome to be considered, (b) the decision-makers' degree of confidence in future expectations, and (c) assessing the final results while reflecting personal values and objectives (Kremer-Asaf, 2015; Parsons, 2016; Spetzler et al., 2016). Additionally, when facing more significant decisions, the choice should be broken down into smaller problems, with each problem solved separately (Kremer-Asaf, 2015). For the current study, the small business owners' decision on selecting outsourced IT services could be measured by using these methods of the rational decision-making model.

Internal and external understanding of the problem is required when decision-making is needed (Kraja & Osmani, 2015; Parsons, 2016). Completing searches and identifying target issues allows information to be gathered in the decision-making process (Brighouse, Ladd, Loeb, & Swift, 2016). According to Herrmann (2017), when evaluating alternatives, the following questions must be asked (a) how feasible is an alternative? (b) how satisfactory is the chosen option? and (c) what is the likely impact of the alternative? In the decision-making process, the decision-maker must consider the feasibility, satisfaction, and acceptability of the selected outcome to the stakeholders (Zhou, Zheng, & Ma, 2014). Using the rational decision-making model allows small business owners to identify appropriate solutions and stimulate the market in outsourced managed IT services (Kremer-Asaf, 2015). The decision-making process could still break down if problem identification is incorrect or alternatives are poorly evaluated (Kremer-Asaf, 2015). Characterization of the rational decision-making model is entirely reasonable, according to Kremer-Asaf (2015). The focus of the current study was the reasonable decision-making process of the rational decision-making model.

Alternative Theories

Technology acceptance model. An alternative theory considered for this study was the technology acceptance model (TAM) as introduced by Davis (1986), which assesses the perception and understanding of using different types of technology. Davis, Bagozzi, and Warshaw (1989) used TAM in a study of user acceptance or rejection of the use of computers. The purpose of TAM was to create a testable model for user acceptance of IT (Davis, 1993). Davis (1993) wanted to establish the insight of the

behavior of user acceptance from a psychological perspective and create a measurable solution with TAM for designers to be able to test the user acceptance of a new IT-related product or service. Davis (1993) found that 52% of 112 subjects believed that the usefulness of technology outweighed the ease of use.

Venkatesh and Davis (1996) conducted a study with 108 participants in three experiments with the primary purpose of understanding the influence of computer skill self-efficacy on technology acceptance. The outcome of the three experiments indicated a positive influence on the subject's computer self-efficacy before and after training in the technology. The TAM would be appropriate for a study addressing user acceptance of outsourced IT services with managed IT services; however, TAM was not appropriate for exploring the decision-making strategy of small business owners in their selection of outsourced IT services and evaluating their financial efficacy.

Theory of reasoned action and theory of planned behavior. Fishbein and Ajzen (1975) explained the correlation between the behavior and beliefs of individuals in the theory of planned behavior (TPB) derived from the theory of reasoned action (TRA). The primary purpose of TRA is the evaluation of behavioral intent from the process of persuasion (Fishbein & Ajzen, 1975). The understanding gained from the TRA is on the persuasions made among attitudes, beliefs, and intent. The principle of the TRA acknowledges possible consequences before acting, which leads to the later addition of perceived behavior control to the TRA (Ajzen, 1985; Fishbein & Ajzen, 1975).

The lack of accountability to perceived behavior was a weakness of the TRA that led to Ajzen's (1985) development of the TPB. The TPB has become a theoretical

extension of the TRA with the addition of perceived behavior control that links people's beliefs with behavior (Ajzen, 1985). Ajzen (1991) expanded the TPB to include four primary constructs, behavioral intention and three independent variables of intention. The willingness to carry out a behavior is behavioral intention and is considered the immediate determinant of the behavior (Ajzen, 2002). The three predictors of behavior intention are (a) behavior attitude, (b) subjective norm, and (c) perceived control (Ajzen, 1985). The importance of each predictor varies depending on the behavior and context (Ajzen, 1991). The TPB and TRA would be appropriate for a study addressing the behavior small business owners and leaders projected when selecting outsourced IT services; however, TPB and TRA were not appropriate for exploring the decision-making strategy of small business owners in their selection of outsourced IT services and evaluating their financial efficacy.

Small Businesses

Small business classification rests on their size and location (Buculescu, 2013). Other distinguishing factors include (a) management structure, (b) limited decision-making solely by business owners, and (c) restricted managerial staff (Buculescu, 2013). Small businesses in the United States have been stimulating the economy for centuries (Anastasia, 2015). The SBA, (2017c) sets the rules and standards for recognition of small businesses. Per SBA standards, the maximum number of employees allowed for a company to be considered a small business is 500. Businesses which fall below the 10-employee mark are considered microenterprises, including local family-owned and

entrepreneurial companies, and may not receive recognition as a small business (Ayandibu & Houghton, 2017).

Small businesses in the United States represent 99.9% of the firms, with 48% of private-sector employment and 41.2% of total private payroll (Turner & Endres, 2017). According to the U.S. Census Bureau (2016), there were 100,884 new business establishments in Harris County, Texas in 2016, which included the Houston metro area. Houston is the fourth largest city and the sixth largest metropolitan area in the United States (City of Houston, 2019). Approximately 5.5 million commercial enterprises outsourced at least one managed IT service, and 55% of these businesses indicated they would like to increase their use of IT (Karamouzis & Da Rold, 2014; SBA, 2018).

The U.S. economy depends largely on small businesses (Hayes, Chawla, & Kathawala, 2015; SBA, 2017b; Turner & Endres, 2017). The U.S. and local economies depend on the health of small businesses (Hayes et al., 2015; Turner & Endres, 2017). Samila and Sorenson (2017) reviewed a study completed between 1993 and 2002 of small businesses in several U.S. metropolitan areas and concluded that these businesses promoted the community with employment sustainability, fostering entrepreneurial spirit, and increasing competition and innovation(see Samila & Sorenson, 2010). Local governments nurture the creation of small businesses as they grow local revenue and create jobs within the community, adding to sustainability (Bruce, Xiaowen, & Murray, 2015; C. C. Williams, Martinez-Perez, & Kedir, 2017). Bruce et al. (2015) conducted a quantitative study with data collected from all 50 states, which indicated that tax breaks from small businesses do not accelerate productivity within organizations.

Small businesses have an enormous impact on local U.S. economies with the creation of jobs and financial influx. The revenue stream created by small businesses allows individuals to become financially independent and provides local governments with tax income. Small businesses sustain and support local communities with job growth and ethnical diversity (Samila & Sorensen, 2017). Small businesses can compete with larger firms for services and support. Research data published by Dai, Ivanov, and Cole (2017) and the SBA (2017a) indicated that small businesses and entrepreneurs have similar credit access to larger corporations; however, they use the SBA for lending purposes more frequently. The U.S. government has implemented financial policies in support of economic growth of small businesses (Lee, 2018).

The success or failure of a business impacts both internal and external stakeholders (Burga & Rezania, 2016). Research conducted by West, Hillenbrand, Money, Ghobadian, and Ireland (2016) concluded that the stakeholders principally influence the success or failure of a business. Small businesses play an essential factor in the U.S. economy, local economies, other companies, and individuals (SBA, 2017b; Turner & Endres, 2017). Researchers used knowledge and trends developed by small businesses and entrepreneurs over several decades to project the future success of small businesses (Volery & Mazzarol, 2015). Volery and Mazzarol (2015) further suggested that additional research is necessary on small business development to apply themes and link past and future research, supporting the need for this study.

Owners of small businesses and entrepreneurs receive credit as drivers of economic growth in their respective communities and regions since the 1980s (Ribeiro-

Soriano, 2017). Additionally, small business owners manage business operations and operating capital, creating synergy in business ownership and control (Barnes & Westrenius, 2015). The long-term sustainability of a business can be measured in their impact on economic growth, saturation of the local community, and the ability to adapt to change (Martinez-Martinez, Cegarra-Navarro, Garcia-Perez, & Wensley, 2019; Summers, 2015). Regional and local economic development functions as a driver for economic stimulation of small businesses within their regions (Lee, 2018). Amolo and Migiro (2017) posited that small business growth within an area also stimulates the population level and drives the migration of employable adults. Small businesses stimulate economic growth and sustainability of a region, and that in turn sustains small businesses (Johnson, Faught, & Long, 2017).

Small Business Success

A successful business is measured by economic, managerial, environmental, and political factors (Oz & Yelkenci, 2015). Research on small businesses is primarily linked where success, profit, performance, and growth are used synonymously (Leković & Marić, 2015). Profitability and market share measure the performance of a business. A small business provides the link between skilled and semiskilled workers that creates a niche and measure of success, as large corporations cannot compete with or profit from this type of market (Karadag, 2015). Because of their size and adaptive responsiveness, the innovation level of small businesses is greater than corporations and drives success with customers in fast-paced markets (Karadag, 2015). Research results indicated the success of small businesses increased with expanded self-employment (Omri, Frikha, &

Bouraoui, 2015). The long-term success of small businesses linked to sustainability and investment in human capital and training (Albuquerque, Escrivão Filho, Nagano, & Junior, 2016). Professional groups note the education level of small business leadership is noted as one success factor. Low employee turnover is a success factor attributed to strong leadership in a small business (Berson, Da'as, & Waldman, 2015). Successful small businesses invest in training programs for their leadership and employees that meet the relevance, flexibility, and practical learning environment specific to the organization (Coenen & Kok, 2014). Successful small businesses impact the supply and demand for goods and services positively, as well as the lives of individuals through employment (Barnes & Westrenius, 2015).

Small Business Failure

Small business failure is primarily linked to lack of funding, lack of financial planning, capital shortage, low financial projection, unplanned growth, excessive fixed assets, and mismanaging of capital, with the leading cause of small business failure being poor financial management (Karadag, 2015). Karadag (2015) posited that financial management should be the central and leading factor in securing longevity. Inefficiency and mismanagement of business finances result in business failure (Karadag, 2015). Alstete (2014), as well as Decker, Haltiwanger, Jarmin, and Miranda (2014) suggested small business failure is also a result in lack of planning. One of the goals of this study was to provide information to assist in small business sustainability with cost-effective outsourced IT solutions. The sustainability was created with cost savings in IT management.

The SBA classifies businesses by industry as well as the number of employees and annual revenue (Luo & Lee, 2015). Causes for small business failures include (a) bankruptcy, (b) loss of creditors, (c) partnership disputes, (d) legal disputes, (e) mergers and acquisitions, (f) elective discontinuance, and (g) owner death (Luo & Lee, 2015). Small business startups have consistently outnumbered closures toward the end of the 20th century; however, fewer than 25% of small businesses have survived past the 5-year startup mark (SBA, 2019). Startup small business owners typically prioritize business operations and marketing over financial management, leading to business failures (Karadag, 2015). Lopez and Hiebl (2015) posited that small business owners' lack of financial and accounting skills cause the prioritization of operations and marketing.

Small Business Sustainability

Small businesses are not only a driver for economic growth and innovation; they also drive social growth and sustainability (Karadag, 2015). Understanding effective strategies by small business owners is a vital factor in sustainability in terms of increasing revenue and surviving (Montalbano, Nenci, & Pietrobelli, 2018). Nagler (2012) claimed that organizational thinking strategies have expanded to new levels to include corporate social responsibility, social entrepreneurship, partnerships, conscious capitalism, and sustainable development. Corporate social responsibility (CSR) addresses the ethical duties of businesses toward their employees, stakeholders, and communities, whether the contact is direct or indirect (Shaukat, Qiu, & Trojanowski, 2016). Small business owners who adjust their organizational objectives and business strategies to affect the needs of stakeholders are likely to profit substantially. The CSR business strategy is directly

associated with increased profit levels, as well as the adoption of internal controls to reduce corruption and improve compliance (Carroll, 2015). In this study, selecting the appropriate outsourced IT solution added to the sustainability of small businesses.

Economic, social, and environmental goals balance small business sustainability (Aarseth, Ahola, Aaltonen, Økland, & Andersen, 2017). Sustainable strategies are easy to maintain during good economic times. The challenge is understanding effective, sustainable strategies for a small business. Maintaining sustainability can be difficult in economic downturns, when commitments cannot be met (Barnett, Darnall, & Husted, 2015). During such times, planned investments can drive the focus on a business's long-term objectives (Barnett et al., 2015). Long-term sustainability comes from effective planning, which provides a competitive edge and promotes lasting profits (Schmidt & Farkas, 2016). To create and maintain business sustainability, owners must identify strategies that exceed the objectives of the organization (Hopkins, 2017).

During a downturn economy, small businesses adjust and focus their efforts on sustainable social and environmental strategies to become more effective (Barnett et al., 2015). To become sustainable, the entire company has to be involved in strategic planning (Bryson, Edwards, & Van Slyke, 2017). In contrast, tactical sustainability planning addresses the immediate, short-term needs of the business and generally affects assets, finances, and personnel (Cegarra-Navarro, Sánchez-Vidal, & Cegarra-Leiva, 2016). Linking strategic and tactical goals is one of the most effective organizational planning tools for small business sustainability (Dror, 2017).

Small Business Financial Efficacy Through Management Accounting Systems

Before 2010, nonfinancial records and tangible assets were kept with accounting records; however, advancement in technology has allowed for these records to be combined in management accounting systems (MAS), creating superior financial efficacy (Warren, Moffitt, & Byrnes, 2015). MAS has allowed over 98% of financial data to be digitized (Warren et al., 2015). In conjunction with MAS, management accounting (MA) allows managers to combine various data for analysis and processing (Lopez & Hiebl, 2015). MAS systems are not specific to businesses; they are designed for customization of each individual business specification for efficiency (Odar, Kavcic, & Jerman, 2015). Business success depends on financial data retrieved from MAS systems. As such, MAS must be maintained appropriately to produce high-quality data (Odar et al., 2015).

Business profitability and efficiency can be increased with performance measures due to data managers' use of the company's MAS (Warren et al., 2015). MAS serves as an analytical tool for planning and controlling of business finances, providing efficiency to the company (Ceran, Gungor, & Konya, 2016; Lopez & Hiebl, 2015). System customization allows MAS to have subsystems in costing, budgeting, cost analysis, performance evaluation, decision-making, and communication (Lopez & Hiebl, 2015). Historical analysis can be performed with MAS to make future decisions and perform evaluations of strategic business processes, including production and sales (Ceran et al., 2016). Additionally, the implemented subsystems of MAS allow controls to be implemented in relation to employee engagement, which can be used by managers for bonus structures or corrective action (Warren et al., 2015).

The primary purpose of MAS is financial management in small businesses (Karadag, 2015). To make effective business decisions, MAS should include supply and demand information (Shil, Hoque, & Akter, 2015). Accuracy and reliability in the data obtained from MAS allows for crucial managerial decision-making requiring high-quality financial information (Ceran et al., 2016). Small businesses may not use MAS as thoroughly or effectively as larger corporations (Lopez & Hieble, 2015). When implementing MAS in a small business, the company leaders must focus on what is most important to their organization, rather than adopting a MAS for a more substantial firm (Lopez & Hieble, 2015).

The internal and external needs of a small business drive the amount and type of financial data being used (Okabe & Suez-Sales, 2015). An organization's response to external and economic stressors can impact the financial data from MAS (Shil et al., 2015). Small business financial records generally have more personal bias than is allowed in larger corporations (Okabe & Sueaz-Sales, 2015). MAS provides the financial statements which small businesses need to make management decisions and conduct financial planning (Okabe & Sueaz-Sales, 2015). Financial efficacy, business growth, and sustainability are heavily reliant on strategic financial planning (Karadag, 2015).

In contrast, studies indicated that many small business owners do not recognize the value of MAS investments and implementations (Maiga, 2015). Instead of using MAS for decision-making, the company's financial data is manipulated to conform to the needs of external partners and vendors (Lopez & Hiebl, 2015). According to Chhabra and Pattanayak (2014), studies have shown that many small businesses do not maintain

financial data appropriately and do not maintain all of their financial data in a MAS. Maintaining complete financial records is at a deficit in small businesses (Chhabra & Pattanayak, 2014).

Small businesses increase productivity and growth with the effective use of MAS (Lopez & Hiebl, 2015). The size of small businesses should drive the companies to use MAS effectively for financial planning, forecasting, and growth to streamline processes with a minimal amount of work (Lopez & Hiebl, 2015). Karadag (2015) posited that the decision to implement MAS does not stem from internal sources; however, the lack of resources and data eventually drives the search for more effective technology to sustain the business. It is important for a small business to find the appropriate MAS technology for financial efficacy and business sustainability (Lopez & Hiebl, 2015). With the purpose of this study having been to evaluate the cost-effectiveness of outsourced IT solutions, it was appropriate to consider MAS data of research participants.

Importance of Technology

Technology is a crucial factor in sustaining businesses. Business owners and leaders who use technology effectively experience a significant amount of growth within their companies (Taneja, Pryor, & Hayek, 2016). Technology allows businesses to expand not only locally, but also globally through electronic commerce (Kurnia, Choudrie, Mahbubur, & Alzougool, 2015). Small businesses can sustain themselves by using technology to export to other nations (Dal Bianco, Amini, & Signorelli, 2017).

