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Management of Virtual Offices

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Walden University

College of Management and Technology

This is to certify that the doctoral study by

Cheryl Ann Donaldson Howard

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Walden University
2019

Abstract

Management of Virtual Offices

by

Cheryl Ann Donaldson Howard

MS, NOVA Southeastern University, 1999

BS, McKendree College 1996

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

March 2019

Abstract

Many organizational leaders manage virtual employees without the specific training and experience required for leading a virtual organization, which can lead to billions of dollars in lost productivity. The purpose of this multiple case study was to explore strategies managers used to manage a virtual office. The target population consisted of 4 managers located in the mid-Atlantic region of the United States who had a minimum of 2 years of experience managing virtual offices. The conceptual framework for this study was social exchange theory. Data were collected using semistructured interviews and a review of company documents. Data were analyzed using manual coding and a qualitative data analysis software; member checking and triangulation were used to enhance validity. Key themes emerged from data analysis related to management strategies: communication, leadership, and developing relationships. The results of this study might contribute to social change by supporting managers of virtual offices in reducing organizational travel costs and energy use, and supporting work–life balance through virtual business practices.

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Dedication

This dedication is to my parents, Otis and Shirley Donaldson of Pensacola, Florida and their dream of success for their nine children. My parent's hope was to see us graduate from high-school and dream was to see us accomplish college degrees. My father is no longer with us, but my mother will be a witness to my struggle to succeed in obtaining my doctoral degree as the first of their children to academically go this far. Additionally, this dedication goes to my spouse, Jason, for his support. Without Jason's understanding and support, I would not have accomplished this goal. Finally, this dedication is to our children and grandchildren to be a model of accomplishment so they will succeed by attainment of the highest academic degree in their chosen fields of interest.

Acknowledgments

The first acknowledgment is to God. My faith in God directed my prayers in asking for His blessings to have the ability to be in this doctorate program and to get this done. God's blessings is the foremost achnowledgement that helped me to make this accomplishment. I acknowledge Dr. Teresa Jepma, my academic chair, who has been with me during the many years to make this accomplishment. My acknowledgments include Dr. Patsy Kasen, my second committee member. I also include Dr. Rick Hay, doctoral specialist, the Walden Library faculty, and numerous other faculty members that I thank you all for your professionalism and vast knowledge that assisted me to complete this degree. I acknowledge key family members that I also dedicate this degree, as well as all of my familiy members that gave me encouragement and confidence during difficult semesters. By the same means, I acknowledge friends, neighbors, fellow students, and the research participants because all have supported me with patience and understanding as I make this accomplishment. I am honored to mention these acknowledgments because this is confirmation of the people that supported me, and God who answered my prayers.

Table of Contents

List of Tables

Section 1: Foundation of the Study

Due to technological advancements, workplaces have changed from traditional spaces where individuals physically go to work to alternate working locations (Orhan, 2014; Van Wart, Roman, Wang, Liu, 2016). Within the United States, business leaders have the potential to increase profits using better methods of reaching customers and engaging employees through virtuality by converting a traditional office to a virtual office (Cooke, Chowhan, & Cooper, 2014; Vega, Anderson, & Kaplan, 2015). Virtual technology is the primary cause of significant changes in the workplace among leaders, managers, and workers (Kim & Christensen, 2017; Orhan, 2014). Since 2010, virtual workplaces have increased production, profit, performance, and overall employee satisfaction for business leaders (Cooke et al., 2014; U. S. Office of Personnel Management, 2016). Virtual technology can also benefit general society, work-family balance, and support environmental benefits (Vega et al., 2015). To gain the advantages of a virtual office potential, technical knowledge, specific managerial skills, and training are competencies for managing the virtual workplace (Brown, Smith, Arduengo, & Taylor, 2016). Leaders need to effectively manage virtual practices for the good of the business by applying specific management skills to virtual management.

Background of the Problem

Research on virtual employee management remains limited based on the Society for Human Resource Management that estimated about half of all U.S. organizations are managing virtual teams (as cited in Allen, Golden, & Shockley, 2015). Some virtual employees provide additional hours of work due to extending the work shift, resulting in

higher job productivity (Thomas, 2014). Previous researchers linked high job performance of virtual workers to overall organizational productivity that affects profit (Allen et al., 2015; Baskin, McKee, & Buckley, 2017). In contrast, some virtual workers felt disengaged and isolated from the physical work location that causes low job performance (Allen et al., 2015). Leaders need to keep employees engaged in face-to-face contact to prevent low job performance (O'Neill, Hambley, & Bercovich, 2014; Van Wart et al., 2016). When employees are treated well by management, this creates trust and employees may work beyond regular hours (Khattak, Shah, & Said, 2014).

The extant literature contains information on virtual management of employees to gain the most benefit for the entire organization (Liao, 2017; Wojcak, Bajzikova, Sajgalikova, & Polakova, 2016). Organizational leaders have greater access to management and leadership information for the traditional office; however, more information on virtual leadership and management is needed (Pangil & Chan, 2014). I derived the research problem statement from this observation.

Problem Statement

Employees working in a virtual environment, can lead to billions of dollars in lost productivity (Baskin et al., 2017; Lee & Kim, 2016). In the United States, 50% of business leaders maintain offices with minimal to no specific experience of virtual employee management (Allen et al., 2015). The general business problem is that a lack of management of virtual employees affects organizational productivity and profits. The specific business problem is that some leaders of virtual organizations have limited skills on how to manage a virtual office.

Purpose Statement

The purpose of this qualitative multiple case study is to explore skills leaders use to manage a virtual office. The target population will include managers in the health care and information technology industries within the Washington D.C. area who successfully manage a virtual office. In this study, I may find significance in social change as a virtual office promotes employee work-life balance and job satisfaction. Job satisfaction can lead to happier employees at work, home, and in the community because of better relationships with their leaders.

Nature of the Study

The research method selected for this study is qualitative. Qualitative research is used to explore and gain an understanding of a philosophical problem based on lived experiences and to interpret an emergence of practice to the perceived problem (Denzin & Lincoln, 2011). Qualitative research is appropriate because an understanding of management practice is needed to help gain information specific to managing a virtual office. Quantitative research is a measurement of variable relationships using data and based on a hypothesis (Denzin & Lincoln, 2011). Because I do not intend to use data to analyze numerically for purposes of causal or predictive results, quantitative method is not appropriate for this study. A mixed methods research combines both quantitative and qualitative methods to understand, explore, or obtain a relationship comparison within a study (Denzin & Lincoln, 2011). A mixed methods research is not used because the intent of this study will not require numerical data analysis.

A multiple case study will be the design used for this study. The case study

involves an in-depth gathering of knowledge information to manage complex phenomena and an exploration to find a recommendation or a solution (Dasgupta, 2015). A case study is a preferred choice for this research since participants will share in-depth information on a specific practice. The phenomenological design is observing the overall group experience to gather insights (Rule & John, 2015). Because I specifically target a manager's experience, data from individuals within the entire organization is not sought; therefore, the phenomenological design is not suited for this study. Ethnography includes the study of group cultures (Marshall & Rossman, 2016). Studying the organizational culture is not the overall nature of this study; therefore, ethnography is not the best choice. Narrative research is a process of observation combined with participant storytelling (Bernard, 2013). Narrative research is not used because this study will not include storytelling.

Research Question

The overarching research question for this study is: What skills do leaders use to manage a virtual office?

Interview Questions

1. What strategies do you use for virtual office management?

2. What skills do you use to manage virtual employees?

3. What training do you have for managing virtual employees?

4. What performance management tools do you use to evaluate virtual employees?

5. How do you measure the effectiveness of your virtual management skills?

6. What are some leader characteristics you use to manage a virtual office?

7. What additional information can you offer on this topic?

Conceptual Framework

The conceptual framework is found through the lens of social exchange theory. Social exchange theory was conceptualized and studied in the 1950s to 1960s by George Homan, Peter Blau, John Thibaut, and Harold Kelley; and is composed of sociological and psychological concepts (Emerson, 1976). Social exchange theory is a frame of reference and is principled on reciprocity (Emerson, 1976; Greer & Payne, 2014). The frame of reference is the assumption that individuals will provide value to one another for value given and for the organization, this refers to employee reinforcement (Emerson, 1976). Other benefits to the organization due to employee social exchange are reward, profit, outcome, and productive exchange (Bordia, Restubog, Bordia, & Tang, 2017; Emerson, 1976). An example of social exchange reciprocity is when management promotes employee satisfaction, employees will feel obligated to show a higher commitment to the organization.

Social exchange theory is a rationalization of voluntary action or behavior (Bordia et al., 2017; Emerson, 1976). Reciprocation can take place when managers impact job satisfaction virtually, and employees feel obliged to provide manager satisfaction in exchange. Social exchange theory concepts will benefit this study as the conceptual framework on managerial skills in managing a virtual office.

Operational Definitions

The use of virtual technology is advanced technology for the 21st Century as

users to virtual worlds dramatically increase (Koles & Nagy, 2014). To maintain clarity

of understanding, a definition of terms related to this study is provided. Also, some terms

are synonymous.

Cyberloafing: The term is used synonymously with social loafing, internet abuse,

cyberslacking, non-work-related computing, and internet misuse. Cyberloafing is to use

the Internet and to use work equipment during work hours, for personal means instead of

work-related means (Betts et al., 2014; Huma, Hussain, Thurasamy, & Malik, 2017;

O'Neill et al., 2014).

Knowledge sharing: The experiences and knowledge of organizational members

that is shared to enhance competitive advantage (Pangil & Chan, 2014).

Telework: The terms virtual, off-site or remote, flexible or flexplace, co-located,

distance, and telecommuter workers are synonymous with telework or teleworker (Allen

et al., 2015; Wojcak et al., 2016). Distantly located employees or teleworkers are

employees that work a few days a week using a virtual platform and a few days a week at

the physical work location (Moeckel, 2017; Wojcak et al., 2016).

Virtual cloud: Shared virtual resources stored and centralized in a super-

computing center for purposes of resource sharing (Zhang, Zhongbin, & Xinhua, 2014).

Virtual employee: An employee that is geographically separated from other

members of the organization or from the brick and mortar building (White, 2014). The

term is synonymous with teleworker (Allen et al., 2015; Liao, 2017).

Virtual workplace or office: Members of a workplace interacting on a non-face-

to-face level either some of the time or all of the time using information technology to

accomplish organizational goals (Liao, 2017).

Virtual World: A space or platform this is two or three-dimensional where individuals interact using information communication technologies (ICT) (Nagy & Koles, 2014). A realm of communication that occurs through shared real-time activities, such as using the Internet or social media (Koles & Nagy, 2014).

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Assumptions, Limitations, and Delimitations

</div>

Assumptions

A research study assumption is defined as an issue of the research that is taken for granted (Morge & Mancarella, 2014). Organizational leaders are chosen based on their assumed experience and success in managing virtual offices. A second assumption is that the leadership will understand the terminology of a virtual office and any similar terminology associated with a virtual office. A third assumption is that leaders interviewed will answer questions openly and honestly.

Limitations

A research study limitation is defined as possible weaknesses in the study (Ellis & Levy, 2009). Research Information is based on only two case studies that limit a greater perception of successful virtual offices. This research limitation is in the use of two industry lines, within the business subject. The exclusion of other employees within an organization and focusing only on the managers is another weakness that will limit a broader perspective. The generalizability degree is limited based on the small sample size from two organizations within the same geographical area representing the health care and information technology industries to the entire population.

Delimitations

A research definition for delimitations may include creating boundaries to specifically set the scope of the study (Farquhar, 2012). A small number of managers bounds the scope and no other levels of the organization will be considered. The scope of this study is to use two organizations within two fields of industry. Another delimitation is by using a small geographical area to obtain research information for this study.

Significance of the Study

In the case of a virtual office, where the leader and follower are geographically distanced a unique set of complications exist for business leaders and employees (Solis, 2017; Vega et al., 2015). Geographical distances between employees and managers can lead to challenges of monitoring production that affects profit within the virtual workplace (Marlow, Lacerenza, & Salas, 2016). Leadership can impact common trust, employee engagement, or isolation issues unique to a virtual office (Bisbe & Sivabalan, 2017).

Contribution to Business Practice

One recognizable aspect of a virtual office is the organizational use of teleworking employees (Thompson, Payne, & Taylor, 2015). Some teleworkers may not use working hours for work-related tasks that employers may have limited to no information on how to manage workers to use work hours properly. This study can contribute to leaders that have an active telework policy, who may not be aware of associated advantages and disadvantages. This study may provide additional information on maintaining employee productivity with virtual workers. Employee retention may

increase as employees' job satisfaction, due to work and life balance, that is provided through telework because employees can have more time to be with family at home.

Implications for Social Change

Virtual employees reduce organizational overhead costs needed to maintain a work facility, reduce the need to travel for training, reduce the use of paper documents, and expand employment due to the virtual platform (Allen et al., 2015). Virtual offices reduce energy use and other resources of staffing an office (Allen et al., 2015). Better management of virtual offices may lead to increased contributions toward improving the global environment. Information from my research may lead to improved management of a virtual office that contributes to reducing earth's environmental issues. A virtual organization can contribute to reducing carbon dioxide in the air by decreasing worker travel and energy consumption by using fewer office utilities.

<p align="center">**A Review of the Professional and Academic Literature**</p>

Organizations have changed how they do business within a virtual workplace. Currently millions of teleworkers work in the United States, and this number is projected to increase (Vega et al., 2015). Leaders manage virtual workers within the virtual platform to conduct real-time communication with employees (Allen et al., 2015; White, 2014). The literature on virtual office leadership and management, as well as the availability of information on strategies to effectively lead a virtual office is limited (Meuser et al., 2016). Two of the most important impacts related to managing virtual employees are the limited or non-existent face-to-face relationship and employee sense of freedom due to low oversight (Fan, Chen, Wang, & Chen, 2014; Vega et al., 2015).

Obtaining leader managerial skills and techniques for virtual management through appropriate experiences is the point of this research.

I searched literature to use in this review primarily through Walden Library's Business and Management section, specifically, the Sage Premier, Business Source Complete, Emerald Management, ABI/INFORM, Complete, and Pro-Quest Central databases. The main target of these searches were scholarly articles. Some of the journals I used within this review were *Journal of Management*, *The Leadership Quarterly*, *Advances in Developing Human Resources*, *Leadership*, *Journal of Information System*, *Business & Society*, *Journal of Information Technology*, *Advances in Human Resource Development*, *Community Work & Family*, and *Psychological Science in the Public Interest*. This list of journals is not all-inclusive but provides a perspective on the types of journals that contain pertinent information for the subject of business and virtual leadership. Several keywords, such as *virtual*, *leadership*, *business*, *telework*, *management* and *organization* were used in my research. Sources include books and governmental information in addition to journals. Many sources were reviewed and considered but not all used for this literature review.

The literature review guidelines require a minimum 85% of research to be peer-reviewed and within 5 years of anticipated graduation. I used literature primarily from 2014 to 2018 to meet the 5-year or less publication guideline of my anticipated study completion year projection. Included with 2014 to 2018 peer-reviewed journal articles, were government sources and books. The review of literature totals 133 sources with 93% within requirements and 97% for the peer reviewed sources within requirements. I

organized the literature review by themes specific to the study topic. The first theme is

social exchange theory (SET) including other applicable theories for review. The

following themes are on the topics of virtual revolution, virtual organizations,

technology, leadership, and the last topic is on the virtual impact on society and the

environment. Because this research study is an exploration of business leader

management skills within a virtual workplace, it is viewed through a lens of SET. I

selected SET as the conceptual framework for this study to explore as a viable resource

leading to virtual leader skill development.

Social Exchange Theory (SET)

Virtual leaders manage employees that work away from the physical structure of

the organization which leads to a lack of direct oversight (Avolio, Sosik, Kahai, & Baker,

2014). Some employees maintain work ethics without regular employer face-to-face

contact and others lose productive time by not working on organizational tasks (Huma et

al., 2017; Ojala, Nätti, & Anttila, 2014). Viewing how the virtual leader can create better

management skills through the lens of SET is the conceptual framework of this study.

The theory of SET consists of reciprocity between employers and employees (Greer &

Payne, 2014). Reciprocity between employers and employees can create an

understanding of working together on mutual values for the organization (Greer & Payne,

2014). Within the topic of SET, I reviewed the inception and use of the theory, provide a

brief analysis of other applicable theories, and state some of the positive and negative

aspects of SET.

In 1958, Homans introduced SET from a social and operant psychological stance

(Emerson, 1976). Operant psychology is the study of controlling social power of a single subject in a bounded environment over a long period (Emerson, 1976). During the 1950s, Thibaut and Kelley advanced the psychological research based on social groups and in 1964, Blau engaged social exchange with technical economics (Emerson, 1976). Information from the research reveals the value that individuals place on the relationship of exchange over time, basically as the relationship decreases from a lack of exchange so does the value (Chaudhry & Song, 2014; Emerson, 1976). The position of economics within the relationship exchange is its value in personal or professional social groups, known as a productive exchange (Emerson, 1976). According to Collins (2016), Blau's research advanced social exchange as emotional, informal, and implicit. An example of informal social exchange within the workplace is when employees perceive fair treatment within the organization, they reciprocate the perception into positive outcomes for the organization (Collins, 2016).

Social exchange is based on the idea that socio-emotional expectation is more positive than an economic exchange between parties (Chaudhry & Song, 2014). An overarching definition of SET is tangible or intangible perceived obligatory exchanges of reciprocal behavior either contractual or noncontractual between individuals or groups for mutually beneficial purposes (Colquitt, Baer, Long, & Halvorsen-Ganepola, 2014; Emerson, 1976). Studies involving issues of employee engagement, psychological contracts, relationship building, organizational change, social networking skills, employee retention, organizational support, and employee diversity are associated with SET (Chaudhry & Song, 2014; Collins, 2016; Colquitt et al., 2014; Greer & Payne 2014;

Lilian, 2014). Studies involving determinants of trust, commitment, performance, production, communication, motivation, fairness, job satisfaction, job respect, and job anxiety within business are also associated with SET (Chaudhry & Song, 2014; Collins, 2016; Colquitt et al., 2014; Greer & Payne 2014; Lilian, 2014). The significance of mentioning the studies and determinants to SET is to demonstrate the multiplicity of its value and use as a frame of reference in research (Emerson, 1976). The frame of reference or lens for this study relates to seeking leadership skills for virtual management.