Small businesses can use technology as an innovation strategy to grow and increase their market shares. According to Lo, Wang, Wah, and Ramayah (2016),

technological advancements in a small business contributes to the financial success of that business. With science and technology rapidly increasing, small business organizations must adapt in terms of sustainability and survival (Tung, 2016). The advancement of smart on-hand technology such as tablets and smartphones led to a greater need for technology and Internet connectivity for businesses (Berman, 2016). Small businesses adaptivity to technology is important for sustainability and made easier with the introduction of on-hand smart technology.

Many small business owners realize the importance of technology in marketing. The opportunities and strategies available using technology and the Internet can create a strong alignment and market share for growing businesses (Alford & Page, 2015). Customer engagement is a vital component of small business success and having the technology to interact with customers and potential customers is essential (Gholston, Kuofie, & Hakim, 2016). Businesses found that social networking sites are one of the main methods of mass communication. Posting on social media and connecting with audiences frequently allows small businesses to receive feedback and gain customer attention (Gholston et al., 2016). Rapid technology advancement can create a knowledge gap for small business owners and managers. Alford and Page (2015) suggested that continuous adoption of new technology advancement is critical to sustainability and creating a market share for small businesses and thus justified the need for this study to evaluate the cost-effectiveness of outsourced IT solutions to maintain the technology.

Small businesses must continuously change to be effective in their communities and market and remain sustainable. Adapting and maintaining information and

communication technology is a viable strategy and necessary component for small business survival (Iivari, 2015). Businesses become more effective and competitive with acceptance and adaption of technology innovation (Tung, 2016).

Effective knowledge management is an important process in small business sustainability and growth (Baškarada, Watson, & Cromarty, 2016). Technological advancements and innovations are changing rapidly and daily. Business owners and leaders must continuously learn and adapt to new technology to become and remain successful. Providing small businesses the means to be successful and sustainable adds value to the community and the country. Using technology effectively can be the measure needed to create sustainability.

Iivari (2015) posited that creating innovation and technological advancements behind closed doors remain a challenge. Innovation technology adaptation requires creative implementation strategies and guidelines (Lo et al., 2016). Successful technology innovation includes value creation and value capture (Freel & Robson, 2017). Small business owners can differentiate their businesses from others with new and advanced technologies. These technologies need to be successfully implemented and supported by a trained IT team, providing an opportunity for outsourced IT solutions.

IT Investments

Strategic IT resources are an essential asset of businesses (Andrade, Albuquerque, Teófilo, & Silva, 2016). Andrade et al. (2016) posited that IT has become a living being within a business, growing and prospering, developing the business and market share with each implemented enhancement in technology. Creating market share and

maintaining advancement in technology requires a significant investment in IT services. Alencar, Fernandes, Assis Schmitz, and Correa (2013) stated that business sustainability and competitive advantage requires IT investment to gain a number of intangible benefits for organizations. Alencar et al. (2013) also noted that the evaluation of IT investments in public-sector businesses maximizes the appropriation of intangible benefits of IT investment, although investing in the public sector was highlighted as a challenge. Businesses need to adopt IT and an IT investment model, with assessment, comparison, and control parameters being imperative to the success of a company (Alencar et al., 2013). IT investment requires the merging of strategic goals, service delivery value chain, asset management, continuous monitoring, performance indicators, and constant evaluations to meet return on investment (ROI) (Alencar et al., 2013).

Ceric (2015) aligned with Alencar et al. (2013) with respect to the recommendation to use an IT investment management model for implementation of projects. The IT investment management model supplements IT implementation projects with assessment, comparison, and control (Alencar at al., 2013; Ceric, 2015). Ceric (2015) found IT investment to be a valuable resource for businesses, with implementation necessitating resource control and allocation.

Gauging the benefits of IT implementations and upgrades in small businesses is one of the most critical roles of senior IT management (Maresova, Sobeslav, & Krejcar, 2017). Inadequate IT implementations are primarily because of (a) leadership's lack of knowledge, (b) leadership's lack of metric application, (c) unfamiliar technology, and (d) lack of decision-making information (Maresova et al., 2017). According to Rabogadi

(2017), a successful IT implementation in a business requires the development and skills transfer of the individuals involved. Rabogadi emphasized the necessity of knowledgeable and skilled employees required for an IT implementation project and suggested empowerment of the team for ongoing success.

Investing in IT implementations and upgrades allows businesses to gain competitive advantage, as well as to improve business productivity and performance (Chaysin, Daengdej, & Tangjitprom, 2016). Investing in IT could become costly and must have a return on investment (ROI) calculated (Chaysin et al., 2016). Communication is vital with any IT implementation to keep employees abreast of upcoming changes (Ziemba & Oblak, 2015). Lack of or improper communication can lead to poor enterprise resource planning (ERP) and failure for a small business (Venkatraman & Fahd, 2016; Ziemba & Oblak, 2015). Chaysin et al. (2016) and Venkatraman and Fahd (2016) recommended comprehensive communication with employees and stakeholders for successful implementation.

ROI can only be measured once an organization invests in the installation and implementation of a new IT solution and then adds levels of customization (Ram, Corkindale, & Wu, 2015). Madapusi and Ortiz (2014) posited that the development of skills of the implementation team is important to realize the return on investment in IT projects. Outsourcing IT implementations to third-party vendors with already skilled employees should be taken into consideration for the project and ROI adding to technology being a sustainability factor for small businesses with the cost effectiveness of outsourcing IT solutions having been the focus of this study.

Managing Change

Any time a business implements a new technology, changes occur to which the company, employees, customers, and vendors may have to adapt. Change management programs reduce resistance to change, drive knowledge transfer, and implement an adaptive culture within an organization (Altamony, Tarhini, Al-Salti, Gharaibeh, & Elyas, 2016). Altamony et al. (2016) posited that change management is a critical factor in the success of significant technology implementations such as enterprise resource planning (ERP) solutions. IT is a living, advancing, and continuously adaptive being within an organization which requires a managed change control (Andrade at al., 2016). Andrade at al. (2016) argued that the change occurring with new technology implementations requires monitoring of current and future change management. Successful IT projects come to fruition through continuous monitoring and planning, using change management controls (Altamony et al., 2016).

Managing change for extensive new IT systems implementation can be a challenge in organizations and should require a dedicated change management team and process (Ziemba & Oblak, 2015). Change management is crucial in planning for change implementation and overcomes potential employee resistance (Ziemba & Oblak, 2015). Critical success factors in implementing change require managers to consider and share their vision with employees, provide training, engage in continuous communication, and show measurements of performance during the implementation process (Ziemba & Oblak, 2015). A successful change management plan and team allow small businesses to implement new technology which could enhance their sustainability.

IT adoption in small businesses can be affected and driven by internal and external IT resources, customers, and vendors (Nguyen, Newby, & Macaulay, 2015). Customers are the main driving force of IT adoptions and investments by small businesses (Nguyen et al., 2015). The success of IT adoption is dependent on the investment made by a company and its integration into business strategies on the part of managers (Nguyen et al., 2015). IT adoption and implementation create successful businesses. To implement and maintain this new technology, cost-effective outsourced IT solutions would enhance the success of the business and was the focus of this study.

Outsourcing IT

Organizational leaders face making sourcing decisions when they do not have the resources to fill the gaps in a business (McNurlin, Sprague, & Bui, 2009). The business decision to fill an open position from within the company or look outside must be made. Outsourcing is the common term used for a third-party contracted vendor a business would hire to do day-to-day functions within the company for a specific duration and fee (Mohr, Sengupta, & Slater, 2011). Outsourcing remains a commonly accepted business practice to bridge the gaps in an organization's domestic needs (Chou & Chou, 2011). Outsourcing can be done domestically with a third-party provider, or offshore to another country or region (Sen & Shiel, 2006). According to Siepmann (2013), offshoring, onshoring, or nearshoring completes the outsourcing delivery. It is important to understand outsourcing with the focus of this study having been the cost-effectiveness of outsourced IT services.

Lacity and Willcocks (2014) found that IT outsourcing's (ITO) focus has been to offshore to contracting companies outside of the client organization. Offshoring often lacks intellectual property rights, legal issues, and inefficient contractor enforcement options (Lacity & Willcocks, 2014). ITO failure increases with offshoring because of issues related to cultural differences, language barriers, or time-zone variations (Lacity, Khan, & Willcocks, 2009; Lacity & Willcocks, 2014). Onshoring is a direct investment in a domestic business by a local third-party provider (Siepmann, 2013). Nearshoring uses the services of contractors in neighboring countries such as Mexico and Canada for businesses in the United States (Siepmann, 2013). The focus of this study was IT outsourcing within the United States.

The concept of IT outsourcing has occurred as early as the 1950s (Hätönen & Eriksson, 2009). Outsourcing was initially limited to manufacturing processes and businesses, which would transfer portions of their value chain to third-party suppliers (Sen & Shiel, 2006). Organizations began to reap the benefits of outsourcing their value chain manufacturing by focusing more attention on other aspects of their businesses (Sen & Shiel, 2006). Eventually, companies outsourced all their manufacturing processes and grew to outsource other departmental functions like human resources and information technology (Sen & Shiel, 2006). According to Lacity et al. (2009), the top three reasons for outsourcing IT are (a) cost reduction, (b) core capabilities focus, and (c) access to external expertise and skills. Outsourcing has been beneficial and created value for businesses since its inception. IT outsourcing has contributed to small business success and sustainability.

Business leaders must go through a strategic decision-making process to determine if outsourcing certain business functions are most appropriate for their company or organization (Mohr et al., 2011). Outsourcing involves an inherent amount of risk and must be well thought-out, researched, and applied. Gorla and Somers (2014) reported IT outsourcing success rate to only be 33% without the adoption of a contextual decision-making framework. Hätönen and Eriksson (2009) posited using decision-making frameworks to determine if outsourcing options are necessary. Outsourcing may not be the best option for a business, thus going through an appropriate decision-making process to determine the most cost-effective solution for a company is beneficial to business sustainability and was a factor in this study.

Business leaders adopted three major perspectives in outsourcing IT options. The first major perspective to be considered is the cost and economic benefits and risks of outsourcing (Williamson, 2010). The second perspective considers the resource requirements of the business and what gaps are filled with outsourced personnel versus internal employees (Barney, Wright, & Ketchen, 2001). The third major perspective involves the knowledge base available to the organization in the outsourcing decision-making process (Levitas, 2013).

Since the 1980s, technology evolved and rapidly expanded to include the shift from mainframes to web- and cloud-based services, which facilitates the IT outsourcing processes (Johnson, Lukaszewski, & Stone, 2016). Business leaders increased their volume of IT support with the technological advancements provided by IT outsourcing (St. John et al., 2013). Zhang and Gu (2013) suggested *the cloud* as a metaphor for the

Internet. Cloud services generally include hardware, applications, and development platforms in public, private, or hybrid environments (Pattnaik, Prusty, & Dash, 2016; Schneider & Sunyaev, 2016). Therefore, outsourced IT service is a widespread practice in businesses around the world (Alexandrova, 2015).

Managed IT Services

Managed IT services is outsourcing IT support provided by consultants to third-party companies. These consultants have the expertise required in their industry to provide the needed support to businesses (Plunkett, 2017). Modern consulting evolved between the 19th and 20th centuries in the United States because of manufacturing improvement strategies (Morkes, 2017). Companies hired consultants to improve productivity and worker efficiency in businesses. Businesses and global expansions have demanded an increase in outsourcing and consulting practices. The four major areas of consulting include (a) information technology (IT), (b) management, (c) financing, and (d) human resources (Morkes, 2017). Cost-effective IT outsourcing options and gathering data on managed IT services were the focus of this study.

Consultancy has become a popular career due to its job flexibility and personal satisfaction (Morkes, 2017). The average salary for consultants ranges from $70,000 to $100,000 per year (Mankasingh & Ramsoomair, 2017). Global firms hire competitive consultants with wages ranging from $200,000 to $500,000 per year (Mankasingh & Ramsoomair, 2017). Because of the high demand for consulting services and competitiveness within the industry, most candidates must to hold at least a bachelor’s degree in their field (Mankasingh & Ramsoomair, 2017). Many consultants hold a Master

of Business Administration (MBA) degree with concentrations in IT, finance, engineering, or human resources. The consulting industry requires a minimum of 6 years' experience for advancements to senior levels to be considered (Morkes, 2017).

The IT consulting industry provides IT services at different capacities to businesses all over the world. In the United States, the location of majority of IT consulting firms are in the Southeast (23.7%), the Mid-Atlantic region (19.8%), and finally in the West (19.1%) (Lifschutz, 2018). The IT consulting market is one of the largest in the United States, with the top major consulting firms being Accenture and Deloitte (Mankasingh & Ramsoomair, 2017). However, Mankasingh and Ramsoomair determined, if the education and experience of the consultants are the same, but the rates are less, business owners are inclining to hire small IT consulting firms rather than large firms, creating a competitive advantage. Although the market is saturated with IT consulting firms, small IT consulting firms have a competitive edge with small business owners over large corporations. Small business sustainability due to cost-effective outsourced IT support can drive market share and economic benefits for the community and the country.

Summary

The literature review included the conceptual framework for this study, alternative theories, small businesses, small business success, failure, sustainability, financial efficacy through MAS, importance of technology, IT investments, managing change, outsourcing IT, and managed IT services. The literature revealed the need for further study of the efficacy of IT solutions for small business sustainability.

Transition

Section 1 serves as an introduction to the research study. This section includes detailed explanations of the background of the problem, the problem and purpose statements, and the nature of the study. Section 1 also includes a description of the research method and design. The main research question with interview questions, and the conceptual framework based on the rational decision-making model were also introduced. Further discussions with assumptions, limitations, and delimitations of the research study are introduced. Also, the section includes descriptions of the significance of the study, implications for social change, contribution of this research study, and a review of the professional and academic literature.

The purpose of this qualitative case study was to explore strategies which small business owners may implement for preemptive and cost-effective outsourced IT solutions for business sustainability. In the literature review, I discussed the importance of technology and its cost in small business sustainability.

Section 2 provides a detailed discussion of the project, in which I introduce the purpose statement, role of the researcher, participants, research method and design method, as well as population and sampling and ethical research. Additionally, I describe the data collection instruments and techniques, data organization techniques, data analyses, interview questions, data analysis software, data coding, and data analysis consistency. Finally, discussion of the conceptual framework, and reliability and validity of the research study conclude Section 2.

Section 3 will provide the details of the study, including a presentation of the findings, application to professional practice, and implications for social change. Finally, Section 3 will consist of recommendations for further action, recommendations for further study, and reflections on the doctoral study.

Section 2: The Project

Small businesses account for about 8.4 million of net new jobs, driving the U.S.'s competitiveness and innovation (SBA, 2018). Although the expansion of small businesses is vast, the failure rate is high. More than half of small businesses fail within the first 5 years of startup (SBA, 2018). Many researchers (Byrne & Shepherd, 2015; Hyder & Lussier, 2016; D. A. Williams, 2014) assessed the reasons for the failure of small businesses, as well as success factors. IT plays a critical role in leveling the playing field for small businesses competing against established businesses. Some companies choose to outsource IT, while others prefer to manage IT within the company (Bahli & Rivard, 2017). The focus of the current study was to reveal the efficacy of different IT management solutions.

Purpose Statement

The purpose of this qualitative multicase study was to explore strategies some small business owners implement to obtain cost-effective outsourced IT solutions for business sustainability. The target population was small business owners in the Houston, Texas area who outsource their IT services. The implications for positive social change include the potential for small business leaders to develop strategies to improve outsourced IT services and reduce operating costs. Small business owners may use the findings to enhance profitability and to address social issues such as employment and poverty in communities.

Role of the Researcher

The role of the researcher is to function as the primary tool for data collection and to adhere to and maintain ethical guidelines (Leedy & Ormrod, 2013). For the current qualitative multicase study, I interviewed participants, coded the data, identified themes and patterns, and drew conclusions. The researcher adopts the role of a data-collecting instrument in a qualitative study (Leedy & Ormrod, 2013). As the instrument, the researcher needs to be able to collect valid and reliable data through participant interviews (Denzin & Lincoln, 2011). My role as researcher was to conduct this study with the given objectives in mind.

My experience with outsourcing services can be traced to my position as business systems analyst for Hewlett-Packard Company from 2000 to 2007 and as senior financial systems analyst at HP Inc. from 2015 to the present. Outsourcing many functions within the company to offshore locations such as India, Guatemala, Mexico, and Thailand was cost-effective for the sustainability of the company. My experience in IT outsourcing was as financial controller from 2008 to 2015 for a small IT consulting firm in Houston, Texas. The company provided IT outsourcing for other small businesses. My study topic developed through learning about the challenges and successes the company had with IT outsourcing for smaller businesses and the paradigm shift of technology dependency for even the smallest companies.