The significance of SET to virtual management skills is related to its determinants that apply to managing productive employees (Chaudhry & Song, 2014; Collins, 2016; Emerson, 1976). Managing productive employees in a virtual context is complicated compared to traditional management because the non-face-to-face contact may lead to lower employee participation and effort (Bisbe & Sivabalan, 2017; Marlow et al., 2017). For example, some virtual workers develop a sense of detachment from the workplace through feelings of isolation or freedom from supervisory view (Pangil, 2014). In this example, the leader will need the ability to keep the detached employee committed, motivated, and engaged using managerial skills of trust building, communication, and providing job satisfaction that is related within the framework of SET (Collins, 2016; Dube & Marnewick, 2016; Lilian, 2014). The goals of a virtual organization are often the same as the traditional organization of gaining profit, performance, production, employee motivation, or organizational sustainability (Fan et al., 2014).

A positive outcome of SET is the effect of reciprocity toward performance or production and a negative is when reciprocity is absent due to diminished value or lack of

trust (Chaudhry & Song, 2014). Reciprocity occurs between two or more parties when one benefits from the other and the one that benefits perceives a sense of obligation to the other (Emerson, 1976). If the two parties do not rationalize behavior, in the same way, the expectant behavior of an action may not occur (Emerson, 1976). Based on the issue of rationality, one party expects positive behavior from the other party if both parties perceive the benefit as positive (Collins, 2016). However, in the business setting, some employees may not feel a benefit to what an employer offers (Collins, 2016).

In a virtual organization, employers provide the benefit of teleworking to employees who may work more in return for the benefit (Greer & Payne, 2014). Sometimes, teleworkers tend to work longer hours, and this return benefit to employers can become a disadvantage (Thomas, 2014). Teleworkers should establish work boundaries to keep work time separated from home time to prevent working overtime (Thomas, 2014). Because SET is dependent on individuals having a sense of reciprocity, which is similar to showing appreciation with loyalty, this is not what happens every time (Huang et al., 2016). In some instances, an individual expects the benefits as routine where no appreciation is necessary (Huang et al., 2016). Therefore, the value of the benefit diminishes, as well as, the sense of reciprocity (Huang et al., 2016).

Social exchange within organizations takes place between employees who agreed with their employers (Chaudhry & Song, 2014). Employees can develop a sense of entitlement toward employer methods to sustain the exchange situation (Chaudhry & Song, 2014). When employees take the exchange for granted, reciprocity loses significance, and SET will not be effective for the long-term (Huang et al., 2016). The

employee provides performance and production, the employer provides compensation, and both receive a benefit (Chaudhry & Song, 2014). The contractual agreement between employees and employers involve specifics, of the employment, that usually change over time (Chaudhry & Song, 2014; Collins, 2016).

As organizational change occurs, the exchange between employers and employees changes where one party may perceive non-reciprocity within the new organizational process (Chaudhry & Song, 2014; Collins, 2016). Within organizational change, it is usually the employee who feels the reciprocity is no longer of value (Chaudhry & Song, 2014). Reciprocity also depends on a sense of fairness between parties (Collins, 2016). If employees detect unfairness in leadership offerings, this can negatively affect performance and production (Huang et al., 2016; McCarthy, Trougakos, & Cheng, 2016). However, fairness is vital when the notion of respect is minimal to employees from employers (Collins, 2016). The lack of both fairness and respect affects employee performance (Collins, 2016). In the environment of organizational change, the social exchange may fail.

Relationships of social exchange are psychologically relevant through individual perceptions, commitment, trust, perceived support, and contract fulfillment (Chaudhry & Song, 2014; Colquitt et al., 2014). The social implications of reciprocity can predict a greater effect on behavior than expected as social exchanges are stronger modes of exchange (McCarthy et al., 2016). Perceptions of commitment are affected by emotional attachment between parties, such as feeling connected to a significant member of a group (McCarthy et al., 2016). Trust is a component of SET, that is an emotionally created bond

between parties to strengthen mutual trust (Colquitt et al., 2014). Perceived support is

mutually showing care, concern, and value of the exchange between parties (Colquitt,

2014). Contract fulfillment is the psychological expectations between parties and the

level of fulfillment within the exchange (Colquitt et al., 2014). Commitment, support,

trust, and contract fulfillment are key to the quality of exchange within the social aspect

(Colquitt et al., 2014). Factors related to the quality of exchange, meaning to have value,

are needed for the consistent long-term effectiveness of social exchange (Chaudhry &

Song, 2014; Emerson, 1976). Psychological expectations as well as, performance

expectations are contingent upon individual employee and employer perceptions for

contract fulfillment (Huang et al., 2016).

Loyalty, commitment, trust, and support are some examples of what makes a

social relationship high quality (Burch & Guarana, 2014). A high-quality employee and

employer relationship are significant within virtual organizations based on the need to

monitor or not when the parties are geographically separate (de Vries, Tummers, &

Bekkers, 2018). From an employees' perspective, trust and a high-quality relationship are

gained when the employer displays fair and ethical behavior (Khattak et al., 2014). A

significant way to establish quality trust within the virtual organization is by using some

determinants of SET (Wang et al., 2016). In most instances, the social exchange contract

between employees and management is psychological (Chaudhry & Song, 2014). If the

quality of exchange is low, employee performance can be reduced based on the

expectation of the psychological contract fulfillment (Chaudhry & Song, 2014). Several

applicable theories within the review of the literature may apply to this study but only

three are considered as alternatives for the conceptual framework and ultimately ruled out as the most suitable. The other theories are employee engagement, economic, and social presence awareness provided with a short rationale concerning the consideration and ruling out.

Employee engagement theory. Employee engagement as a viable theory applies to this study due to the logic that the virtual worker should maintain engagement with the organization (Saks & Gruman, 2014). The managerial skills for employee engagement are relevant to the determinants of building employee trust, commitment, communication, and providing job satisfaction (Anitha, 2014; Saks & Gruman, 2014). The practice of employee engagement is positive for leaders to use in improving employee performance and productivity (Anitha, 2014; Bedarkar & Pandita, 2014; Saks & Gruman, 2014). Employee engagement theory concepts emerged through the work of Goffman in the 1960s, but the work of Kahn in 1990 is the most significantly referenced based on Kahn's expression of employee attachment to work roles (Bedarkar & Pandita, 2014). Employee engagement occurs when an employee is committed to organizational goals and has a positive attitude towards attaining work excellence (Anitha, 2014; Saks & Gruman, 2014).

A skilled leader who can instill work values, goals, competitiveness, retention, and positive organizational citizenship is creating worker productivity through engagement (Bedarkar & Pandita, 2014). Engagement promotes job satisfaction that encourages employee retention, and both are achieved through the trust of management and good communication techniques (Anitha, 2014; Bedarkar & Pandita, 2014). When

individuals have a sense of positive social status within the organization, they are motivated to accept employer modes of job satisfaction as valuable to their needs (Anitha, 2014). This sense of social status occurs when an individual feel actively significant to the organization, has positive working relationships, and has a sense of psychological safety (Anitha, 2014; Bedarkar & Pandita, 2014; Saks & Gruman, 2014). Psychological safety is a feeling of comfort at the job to include comfortable working relationships in a social context (Bedarkar & Pandita, 2014; Saks & Gruman, 2014). Based on an employee's sense of social status within the organization, employee engagement depends on individual attitudes (Megha, 2016; Bedarkar & Pandita, 2014). Since individual attitudes are most affected by the social exchange between an employee and management, employee engagement can be considered a subset of SET (Megha, 2016).

Psychological and social sciences study the targeting of individual employee performance due to the attitudinal construct; therefore, a social exchange lens is used for methods of employee engagement (Chaudhry & Song, 2014; Saks & Gruman, 2014). Since employee engagement may reference similar determinants, it provides a similar outcome and leans toward the social exchange construct that can be considered relative to SET (Megha, 2016). For this study, SET was the most appropriate frame of reference instead of employee engagement as the latter is inclusive. Another theory worthy of consideration is economic theory as a frame of reference in maintaining virtual employee performance and production.

Economic theory. Economic theory is a possible frame of reference for this study

because this theory can provide economic motivation toward employee performance

(Kanfer, Frese, & Johnson, 2017). Motivating employees is a managerial skill that virtual

supervisors can consider to develop employee performance especially when direct

observation is not available during work hours (Tezergil, Kose, & Karabay, 2014). In

1964, Blau's research gave this different approach to social exchange and employee

management (Emerson, 1976). The measure of economics and SET is not exactly clear,

but SET is proposed in the explanation of counter-productive behavior relative to

economics (Colquitt et al., 2014). The motivation based on economics is a consideration

of this viable framework (Emerson, 1976).