A challenge in my role as the researcher was eliminating bias from my previous employment at an IT consulting firm. Bracketing is separating personal beliefs, experiences, morals, and perceptions from the research data (Tufford & Newman, 2012),

and this was the strategy I used for mitigating bias. The method for bracketing in this study was annotating preconceptions about IT outsourcing, keeping notes during the collection and analysis of data, and adhering to journaling procedures. The use of a journaling process to maintain a detailed record of data collection, data analysis, and data reporting helps to eliminate personal bias (Tufford & Newman, 2012). I used journaling to remain subjective and aware of my potential biases. Using the journaling process, the researcher focuses on the participants' detailed description of the phenomenon and accurately obtains a construct of the participants' perspectives (Tufford & Newman, 2012).

I also set clear boundaries with my participants. Throughout this study, I could have come across business owners who were also former clients, business acquaintances, or friends. My role was to mitigate bias by not engaging people or businesses I had a previous relationship with to avoid skewing the data collected for the completion of this study. The collected data on potential participants was completely independent and collected from public databases or sites, not from my personal or professional relationships.

Participants

The eligibility requirements for participants in this study were leaders from small businesses with fewer than 50 employees which used outsourced IT services. Houston, Texas is a city with over 4 million inhabitants (City of Houston, 2019). There were many small businesses to use as participants for this study in a city this large. The target population was small businesses in Houston, Texas, established for at least 5 years and

had fewer than 50 employees. The small business sample taken was appropriate to reflect other small businesses within the Houston area and achieve saturation. The sample included 10 small business owners and leaders with businesses which fit within the delimited categories.

The U.S. Census, SBA, and Houston Chamber of Commerce have databases which were used to retrieve data for potential participants in this study. Through t4eeeeehe library system, there was also limited access to databases such as ReferenceUSA and BusinessUSA that allowed a sample selection. Participants were also recruited through postings on social media, as well as references from other business and university colleagues. The sampling took place using a purposeful method with direct targets. Leedy and Ormrod (2013) defined the purposeful sampling technique as the researcher being able to use their judgment to determine a sampling group based on the criteria set forth in the study. The goal of purposeful sampling is to ensure that the sample is relevant and valuable when addressing the research question (Gentles, Charles, Ploeg, & McKibbon, 2015; Sokolowski, 2008).

The process of gaining access to participants and meeting ethical requirements begins with the institutional review board (IRB). Walden University's IRB granted permission for the study and set ethical guidelines (IRB #10-17-19-0042635). Informing participants of the goals, benefits, risks, and confidentiality of the study are appropriate ethical guidelines in research (Renert, Russell-Mayhew, Arthur, 2013). The methods to gain access to the current participants were emails and telephone calls. The participants

had experience in the outsourcing of the company's IT services, as well as the methods and costs of such services.

A working relationship with participants began with an initial email, and I followed up with a phone call to schedule the interview. Each participant had to sign a consent form. The participants were not compensated but were encouraged to participate with the offer to distribute a summary of my completed study to them.

Research Method and Design

Research Method

The three types of research paradigms are quantitative, qualitative, and mixed methods. The method for this study was qualitative. Poortman and Schildkamp (2011) stated that qualitative research follows interpretivism, constructivism, and postpositivism rather than a single objectivist outcome created with quantitative research. The underlying assumption for qualitative research is that a well-rounded approach is used to explore events rather than the calculated variable rule which applies to the quantitative method (Poortman & Schildkamp, 2011). The qualitative method is appropriate when assessing one or more of the following components (a) exploratory studies, (b) studies including hypotheses without answering with a simple yes or no, (c) themes structured from the data, (d) a large sample is not available or appropriate, (e) a phenomenon is to be interpreted, or (f) the researcher has control over interpreting the data (Bryman & Bell, 2015). The qualitative method was appropriate for the current study because it was exploratory with a focus on the outsourcing of IT solutions and financial efficacy for small businesses.

Neither quantitative nor mixed-methods approaches were appropriate for this study. Quantitative research consists of gathering numerical data and using statistical methods to analyze the data (Denzin & Lincoln, 2011; Doherty, 2011; Leedy & Ormrod, 2013). The quantitative method was not appropriate for the current study because the purpose of the study was to explore technology dependency and outsourcing of IT for small businesses, not to gather numerical data for statistical analysis (see Leedy & Ormrod, 2013). A mixed-methods approach includes both quantitative and qualitative methodologies and involves data collection and analysis, as well as both open-ended and closed-ended research questions (Leech & Onwuegbuzie, 2011). This study did not meet the requirements for a mixed-methods study because quantitative data were not required to answer the research question.

Several qualitative studies were reviewed and found to be relevant models for the current study. Miles (2013) conducted a phenomenological study to find strategies which would allow small businesses in Pennsylvania to persist beyond 5 years from startup. Miles reiterated that small business startups each year are high in the United States, but failures of these businesses are even higher. Miles used the working knowledge of 20 successful business owners to develop themes for sustainability.

Rauch, van Doorn, and Hulsink (2014) conducted a qualitative study which synthesized 13 cases of business performance within clusters. Rauch et al. used the qualitative method to research entrepreneurship. New theory tests developed by Rauch et al. based on prior quantitative data created a synthesis of scientific evidence in

entrepreneurship. An evidence-based entrepreneurship study design was the qualitative approach for this study.

Bitwayiki (2019) conducted a qualitative study on the return on investment (ROI) from using technology for planning and budgeting. The qualitative single-case study was conducted in Uganda with 10 senior IT managers as research participants. Bitwayiki concluded IT project failures may be reduced with proper planning and ROI reporting.

Qualitative research includes exploration of the perceptions of individuals (Newington and Metcalfe, 2014). Miles (2013), Rauch et al. (2014), and Bitwayiki (2019) explored the perceived phenomena and the understanding of these phenomena in their qualitative research studies. Blaskovich and Mintchik (2011) posited that additional research is necessary to explore technology outsourcing methods. Based on the perspectives of qualitative methodology of Miles, Rauch et al. and Bitwayiki, as well as the suggestion of further research into IT outsourcing and technology dependency by Blaskovich and Mintchik, qualitative methodology was deemed appropriate for the current study.

Research Design

A research design is the process by which researchers answer research questions and draw conclusions based on the findings (Lewis, 2015; Leedy & Ormrod, 2013; Sokolowski, 2008). I used a qualitative multicase study design to conduct this research. The research design represents a logical plan to collect, process, and analyze data relevant to the research, validating the accuracy of the study (Gelo et al., 2009; Wright & Craig, 2011).

When a researcher cannot identify new concepts, the saturation point in the interview process has been reached (Tran, Porcher, Tran, & Ravaud, 2017). Data saturation occurs when no new themes, findings, or concepts are apparent during the data analysis process (Tran et al., 2017). A sample size of 5 to 10 participants can provide enough data for a population to achieve saturation (Denzin & Lincoln, 2011). Saturation for the current study was met when I started receiving the same or similar answers from participants to the questions in the interview protocol. The exploratory case study design is used to investigate a phenomenon which previously indicated a lack of detailed research or the environment limits the choice of method (Hancock & Algozzine, 2015). The multicase study design was appropriate for the current study to enhance existing research on the phenomenon of small business owners and leaders with outsourced IT solutions seeking to interpret the effectiveness of the solution.

Qualitative methodology includes five design options (a) case study, (b) phenomenology, (c) ethnography, (d) narrative, and (e) heuristic (Leedy & Ormrod, 2013). The phenomenological design is used to study a phenomenon experienced by several people over time (Moustakas, 1994). The phenomenological design was not appropriate for the current study because there was a lack of strategies which needed to be investigated, not a phenomenon experienced by several people over time (see Moustakas, 1994). When researchers study the shared beliefs, behaviors, and experiences of a group over time, they use the ethnographic design (Gelo et al., 2009; Leedy & Ormrod, 2013). The ethnographic design was not appropriate for the current study because shared beliefs, behaviors, or experiences of humans, belief groups, or society did

not require observation (see Gelo et al., 2009). When studying life experiences narrated by individuals, researchers use the narrative design (Dickey, 2011; Leedy & Ormrod, 2013). The narrative design was not appropriate for the current study because the narratives of individuals over time were not being researched (see Dickey, 2011). The heuristic design is used to discover the internal self-search of a human and investigational problem (Moustakas, 1994). The heuristic design was not appropriate for the current study because it did not address the internal human nature problem (see Moustakas, 1994; Smith, 2015).

There is a financial and nonfinancial aspect surrounding program innovations which involves different uncertainties and ambiguities (Laine, Korhonen, & Martinsuo, 2016). Through collective sense making, knowledge about the program impacts is strengthened, and the impacts are extended beyond immediate benefits (Laine et al., 2016). Tsai (2016) used a qualitative exploratory case study to reach new insights and develop a further understanding of workplace boredom and monotonous tasks. Gaining further understanding of a large-scale and global program and expanding innovation and technology are appropriate uses of an exploratory case study (Laine et al., 2016). Christensen and Lund (2014) used an exploratory case study to determine the effects of microclimate on doctoral students completing their studies. The multicase study design was appropriate for the current study to enhance existing research on the phenomenon of small business owners with outsourced IT solutions seeking to interpret the effectiveness of the solution.

Population and Sampling

The definition of a research population is a large group with similar characteristics (Sokolowski, 2008). The population of the current study was owners and leaders of small businesses in the Houston, Texas area who use a monthly outsourced IT service. Small businesses make up 99.7% of employer firms in the United States (SBA, 2018) and about 50% of the GDP. Approximately 5.5 million commercial enterprises outsource at least one managed IT service, and 55% of these businesses indicated they would like to increase their use of IT (Karamouzis & Da Rold, 2014; SBA 2018). According to the U.S. Census Bureau (2016), there were 100,884 new business establishments in Harris County, Texas in 2016, which includes the Houston metro area. Houston is the fourth largest city and the sixth largest metropolitan area in the United States (City of Houston, 2019). The study population included small business owners and leaders which outsource their IT needs. The businesses needed to have fewer than 50 employees for sample consideration. According to the Office of the Governor (2016), small businesses are representative of a large population of the United States, and thus make the population sampling appropriate for this study.

The sampling method used for this study was purposeful sampling. Researchers use their judgment to select participants based on the study criteria in purposeful sampling (Leedy & Ormrod, 2013). Using purposeful sampling will represent the most relevant and valuable information which addresses the research question (Gentles et al., 2015; Sokolowski, 2008).

The purposeful sample consisted of 10 small business owners and leaders who met the following eligibility criteria (a) the participant was at least 18 years of age, (b) the participant had extensive knowledge of the IT outsourcing need of the business, (c) the business outsourced its IT needs, (d) the business had no more than 50 employees, and (e) the business had been open for at least 5 years. The interview process continued until data saturation was achieved. When a researcher cannot identify new concepts, the saturation point in the interview process is reached (Tran, Porcher, Tran, & Ravaud, 2017). Data saturation occurs when no new themes, findings, or concepts are apparent during the data analysis process (Tran et al., 2017).

The sample size of 10 participants could provide enough knowledge and value to the data for a population and thus accomplish saturation (Denzin & Lincoln, 2011). Cronin-Gilmore (2012) found that 5 to 10 participants in a qualitative case study with one-on-one interviews which contains semistructured interview questions were appropriate to attain research relevance. The research sample for this qualitative multicase study was 10 participants.

The study sample generation was from a public database available through the Houston Public Library System, as well as through word of mouth references from university colleagues. The database maintains records of small businesses for the Houston metropolitan area and their current status and size. The samples were narrowed based on years in business, size, number of employees, location, and nature of the business. Once the Institutional Review Board (IRB) approved the study proposal, the narrowed sample group was contacted via phone and email to evaluate further if they

outsourced their IT needs and were willing to participate in the study. Data collection began with one-on-one interviews with IRB approval and establishment of the appropriate sample size.

Ethical Research

The four principles of qualitative research are (a) confidentiality, (b) honesty, (c) written informed consent, and (d) right to privacy (Sokolowski, 2008). The ethical treatment of study participants is critical and should be at the forefront of all researchers to complete a successful study (Campbell & Scott, 2011; Jones, Edwards, & While, 2011).

A consent form was provided to participants of this study and attached as Appendix B. Participation was strictly voluntary, and no incentives were offered for participation. Participants were advised that they could withdraw from the study at any time. The identity of all participants and their businesses or organizations remained confidential. The research data remained in a safe and secure place for at least 5 years, before being properly disposed or destroyed.

Candidates eligible to participate in the study were contacted via email or phone and asked to volunteer for the study. Eligible candidates were provided an informed consent form along with a detailed explanation of the study and the benefits of the research. The consent form included the statement of consent and a statement of confidentiality, including anonymity of their names and that of their organizations, a detailed explanation of the study, a notice that the participation in the study was entirely voluntary, and contact information in case there were further questions. Complete

honesty was asked from the participants, as the study was conducted with the same precedents. There were no known risks for participation in this study.

Data Collection Instruments

In qualitative research, the researcher acts as the instrument in data collection (Moustakas, 1994; Sokolowski, 2008). The inquirer uses multiple sources of data for a qualitative case study (Yin, 2017). The principal method to collect information in case study research is interviewing participants to understand the participants' view of the phenomenon to establish meaning and, if possible, examining contracts with managed service providers (Englander, 2012).

Qualitative researchers look to establish triangulation by examining multiple sources of data (Oleinik, 2011). Researchers used business document examinations as a data collection instrument (Smith, 2016). Conducting interviews was the first data collection instrument which was used in this study. Additionally, I requested to examine outsourced IT contracts not proprietary to the business, as a data collection instrument. Being able to examine IT contracts allowed for additional data collection to answer the research question of this study on the strategies small business owners implement for effective outsourced IT solutions. The cost effectiveness of managed IT services could be more accurately gauged and triangulated with relevant contract data.

Phone interviews were set up and, with permission from the participant, audio-recorded for correct and complete transcription of the responses. The interview questions protocol, included in Appendix A, was verbally asked of the participants. The interviews lasted no longer than 25 minutes and were conducted directly by me, as well as reviewing

contracts with IT providers. The interviews were conducted at a mutually agreeable date and time.

For the data collection tools, I used the interview protocol and the voice recording option on my iPhone X. I then transcribed the interviews in a Microsoft Office document on my HP EliteBook laptop computer. I used other products as their functionality became apparent and useful in the data collection process.

Open-ended interview questions encourage participants to share their lived experiences openly and in detail (Maier & Deluliis, 2015). Participants may not respond completely or effectively to the open-ended questions as needed for the study, follow-up or probing questions may have been necessary to elicit additional data (Lewis, 2015; Maier & Deluliis, 2015). The interviews were conducted on a one-on-one basis with each participant at a date and time convenient for them.

I took handwritten notes in a dedicated notebook for the study during the interview process along with the audio recordings to document any additional information I may have needed to follow up on during the member checking process. The data collection techniques included digital audio recordings of the interviews and notes taken by me during the interview. Comparing the transcribed interview with the interview notes would be considered triangulating the data sources (Oleinik, 2011).

Quantitative research includes a technique called scoring, which uses the application of a numerical value to the data for interpretation (Larson-Hall & Plonsky, 2015). Numerous methods are used for data scoring in quantitative research; however, the use for data conversion to a numerical value serves no purpose in a qualitative research

design (Muller, Asherson, Banaschewski, Buitelaar, Ebstein, Eisenberg, & Steinhauser, 2011). The researcher did not use scoring as a data analysis technique for this study, as it was not applicable to this qualitative research design.

One of the most essential considerations in the data collection process is the reliability and validity of the data collection instrument (Sokolowski, 2008). For reliable and valid data collection, the process must be consistent and stable (Leedy & Ormrod, 2013). Data collection instruments are tools used to collect data from human participants (Shea, Grinde, & Elmslie, 2011).

Data cleansing is the process of reviewing and removing data which does not conform to the research criteria of the study. Conducting data cleansing and disclosing any researcher biases is part of establishing validity. Having valid data for the study is the primary concern of the researcher (Noble & Smith, 2015). I conducted a review of my notes and the transcribed data and data cleansing to ensure that the data used for the study was valid.

The nature of the study was to explore the outsourced managed IT services for small businesses and the efficacy of outsourced IT services. The raw data were collected through interview questions and cleansed to remove bias and irrelevant information to conform to the study parameters, resulting in quality, conclusive data to answer the research question of this study. The study used a qualitative research methodology with a multicase study design. There was no measuring of variables as a result of the single case study research methodology and design. This particular type of study did not rely on

hypotheses or variables for phenomenon exploration (Rabinovich & Cheon, 2011). The findings of this study could serve as a contribution to the successes of small businesses.

Data Collection Technique

Conducting interviews is an appropriate data collection method for a qualitative research study (Leedy & Ormrod, 2013). Moustakas (1994) noted that interviews in a research study can be structured, unstructured, or semistructured. For this qualitative multicase study, 10 small business owners and leaders were interviewed in a semistructured environment regarding their use of outsourced IT services.

Yin (2017) posited that case study interviews should resemble guided conversations rather than structured inquiries. The interviews for the study were conducted by phone conference in a private environment. The interview questions protocol in Appendix A was administered verbally, conversationally, and audio-recorded. I also took handwritten notes during the interview process for further documentation.

Sokolowski (2008) suggested that interview questions should be nonthreatening to best elicit appropriate feedback from the study participant. I started the interviews with introducing myself and the background and nature of my study. I was casual in my approach with the participant but switched to professionalism once asking the actual interview questions.