Motivation is an intrinsic or extrinsic behavior (Kanfer et al., 2017). Intrinsic

motivation is when individuals are self-motivated and extrinsic motivation is when

individuals have incentives to encourage particular behaviors (Kanfer et al., 2017).

Economic motivation is usually extrinsic because the incentive is financial (Pepper,

2017). Unequal and unfair practices of economic exchange can be counter-productive

used as a competitive motivator in the workplace; therefore, employee team motivation is

significant to economic theory regarding the fairness of each member of the team

(Emerson, 1976; Korlén, Essén, Lindgren, Amer-Wahlin, & von Thiele Schwarz, 2017).

Another measure of counter-productive economic exchange involves the intended

behavior may not be gained, which is how SET is proposed in the explanation of counter-

productive behavior relative to economics (Colquitt et al., 2014). The social and moral

motivation of individuals is not always positive without the social exchange of

reciprocity, ethics, intrinsic motivation, and selflessness toward others (Kanfer et al.,

2017). The counter-productive behavior can develop based on extrinsic motivation where financial incentives reward the intended behavior *only* when the incentive is the motive (Pepper, 2017). The economic reward can be seen as controlling by workers where individual perceptions may not find value in the reward (Kanfer et al., 2017). Leaders working through the concepts of SET can propose job satisfaction through employer efforts of employee significance and psychological safety that can lead to intrinsic motivation (Bedarkar & Pandita, 2014).

Economic theory can be effective based on extrinsic motivation and negatively effective with intrinsic motivation (Kanfer et al., 2017). The leader cannot depend upon assuming rewards always work, as the outcome, because this can render unexpected results (Pepper, 2017). Since economic theory does not show dependability to incur employee satisfaction to a level of long-term self-motivation, this is not the best frame of reference. Another viable frame of reference is social presence theory since some or all employees are virtual.

Social presence theory. Social presence theory is a consideration since a virtual worker characterizes the lack of physical face-to-face communication mediated by using ICT (Orhan, 2014). Understanding social presence theory and how to use it advantageously can be a skill for the virtual leader to develop continued employee performance (Lee & Kim, 2016). Another reason for reviewing social presence is that a virtual employee's sense of anonymity is one of the underlying causes of loafing during work hours (Dube & Marnewick, 2016). Media richness is similar to presence awareness or social presence whereas it provides a high level of technology to ascertain the presence

and the richness of contact to assimilate face-to-face communication (Chang & Hsu, 2016). Some types of social presence can lack media richness on the side of the employee when isolation is an issue, and the employee becomes detached from work (Dockter, 2016). Social presence of leaders is significant for the quality of communication with employees (Dockter, 2016).

Social presence theory is a sense of presence or visibility of communicators when using ICT (Baralou & Tsoukas, 2015; Chang & Hsu, 2016). Social presence theory is a determinant in understanding communication through information technology conceptualized in 1976 by Short and other researchers (Chang & Hsu, 2016). Research supports social presence as positively related to developing social capital that motivates ICT users or virtual workers to strengthen their sense of well-being (Chang & Hsu, 2016). User sense of well-being is improved when the quality of life, cognitive enhancement, social, and personal needs are achieved through the advantages of ICT access to information (Chang & Hsu, 2016; Nagy & Koles, 2014).

Social presence and social capital are not only enriched with access to information, such as, the Internet but through social media that can contribute to a sense of presence and well-being (Son, Lee, Cho, & Kim, 2016). The use of virtuality is prevalent within the business world, and a sense of well-being is significant with social presence as individuals are using technology to conduct business on a virtual platform (Chang & Hsu, 2016; Son et al., 2016). Advanced communication can provide leaders with the ability to connect with employees using media richness technology where communicators can use video's, text messaging, global positioning systems, avatars, and

emoticons to describe individual feelings (Avolio et al., 2014). Conversely, advanced technology entices its misuse, for example, in the case where social media use is prevalent for business but provides access for non-business-related use (Avolio et al., 2014).

Although face-to-face remains the highest quality of communication, social presence is improved through varying modes of virtuality to keep employees informed, engaged, and relevant to the organization (Lilian, 2014). Additionally, mutual social presence will minimize the belief of anonymity to encourage the temptation of social loafing that can negatively affect employee performance (Dube & Marnewick, 2016). Social presence theory is perceived to make the employee or employer aware of all virtual communicators and is available through multiple modes of communication to maintain the sense of presence awareness (Baralou & Tsoukas, 2015). However, technological advancements can either assist the effectiveness of presence awareness methods or cause its ineffectiveness when systems are down (Sellberg & Susi, 2014). Because social presence theory is encompassed within SET, it is not the best frame of reference for this study. The three alternative theories rationale of employee engagement, economic, and social presence awareness explains the decision process for using SET as the best frame of reference. How virtuality emerged and evolved is presented next as a basic understanding of the beginning and progression of the virtual world.

Virtual Revolution

An understanding of the emergence of virtuality is necessary through a review of the virtual revolution. Understanding the virtual revolution is important because it

significantly changed the business world leading to the purpose of this study (Avolio et al., 2014; Zuofa & Ochieng, 2017). In 1876, the invention of the telephone, is one of the origins of virtuality (Veerapen, 2013). The telephone invention represented virtual communication for business use when speaking to others at another location (Veerapen, 2013). The invention of the telephone is one of the first types of interactive communication between distantly located members representing an unknown *space* between the communicators (Veerapen, 2013). Telephone users can have active communication while being in different physical locations (Koles & Nagy, 2014). Telephone connectivity is one of the first modes of cyberspace (Veerapen, 2013).

Communication through the telephone is non-face-to-face exchange used for teleconferencing and computer-to-computer networking (Baralou & Tsoukas, 2015). During the 1960's the U.S. Department of Defense (DOD), created the first computer network connection (Haigh, Russell, & Dutton, 2015). The DOD's administrators removed voice communication with computer interaction by using the Advanced Research Projects Agency Network or ARPANET (Haigh et al., 2015; Veerapen, 2013). The physical aspects between communicators were minimized with the use of ARPANET (Veerapen, 2013). In 1976, users of ARPANET increased in number that initiated other administrators to create the Bulletin Board System (Haigh et al., 2015; Veerapen, 2013). Communicators developed personal relationships and trust by using the Bulletin Board System (Veerapen, 2013).

The administrators of ARPANET created virtual games that significantly advanced computer communication (Buckless, Krawczyk, & Showalter, 2014). Virtual

games, such as ADVENTure enabled texting for single players and multiuse Dungeon or, MUD1 enabled texting for multiple players (Veerapen, 2013). Multiple users gained the ability to mutually interact in communication when using MUD1 (Veerapen, 2013). An aspect of the virtual space identifies with the creation and use of MUD1 (Veerapen, 2013). Virtual reality is a sense of interactive communication with others within the virtual world (Buckless et al., 2014).

Cyberspace integrated into virtual reality in 1984 (Veerapen, 2013). For geographically separated communicators, cyberspace is the intangible space of data through computer communication (Jordan, 2016; Zekos, 2015). Administrators who created 2D Habitat in 1985, reined a representation of users known as an avatar that is a 3-dimensional computer representation (Nagy & Koles, 2014). In the late 1970s to the 1990s, the Internet and the world-wide-web became common terms (Veerapen, 2013). Generationally, the Millenials or GenY's were the first to grow up familiar with computers as part of their everyday lives (Gilson, Maynard, Young, Vartiainen, & Hakonen, 2015).

The Second Life platform contained millions of virtual users in the 2000s, and multiple social avenues within the virtual world environment (Buckless et al., 2014). Business owners created marketing strategies and other means of customer outreach within this virtual world environment (Buckless et al., 2014). The creation of Web 2.0 permitted its administrators to develop a means for users to access online information (Koles & Nagy, 2014). In 2002, the use of Web 2.0 for social media became a trend of communication (Koles & Nagy, 2014). As social media gained popularity, administrators

advanced Internet network connections for higher levels of communication (Jennings, Blount, & Weatherly, 2014; Veerapen, 2013). Friendster, as one of the first avenues of social media, was created in 2002, followed by MySpace and Facebook from 2003 to 2004 (Koles & Nagy, 2014; Veerapen, 2013). Administrators created cloud cyber-storage because new space was needed due to the rapid advancement of the Internet (Zhang et al., 2014). The Internet includes social media, such as Twitter and Facebook (Son et al. 2016).

In the average American home, the use of a personal computer may be as common as the use of a television or cellular phone (Allen et al., 2015). Technology is considered necessary to conduct routine business (Avolio et al., 2014). Business owners and employees use technology to connect with the customer at home, such as using social media (Allen et al., 2015; Avolio et al., 2014). The development of the telephone including cellular phones, personal computers, software, and other virtual media were significant for military, government, business, and home or individual use (Allen et al., 2015). The history of virtuality is an example of how different means and methods of communication evolved. The virtual world is a space of reality generated by a computer where users can interact in real-time (Buckless et al., 2014). Communicating in real-time is not communicating in reality, and this is one of the changes realized within the business community (Koles & Nagy, 2014). The practice of leadership requires specific strategic skills to manage virtual communication in real-time (Koles & Nagy, 2014).