The casual approach made the participant feel comfortable and sharing the nature of my study in candid conversations put them at ease for the actual interview questions. The interviews were conducted at a mutually agreeable date and time with no distractions. I used open-ended interview questions to allow the participants to relate their

experiences. When necessary, follow-up included additional questions to have received complete answers and understanding of the interview questions. A good interviewer must also be a good listener and understand that inconsistencies in recollection, demeanor, and rationale are possible (Leedy & Ormrod, 2013).

The audio recordings of the interview questions were kept in folders on my smart phone, then downloaded to my laptop and backed up to a cloud storage solution. The handwritten notes were completed in a notebook dedicated to this study to document personal thoughts as a tool to possibly distinguish any bias which may have been presented. The audio recordings were transcribed by me into a Microsoft Word document by listening to the recordings and writing down the information, then saved on my laptop and manually uploaded to a dedicated thumb drive and Google drive for back-up solutions. All the data were triangulated using methodological triangulation which involves gathering data from multiple sources.

Using semistructured interviews for data collection can have many advantages. For qualitative researchers, semistructured interview advantages include (a) being able to ask detailed questions and (b) receiving detailed and thorough information from participants (Leedy & Ormrod, 2013; Yin, 2017). Disadvantages to the semistructured interview process include (a) the comfort level of participants and (b) the truthfulness and accuracy of the information given (Leedy & Ormrod, 2013; Yin, 2017).

A qualitative researcher will look for triangulation with multiple data sources (Oleinik, 2011). Researchers have used business document examinations as a data collection instrument (Smith, 2016). I requested to review and examine outsourced IT

contracts of small businesses to collect data relating to the efficacy of outsourced IT services. Reviewing the contracts allowed for methodological triangulation of data to further evaluate the cost-effectiveness between the outsourced IT options. Advantages to collecting relevant company documents include (a) accuracy of information and (b) information not readily accessible otherwise (Yin, 2017). Some of the disadvantages to collecting data are (a) documents may be outdated and not provide accurate current data and (b) documents may be confidential and are not readily disclosed (Yin, 2017). Some study participants may not have wanted to disclose or provide contracts, having made data triangulation more difficult. The information collected had to rely on interview responses from the participant and my notes taken on personal observations during the interviews.

Data triangulation can be completed with semistructured interviews and the collection of company data, physical artifacts, and archived records (Yin, 2017). Completing interviews and reviewing documents are critical in achieving triangulation for this study (Marshall & Rossman, 2016; Yin, 2017). I aimed to achieve data triangulation with the information collected from the interviews and the contracts provided by small business owners and leaders using outsourced IT. Having data from multiple sources allows for comparison of the two sources to achieve validity of the data. In this study, triangulating the answers from the interview questions, along with examining contracts validated the information collected. A pilot study was not conducted after IRB approval.

Member checking is the process of providing the interview data collected, themes, and inferences to the participant, to ensure accuracy, validity, and credibility of the data (Leedy & Ormrod, 2013). The audio recording of interviews allows the researcher to ensure the accuracy of the information provided by the participant (Yin, 2017). Member checking was part of the interview protocol in Appendix A. As part of the member checking process I combined the actual data provided along with inferred information gathered, as well as personal observations presented by the participants. I reverted this data back to the participant to ensure I understood their points completely and not misinterpreted the information.

Data Organization Technique

Data organization occurs once all the interview transcriptions are completed and the data cleansed. Steps in organizing the data included (a) checking the data for validity, (b) maintaining a reflective research journal, (c) electronic organization, and (d) reviewing research notes. Leedy and Ormrod (2013) noted that data organization techniques allow for patterns, themes, and trends to be found in the data and develop alternative perspectives.

To minimize errors in research, Sokolowski (2008) advised performing data checking as part of the organization of a study. The validity of data and relationships between items is established with data checking (Sokolowski, 2008). By the researcher transcribing the interviews in Microsoft Word documents and comparing the cleansed data with the interview notes, as well as the interview questions allowed for the data to be identical, and the organization done accordingly (Sokolowski, 2008).

A reflective journal allows the researcher to maintain notes on observations made, awareness, and experiences throughout the research process (Marshall & Rossman, 2016). According to Corrigan, Desnick, Marshall, Bentov, and Rosenblatt (2011), maintaining a reflective journal can have an explicit effect and allow the researcher to create a trail of ideas and insights to include as additional data for analysis. The journal data can then be used to add to the reliability and validity of the study by triangulating the data in the journal with the information gathered during the interviews, as well as the examination of contracts. Sokolowski (2008) posited that journal notes and memos could indicate themes. Part of the data organization techniques was to complete a thorough, reflective journal which helped identify themes and trends for this study by combining similar thoughts and ideas with the information given by the participant.

Gonzalez (2016) recommended using computer software or other electronic methods to assist with coding, theme development, and data interpretation. I used a Microsoft Word document to write-up my research notes and transcribing the interviews as I listened to the recordings. The transcription allowed me to code and group raw data and develop themes, trends, and patterns (Sokolowski, 2008). A coding process allows the ability to organize raw data generated and retrieved from interviews, notes, and reflective journal and identify central themes from the fragmented data (Gonzalez, 2016). The data were filed electronically in the main DBA research folder with subfolders for raw data, coded data, and themes. The themes folder had additional folders for each of the developed themes.

The final step to organizing data before beginning the data analysis phase after developing themes electronically was to reread the researcher's notes and to review the data (Leedy & Ormrod, 2013). During this reflective organization phase, all data were reviewed again. The research questions, interview questions, interview responses, interview notes, reflective journal, memos, coded data, and developed themes were compared to another, and new themes or patterns were noted in the electronic coding and filed away in their respective folders.

The electronic research data remained secure on a memory stick and backed up on a secure cloud server at the conclusion of the study. The memory stick and all hard-copy documentation was filed and secured in a fireproof safe. All research data were stored for a minimum of 5 years before being deleted and destroyed.

Data Analysis

The data analysis phase helps bring order and understanding to the data collected (Miles, 2013). The purpose of data analysis is to logically and sequentially answer the research question. The focus of this study was to determine the cost-effectiveness and comparison of outsourced IT solutions for the sustainability of small businesses in the Houston area. The data were extracted from participants through the interview questions to conduct the appropriate analysis to answer the research question.

There are four types of triangulations (a) data triangulation, (b) theory triangulation, (c) investigator triangulation, and (d) methodological triangulation (Yin, 2016). Researchers use methodological triangulation to analyze data from multiple sources, such as interviews and documents (Denzin & Lincoln, 2011; Marshall &

Rossman, 2016; Yin, 2017). Methodological triangulation was appropriate for this study because I collected data from interviews and documents.

In a qualitative research, data can be analyzed using Yin's five step procedure (a) compile database, (b) disassemble data, (c) reassemble data, (d) interpret data, and (e) conclude (Yin, 2017). I collected the data and used ATLAS.ti software to disassemble and analyze it. Coding the data allowed me to develop themes in the reassemble and interpretation steps. Finally, I was able to complete my conclusion of the data in relationship to the research question.

Data Analysis Software

Miles (2013) recommended using ATLAS.ti software to organize, code, and analyze raw qualitative data. Using a computer-assisted qualitative data analysis tool such as ATLAS.ti facilitates the coding and categorizing of large quantities of data (Fade & Swift, 2011), as it provides sufficient capability to handle and organize data for meticulous analysis (Markova, Perry, & Farmer, 2011). Using ATLAS.ti software as a data management and analysis tool provides the opportunity to (a) manage large amounts of data, (b) have increased flexibility with qualitative data, and (c) improve the validity and accuracy of the research (Leech & Onwuegbuzie, 2011; Paulus & Lester, 2016). Based on these recommendations, I further investigated the effectiveness of using ATLAS.ti as one of my research tools for this study.

Data Coding

Data coding helps researchers to compare and identify data, patterns, and themes to facilitate organization and data analysis (Sokolowski, 2008). According to Vaughn and

Turner (2016), the coding of qualitative data is the process of combining the data in terms of categories, themes, and ideas. Saldana (2011) identified three primary coding methods used by researchers (a) initial coding, (b) axial coding, and (c) theoretical coding. Initial coding is synonymous with open coding, as theoretical coding is synonymous with selective coding (Saldana,2011).

Initial coding is the process of breaking down large quantities of qualitative data into smaller parts (Saldana, 2011). This process would be the first pass in coding the data, and recurring information should become visible at this time. Saldana (2011) explained that the initial coding phase is the starting point of processing data and provides the researcher with direction.

Axial coding is a more in-depth analysis of the initial coding. The initial coding will most likely fragment the data. Part of the axial coding process is to reassemble the fragmented data (Paulus & Lester, 2016), and categories and subcategories are established in the axial coding phase (Saldana, 2011).

Theoretical coding helps researchers to identify possible relationships between categories (Saldana, 2011). Theoretical coding is an umbrella which covers all previously identified codes and categories (Saldana, 2011). The expected result of the theoretical coding phase is to have one central category (Gonzalez, 2016).

Coding the raw data were a significant part of this research study, as it provided the basis for data analysis. The three coding methods identified by Saldana (2011) were used for data coding. In the initial coding phase, I broke down the large chunks of data into more manageable pieces. During axial coding, the fragmented parts were pulled back

together to determine the direction of the study (Saldana, 2011; Gonzalez, 2016). Patterns, themes, and trends became apparent during the coding process once completed.

Data Analysis Consistency

Overall, the data analysis presentation, interpretation, and explanation should be consistent, and the research questions should be answered completely and consistently. My research question was What strategies do small business owners implement for an effective outsourced IT solution for business sustainability? The conclusion drawn by the data analysis, as well as the themes developed, should all be consistent and should answer the research question (Frost, Holt, Shinebourne, Esin, Nolas, Mehdizadeh, & Brooks-Gordon, 2011).

Reliability and Validity

One of the primary goals of a researcher is establishing reliability and validity for the study they have conducted (Kekecs, Bowers, Johnson, Kendrick, & Elkins, 2016). Leedy and Ormrod (2013) presented four logic tests which establish the quality of research reliability and validity. Reliability is the function of the research which would allow a future researcher to make the same observations when conducting the same study utilizing the same procedures and methods (Ali & Yusof, 2011; Kekecs et al., 2016). Validity refers to the extent to which the research can be trusted to represent the phenomenon studied (Ali & Yusof, 2011; Kekecs et al., 2016). Internal validity uses the establishment of a causal relationship between various conditions, while external validity refers to the generalizability of the findings of the study (Ali & Yusof, 2011; Leedy & Ormrod, 2013).

Reliability

Reliability is the measure of trustworthiness and repeatability of the data presented in the study (Sokolowski, 2008). Reliability does not guarantee the validity of the study; however, without reliability, the study's validity is compromised (Sokolowski, 2008). A qualitative researcher has the objective of minimizing error and bias (Leedy & Ormrod, 2013). Several measures were taken to ensure the reliability of the study, including (a) consistent interview questions, (b) comparing data to research and interview questions, (c) multiple data reviews, (d) utilizing data analysis tools to include electronic software, and (e) reviewing researcher notes.

The consistency of the interview questions can reinforce the reliability, validity, and credibility of the research results (Dibley, 2011). Dependability, in a case study creates consistency and repeatability of the research (Leedy & Ormrod, 2013). I established dependability in this study by continuously comparing the data collected, referring to the research questions, reviewing notes, as well as member checking by presenting the data with inferred references made back to the participant to ensure the accuracy of the information. Identifying repeatable themes, trends, and patterns during the analysis phase helped determine the reliability of the data. Researcher bias could skew the reliability and validity of the data and needed cautious and continuous evaluation throughout the research process.

Validity

Validity is the process which confirms that the data collected is accurate and factual and represents a real-word phenomenon (Frost et al., 2011). Validity in a

qualitative study involves trustworthiness, credibility, and authenticity (Leedy & Ormrod, 2013). Validity can be established with triangulation of the data, as well as disclosing all researcher biases.

Researchers are establishing credibility when participants agree with the findings of the study (Yin, 2017). I used member checking of the interview transcription of the participants to determine the validity of the data. Member checking is more than transcript verification and includes involving the participant in verifying the emerging themes and inferences made by the researcher and asking participants to offer reasons denoted in patterns (Birt, Scott, Cavers, Campbell, & Walter, 2016). Member checking improves validation because it decreases the chance of misinterpreting the data (Birt et al., 2016). Using the member checking method establishes credibility and minimizes internal threats to the study.

When readers of the study can apply the findings to other settings, they are establishing transferability (Bryman & Bell, 2015). I established transferability by using the same interview protocol with each study participant, which included audio recording, member checking, and data triangulation. Data saturation achieves transferability (Bekhet & Zauszniewski, 2012). Data saturation occurs when no new themes, findings, or concepts are apparent during the data analysis process (Tran et al., 2017). Future researchers will be able to use data transferability of my study with data saturation having been achieved.

When other researchers can use the same finding of a study, confirmability has been established (Marshall & Rossman, 2016). Neutrality and objectivity of the data

enhances confirmability (Bekhet & Zauszniewski, 2012). Using the conclusions and interpretations of the participant responses can be used to achieve confirmability (Cope, 2014). Using semistructured interviews of participants and collecting documents for data helped me maintain neutrality and objectivity to achieve confirmability.

Data Saturation is not reliant of sample size (Denzin & Lincoln, 2011). Data saturation occurs when no new themes, findings, or concepts are apparent during the data analysis process (Tran et al., 2017). The sample size of 5 to 10 participants could provide enough knowledge and value to the data for a population and thus accomplish saturation (Denzin & Lincoln, 2011). I ensured reaching data saturation by keeping the sample size small and limiting the study to no more than 10 participants.

Transition and Summary

In Section 2, I provide the purpose of the study, which is to explore the strategies that small business owners may implement for preemptive and cost-effective IT solutions for business sustainability. The findings could have implications in terms of positive social change. Small business leaders could gain new insights into the reasons for the unsuccessful implementation of managed IT services and achieve financial leverage toward the success of their business. Section 2 also includes discussing the role of the researcher in the data collection process and a description of the research population.

I conducted this study with a qualitative research methodology with a multicase study design. The target population was small businesses in Houston established for at least 5 years with fewer than 50 employees. The sample included 10 small business owners and leaders who fit within the delimited categories in the Houston area.

Section 1 identified the problem and purpose of the study. Section 2 focused on the process and approach to identifying cost-effective IT solutions for small businesses' sustainability. Section 3 will present the findings of the study as they relate to the purpose statement and research questions. A discussion of the implications of positive social change, researcher recommendations, and researcher reflections will conclude Section 3.

Section 3: Application to Professional Practice and Implications for Change

The purpose of this qualitative multicase study was to explore strategies some small business owners and leaders implemented to obtain cost-effective outsourced IT solutions for business sustainability. I interviewed 10 small business owners and leaders in the Houston metro area who outsource their IT solutions. The outcome of the study indicated that many small businesses do not have the overhead to support hiring IT staff onsite. Outsourcing IT solutions to a third-party vendor can provide the support and IT knowledge a small business needs to remain viable and competitive in growing markets. All participants chose to outsource to a managed service plan, which provides IT services on products and services for a monthly flat fee. The hourly IT services options several participants used in the past were inefficient and costly. All participants indicated that having the outsourced IT solution provided business sustainability to the participants by having their technical products maintained by knowledgeable third-party providers and reducing the business financial overhead.

Presentation of the Findings

This multi case study was guided by the research question What strategies do small business owners implement for an effective outsourced IT solution for business sustainability? To answer the research question, I conducted interviews with successful small business owners and leaders in the Houston metro area who outsourced their IT services. The interview responses were synthesized and coded to develop emergent themes. The themes revealed strategies small business owners implemented for effective outsourced IT solutions

1. the need for reliable service,
2. finding services that are cost effective,
3. outsourcing to experts, and
4. the need for stability.

I used ATLAS.ti 8 software to perform the data analysis. I uploaded the member-checked interview transcripts and supporting contracts from the 10 participants into ATLAS.ti and coded the data. I synthesized the coded data to find the emergent themes. ATLAS.ti helped me develop a clear association of the themes with the word tree and word count options. All 10 participants responded to the eight research questions from which the codes and themes were developed.

Interview Question 1

Interview Question 1 was as follows What influenced your decision to select the hourly versus the flat fee outsourced IT services you use in your business? The goal was to gain insight on the influences which surrounded the decision-making process of outsourcing to one IT solution or another. The top three responses are shown in Table 1 and correlate to the following themes the need for reliable service and finding services that are cost effective. Participant A2002 stated

> So, I just felt like a flat-fee was a better option for us because I also wanted my employees to be able to have the ability to contact an IT company and put in service requests and not feel like they couldn't because of cost then.

Participant A2011 voiced the same opinion

> We selected flat-fee just so we felt more comfortable with our employees reaching out whenever there was a problem versus being concerned about getting a large invoice for their questions. We basically feel that the outsourced IT is like a helpdesk.