Teleworker or virtual worker is one consideration that defines a virtual organization (White, 2014). Virtual leadership consists of managing teleworkers (Lilian,

2014). The use of telework was granted in 2010 to every Executive Agency within the Federal government, and the Office of Personnel Management (OPM) was tasked to annually report to Congress on telework progression (U.S. OPM, 2016). The Telework Enhancement Act of 2010, authorizes each Executive Agency to establish and implement telework policy for all employees with a telework agreement, to appoint a telework managing officer, and provide telework training (U.S. OPM, 2016). Current technology is the means through which virtual communication exists to transform organizations from traditional to virtual.

Virtual Organizations

The difference of a virtual organization to a traditional one is the process of gains based on either limited or no face-to-face activity with organizational members (Fan et al., 2014). Virtual teams are synonymous with the term virtual organizations (Olson, Appunn, McAllister, Walters, & Grinnell, 2014; Orhan, 2014). A virtual team is a group of virtual workers with dispersed team members to include globally dispersed members (Orhan, 2014). Virtual teams may be highly culturally diverse due to the global nature of the team (Hu, 2015). A virtual worker is someone who works for an organization but not at the organization or works there some of the time using information communication technology (White, 2014). Virtual worker is a synonymous term with teleworker, distant worker, telecommuter, off-site or remote worker, flexible or flexplace worker, *e*-worker, and co-located worker (Allen et al., 2015; Kojo & Nenonen, 2015). A virtual worker is someone who is geographically apart from the workplace (Kojo & Nenonen, 2015).

Virtual organizations or virtual teams consist of members who are working

together to accomplish the same goals or achieve a mutual target without regular face-to-face interactions (Bisbe & Sivabalan, 2017). Virtual organizations consist of members who use information and communication technologies, a shared knowledge base, and work under geographically distant conditions (Baralou & Tsoukas, 2015). The lack of physical contact while working to achieve a shared objective is one of the main challenges of virtual teams (Bisbe & Sivabalan, 2017). The absence of physical contact is what motivates a lack of trust in employees from the virtual manager's perspective (Germain & McGuire, 2014). In a virtual organization, managers can perform actions from the office on a global level or when employees work from home using synchronous and asynchronous communication (Weber & Kim, 2015). Synchronous communication involves the use of video conferencing or other systems where leaders may simultaneously interact with others at the same event and are considered real-time communication (Baralou & Tsoukas, 2015). Asynchronous communication involves email systems or other discussion type media where leaders may interact with others within different time frames (Fan et al., 2014). Both types of communication are a means for the virtual manager or leader to improve overall productivity, efficiency, and profit (Allen et al., 2015). Virtual office synchronous and asynchronous communication benefits the employee to permit an improved balance between work and home events (Allen et al., 2015).

Some employees consider the convenience to work from home or another alternate location as the main benefit of employment (de Vries et al., 2018). A virtual worker can sometimes manage a high productive output when working from home (Allen

et al., 2015; Berg, Kossek, Misra, & Belman, 2014). However, virtual workers tend to

frequently work overtime when working from home without the benefit of overtime

authority, and more work is performed by some teleworkers (Allen et al., 2015; Berg et

al., 2014). When the virtual leader permits teleworking, the overall organization benefits

(Brown et al., 2016; Caillier, 2017). Management benefits by gaining more productivity

of the virtual worker and gains through fewer office overhead costs, less travel paid for

business purposes, or fewer funds needed for training (Moeckel, 2017; Wojcak et al.,

2016). The employee benefits by having the flexibility to fit work into their personal lives

to take care of personal issues, such as family obligations, and reduce travel to a work

location (Allen et al., 2015). The employee can reduce travel time to and from the work

site that provides them more time to be at home (Allen et al., 2015; Moeckel, 2017). An

employee will feel the satisfaction of autonomy and empowerment that converts to

overall job satisfaction (Caillier, 2017).

A disadvantage for the virtual worker is the tendency to merge work time with

home life that can lead to a lack of attention in work tasks and decreases work production

(Ojala et al., 2014). The virtual leader can suggest that the teleworker set specific places

deemed for work at home, set time schedules for breaks or start and stop times, or make

sure small children attend a daycare to prevent family intrusions onto work time

(Thomas, 2014). Additionally, virtual workers should understand how to create

functional boundaries at home to ensure segregation of work and home time (Thomas,

2014). The decrease in work productivity can be caused by the virtual worker placing too

much attention on home issues by blurring work and home life boundaries (Thomas,

2014). Some employees may not have a clear demarcation of the boundaries between work and non-work when working at home and may decide limited social loafing activities is acceptable during official work hours (Kim & Christensen, 2017).

The blurring of boundaries can also lead to social loafing that is situational to virtual organizations and can cause unmet task requirements (Gilson et al., 2015). Social loafing occurs through anonymity when the worker is distantly located and when working in a team environment that will make identification of the loafer difficult for the virtual leader to detect (Betts et al., 2014). Social loafing, cyberloafing or cyberslacking are synonymous terms that are the use of employer time or equipment or both for personal purposes during work time (Betts et al., 2014; Huma et al., 2017; O'Neill et al., 2014). If an employee is engaged in social loafing, then the employee is disengaged in work productivity or performance (Huma et al., 2017). In a virtual organization, employees can become disengaged to their work and begin using the Internet for personal reasons during work hours (Betts et al., 2014). Social loafing is particularly significant within a virtual workplace when there is little to no face-to-face communication (Betts et al., 2014; Huma et al., 2017; O'Neill et al., 2014). Some causes of social loafing that results in employee disengagement are a lack of job satisfaction, lack of trust, intentional work avoidance, virtual isolation, performance issues, personal habit, and a sense of anonymity (Betts et al., 2014; Huma et al., 2017; O'Neill et al., 2014).

Social loafing caused by a lack of job satisfaction and trust may emerge from the employer not meeting expectations of equality (Betts et al., 2014; Gagnon, Moore, & Shanmuganathan, 2014; O'Neill et al., 2014). Employers can address communication as

one of the means to establishing trust, and this is especially important for a virtual team due to the lack of face-to-face contact that can invoke levels of doubt from members (Germain & McGuire, 2014). Social loafing caused by intentional work avoidance, virtual isolation, and performance issues may be grounded in the sense of personal ineffectiveness, uselessness, and a lack of effective communication from employers (Betts et al., 2014; Huma et al., 2014; O'Neill et al., 2014). Virtual worker isolation causes social loafing and can be remedied through regular and thorough communication (Orhan, 2014). Social loafing brought on by personal habit is when the employee habitually needs to check social media even during work hours (Huma et al., 2014). A sense of anonymity is where the employee believes their actions are unknown that could stem from perceptions that the behavior is accepted or minimal (Betts et al., 2014; Huma et al., 2017; O'Neill et al., 2014). A common cause of social loafing is a sense of anonymity and can be used as an easy justification to rationalize slacking on the job (Betts et al., 2014; Huma et al., 2017; O'Neill et al., 2014). Social loafing includes shopping online, job hunting, personal emailing, and using work time or work resources to conduct a salacious online activity (Betts et al., 2014; O'Neill et al., 2014).

If the employee perceives high ethics from the employers, this can motivate employees promoting positive production and performance through positive employee morale to prevent social loafing (Kanfer et al., 2017). Any employer who establishes mutual trust, employee respect, employee empowerment, self-integrity, the perception of fairness, and work-life balance considerations are viewed as trustworthy to employees (Cowart, Gilley, Avery, Barber, & Gilley, 2014; Khattak et al., 2014). Traditional and

virtual organizations alike try to display high ethics from leadership (Cowart et al., 2014; Khattak et al., 2014). Effective communication within virtual organizations can be used to promote ethics through visibility of the virtual employer or leader's moral obligations (Avolio et al., 2014; Cowart et al., 2014). Additionally, promoting high ethics within communication can be successful for global, cultural, or legal issues that can be especially sensitive in virtual management since the organization is ICT communication (Lämsä, Auvinen, Heikkinen, & Sintonen, 2018). Along with blurring of boundaries, social loafing, issues of trust, and job satisfaction can become negative consequences for a virtual office. Advanced technology is a primary element of what makes an organization virtual (Thomas, 2014). Since technology is a primary element, more information on the subject is provided to include issues related to technology when managing a virtual office.

Technology

Employers and employees using an ICT platform to collaborate tasks are accomplishing virtual tasks that can present a work malfunction if the task is misunderstood due to a lack of nonverbal cues. (Orhan, 2014). Virtual organizations emerged as technology advanced to the level that business may be conducted almost anywhere and anytime through the use of ICT (Thomas, 2014). The advancement in ICT is used within the business to have the flexibility to connect with customers and stakeholders on a greater scale, as well as, maintain a continuous connection with work to include the global connection (Gilson et al., 2015; Thomas, 2014). Information technology systems are the means for the business industry to improve competitively on a

global level, as well as, improve organizational growth (Smith, Patmos, & Pitts, 2018).

Customers of an organization use ICT on a personal level and want the ease of doing

business transactions using technology (Aduloju, 2014). Other advancements in

technology, such as PayPal, *e*-bills, or other forms of *e*-pay give a technological

advantage to the customer of a virtual organization (Isaac & Zeadally, 2014).

Within virtual workplace technology, a sense of presence is felt by the

synchronous communication with text messages or instant messages (Allen et al., 2015).

Another sense of presence is through the use of avatars, as a representation of the user,

either synchronous or asynchronous (Baralou & Tsoukas, 2015; Nagy & Koles, 2014).

For example, an avatar is a three-dimensional representation of an employee conducting

business presentations, meetings, or training on a virtual platform that produces a sense

of well-being, for the receivers, through social presence (Chang & Hsu, 2016).

Technological change is one of the primary causes of organizational change (Avolio et

al., 2014). Technological change affects all employee's, and all may experience the stress

of learning technology that is an issue for the virtual manager (Sellberg & Susi, 2014).

For example, the virtual manager will address issues of work accomplishment if the

employee needs training on the use of the technology (Buckless et al., 2014). Individual

technological issues the virtual manager confronts concern etiquette or security (Avolio

et al., 2014; Jennings et al., 2014). Examples of workplace technology etiquette mistakes

include accidentally sending emails to all instead of the few or to only one of which the

communication was intended (Avolio et al., 2014; Jennings et al., 2014). Another issue of

workplace technology is in security where the virtual manager will face the ethical and

legal ramifications thereof (Zekos, 2015). The virtual manager can assure employees know the proper use of technology with written protocols to protect the organization (Jennings et al., 2014).

An advantage of ICT use to organizational employers is higher productivity due to employees' advantage of mobility to get work accomplished at alternate locations (Olaisen & Revang, 2017). This advantage is accomplished through the use of knowledge sharing ICT platforms (Liao, 2017). A knowledge sharing ICT platform may be used in the virtual organization as a means to conduct training, communication, and perform shared tasks remotely (Liao, 2017). Although ease of global connectivity is a benefit of virtual organizations, some other considerations to include are time differences, language differences, socio-cultural differences, and legal differences (Foster, Abbey, Callow, Zu, & Wilbon, 2015; Gilson et al., 2015; Zekos, 2015). Business alignment with technology can positively affect performance, profit, and competitive advantage that also makes technology significant for the virtual office (Aduloju, 2014). The evolution of the virtual organization not only caused numerous changes based on advanced technology but also within leadership (Avolio et al., 2014). Since leadership is affected by the virtual technological advancements, a general overview of leadership is appropriate.

Leadership

The parallel of traditional leadership study to virtual leadership study is significant to the iniquity of research in comparison to both (Avolio et al., 2014). Leadership styles should be effective for the individual leader to the extent of motivating employees to meet the goals of the organization (Landis, Hill, & Harvey, 2014). A

research study conducted by Dinh and five other researchers reviewed 752 articles on leadership literature to conclude the depth of development in leadership theories or styles and diversity within several decades (2014). Dinh's study help to realize the lack of leadership information specific to the virtual organization (Dinh et al., 2014). For example, from the year 1940 until the 2000s, several traditional leadership studies were conducted (Dinh et al., 2014).

Some leadership styles such as; trait, behavioral, contingency, normative, transactional, charismatic, and reflective were studied until the 2000s (Avolio et al., 2014; Clifton, 2014; Meuser et al., 2016). The origins of traditional leadership application began approximately in the 18th century (Landis et al., 2014). The study of leadership is usually derived from the science of psychology and quantitatively researched (Clifton, 2014). Leadership study is important because the leader can directly affect the performance of an organization (Dinh et al., 2014). One leadership skill is keeping employees engaged to the job because when employees are disengaged, there is the tendency not to be as productive and, in this case, manager interaction is critical (Germain & McGuire, 2014).

Two leadership styles frequently practiced are transformational and leader-member exchange (LMX) (Breevaart et al., 2014; Burch & Guarana, 2014; Rowold, Borgmann, & Bormann, 2014). Transformational leadership based on Bass' 1985 research, is a style that motivates employees to perform above expectations (Breevaart et al., 2014; Burch & Guarana, 2014). A transformational leader can intrinsically motivate employees with psychological, instead of material, incentives to keep them satisfied and

engaged to the job (Breevaart et al., 2014; Burch & Guarana, 2014). Employees are influenced because they identify themselves to the leader, as well as; inspired, mentored, and challenged (Breevaart et al., 2014). The transformational leader can engage employees in job satisfaction to commit to organizational goals (Burch & Guarana, 2014).

Social support from transformational leaders is a motivator for performance by providing appreciation, autonomy, and recognition of employees (Breevaart et al., 2014). When employees have a positive influence from employers, they want to reciprocate with a positive work behavior (Wang et al., 2016). Employees can perceive high-quality trust through the encouragement, concern, and respect from the transformational leader (Wang et al., 2016). Transformational characteristics include an ability to gain employee intrinsic motivation through job satisfaction in the form of positive reciprocity between employers and employees (Burch & Guarana, 2014; Wang et al., 2016). Positive reciprocity is a determinant of SET (Emerson, 1976).

The leadership style LMX consists of studying the leader and follower exchange relationship (Clifton, 2014). Leader-member exchange theory origins are from Graen and Cashman's 1975 role theory research (Geertshuis, Morrison, & Cooper-Thomas, 2015). High-quality reciprocal results are influenced by LMX leadership that is about the hands-on high-quality exchange relationship between leaders and employees (Burch & Guarana, 2014). The high-quality exchange relationship is a major factor in LMX leadership that reference the sustainability of SET (Geertshuis et al., 2015; Burch & Guarana, 2014). High-quality exchange results in employee job satisfaction (Hill, Kang, & Seo, 2014;

Rowold et al., 2014). Leaders seek sustainable job satisfaction to maintain intrinsic

motivation from employees through LMX style (Geertshuis et al., 2015; Chaundry &

Song, 2014).

Leader-member exchange theory is most effective to gain employee job

satisfaction through high-quality exchange (Hill et al., 2014). When the leader

communicates job expectations, provides resources to enhance performance to include

themselves as a resource, allows autonomy of work and ideas, and empowers group

decision-making, these provisions promotes high-quality exchange with employees

(Burch & Guarana, 2014; Rowold et al., 2014). A high-level emotional LMX contract

can give the employee a sense of value and psychological empowerment to the

organization (Colquitt & Baer, 2014; Geertshuis et al., 2015; Hill et al., 2014). If the

emotional relationship fails, the LMX leader may lose effectiveness and cause decreased

performance of the employee (Colquitt & Baer, 2014; Geertshuis et al., 2015). When the

relationship is low, the communication is less that can negatively affect organizational

effectiveness, reduces employee happiness or job satisfaction based on poor

communication, and creates a lack of trust (Khattak et al., 2014). A low employer and

employee relationship can result in low performance and job commitment (Geertshuis et

al., 2015; Hill et al., 2014).

Since high-quality exchange relationships are what makes LMX most effective,

the leader would need to constantly maintain it (Hill et al., 2014). Some of the same

factors of enhanced communication and trust to build employee job satisfaction for LMX

leadership is useful in a virtual environment (Hill et al., 2014). Virtual leadership

addresses the factor of non-face-to-face employee interaction (Bisbe & Sivabalan, 2017; Liao, 2017). For virtual organizations, virtual leadership is another management skill to examine.

   Virtual leadership. In a virtual organization, leaders lack a long list of specific leadership choices, whereas traditional leadership choices are not specific enough when selecting the best-fit for virtual or *e*-leadership (Liao, 2017). The uniqueness of virtual situations is not necessarily found in traditional situations to appropriately meet the requirements of a virtual office (Avolio et al., 2014). A virtual environment is different compared to a traditional environment, for example, with communication (Avolio et al., 2014; Orhan, 2014). Communication in a virtual environment lacks visual perception obtained in a face-to-face situation (Orhan, 2014). The study of leadership is noted to begin as social philosophy, continuing the study of psychology, and the study of military leaders (Cowart et al., 2014; Landis et al., 2014).

   The proliferation of organizations conducting business on a global level did not develop until approximately the 20th century (Leduc, Guilbert, & Vallery, 2015). Virtual or *e*-leadership is defined as a social leadership strategy driven by the use of advanced information technology systems (Avolio et al., 2014). The advancement of technology and its use within business operations is the catalyst for virtual organizations (Sellberg & Susi, 2014). The rapid ascension of virtual organizations may be one reason research on the application of leadership to a virtual organization is lacking (Sellberg & Susi, 2014). Versatility and charisma within a virtual leader's capability are needed to motivate employees for the technological transition to a virtual organization (de Vries et al., 2018).

After the accomplishment of employee motivation, a means to maintain it is through the lens of social exchange.