Participant A2008 added that their strategy was

> just to be able to have everyone field their own call if there's an issue. So people could quickly get any issue or questions they're having with their computers resolved without having to come to me or for me to give them permission or for me to let the IT company know, yes, they have my permission to do what they need to for someone's computer.

Participant A2003's concern was

> but sometimes we have too many hiccups between our server and being on a remote environment and some of the software we use in our business to buy hourly. It would have added up here and there. So we decided on flat [fee].

Table 1

Outsourcing IT Services Influence

	Number of participants
Flat-fee service is more efficient, effective, and comprehensive	9
Used hourly service in the past and it was not cost effective	5
Employees can contact IT provider when necessary with flat-fee service	5

Interview Question 2

Interview Question 2 was as follows How do you determine the best or optimal IT solution for your business? The goal was to gain insight on the decision-making process in selecting the IT solution. The top three responses are shown in Table 2 and correlate to themes outsourcing to experts and the need for reliable service. Participant A2009 commented that they "did interview several [companies]. One part of it, it has to be people that will listen and take time to work with us on our service." Participant A2004 was looking for expertise and noted that "we figured, it would make more sense for anybody internally to be able to reach out to a subject matter expert who would quickly solve or troubleshoot the problem. Those became the deciding factors for us." Participant A2003 replied

> As we were growing in our office, we needed somebody that could be a little bit more available, so that we could get help as we needed it instead of having to wait until the person was free and could make time for us.

Table 2

Determination of Optimal IT Solution

	Number of participants
Needing IT expertise	10
Interviewed several companies	5
Needing availability and fast response	5

Interview Question 3

Interview Question 3 was the following Please explain the path you used to make decisions regarding your IT solutions. The goal was to gain insight on the participants thought processes in their decision-making. The top three responses are shown in Table 3 and correlate to the themes finding services that are cost effective, the need for stability, and outsourcing to experts. Participant A2002 commented

> Because between the downtime and the actual downtime and then the moral of being down, and then everybody conniptsing about the fact that we were down. I mean the cost more than would have covered to what a service agreement was.

Participant A2011 stated that "hourly was not an option because we couldn't really find a reliable person that wanted to do hourly-fee." Participant A2003 replied that "we had somebody who was trying to start a company, but it was just one person and we needed a little more coverage, as far as,..probably a little more expertise as well." Participant A2005 noted that "I think what's worked the best is just allowing [current IT provider] to come in and make suggestions and preparations, and so forth, and allowing them to dictate what type of services that we need."

Table 3

Decision-Making Path

	Number of participants
Downtime costs revenue	8
Recommendations from IT provider	7
Hourly service was not reliable	3

Interview Question 4

Interview Question 4 was as follows What worked well in implementing your IT services? The goal was to gain insight on successes in IT outsourcing implementations. The top three responses are shown in Table 4 and correlate to the themes outsourcing to experts and the need for reliable service. Participant A2006 stated that "getting on a system where we can message directly from our computer to our IT department was a big help. Because now every…it made it more efficient." Participant A2008 added that "all the employees know they have access to anyone's computer, and they can email them directly, there are easy ways to connect to them, so I don't have to be the middleman." Participant A2007 replied

> You know we have someone with that expertise when we have questions or issues that we can contact. It allows us to focus on our day to day business and make sure that everything is running in a positive manner.

Participant A2004 said "they respond extremely quickly or are able to troubleshoot quickly. It's not a burden. It's well integrated. It's easy. And it allows us to keep moving."

Table 4

Outsourcing IT Successes

	Number of participants
Online ticketing and remote support	7
Expertise of IT provider	7
Responsiveness of IT provider	4

Interview Question 5

Interview Question 5 was as follows What challenges have you faced with your IT services? The goal was to gain insight on challenges which may have come from outsourcing IT functions. The top three responses are shown in Table 5 and correlate to the themes of the need for stability and the need for reliable service. Participant A2007 replied that "getting service in a timely manner. Just repeat…you know the same issues not being resolved. Mainly those were the two issues." Participant A2011 commented that "in the past we've used more of the part-time hourly people and yes, we've had challenges with their availability and their timeliness." Participant A2004 shared the following

> We haven't faced any really with our current one, but I know before the issues that I faced is technicians not being equipped or skilled and/or the company not looking strategically at our IT needs or kind of taking a band-aid-fix approach which causes problems in a couple of months or later down the line that needs to be fixed because they're not taking a large scale view of what's going on and what we might need as a company and as a growing company.

Participant A2005 stated that "we have not, in fact. They have been extraordinarily great. They've taken care of every challenge that we've faced any time throughout the day or night. So, it's been a really good service for us." Participant A2009 said that "honestly, I haven't had challenges. They have been very responsive to our needs. They will listen to…I'm probably the least technology savvy person on our team and even though I run the company."

Table 5

Outsourcing IT Challenges

	Number of participants
Constant downtime with past hourly service	7
No challenges with current IT provider	6
Had challenges with availability and timeliness with hourly service provider	6

Interview Question 6

Interview Question 6 was as follows How did you overcome these challenges regarding IT services? The goal was to gain measurable insight on solutions the participants may have implemented to outsource their IT functions. The top three responses are shown in Table 6 and correlate to the themes of the need for reliable service and the need for stability. Participant A2002 replied

> Meetings with them. And basically, just saying okay, I know you want us to replace, these four computers, let's say for example. Let's put a timeframe in place. Or I'll say, "realistically this computer is working perfectly fine. Why are you telling me it needs to be updated?" So good communication.

Participant A2008 said that "we have a yearly review with the ownership of the IT firm and those are just things I bring up to them. And they understood and they tried to correct it." Participant A2010 added that "we've done a better job of communicating back and forth with our IT company." Participant A2004 replied

> Well, after trying to work with the previous one on several occasions, we resided to the fact that they were not capable to deliver the services that we need or had the resources so that's when I went with a different provider and went through the process of selection that I mentioned to you. And it's worked out really well at this point.

Table 6

Overcoming Challenges

	Number of participants
Communications and meetings with IT company	8
No challenges with current IT provider	6
Found a new IT provider	4

Interview Question 7

Interview Question 7 was as follows What strategies do you use to secure that your IT services (hourly or flat fee option) are financially efficacious? The goal was to gain insight on the financial influence on the decision-making process for an outsourced IT solution by the participant. The top three responses are shown in Table 7 and correlate to the themes finding services that are cost effective and the need for stability. Participant A2009 replied that "I find that hourly's are higher per task. The level of expertise we're getting on a flat-fee, I cannot hire a person to do that same level of work for what I pay for our flat-fee." Participant A2010 stated

> Annually I do a check. What am I paying first? What's available on the market? And while I'm paying the medium, I'm not paying the least expensive, I'm not

> paying the most, it comes down to the fact that the customer service aspect of it, and their thoroughness, and they've saved me money, is what primarily I shoot for.

Participant A2011 added that "we've been with our current provider for a while and once a year we sit down with them to make sure that we're getting the biggest benefit for what we're paying." Participant A2002 noted the following

> So, our bill is pretty complicated. So, in all honesty I should check it more to really be sure that it's right. I just kind of have to trust that they're doing a good job and then every now and again I'll spot check it and just say, "what is this license for?" Just the other day I reached out to say, "hey, something is wrong with this [software] bill. I don't know why we're getting charged this much." They hadn't remembered to pull some of our ex-employees off.

Participant A2008 explained

> So, with an hourly fee, you reach out to them when there is a problem. I think the flat-fee allows them [IT provider] to be more proactive and monitoring things and hopefully, ideally catching things before there is a problem.

Table 7

Financial Efficacy of Outsourced IT Services

	Number of participants
Flat-fee is more financially efficacious than hourly service	10
Annual reviews with IT provider	10
Being able to budget for a known cost monthly with flat-fee IT services	4

Interview Question 8

Interview Question 8 was as follows What else can you tell me about the strategies you use to implement effective IT solutions for your business sustainability? The goal was to gain insight the significance outsourced IT solutions had on small business sustainability. The top three responses are shown in Table 8 and correlate to the themes finding services that are cost effective and the need for reliable service. Participant A2003 replied "[Outsourced IT services] is a worthwhile cause for our office. We were pretty stable and not having the issues that we have." Participant A2007 replied when asked if an IT solution helped with business sustainability "Definitely." Participant A2010 answered "We would be lost because our lives are on that server and on our individual laptops too, to maintain contacts with our clients and our communications with our clients." Participant A2004 stated

> IT should be the infrastructure, if you will, that supports the business being able to operate. So, it helps with efficiencies across the board. Efficiency in communication; efficiencies of capturing processes; steam-lining documents and information, so that we're not operating just paper based systems. And it also allows us to support our security features. So, our IT company supports our cameras; our video cameras across our facility being backed up. So, it supports several things and allows for ease in security and efficiency, is what it does.

From participant A2006 "To add to that, one of the things that our IT service does that's helpful, that we'll go sit down with them at least once a year to do kind of an annual

review of all the systems that we're using, anything new that we've adopted, anything new that's come out that we haven't adopted that we could adopt, any new equipment they're recommending." Participant A2008 added "We also use them [IT provider] as a specialist. They know what the upcoming technology is and if it would benefit our company or not." Participant A2005 shared "Well, after learning and dealing with individuals on an hourly basis, I think that once learning about the flat-fee outsourced service and going with [current IT provider], we've learned yet again, it's been more effective, more efficient. They've been available. It's just a more sustainable way of doing IT business, really, for us."

Table 8

Strategies for Business Sustainability

	Number of participants
Annual reviews with IT provider	10
Flat-fee service adds to business sustainability	7
Business is IT dependent	5

Data Triangulation

To triangulate the date I collected, I used the service agreements each participant has with their outsourced IT provider. From the service agreements I was able to code and map the data back to the interview responses. All participants have service agreements with their outsourced IT providers which include a monthly flat-fee amount, annual security risk assessment, centralized services and tools, proactive support and maintenance, unlimited reactive support, and network administration. All agreements

excluded after-hour support, hardware, software, and projects. For 9 of the 10 participants, the agreement was in duration of one year. One of the participants had a two year agreement. The triangulated codes are shown in Table 9.

Table 9

Service Agreements

	Number of participants
Exclusions After-Hour Support, Hardware, Software, and Projects	10
Monthly Flat-Fee	10
1 Year Term	9
2 Year Term	1
Annual Security Risk Assessment	10
Centralized Services and Tools	10
Proactive Support and Maintenance	10
Unlimited Reactive Support	10
Network Administration	10

Findings Related to the Literature

According to the reviewed literature, the U.S. SBA sets the rules and standards for small businesses and a company must have fewer than 500 employees to be recognized as a small business (SBA, 2017c). All of the participants in the study own and operate businesses which fall within the guidelines of the SBA to be called a small business. The literature revealed, more than half of small businesses fail within the first 5 years of startup (SBA, 2018). All of the participants have been in business for more than 5 years, deeming their business a success. From the literature, small businesses are not only a driver for economic growth and innovation; they also drive social growth and

sustainability (Karadag, 2015). Technology is a crucial factor in sustaining businesses. The literature also presented that business owners and leaders who use technology effectively experience a significant amount of growth within their companies (Taneja et al., 2016). The outcome of this study confirmed the participants are all owners and leaders of successful businesses who use technology for sustainability and drive the economy.

The findings of this study indicate that technology and outsourcing technology have added to business sustainability and growth for all of the participants. Participant A2004 noted

> IT should be the infrastructure, if you will, that supports the business being able to operate. So, it helps with efficiencies across the board. Efficiency in communication; efficiencies of capturing processes; steam-lining documents and information, so that we're not operating just paper based systems. And it also allows us to support our security features. So, our IT company supports our cameras; our video cameras across our facility being backed up. So, it supports several things and allows for ease in security and efficiency, is what it does.

Strategic IT resources are an essential asset of businesses (Andrade et al., 2016). Creating market share and maintaining advancement in technology requires a significant investment in IT services. Participant A2002 shared

> I worked in another CPA who was hourly with their IT company. And we had so much down time. And I worked there for 15 years. And I always swore if I ever

> opened my own business, I would never not make IT a significant portion of my budget.

And

> I think I'm probably semi-unusual because most people don't want to put a ton of money into IT, they just hope it all works. And it's like, you have to put the money in to get out what is….you're getting out of it what you pay for.

All participants agreed that technology added to their business sustainability and was a vital portion of their business. Most participants did not invest financially as much in technology as other driving factors within their company.

According to the literature, outsourcing is the common term used for a third-party contracted vendor a business would hire to do day-to-day functions within the company for a specific duration and fee (Mohr et al., 2011). Managed IT services is outsourcing IT support provided by consultants to third-party companies. From the literature, these consultants have the expertise required in their industry to provide the needed support to businesses (Plunkett, 2017). Accordingly, all participants in this study outsourced their IT services to a third party provider of managed IT services. The findings of the study showed that the participants all used monthly flat-fee outsourced services. Most of the participants used an hourly service in the past and did not find that service financially efficacious or efficient for their business.

The literature review included information on financial efficacy through MAS. Before 2010, nonfinancial records and tangible assets were kept with accounting records; however, advancement in technology has allowed for these records to be combined in

MAS, creating superior financial efficacy (Warren et al., 2015). MAS has allowed over 98% of financial data to be digitized (Warren et al., 2015). The findings of this study did not correlate with the financial systems each participant used and how they would add to financial efficacy.

Managing change was also discussed in the literature review with Altamony et al. (2016) positing that change management is a critical factor in the success of significant technology implementations such as enterprise resource planning (ERP) solutions. However, the outcome of the study did not find a correlation to change management.

Findings Related to the Conceptual Framework

The conceptual framework of this study was the rational decision-making model. Rational decision-making is a process in which each step follows a logical order from the step before (Ivey, 2015). The purpose of rational decision-making is to come to the best optimal solution based on a clearly defined and orderly path (Treur & Umair, 2015). The selection of managed IT services by the small business owner or leader comes with a rational choice which satisfies the objective of the IT needs of the company.

The participants were owners or leaders of small businesses within the Houston, Texas metro area, who had been in business for at least 5 years and outsourced their IT services. The responses from the participants showed their rational decision-making in selecting outsourced IT services which fit their needs. Participant A2006 shared

> What we did was, we actually interviewed a couple of different companies. And that was kind of like how I learned about the different fee structures that were out there. We let them come in and evaluate the system that we had and basically

> said, “tell us what you would recommend we do if we hire you?” And they identified what problems we had and what they anticipate the problems were.

Participant A2009 commented

> We did interview several [IT companies]. One part of it, it has to be people that will listen and take time to work with us on our service. And I feel like the one we have chosen; they don’t treat you like you’re stupid because you don’t speak IT and they’re willing to help you with even the most benign questions that you may have.

Both are examples of clear rational decision-making steps in their selection of outsourced IT services.

Findings Related to Effective Business Practice

The business practice focus of this study was the need of technology for sustainability of small businesses. Many small businesses have realized the criticality of having functioning technology for sustainability and staying competitive within their market share. However, many of these small businesses do not have the financial overhead to retain an IT specialist on staff and have opted to outsource their IT needs (Dhar, 2012). Outsourcing IT services has become a sustainability factor for the participants of this study. Participant A2008 stated “The sustainability of our company is, we have to be at the top of our game we have to have the IT services and program items to help us do our job.”

All participants outsource their IT needs to a third party provider under managed services agreements. Managed services are a proactive solution because the small

business has a contractual agreement with the IT consulting firm as to what the monthly charge is for their IT services and what coverage falls under this agreement (Mankasingh & Ramsoomair, 2017). Participant A2009 shared

> So, I chose a flat-fee service because I want pretty much to have unlimited. As business owners you tend to be very cost conscious, of course. And I knew that if it was an hourly, I would be less inclined to call about things that I really needed help on but wouldn't want to spend the money on. And so, it just made sense to go with a more comprehensive program that really offered me pretty much unlimited questions. It really has helped us to have a more quality IT program in our office.

Many business owners fail at the user acceptance of technology because they lack the realization of how important their IT health is to their business success (Venkatesh & Davis, 1996). The participants of this study have accepted the advancements of technology and the importance of it within their business practice. The results of this study may aid other business owners in gaining knowledge of the usefulness of outsourced IT services for their business sustainability and success within their community.

Applications to Professional Practice

The U.S. economy heavily depends on the contribution of small businesses. There are nearly 27 million small businesses in the United States, and they generate about 50% of its GDP (SBA, 2018). Keeping small businesses viable is a key component of positive social change in the United States (Colombo et al., 2012). With technology

advancements, the management of IT in small businesses can lead to the success or failure of a business. This qualitative multicase study involved interviewing 10 successful business owners or leaders in the Houston, Texas metro area, who outsourced their IT functions and added business sustainability in their community.

This study focused on providing a scholarly resource for business owners to educate themselves on the IT dependency for their business and the methods of outsourcing leading to success in the community. Positive social change accomplishment comes with every small business which survives past 3 years of startup because of job creation and retention and flourishing communities.

The findings from this study could potentially impact small businesses. The data uncovered in this study are built upon existing literature and drives small business success. The key findings in this study were the need for reliable service and finding services which are cost effective of outsourced IT solutions. The participants in this study were small business owners or leaders which sought reliable and cost effective IT solutions for their businesses. Many small business owners do not have the financial resources to employ IT specialists in-house and therefore outsource this service to maintain their technical functionality (Dhar, 2012).

The participants of this study fall within the category of not having the financial overhead to have an IT specialist in-house. Many of the participants used hourly outsourced IT services in the past and have found this solution to not be cost effective or reliable at times. The best solution the participants of this study found was outsourced managed IT services which is based on a monthly flat fee. For similar small businesses,

making technology a priority and outsourcing IT to a third party provider will lead to increased profitability, growth, and sustainability. IT plays a critical component in small business sustainability (Wang & Wang, 2015).

The current study adds to the knowledge of previous studies by revealing strategies of small businesses who successfully outsourced their IT solutions. The literature review identified research which focused on small business success and outsourcing of IT solutions (Lacity & Willcocks, 2014; Leković & Marić, 2015; McNurlin et al., 2009; Omri et al., 2015; Oz & Yelkenci, 2015; Sen & Shiel, 2006). The findings from this study helps fill a gap in knowledge regarding the strategies small business owners and leaders implement for an effective outsourced IT solution to help business sustainability.

The findings from this study have the potential to be useful to other small business owners seeking business sustainability. The participants in this study are all owners or leaders of small businesses who have been in business for more than 5 years and successfully and effectively outsourced their IT solution. These owners and leaders recommend small businesses seeking to outsource their IT solution to research (a) finding a reliable service, (b) procuring services that are cost effective, (c) outsourcing to experts, and (d) maintaining stability. Small businesses in the United States have been stimulating the economy for centuries (Anastasia, 2015). IT plays a critical component in small business sustainability (Wang & Wang, 2015). Small businesses that are seeking to increase their success and sustainability by outsourcing their IT solutions should follow

the recommendations of the study participants and the core themes developed in this study.

Implications for Social Change

The sustainability of small businesses is crucial to the U.S. economy as there are nearly 27 million small businesses in the United States, and they generate about 50% of its GDP (SBA, 2018). More than half of small businesses fail within the first 5 years of startup (SBA, 2018). Small business failures affect the local, state, and national economies. IT plays a critical component in small business sustainability (Wang & Wang, 2015).

The information and knowledge gained from this study on the selection of effectively outsourced IT solutions for successful small business sustainability is applicable to current and newly established small businesses. The information gained from this study may guide small business owners and leaders in the decision-making process in outsourcing their IT solutions to a third-party provider. Having a reliable and cost effective IT solution reduces the risk of business failure and increases the opportunity for success. This study may help change the way small business owners manage their IT functions and consideration for selecting hourly versus flat-fee monthly managed services. Leaders who build partnerships with IT companies, increase the chances of their businesses surviving. Successful small businesses increase jobs, tax revenue, and sales revenue within the community and increases economic stimulation locally, state, and federal.

The results of the study may influence positive social change. Small business leaders could gain new insights into the reasons for the unsuccessful implementation of managed IT services and achieve financial leverage toward the success of their business. Leaders who choose effective IT services can improve their responses to changing customer needs.

Recommendations for Action

The information in this study may contribute to the survival of small businesses. Small business owners and leaders seeking business sustainability must consider the findings of this study showing that monthly outsourced flat-fee IT services have been an effective solution for the successful businesses of the participants. New business owners may integrate the findings from this study in their business planning tools. The recommendations for this study align with the reviewed literature with Lussier and Halabi's (2010) suggestion of small business owners and professional advisors to take a subjective assessment of the business needs relative to the strengths and weaknesses for each factor within the company. Dissemination of the study findings would include seeking publication through the following journals (a) *Journal of Small Business Management*, (b) *Journal of Small Business Strategy*, (c) *Journal of Small Business & Entrepreneurship*, and (d) *Journal of Small Business and Enterprise Development*.

Recommendations for Further Research

The goal of this study was to determine the strategies small business owners implement for an effective outsourced IT solution for business sustainability. Many studies (Byrne & Shepherd, 2015; D. A. Williams, 2014; Hyder & Lussier, 2016) have

been conducted on small business failures and success factors. Specific studies addressing the selection strategies of outsourced IT solutions for business sustainability should be continuously expanded. The findings of this study determined participants favored monthly flat-fee outsourced IT solutions. Further studies could include participants who favored hourly outsourced IT solution in addition to the monthly flat-fee solution with a comparison and contrast outcome of the findings. Additionally, this study was conducted amidst a worldwide pandemic. I recommend conducting future research during a time of worldwide economic stability without a pandemic crisis. The geographic area for this study was the Houston, Texas metro area, which is representative of large cities throughout the United States. Future research could be conducted in other geographic regions of the U.S. to obtain additional rich data.

Reflections

During this journey, I discovered that research is fraught with challenges and obstacles, and perseverance and critical thinking are essential to complete a doctoral journey. I did not anticipate having to collect data for my research during a global pandemic. Most businesses were shut down or transitioned to remote work while I was attempting to schedule interviews. Although interested in the outcome of the study, business owners were reluctant to agree to interviews as they were struggling to keep their business going. Some businesses had to close permanently as a result of the pandemic orders by the local government. The university and IRB eventually mandated that no face-to-face interviews were to take place and all interview data collection should

be done via phone and video conference. Once businesses were able to function at their new norms, I was able to schedule phone interviews with all of the participants.

My personal bias about outsourced IT solutions was limited by the data collection process. I complied with ethical research guidelines throughout the process. I did not seek out participants I had personally known in prior business functions. All participants were an unbiased source of information. The participants responded to all questions. I did my best to not introduce bias into the data collection or analysis process. The participants willingly participated in the interview process and expressed an interest in receiving a copy of the study outcome.

Conclusion

Small business failures effect the local and U.S. economy negatively. Effective management of the IT solution of a small business is one factor which adds to business sustainability. Many small business owners do not have the financial capacity to have an IT professional on staff and choose to outsource their IT services to a third-party provider. Selecting the optimal outsourced IT solution adds to the stability and reliability of the company, adding to business success and sustainability. The findings of this study show that successful business owners in the Houston, Texas metro area have chosen a flat-fee monthly outsourced IT service as the most optimal solution for their business. Small business success provides social change in local, state, and federal communities by creating jobs and an influx of revenue to drive the economy and create stability for the U.S.

References

Aarseth, W., Ahola, T., Aaltonen, K., Økland, A., & Andersen, B. (2017). Project sustainability strategies: A systematic literature review. *International Journal of Project Management, 35*, 1071-1083. https://doi.org/10.1016/j.ijproman.2016.11.006

Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckman (Eds.), *Action-control: From cognition to behavior* (pp. 11-39). Heidelberg, Germany: Springer. https://doi.org/10.1007/978-3-642-69746-3_2

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*, 179-211. https://doi.org/10.1016/0749-5978(91)90020-T

Ajzen, I. (2002). Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. *Journal of Applied Social Psychology, 32*, 665-693. https://doi.org/10.1111/j.1559-1816.2002.tb00236.x

Albuquerque, A. F., Escrivão Filho, E., Nagano, M. S., & Junior, L. A. P. (2016). A change in the importance of mortality factors throughout the life cycle stages of small businesses. *Journal of Global Entrepreneurship Research*, *6*, 1-16. https://doi.org/10.1186/s40497-016-0051-1

Alencar, A. J., Fernandes, R., Assis Schmitz, E., & Correa, A. (2013). Maximizing the appropriation of the intangible benefits yielded by IT investments in the public sector. *Journal of Software, 8,* 1537-1549. https://doi.org/10.4304/jsw.8.7.1537-1549

Alexandrova, M. (2015). Risk factors in IT outsourcing partnerships: Vendors' perspective. *Global Business Review, 16*, 747-759. https://doi.org/10.1177/0972150915591427

Alford, P., & Page, S. J. (2015). Marketing technology for adoption by small business. *Service Industries Journal, 35*, 655-669. https://doi.org/10.1080/02642069.2015.1062884

Ali, A., & Yusof, H. (2011). Quality in qualitative studies: The case of validity, reliability and generalizability. *Social and Environmental Accountability Journal*, *5*, 25-64. https://doi.org/10.22164/isea.v5i1.59

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

Altamony, H., Tarhini, A., Al-Salti, Z., Gharaibeh, A. A. H., & Elyas, T. (2016). The relationship between change management strategy and successful enterprise resource planning (ERP) implementation: A theoretical perspective. *International Journal of Business Management and Economic Research, 7*, 690-703. Retrieved from http://www.ijbmer.com/

Amolo, J., & Migiro, S. (2017). Small business and entrepreneurial venture in an economic conundrum. *Problems and Perspectives in Management, 15*, 271-279. https://doi.org/10.21511/ppm.15(1-1).2017.14

Anastasia, C. (2015). Exploring definitions of small business and why it is so difficult. *Journal of Management Policy and Practice, 16*, 88-99. Retrieved from http://www.na-businesspress.com/JMPP/AnastasiaC_Web16_4_.pdf

Andrade, P. R. M., Albuquerque, A. B., Teófilo, W. D., & Silva, F. A. (2016). Change management: Implementation and benefits of the change control in the information technology environment. *International Journal of Advanced Information Technology (IJAIT), 6*(1), 23-33. https://doi.org/10.5121/ijait.2016.6102

Androniceanu, A., & Ristea, B. (2014). Decision making process in the decentralized educational system. *Procedia-Lumen Social and Behavioral Sciences, 149,* 37-42. https://doi.org/10.1016/j.sbspro.2014.08.175

Ayandibu, A. O., & Houghton, J. (2017). The role of small and medium scale enterprise in local economic development (LED). *Journal of Business and Retail Management Research, 11*(2), 133-139. Retrieved from http://www.jbrmr.com/details&cid=262

Bahli, B., & Rivard, S. (2017). The information technology outsourcing risk: A transaction cost and agency theory-based perspective. *Journal of Information Technology, 18,* 211-221. https://doi.org/10.1080/0268396032000130214

Barnes, L., & Westrenius, A. (2015). Managing complex business relationships: Small business and stakeholder salience. *Journal of Developing Areas, 49,* 481-488. https://doi.org/10.1353/jda.2015.0104

Barnett, M. L., Darnall, N., & Husted, B. W. (2015). Sustainability strategy in constrained economic times. *Long Range Planning, 48,* 63-68. https://doi.org/10.1016/j.lrp.2014.07.001

Barney, J. B., Wright, M., & Ketchen, D. J. J. (2001). The resource-based view of the

firm: Ten years after 1991. *Journal of Management, 27*, 625-641. https://doi.org/10.1177/014920630102700601

Baškarada, S., Watson, J., & Cromarty, J. (2016). Leadership and organizational ambidexterity. *Journal of Management Development*, *35*, 778-788. https://doi.org/10.1108/JMD-01-2016-0004

Bekhet, A. K., & Zauszniewski, J. B. A. (2012). Methodological triangulation: An approach to understanding data. *Nurse Researcher, 20*(2), 40-43. https://doi.org/10.7748/nr2012.11.20.2.40.c9442

Berman, B. (2016). Planning and implementing effective mobile marketing programs. *Business Horizons, 59*, 431-439. https://doi.org/10.1016/j.bushor.2016.03.006

Berson, Y., Da'as, R., & Waldman, D. A. (2015). How do leaders and their teams bring about organizational learning and outcomes? *Personnel Psychology, 68*, 79-108. https://doi.org/10.1177/2041386615583736

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. https://doi.org/10.1177/1049732316654870

Bitwayiki, C. (2019). *Exploring information technology return on investment reports for planning, budgeting, and implementation*. (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (UMI No. 13880974).

Blaskovich, J., & Mintchik, N. (2011). Information Technology Outsourcing: A taxonomy of prior studies and directions for future research. *Journal of Information Systems, 25*(1), 1-36. https://doi.org/10.2308/jis.2011.25.1.1

Brighouse, H., Ladd, H. F., Loeb, S., & Swift, A. (2016). Educational goods and values: A framework for decision makers. *Theory and Research in Education, 14*, 3-25. https://doi.org/10. 1177/1477878515620887

Bruce, D., Xiaowen, L., & Murray, M. N. (2015). State tax policy and entrepreneurship. *National Tax Journal, 68*, 803-837. https://doi.org/10.17310/ntj.2015.3s.04

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

Bryson, J., Edwards, L. H., & Van Slyke, D. (2017). Getting strategic about strategic planning research, *Public Management Review, 20*, 317-339. https://doi.org/10.1080/14719037.2017.1285111

Buculescu, M. (2013). Harmonization process in defining small and medium-sized enterprises: Arguments for a quantitative definition versus a qualitative one. *Theoretical and Applied Economics, 20*, 103-114. Retrieved from http://www.ectap.ro

Burga, R., & Rezania, D. (2016). Stakeholder theory in social entrepreneurship: A descriptive case study. *Journal of Global Entrepreneurship Research*, *6*, 151-158. https://doi.org/10.1186/s40497-016-0049-8

Byrne, O., & Shepherd, D. A. (2015). Different strokes for different folks: Entrepreneurial narratives of emotion, cognition, and making sense of business failure. *Entrepreneurship Theory and Practice, 39*, 375-405. https://doi.org/10.1111/etap.12046

Campbell, S., & Scott, J. (2011). Process of conducting qualitative research. *Nurse*

Researcher, 18(2), 4-6. https://doi.org/10.7748/nr2011.01.18.2.4.c8279

Cegarra-Navarro, J., Sánchez-Vidal, M., & Cegarra-Leiva, D. (2016). Linking unlearning with work-life balance: An initial empirical investigation into SMEs. *Journal of Small Business Management, 54,* 373-391. https://doi.org/10.1111/jsbm.12151

Ceran, M. B., Gungor, S., & Konya, S. (2016). The role of accounting information systems in preventing the financial crises experienced in businesses. *Economics, Management, and Financial Markets, 11*(1), 294-302. Retrieved from http://www.addletonacademicpublishers.com/economics-management-andfinancial-markets

Ceric, A. (2015). Bringing together evaluation and management of ICT value: A systems theory approach. *Electronic Journal of Information Systems Evaluation, 18,* 19-35. Retrieved from http://www.ejise.com/

Chandler, D. (2015). *Corporate social responsibility: a strategic perspective*. Business Expert Press. Retrieved from https://search-ebscohost-com.ezp.waldenulibrary.org/login.aspx?direct=true&db=cat06423a&AN=wal.EBC4713501&site=eds-live&scope=site

Chaysin, P., Daengdej, J., & Tangjitprom, N. (2016). Survey on available methods to evaluate IT investments. *Electronic Journal Information Systems Evaluation, 19,* 71-82. Retrieved from https://search-ebscohost-com.ezp.waldenulibrary.org/login.aspx?direct=true&db=bth&AN=115960737&site=eds-live&scope=site

Chhabra, K. S., & Pattanayak, J. K. (2014). Financial accounting practices among small

enterprises: Issues and challenges. *IUP Journal of Accounting Research & Audit Practices, 13,* 3755. Retrieved from http://www.iupindia.in/AccountingResearch_AuditPractices.asp

Chou, D. C., & Chou, A. Y. (2011). Innovation outsourcing: Risks and quality issues. *Computer Standards & Interfaces, 33,* 350-356. https://doi.org/10.1016/j.csi.2010.10.001

Christensen, M. K., & Lund, O. (2014). Doctoral education in a successful ecological niche: A qualitative exploratory case study of the relationship between the microclimate and doctoral students' learning to become a researcher. *International Journal of Higher Education, 3*(3), 103-113. https://doi.org/10.5430/ijhe.v3n3p103

City of Houston. (2019). *Houston facts and figures.* Retrieved from http://www.houstontx.gov/abouthouston/houstonfacts.html

Coenen, M., & Kok, R. (2014). Workplace flexibility and new product development performance: The role of telework and flexible work schedules. *European Management Journal, 32,* 564-576. https://doi.org/10.1016/j.emj.2013.12.003

Colombo, M. G., Laursen, K., Magnusson, M., & Rossi-Lamastra, C. (2012). Introduction: Small business and networked innovation: Organizational and managerial challenges. *Journal of Small Business Management, 50,* 181-190. https://doi.org/10.1111/j.1540-627X.2012.00349.x

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

https://doi.org/10.1188/14.ONF.89-91

Corrigan, C., Desnick, L., Marshall, S., Bentov, N., & Rosenblatt, R. (2011). Primary care & health services section: What can we learn from first-year medical students' perceptions of pain in the primary care setting? *Pain Medicine, 12,* 1216-1222. https://doi.org/10.1111/j.1526-4637.2011.01150.x

Cronin-Gilmore, J. (2012). Exploring marketing strategies in small businesses. *Journal of Marketing Development and Competitiveness,* 6, 96-107. Retrieved from http://www.na-businesspress.com

Dai, N., Ivanov, V., & Cole, R. A. (2017). Entrepreneurial optimism, credit availability, and cost of financing: Evidence from U.S. small businesses. *Journal of Corporate Finance, 44,* 289-307. https://doi.org/10.1016/j.jcorpfin.2017.04.005

Dal Bianco, S., Amini, C., & Signorelli, M. (2017). The impact of the global financial crisis and the role of external and internal factors in emerging economies. *Emerging Markets Finance & Trade, 53,* 229-249. https://doi.org/10.1080/1540496X.2016.1216840

Davis, F. D. (1986). *A technology acceptance model for empirical testing new end-user information systems: Theory and results.* Doctoral Dissertation. Boston, MA: Sloan School of Management. Massachusetts Institute of Technology.