Leaders can accomplish organizational goals without face-to-face contact with an employee or a stakeholder (Baralou & Tsoukas, 2015). In general, virtual leaders do not fully conceptualize that traditional leadership, where face-to-face interaction occurs, is not applicable to virtual employees where issues of distrust develop due to the lack of face-to-face contact (Germain & McGuire, 2014, Khattak et al., 2014). Good communication is key to any business and body cues are not visible in a virtual setting that presents a challenge not found in face-to-face contact (Braun, Bark, Kirchner, Stegmann & van Dick, 2015; Orhan, 2014). Issues of misunderstanding a task, missed opportunities found in spontaneous face-to-face meetings, feelings of detachment from other workers or isolation, and employee tendency to overwork or underwork, are some of the problems associated with virtual communication (Bisbe & Sivabalan, 2017; Brown et al., 2016; Thomas, 2014; Wojcak, 2016). Supervisor distrust of employee work commitment is an issue of virtual communication (Bisbe & Sivabalan, 2017; Brown et al., 2016). Additionally, virtual communication requires conducting regular, brief, and informal meetings to prevent feelings of detachment by the virtual employee (Wojcak, 2016).

Although the study of virtual leadership is considered limited, it encompasses other leadership styles to be practiced within the realm of a virtual organization (Meuser et al., 2016). Since leadership is important to organizational success, it is important to the success of a virtual organization, as well (Landis et al., 2014). A virtual organization can

be complex to manage, but the virtual leader should be flexible enough to be many types

of leaders within one to recognize that virtual leadership is multi-faceted (Bisbe &

Sivabalan, 2017). A level of flexibility is within the conceptual framework of SET that is

also multi-faceted to encompass the value of virtual leadership toward this study

(Chaudhry & Song, 2014). For a virtual leader, SET involves expected reciprocal

behavior from employees by employers and due to the lack of face-to-face contact, the

determinate of trust needs detailed review in a virtual environment (Chaudhry & Song,

2014; Emerson, 1976).

Virtual leadership requires the element of trust without visualizing the employee

or through electronic visualization to meet goals and productivity standards within the

organization while achieving organizational balance (Cowart et al., 2014; Germain &

McGuire, 2014; Khattak et al., 2014). Trust between organizational members is important

for both traditional and virtual leaders as it enables confidence in organizational

efficiency (Gagnon et al., 2014). As a motivator for members to be committed to the task

and the organization, trust between teams is needed (Tezergil et al., 2014). Problems of

trust can occur regardless if face-to-face contact is a factor as in traditional leadership

(Olson et al., 2014).

Trust within virtual teams enhances job contentment, promotes productivity, and

bonds team members (Khattak et al., 2014; Tezergil et al., 2014). For example, past

researchers described unique problems of a virtual office, from the employee perspective,

that may have low organizational commitment or motivation, job satisfaction, and job

performance due to a lack of employer trust (Tezergil, 2014). Additionally, issues of a

lack of trust by the employer may cause perceptions of social loafing (Baralou & Tsoukas, 2015; Gagnon et al., 2014; Olson et al., 2014). Virtual leaders may perceive non-presence when distant employees tend to maintain silence at cyber meetings or perceptions that tasks are not attended to due to the lack of face-to-face interaction (Baralou & Tsoukas, 2015; Gagnon et al., 2014; Olson et al., 2014).

The virtual leader can decrease or eliminate social loafing by installing expensive monitoring systems, improving job satisfaction, addressing employee feelings of isolation, blocking access to some websites, and giving employees a sense of value (Betts et al., 2014; Gagnon et al., 2014; Huma et al., 2017; O'Neill et al., 2014) Additionally, leaders can decrease social loafing by improving communication, and building trust with employees (Huma et al., 2017). Another method to reduce social loafing is to conduct evaluations of the root cause by determining vulnerabilities that cause social loafing (Betts et al., 2014; O'Neill et al., 2014). Methods of decreasing social loafing can be time-consuming, expensive, and ineffective to the point where organizational leaders may embrace social loafing as acceptable, to a limit (Betts et al., 2014; O'Neill et al., 2014). Some researchers contend benefits of social loafing through employee satisfaction and happiness due to employee's ability to take care of personal tasks online relieving worry and stress (O'Neill et al., 2014). For virtual leaders, developing a telework policy that explains expectations should be achieved with employee input and widely communicated for clear understanding (Thomas, 2014).

Considerations of the proper use of workplace technology, as each organization determines, is a decision-making competency for the virtual leader (Avolio et al., 2014;

Jennings et al., 2014). The virtual evolution caused numerous changes within the business based on ICT use, considerations on virtual leadership skills, as opposed to traditional skills, are necessary for a virtual office (Avolio et al., 2014; Baralou & Tsoukas, 2015). Maintaining employee attention to the job when there is a lack of face-to-face contact, is the challenge of the virtual leader (Avolio et al., 2014). Employee issues, technological advances, and the historical significance of virtual management can assist in an understanding of environmental and societal impacts of virtuality.

Virtual Impact on Society and the Environment

Organizational use of virtual technology and individual use on a personal level can meet the needs of customers using advanced technology (Allen et al., 2015; Koles & Nagy, 2014). The virtual impact on society includes the ability of customers to access organizational information online, to access and purchase products virtually, or to communicate opinions of the organization through social media (Avolio et al., 2014; Isaac & Zeadally, 2014; Jennings et al., 2014). Electronic business transactions, known as *e*-commerce, has revolutionized the speed and manner of business functions (Jennings et al., 2014).

In addition to the benefits of *e*-commerce to society, virtual employees benefit by the convenience of working at home or other distant location creating a work-life balance (Berg et al., 2014; Brown et al., 2016; Wojcak et al., 2016). Virtual managers or leaders support employment within society by providing an opportunity for individuals who need to work from home due to personal handicap (Kojo & Nenonen, 2015). The added value of fitting family obligations into work obligations is a benefit to the worker, his or her

family, and the organization (Cooke et al., 2014). Working at home reduces employee

sick leave, employee commute time, improves production, and quality (Berg et al., 2014;

Vega et al., 2015). When employees benefit by working from home, they reciprocate the

benefit to employers through job motivation and satisfaction (Caillier, 2017). Employee

job motivation and satisfaction promotes productivity that benefits the organization

(Caillier, 2017). When employees work from an alternate location, another benefit to the

virtual organization is through office maintenance savings and reduced business travel

because business matters can be conducted using ICT (Kojo & Nenonen, 2015). Without

the expense of travel and commuting, this further benefits society as a virtual

organization depicts social responsibility toward energy use (Backman, Verbeke, &

Schulz, 2015; Berg et al., 2015).

The benefit to society that virtual leaders can strive toward is corporate

responsibility where the organization is fulfilling this by practicing virtuality (Khor,

Thurasamy, Ahmad, Halim, & May-Chiun, 2015). Corporate responsibility for

implementing, practicing, and sustaining ecologically friendly processes is corporate

green information technology (Khor et al., 2015). Corporate sustainability and green

information technology support the economic, social, and ecological growth through

virtual leader conscientious efforts of efficient energy use within the organization

(Pattinson, 2017).

Virtual office benefits relate to the community by reducing travel, reducing the

use of energy, and reducing the use of supplies that affect natural resources (Pattinson,

2017). Virtual work contributes to reduced carbon dioxide (CO_2) emission that positively

affects environmental and overall societal improvements (Backman et al., 2015; Moeckel, 2017). When organizational leaders conduct business, they can preserve or protect natural resources and serve as a credit to global environmental issues that protect the future of a clean environment (Pattinson, 2017). Also, the global workforce provides jobs in different locations from the main office of the organization, which supports the quality of life within foreign societies (Allen et al., 2015). The use of a virtual office is extensive for its impact on the general society, as well as, the general environment.

Transition

The review of literature in Section 1 is a comprehensive explanation of the basis for exploration of leadership for virtual organizations. The literature review is an assessment of social exchange theory as a frame of reference for virtual leaders to manage workers without using face-to-face communication. Social exchange is assessed with other theories related to this study, as well as, positive and negative aspects of SET. The literature review contains information on the history of the virtual world to appreciate the advancement of virtuality. Information on virtual organizations and technology is to realize the specialty of a virtual organization that is significant to this literature review. The literature review is a comprehension of the disproportion of leadership style research for virtual organizations and contains information on traditional and virtual leadership. The implications of the impact of virtuality as a positive social change and improving the overall environment are part of this literature review.

In Section 2, a qualitative case study approach will be used to describe participants, data collection, data analysis, data reliability, and validity of the conceptual

framework of SET. The conceptual framework is predicted to meet the needs specific to a

virtual office for improved benefit toward organizational production, efficiency, work-

life balance, and benefit to the overall society. In Section 3, knowledge of participant

experiences will be collected through interview-based questions related to the knowledge

sought and analyzing the information to show the validity of results. Finally, the

information within this research will be presented as a framework to manage a virtual

organization and the implication of general benefits toward social change.

Section 2: The Project

Collecting and analyzing data will be performed using qualitative case study research. The construct is to understand the experiences of participants to gain a perspective on managers of virtual organizations. Specific interview questions are crafted to pursue an understanding of particular experiences using the conceptual framework of SET. This qualitative study will contain an explanation and description of how participants were chosen. Information on issues of ethics, data collection instruments, techniques, and organization are provided. Within this research, information on data analysis, reliability, and validity will be described and explained.