Davis, F. D. (1993). User acceptance of information technology: System characteristics, user perceptions and behavioral impacts. *International Journal of Man-Machine Studies, 38,* 475-487. https://doi.org/10.1006/imms.1993.1022

Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer

technology: A comparison of two theoretical models. *Management Science, 35,* 982-1003. https://doi.org/10.2307/2632151

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

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

Denzin, N. K., & Lincoln, Y. S. (2011). *The Sage handbook of qualitative research* (4th ed.). Thousand Oaks, CA: Sage.

Dewey, J. (1978). J. A. Boydston (ed.), *The Middle Works of John Dewey, Volume 6: Journal Articles, Book Reviews, Miscellany in the 1910-1911 Period, and How We Think,* 177-356. Carbondale, IL: Southern Illinois University Press.

Dhar, S. (2012). From outsourcing to cloud computing: Evolution of IT services. *Management Research Review, 35,* 664-675. https://doi.org/10.1108/01409171211247677

Dibley, L. (2011). Analyzing narrative data using McCormack's lenses. *Nurse Researcher, 18*(3), 13-19. https://doi.org/10.7748/nr2011.04.18.3.13.c8458

Dickey, M. D. (2011). Murder on Grimm Isle: The impact of game narrative design in an educational game-based learning environment. *British Journal of Educational Technology, 42,* 456-469. https://doi.org/10.1111/j.1467-8535.2009.01032.x

Doherty, D. (2011). Teaching experimental methods: A framework for hands-on

modules. *Journal of Political Science Education, 7*, 163-172. https://doi.org/10.1080/15512169.2011.564909

Dror, S. (2017). Linking operation plans to business objectives using QFD. *Total Quality Management & Business Excellence, 30*, 135-150. https://doi.org/10.1080/14783363.2017.1300053

Englander, M. (2012). The interview: Data collection in descriptive phenomenological human scientific research. *Journal of Phenomenological Psychology, 43*, 13-35. https://doi.org/10.1163/156916212X632943

Fade, S. A., & Swift, J. A. (2011). Qualitative research in nutrition and dietetics: Data analysis issues. *Journal of Human Nutrition & Dietetics, 24*, 106-114. https://doi.org/10.1111/j.1365-277X.2010.01118.x

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intent, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.

Freel, M., & Robson, P. J. (2017). Appropriation strategies and open innovation in SMEs. *International Small Business Journal: Researching Entrepreneurship*, *35*, 578-596. https://doi.org/10.1177/0266242616654957

Frost, N. A., Holt, A., Shinebourne, P., Esin, C., Nolas, S., Mehdizadeh, L., & Brooks-Gordon, B. (2011). Collective findings, individual interpretations: An illustration of a pluralistic approach to qualitative data analysis. *Qualitative Research in Psychology, 8*, 93-113. https://doi.org/10.1080/14780887.2010.500351

Gelo, O., Braakmann, D., & Benetka, G. (2009). Quantitative and qualitative research:

Beyond the debate. *Integrative Psychological & Behavioral Science, 43,* 406-407. https://doi.org/10.1007/s12124-009-9107-x

Gentles, S. J., Charles, C., Ploeg, J., & McKibbon, K. A. (2015). Sampling in qualitative research: Insights from an overview of the methods literature. *The Qualitative Report, 20,* 1772-1789. Retrieved from http://search.proquest.com.ezp.waldenulibrary.org/docview/1750038029?accountid=14872

Gholston, K., Kuofie, M., & Hakim, A. C. (2016). Social media for marketing by small businesses. *Journal of Marketing and Management, 7,* 24-39. Retrieved from http://gsmi-usa.com

Glava, C. C. & Glava, A. E. (2015). "Moment of truth" in educational marketing. Factors that contribute to the decision making on the educational market in Romania. *Procedia-Social and Behavioral Sciences, 180,*170-175. https://doi.org/10.1016/j.sbspro.2015.02.10

Gonzalez, M. M. (2016). The coding manual for qualitative research: A review. *The Qualitative Report, 21,* 1546-1548. Retrieved from http://nsuworks.nova.edu/tqr/vol21/iss8/15

Gorla, N., & Somers, T. M. (2014). The impact of IT outsourcing on information systems success. *Information & Management, 51,* 320-335. https://doi.org/10.1016/j.im.2013.12.002

Hancock, D. R., & Algozzine, B. (2015). *Doing case study research: A practical guide for beginning researchers.* New York, NY: Teachers College Press.

Hätönen, J., & Eriksson, T. (2009). 30+ years of research and practice of outsourcing – exploring the past and anticipating the future. *Journal of International Management, 15*, 142-155. https://doi.org/10.1016/j.intman.2008.07.002

Hayes, J. P., Chawla, S. K., & Kathawala, Y. (2015). A comparative study of problems encountered in the development of small businesses in the U.S. and Mexico. *Journal of Developing Areas, 49,* 395-406. https://doi.org/10.1353/jda.2015.0175

Herrmann, J. W. (2017). Rational decision making. *Wiley Stats: Statistic Reference Online 7*, 9-28. https://doi.org/10.1002/9781118445112.stat07928.

Hopkin, P. (2017). *The Institute of Risk Management: Understanding, evaluating, and implementing effective risk management* (4th ed.). New York, NY: Martin P. Hill Consulting

Hussung, T. (2017). *7 steps of the decision making process*. St Paul, MN: Concordia University.

Hyder, S., & Lussier, R. N. (2016). Why businesses succeed or fail: A study on small businesses in Pakistan. *Journal of Entrepreneurship in Emerging Economies, 8*, 82. https://doi.org/10.1108/JEEE-03-2015-0020

Iivari, M. M. (2015). Dynamics of openness in SMEs: A business model and innovation strategy perspective. *Journal of Business Models, 3,* 30-50. Retrieved from http://aauforlag.dk/

Ivey, J. (2015). Demystifying research. How important is a conceptual framework? *Pediatric Nursing, 41,* 145-153 9p. Retrieved from http://www.pediatricnursing.net/issues/15mayjun/

Johnson, C., Faught, S., & Long, J. (2017). Analyzing the needs of rural small businesses and developing economic sustainability programs for their management teams. *International Journal of the Academic Business World*, *11*(1), 23-30. Retrieved from http://jwpress.com/IJABW/IJABW.htm

Johnson, R. D., Lukaszewski, K. M., & Stone, D. L. (2016). The evolution of the field of human resource information systems: Co-evolution of technology and HR processes. *Communications of the Association for Information Systems*, *38*, 533-553. https://doi.org/10.17705/1CAIS.03828

Jones, K., Edwards, M., & While, A. (2011). Nurse prescribing roles in acute care: An evaluative study. *Journal of Advanced Nursing, 67*, 117-126. https://doi.org/10.1111/j.1365-2648.2010.05490.x

Karadag, H. (2015). Financial management challenges in small and medium-sized enterprises: A strategic management approach. *Emerging Markets Journal, 5*(1), 26-40. https://doi.org/10.5195/emaj.2015.67

Karamouzis, F., & Da Rold, C. (2014). Predicts 2014: Business and IT services are facing the end of outsourcing as we know it (Report No. G00259018). *Gartner Group*. Retrieved from http://my.gartner.com/portal/server.pt?open=512&objID=260&mode=2&PageID=3460702&resId=2656215&ref=QuickSearch&sthkw=g00259018

Kekecs, Z., Bowers, J., Johnson, A., Kendrick, C., & Elkins, G. (2016). The Elkins hypnotizability scale: Assessment of reliability and validity. *The International Journal of Clinical and Experimental Hypnosis*, *64*, 285-304.

https://doi.org/10.1080/00207144.2016.1171089

Kisely, S., & Kendall, E. (2011). Critically appraising qualitative research: A guide for clinicians more familiar with quantitative techniques. *Australasian Psychiatry, 19,* 364-367. https://doi.org/10.3109/10398562.2011.562508

Kraja, Y.B., & Osmani, E. (2015). Importance of external and internal environment in creation of competitive advantage to SMEs: Case of SMEs in the Northern region of Albania. *European Scientific Journal, 11*(13), 120-130. https://doi.org/10.19044/esj.2015.v11n13p%25p

Kremer-Asaf, M. (2015). Can a decision-making approach in foreign policy be applied to leaders in education? *Procedia-Social and Behavioral Sciences, 209*, 277-283. https://doi.org/10.1016/j.sbspro.2015.11.233

Kurnia, S., Choudrie, J., Mahbubur, R. M., & Alzougool, B. (2015). E-commerce technology adoption: A Malaysian grocery SME retail sector study. *Journal of Business Research, 68*, 1906-1918. https://doi.org/10.1016/j.jbusres.2014.12.010

Lacity, M. C., Khan, S. A., & Willcocks, L. P. (2009). A review of the IT outsourcing literature: Insights for practice. *The Journal of Strategic Information Systems, 18*, 130-146. https://doi.org/10.1016/j.jsis.2009.06.002

Lacity, M., & Willcocks, L. (2014). Business process outsourcing and dynamic innovation. *Strategic Outsourcing: An International Journal, 7*, 66-92. https://doi.org/10.1108/SO-11-2013-0023

Laine, T., Korhonen, T., & Martinsuo, M. (2016). Managing program impacts in new product development: An exploratory case study on overcoming uncertainties.

International Journal of Project Management, 34, 717-733. https://doi.org/10.1016/j.ijproman.2016.02.011

Larson-Hall, J., & Plonsky, L. (2015). Reporting and interpreting quantitative research findings: What gets reported and recommendations for the field. *Language Learning, 65,* 127-159. https://doi.org/10.1111/lang.12115

Lee, Y. S. (2018). Government guaranteed small business loans and regional growth. *Journal of Business Venturing, 33,* 70-83. https://doi.org/10.1016/j.jbusvent.2017.11.001

Leech, N. L., & Onwuegbuzie, A. J. (2011). Beyond constant comparison qualitative data analysis: Using NVivo. *School of Psychology Quarterly, 26*, 70-84. https://doi.org/10.1037/a0022711

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

Leković, B., & Marić, S. M. (2015). Measures of small business success/performance–importance, reliability and usability. *Industrija*, *43*(2), 7-26. https://doi.org/10.5937/industrija43-7209

Leslie, A. P. (2014). *Beyond policy analysis-public issue management in turbulent times*. Toronto, Canada: Nelson Education.

Levitas, E. (2013). Knowledge-based view of the firm. *E. H. Kessler (Ed.), Encyclopedia of Management Theory*. Thousand Oaks, CA: Sage.

Lewis, S. (2015). Qualitative inquiry and research design: Choosing among five approaches. *Health Promotion Practice, 16,* 473-475.

https://doi.org/10.1177/1524839915580941

Lifschutz, M. (2018). IT Consulting in the U.S. *IBISWorld Industry Report 54151*. Retrieved from https://clients1-ibisworld-com.ezp.waldenulibrary.org/reports/us/industry/default.aspx?entid=1415

Lo, M. C., Wang, Y. C., Wah, C. R. J., & Ramayah, T. (2016). The critical success factors for organizational performance of SMEs in Malaysia: A partial least squares approach. *Revista Brasileira De Gestão De Negócios, 18*, 370-391. https://doi.org/10.7819/rbgn.v18i61.3058

Lopez, O. L. & Hiebl, M. R. W. (2015). Management accounting in small and medium-sized enterprises: Current knowledge and avenues for further research. *Journal of Management Accounting Research, 27*(1), 81-119. https://doi.org/10.2308/jmar-50915

Luo, S. H., & Lee, G. G. (2015). Applying failure mode and effects analysis for successful knowledge management. *Total Quality Management & Business Excellence, 26*, 62-75. https://doi.org/10.1080/14783363.2012.733263

Lussier, R. N., & Halabi, C. E. (2010). A three-country comparison of business success versus failure prediction model. *Journal of Small Business Management, 48*, 360-377. https://doi.org/10.1111/j.1540-627X.2010.00298.x

Madapusi, A., & Ortiz, D. A. C. (2014). The influence of technical competence factors in ERP systems implementations. *The Journal of Applied Business and Economics, 16*(2), 27-39. Retrieve from http://www.na-businesspress.com/jabeopen.html

Maier, C. T., & Deluliis, D. (2015). Recovering the human in the network: Exploring

communicology as a research methodology in digital business discourse. *Digital Business Discourse*, 208-225. https://doi.org/10.1057/9781137405579_11

Maiga, A. S. (2015). Information technology integration, extent of ABC use, business strategy, and performance. *Journal of Applied Management Accounting Research, 13*(2), 61-82. Retrieved from http://maaw.info/JAMAR.htm

Mankasingh, D., & Ramsoomair, F. (2017). Competitive advantage for a small information technology consulting firm: Study of managerial hiring preferences of business analyst information technology consultants. *I-Manager's Journal on Management, 12*(1), 1-6. Retrieved from https://ezp.waldenulibrary.org/login?url=https://search-proquest-com.ezp.waldenulibrary.org/docview/1939700301?accountid=14872

Maresova, P., Sobeslav, V., & Krejcar, O. (2017). Cost-benefit analysis-evaluation model of cloud computing deployment for use in companies. *Applied Economics, 49*, 521-533. https://doi.org/10.1080/00036846.2016.1200188

Markova, G., Perry, J., & Farmer, S. M. (2011). It's all about the data: Challenges and solutions in the study of nascent entrepreneurs. *Journal of Developmental Entrepreneurship, 16*, 169-198. https://doi.org/10.1142/S1084946711001781

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

Martinez-Martinez, A., Cegarra-Navarro, J. G., Garcia-Perez, A., & Wensley, A. (2019). Knowledge agents as drivers of environmental sustainability and business performance in the hospitality sector. *Tourism Management, 70*, 381-389.

https://doi.org/10.1016/j.tourman.2018.08.030

Massaro, M., Dumay, J., & Guthrie, J. (2016). On the shoulders of giants: undertaking a structured literature review in accounting. *Accounting, Auditing & Accountability Journal, 29*, 767-801. https://doi.org/10.1108/AAAJ-01-2015-1939

McCusker, K., & Gunaydin, S. (2015). Research using qualitative, quantitative or mixed methods and choice based on the research. *Perfusion, 30*, 537-542 6p. https://doi.org/10.1177/0267659114559116

McLellan, J. D. (2014). Management accounting theory and practice: Measuring the gap in United States businesses. *Journal of Accounting, Business & Management, 21*(1), 53-68. Retrieved from http://jabm.stie-mce.ac.id/?page=international

McNurlin, B. C., Sprague, R. H. J., & Bui, T. X. (Eds.). (2009). *Information systems management in practice*. Upper Saddle River, NJ: Prentice Hall.

Miles, K. (2013). *Exploring factors required for small business success in the 21st century*. (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (UMI No. 3560237).

Mintzberg, H., Rainsingham, D., & Theoret, A. (1996). The structure of “unstructured” decision processes. *Administrative Science Quarterly, 21*, 246-275. Retrieved from http://www.sietmanagement.fr/wp-content/uploads/2016/04/Mintzberg.pdf

Mitchell, M. L., & Jolley, J. M. (2012). *Research design explained* (8th ed.). Boston, MA: Wadsworth.

Mohr, J. J., Sengupta, S., & Slater, S. F. (2011). Mapping the outsourcing landscape. *Journal of Business Strategy, 32*(1), 42-50.

https://doi.org/10.1108/02756661111100319

Montalbano, P., Nenci, S., & Pietrobelli, C. (2018). Opening and linking up: Firms, GVCs, and productivity in Latin America. *Small Business Economics, 50*, 917-935. https://doi.org/10.1080/08985626.2015.1038598

Morkes, A. (2017). *Vault Career Guide to Consulting*. Retrieved from https://www.vault.com/vault-guides/vault-guide-to-consulting/9781438173672

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

Muller, U., Asherson, P., Banaschewski, T., Buitelaar, J., Ebstein, R., Eisenberg, J., & Steinhauser, H. (2011). The impact of study design and diagnostics approach in a large multi-center ADHD study: Part 2: Dimensional measure of psychopathology and intelligence. *BMC Psychiatry, 11*, 55-71. https://doi.org/10.1186/1471-244X-11-55

Nagler, J. (2012). Entrepreneurs: The world needs you. *Thunderbird International Business Review, 54*, 3-5. https://doi.org/10.1002/tie.21433

Newington, L., & Metcalfe, A. (2014). Factors influencing recruitment to research: Qualitative study of the experiences and perceptions of research teams. *BMC Medical Research Methodology, 14*, 10. https://doi.org/10.1186/1471-2288-14-10

Nguyen, T. H., Newby, M., & Macaulay, M. J. (2015). Information technology adoption in small business: Confirmation of a proposed framework. *Journal of Small Business Management, 53*, 207-227. https://doi.org/10.1111/jsbm.12058

Noble, H., & Smith, J. (2015). Issues of validity and reliability in qualitative research. *Evidence Based Nursing, 18*, 34-35. https://doi.org/10.1136/eb-2015-102054

Odar, M., Kavcic, S., & Jerman, M. (2015). The role of a management accounting system in the decision-making process: Evidence from a post-transition economy. *Engineering Economics, 26*, 84-92. https://doi.org/10.5755/j01.ee.26.1.4873

Office of the Governor. (2016). *Small businesses and their impact on Texas*. Retrieved from https://gov.texas.gov/uploads/files/business/small_business_study_texas_office_of_governor.pdf

Okabe, K. & Suez-Sales, M. G. (2015). Exploratory research on SMEs' utilization of the statement of cash flows in Japan and Guam. *Journal of International Business Research, 14*(3), 29-40. Retrieved from http://www.alliedacademies.org/international-business-research/

Oleinik, A. (2011). Mixing quantitative and qualitative content analysis: Triangulation at work. *Quality & Quantity, 45*, 859-873. https://doi.org/10.1007/s11135-010-9399-4

Omri, A., Frikha, M. A., & Bouraoui, M. A. (2015). An empirical investigation of factors affecting small business success. *Journal of Management Development, 34*, 1073-1093. https://doi.org/10.1108/jmd-07-2013-0088

Oz, I. O., & Yelkenci, T. (2015). The generalizability of financial distress prediction models: Evidence from Turkey. *Accounting and Management Information Systems, 14*, 685-703. Retrieved from http://econpapers.repec.org/article/amijournl/

Ozertugrul, E. (2015). A comparative analysis heuristic self-search inquiry as self-

knowledge and knowledge of society. *Journal of Humanistic Psychology, 57*, 237-251. https://doi.org/10.1177/0022167815594966

Parsons, J. (2016). Seven characteristics of a good decision. *Cornhusker Economics*, 742. Retrieved from https://agecon.unl.edu/cornhusker-economics/2016/seven-characteristics-good-decision

Pattnaik, M. S., Prusty, M. R., & Dash, M. (2016). Cloud in financial services: Building value across enterprise. *International Journal of Research in IT & Management*, *6*(6), 25-32. Retrieve from https://rspublication.com/ijrm/ijrm_index.htm

Paulus, T. M., & Lester, J. N. (2016). ATLAS.ti for conversation and discourse analysis studies. *International Journal of Social Research Methodology*, *19*, 405-428. https://doi.org/10.1080/13645579.2015.1021949

Pinsky, D. (2015). The sustained snapshot: Incidental ethnographic encounters in qualitative interview studies. *Qualitative Research, 15*, 281-295. https://doi.org/10.1177/1468794112473493

Plunkett Research. (2017). *Consultant Industry Market Research*. Retrieved from https://www.plunkettresearch.com/industries/consulting-market-research

Poortman, C. L., & Schildkamp, K. (2011). Alternative quality standards in qualitative research? *Quality & Quantity, 46*, 1727-1751. https://doi.org/10.1007/s11135-011-9555-5

Rabinovich, E. & Cheon, S. H. (2011). Expanding horizons and deepening understanding via use of secondary data sources. *Journal of Business Logistics, 32*, 303-316. https://doi.org/10.1111/j.0000-0000.2011.01026

Rabogadi, T. A. (2017). *Strategies information and communication technology managers use to build employee competencies* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (UMI No. 1888013516).

Ram, J., Corkindale, D., & Wu, M. L. (2015). Examining the role of organizational readiness in ERP project delivery. *The Journal of Computer Information Systems, 55*, 29-39. https://doi.org/10.1080/08874417.2015.11645754

Rauch, A., van Doorn, R., & Hulsink, W. (2014). A qualitative approach to evidence-based entrepreneurship: Theoretical considerations and an example involving business clusters. *Entrepreneurship Theory and Practice, 38*, 333–368. https://doi.org/10.1111/etap.12093

Renert, H., Russell-Mayhew, S., & Arthur, N. (2013). Recruiting ethnically diverse participants into qualitative health research: Lessons learned. *The Qualitative Report, 18*, 1-13. Retrieved from http://www.nova.edu

Ribeiro-Soriano, D. (2017). Small business and entrepreneurship: Their role in economic and social development. *Entrepreneurship and Regional Development, 29*, 1- 3. https://doi.org/10.1080/08985626.2016.1255438

Rivard, S., & Aubert, B. A. (2015). *Information technology outsourcing*. New York, NY: Routledge.

Roy, S. (2016). *Decision making and modelling in cognitive science*. Cham, Switzerland: Springer.

Saldana, J. (2012). *The coding manual for qualitative researchers*. Thousand Oaks, CA: Sage.

Samila, S., & Sorenson, O. (2010). Venture capital as a catalyst to commercialization. *Science Direct*, *39*(10), 1348-1360. https://doi.org/10.1016/j.respol.2010.08.006

Samila, S., & Sorenson, O. (2017). Community and capital in entrepreneurship and economic growth. *American Sociological Review*, *82*, 770-795. https://doi.org/10.1177/0003122417711699

Schmidt, C. R., & Farkas, F. (2016). The profitability puzzle: Integrating sales and product development improves management's ability to control future profitability. *Strategic Management Journal*, *21*(4), 3-11. Retrieved from https://scindeks.ceon.rs/article.aspx?artid=1821-34481604003S

Schneider, S., & Sunyaev, A. (2016). Determinant factors of cloud-sourcing decisions: Reflecting on the IT outsourcing literature in the era of cloud computing. *Journal of Information Technology*, *31*, 1-31. https://doi.org/10.1057/jit.2014.25

Sen, F., & Shiel, M. (2006). From business process outsourcing (BPO) to knowledge process outsourcing (KPO): Some issues. *Human Systems Management*, *25*, 145-155. Retrieved from https://academicguides.waldenu.edu/library

Shaukat, A., Qiu, Y., & Trojanowski, G. (2016). Board attributes, corporate social responsibility strategy, and corporate environmental and social performance. *Journal of Business Ethics*, *135*, 569-585. https://doi.org/10.1007/s10551-014-2460-9

Shea, C. M., Grinde, R., & Elmslie, B. (2011). Nanotechnology as general-purpose technology: Empirical evidence and implications. *Technology Analysis & Strategic Management, 23*, 175-192.

https://doi.org/10.1080/09537325.2011.543336

Shil, N. C., Hoque, M., & Akter, M. (2015). Researching the level of diffusion of selective management accounting techniques by Bangladeshi firms. *Accounting and Management Information Systems, 14*, 704-731. Retrieved from http://www.cig.ase.ro/revista_cig/

Siepmann, F. (2013). Ready to outsource. In C. P. T. F. Group (Ed.), *Managing risk and security in outsourcing IT services*, 105-184. Boca Raton, FL: Auerbach.

Simon, H. A. (1960). *The new science of management*. Upper Saddle River, NJ: Prentice Hall.

Simon, H. A. (1979). Rational decision making in business organizations. *The American Economic Review, 69*, 493-513. Retrieved from http://www.jstor.org/stable/1808698

Smayda, K. E., Worthy, D. A., & Chandrasekaran, B. (2017). Better late than never (or early): Music training in late childhood is associated with enhanced decision making. *Psychology of Music, 46*, 734-748. https://doi.org/10.1177/0305735617723721

Smith, A. (2016). Data collection dangers. *ITNOW, 57*(1), 10-12. https://doi.org/10.1093/itnow/bwv004

Smith, J. A. (Ed.). (2015). *Qualitative psychology: A practical guide to research methods*. Thousand Oaks, CA: Sage.

Sokolowski, R. (2008). *Introduction to phenomenology* (10th ed.). New York, NY: Cambridge University Press.

Spetzler, C., Myer, J., & Winter, H. (2016). *Decision quality: Value creation from better business decisions*. Hoboken, NJ: Wiley.

St. John, J., Vedder, R., & Guynes, C. S. (2013). Relationship changes in IT offshoring. *International Journal of Management and Information Systems, 17*(3), 131-134. https://doi.org/10.19030/ijmis.v17i3.7862

Summers, D. (2015). The economic impact of entrepreneurship: Setting realistic expectations. *Academy of Entrepreneurship Journal*, *21*(2), 99-107. Retrieved from https://www.abacademies.org/journals/academy-of-entrepreneurship-journal-home.html

Taneja, S., Pryor, M. G., & Hayek, M. (2016). Leaping innovation barriers to small business longevity. *Journal of Business Strategy, 37*(3), 44-51. https://doi.org/10.1108/JBS-12-2014-0145

Todt, O., & Lujan, J. L. (2014). Values and decisions: Cognitive and noncognitive values in knowledge generation and decision making. *Science, Technology & Human Values, 39*, 720-743. https://doi.org/10.1177/0162243914521019

Tran, V. T., Porcher, R., Tran, V. C., & Ravaud, P. (2017). Predicting data saturation in qualitative surveys with mathematical models from ecological research. *Journal of Clinical Epidemiology, 82*, 71. https://doi.org/10.1016/j.jclinepi.2016.10.001

Treur, J., & Umair, M. (2015). Research article: Emotions as a vehicle for rationality: Rational decision making models based on emotion-related valuing and Hebbian learning. *Biologically Inspired Cognitive Architectures*, 144-156. https://doi.org/10.1016/j.bica.2015.05.001

Tsai, C. (2016). Boredom at work and job monotony: An exploratory case study within the catering sector. *Human Resource Development Quarterly, 27*, 207-236. https://doi.org/10.1002/hrdq.21249

Tufford, L., & Newman, P. (2012). Bracketing in qualitative research. *Qualitative Social Work, 11*, 80-96. https://doi.org/10.1177/143325010368316

Tung, F. (2016). Does transformational, ambidextrous, transactional leadership promote employee creativity? Mediating effects of empowerment and promotion focus. 119 *International Journal of Manpower*, *37*, 1250-1263. https://doi.org/10.1108/IJM-09-2014-0177

Turner, S., & Endres, A. (2017). Strategies enhancing small business owners' success rates. *International Journal of Applied Management and Technology, 16*, 34-39. https://doi.org/10.5590/IJAMT.2017.16.1.03

U.S. Census Bureau. (2016). *Quick facts Harris County Texas*. Retrieved from https://www.census.gov/quickfacts/fact/table/harriscountytexas/BZA010216#BZA010216

U.S. Small Business Administration. (2017a). *Set-aside contracts for small businesses.* Washington, DC: Small Business Administration. Retrieved from https://www.sba.gov/federal-contracting/contracting-guide/types-contracts#section-header-0

U.S. Small Business Administration. (2017b). C*ontracting assistance programs*. Washington, DC: Small Business Administration. Retrieved from https://www.sba.gov/federal-contracting/contracting-assistance-programs

U.S. Small Business Administration. (2017c). *Laws and regulations*. Washington, DC: Small Business Administration. Retrieved from https://www.sba.gov/aboutsba/sba-performance/policy-regulations/laws-regulations

U.S. Small Business Administration. (2018). *Frequently asked questions about small businesses 2018.* Washington, DC: Small Business Administration. Retrieved from https://s3.amazonaws.com/advocacy-prod.sba.fun/wp-content/uploads/2017/08/04125711/Frequently-Asked-Questions-Small-Business-2018.pdf

U.S. Small Business Administration. (2019). *Grow your business.* Washington, DC: Small Business Administration. Retrieved from https://www.sba.gov/business-guide/grow-your-business/

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. https://doi.org/10.1080/01930826.2015.1105035

Venkatesh, V., & Davis, F. D. (1996). A model of the antecedents of perceived ease of use: Development and test. *Decision Sciences*, *27*, 451-481. https://doi.org/10.1111/j.1540-5915.1996.tb01822.x

Venkatraman, S., & Fahd, K. (2016). Challenges and success factors of ERP systems in Australian SMEs. *Systems, 4*, 1-18. https://doi.org/10.3390/systems4020020

Volery, T., & Mazzarol, T. (2015). The evolution of the small business and Entrepreneurship field: A bibliometric investigation of articles published in the *International Small Business Journal*, *33*, 374-396.

https://doi.org/10.1177/0266242613516139

Wakefield, A. (2015). Synthesising the literature as part of a literature review. *Nursing Standard, 29*(29), 44-51. https://doi.org/10.7748/ns.29.29.44.e8957

Wang, S., & Wang, H. (2015). Design and delivery of a new course of information technology for small business. *Journal of Information Systems Education, 26,* 37-46. Retrieved from http://www.proquest.com

Warren, J. D., Jr., Moffitt, K. C., & Byrnes, P. (2015). How big data will change accounting. *Accounting Horizons, 29,* 397-407. https://doi.org/10.2308/acch-51069

West, B., Hillenbrand, C., Money, K., Ghobadian, A., & Ireland, R. D. (2016). Exploring the impact of social axioms on firm reputation: A stakeholder perspective. *British Journal of Management, 27,* 249-270. https://doi.org/10.1111/1467-8551.12153

Wester, K. L., Borders, L. D., Boul, S., & Horton, E. (2013). Research quality: Critique of quantitative articles in the journal of counseling and development. *Journal of Counseling & Development: JCD, 91,* 280-290. Retrieved from http://www.wiley.com

Williams, C. C., Martinez-Perez, A., & Kedir, A. M. (2017). Informal entrepreneurship in developing economies: The impacts of starting up unregistered on firm performance. *Entrepreneurship Theory & Practice, 41,* 773-799. https://doi.org/10.1111/etap.12238

Williams, D. A. (2014). Resources and business failure in SMEs: Does size matter? *Journal of Business & Management, 20*(2), 89-102. Retrieved from

http://www.ebscohost.com

Williamson, O. E. (2010). Transaction cost economics: The natural progression. *The American Economic Review, 100*, 673-690. https://doi.org/10.1016/j.jretai.2010.07.006

Witte, E. (1972). Field research on complex decision making processes: The phase theorem. *International Studies of Management and Organization, 2*(2), 156-182. https://doi.org/10.1080/00208825.1972.11656117

Wright, P. M., & Craig, M. W. (2011). Tool for assessing responsibility-based education (TARE): Instrument development, content validity, and inter-rater reliability. *Measurement in Physical Education and Exercise Science, 15*, 204-219. https://doi.org/10.1080/1091367X.2011.590084

Yin, R. K. (2017). *Case study research and applications: Design and methods* (6th ed.). Thousand Oaks, CA: Sage

Zenko, Z., Ekkekakis, P., & Kavetsos, G. (2016). Changing minds: Bounded rationality and heuristic processes in exercise-related judgments and choices. *Sport, Exercise, and Performance Psychology*, *5*, 337-351. https://doi.org/10.1037/spy0000069

Zhang, L., & Gu, W. (2013). The simple analysis of impact on financial outsourcing because of the rising of cloud accounting. *Asian Journal of Business Management, 5*, 140-143. Retrieved from https://ajouronline.com/index.php/AJBM

Zhou, B., Zheng, P., & Ma, X. (2014). An improvement method for selecting the best

alternative in decision making. *International Journal of Computational Intelligence System, 7*, 882-895. https://doi.org/10. 1080/8756891.2013.870754

Ziemba, E., & Oblak, I. (2015). Change management in information systems projects for public organizations in Poland. *Interdisciplinary Journal of Information, Knowledge and Management, 10*, 47-63. Retrieved from http://www.ijikm.org/Volume10/IJIKMv10p047-062Ziemba1527.pdf

Appendix A: Interview Protocol

Protocol Steps	Protocol Actions
Introduce myself to the participant.	Good morning/afternoon, my name is Jessica Folkes. I'm a doctoral candidate at Walden University.
Explain the purpose of the study.	The purpose of this study is to explore strategies some small business owners or leaders implement to obtain cost-effective outsourced IT solutions for business sustainability.
Review consent form and answer questions.	Please review the consent form carefully. This form contains all relevant information to this study, so your participation is willingly and with informed consent with the affixion of your signature.
Have participant sign my copy of the consent form and provide them with a copy for their records.	If you have no further questions about the consent form, please sign my copy and keep yours for your records.
Inform participant of recording start.	I will now begin recording.
State the date, time, and place of interview.	Today is XXX, the time is XXX. The location of the interview is XXX.
Give participant coded identification.	The participant will be known as "Participant X."
Begin interview with Interview Questions.	1. What influenced your decision to select the hourly versus the flat fee outsourced IT services you use in your business? 2. How do you determine the best or optimal IT solution for your business? 3. Please explain the path you used to make decisions regarding your IT solutions. 4. What has worked well in implementing your IT services? 5. What challenges have you faced with your IT services? 6. How did you overcome these challenges regarding IT services?

	7. What strategies do you use to secure that your IT services (hourly or flat fee option) are financially efficacious? 8. What else can you tell me about the strategies you use to implement effective IT solutions for your business sustainability?
Turn off the recording.	The interview has now concluded, and I will turn off the recording device.
Provide member checking details.	I will transcribe this interview and email it to the email address you provided on the consent form. Please review the document in detail and provide feedback or clarity on anything that does not align. I will make corrections and return the report to you for review. This process will continue until both you and I are satisfied with the details captured of the interview transcription.
Answer questions.	Do you have any additional questions I can answer?
Thank participant.	Thank you for taking the time to meet with me today and for participating in my study.