Purpose Statement

The purpose of this qualitative multiple case study is to explore skills leaders use to manage a virtual office. The target population will include managers in the health care and information technology industries within the Washington D.C. area who successfully manages a virtual office. In this study, I may find significance to social change as a virtual office promotes employee work-life balance and job satisfaction. Job satisfaction can lead to happier employees at work, home, and in the community because of better relationships with their leaders.

Role of the Researcher

As the researcher, my role is inquisitiveness toward my perceived problem, and my challenge is to research it further. The first role of the researcher is to be inquisitive then challenged (Marshall & Rossman, 2016). Qualitative research will be used as a platform to question and interpret participant responses within a natural setting to

understand the phenomenon through the challenge of multiple case studies. The qualitative approach is used to design my research based on an extensive literature review, choice of conceptual framework, data collection, and analysis based on the perceived research problem. Social constructivism is my worldview stance based on the social nature of knowledge gained and shared human experiences. The knowledge gained within the social context of a case study will help in interpreting the data. My choices of research method and design can assist me to be ever conscientious and reflective of my personal view of the phenomenon to prevent or minimize personal bias by designing an interview protocol.

The case study interview protocol I designed, will help with the consistency of interviews, provide triangulation, time to reflect on interviewee responses while taking notes, and add to validity and reliability of the data. The case study interview protocol is a tool of consistency for data collection and the interview technique (Castillo-Montoya, 2016; Dasgupta, 2015; Gasman et al., 2017). Within the protocol, I included a follow-up review of the interview to assure complete and accurate information that will be needed for triangulation and toward providing validity and reliability. A copy of the case study interview protocol is Appendix A. Additionally, my use of a data analysis software and using two case studies instead of one will add to validity and reliability. Incorporating time to reflect will help me identify any interviewee responses that may cause personal bias based on my experiences. My personal view of the study will be mitigated to refrain from seeking conclusions or solving the problem when exploration of the problem is preferred. The researcher must self-mitigate any bias and discuss their personal view

toward the study to refrain from seeking a conclusion (Goldblatt & Band-Winterstein, 2016). Mitigating bias is preferred since I choose to explore an understanding of the research problem instead of solving the problem based on personal bias.

My personal experiences with virtuality within the workplace consist of my background related to my research subject. I am of the baby boomer generation and I grew-up without using advanced business technology. I transitioned into virtuality in my personal and professional life. Regarding telework, I am not a teleworker by choice because I prefer traveling to my place of work to leave my home free of work-related situations. However, I have teleworked a few times just for the experience to assess the nature of teleworking. My limited experience with teleworking affords me with a lack of judgment that assists me in mitigating this bias. Regardless of my desire not to telework, my stance is positive because I believe more research is needed to assist managers of virtual workers. As the researcher, I continually think about or reflect on my personal lens to help mitigate bias.

To prevent unintentional personal insertions within the data, I viewed all data as presented without judgment through reflexivity. The role of the researcher is to continually use reflexivity to provide the opportunity to review oneself for judgments on the research information (Downey, 2015; Finlay, 2014; Rule & John, 2015). The researcher withholds judgment by practicing epoché to mitigate bias and to be open to gaining knowledge (Finlay, 2014; Ward, Hoare, & Gott, 2015). Withholding judgment is sometimes difficult. Therefore, I depend on my decision-making experience throughout my work history where I must practice withholding judgment during the decision-making

process. To provide trustworthiness to the research results, I strive to report my findings based on the research instead of my personal attitudes.

To maintain my obligation of ethics, I respect all participants based on information in the Belmont report and other ethical responsibilities. The role of the researcher is not only to be aware of self-bias but to uphold the moral obligations of ethics (Raˇheim et al., 2016; Marshall & Rossman, 2016). Upholding ethical behavior is incumbent on the researcher toward participants (Marshall & Rossman, 2016; U. S. Department of Health and Human Services, 1979). The Belmont Report, through the U.S. Department of Health and Human Services, Office for Human Research Protections, documents ethical obligations of respect, protection, and providing benefit to participants for their overall well-being (1979). Maintaining respect for participants and practicing ethics continues my role as the researcher.

Participants

The population sample consists of managers of virtual or telework employees. I sought this sample from two organizations within the health care and information technology industries that are listed on Forbes and Fortune 500 as top virtual companies based on the criteria of these entities. An example of one qualitative case study, selected participants based on the top 20 academic institutions and another based selection of participants on Big Four Accounting firms (Gasman et al., 2017; Greer & Payne, 2014). Although the health care industry is regarded to conduct business face-to-face, the industry is using areas of business for employees to telework. The information technology industry routinely conducts business on a virtual level. Organizations with

teleworking capabilities will likely have managers for the employees. Participant criteria are managers with a minimum of two years' experience as a virtual manager. The average number of years worked for wage and salary employees is four years based on information from the Bureau of Labor Statistics taken from years between 1983 to 2014 (U.S. Bureau of Labor Statistics, 2014). For this study, a minimum of two years manager experience is selected as it is within the average four-year range and to increase participation availability. The introductory letter to the organization and information to the participant contains a statement addressing the two-year experience, the possibility of interviewing from two to four virtual managers, and the possibility to review any pertinent organizational documents. The literature review consists of some qualitative research and case studies that explains a rationale for the number of participants consisting of 20, 42, and 24 participants (Downey, 2015; Olaisen & Revang, 2017; Zuofa & Ochieng, 2017). I chose two to four participants from the organizations due to the limited time for my research. A study should be completed within a reasonable time and resources (Marshall & Rossman, 2016). Additionally, I am interested in a telework policy to add to the data collection. The health care and information technology industries are using areas of business for virtual employees to include on a global level, such as the information technology industry, either by telephone or internet database. Within my chosen industries, not all employees need to be in a brick and mortar organization to do their jobs. In the same manner, the employee and employer do not need to be in the same location to accomplish the mission. As the researcher, a multiple case study concerning industries telework capability would be interesting to explore and add to the research

subject. My research question concerns, what skills do leaders use to manage a virtual office? According to research, participant selection needs to be based on the research question, represent a community, and the organizations of choice should have a commonality (Dasgupta, 2015; Marshall & Rossman, 2016).

Based on the research question, this study is about virtual leader skills. The participant sample will provide real experiences from those living within the researched phenomenon, which is necessary to validate the data. I gained initial contact with the chosen organizations through the human resource office or other authority within the organization, either by telephone or personal visit initially, then email the letter of introduction. According to research, one method of gaining initial contact is through the organizational human resource division (Greer & Payne, 2014; Marshall & Rossman, 2016). I created a brief letter of introduction as an introduction to myself, the study, need for participants, choice of the organization, and other information deemed necessary. Within the letter of introduction to the organization, I mentioned respect to participant rights, and privacy issues. Marshall and Rossman (2016) described the protocol for gaining access to a research sample that includes a letter of introduction and other information that should be provided. A copy of the organizational introductory letter is Appendix B. Along with the introduction letter, I provided a letter of cooperation posed from a research partner perspective. The organizational or research partner letter of cooperation was provided to ascertain confirmation from the organization that I may conduct the research. The letter of cooperation includes a request to forward the potential participant introduction letter, allow access on-site to conduct interviews, and to allow

overall communication with volunteer participants that pertains to the research.
Agreement from the organizational research partner is signified by an email reply and by
forwarding the introductory letter to virtual managers after reading the letter of
cooperation. The research proposal explains methods of gaining access to the research
participants that may require negotiating and maintaining access through a gatekeeper
(Marshall and Rossman 2016). My method of gaining access through the human
resources office or other authority will add to presenting openness and sincerity intended
to obtain trust through contact procedures.

       To maintain the trust, I established a working relationship with the human
resource office personnel, or organizational authority, if necessary, and the targeted
participants. Gaining and maintaining a straightforward relationship with the sample
population and participants is important to set a positive tone for a working relationship
(Finlay, 2014). Upon initial verbal or email contact to the human resource personnel or
other authority, such as a director, I provided my intent, personal contact information,
ensured methods of privacy, and other information to set the tone of ease upon personal
contact with research partners. The letter of introduction to virtual managers as potential
participants accompanied the letter of cooperation attached to the organizational
introductory letter. The potential participant introductory letter contains some information
on the research and participant privacy. Once I received a reply from potential participant
volunteers, I provided an email to briefly explain how to respond to the attached letter of
informed consent and interview questions. The interview questions are for review
purposes only. A copy of the interview questions is Appendix C. On the informed

consent, I informed the participants about the approximate length of the interview session, the transcription review follow-up, and request of any company documents that can be useful for my study, such as, the telework policy. Providing this information is consistent with the interview protocol and is used to assure participant awareness of what to expect (Dasgupta, 2015; Marshall & Rossman, 2016; Wang et al., 2016). Within the interview, I was respectful, attentive, and observant of the participant attitude to ascertain any problems that can be addressed for early resolution. Showing sincerity within the interview assisted me to maintain a positive working relationship with participants (Marshall & Rossman, 2016). Also, a face-to-face interview provided me, as the researcher, an opportunity to observe participant behaviors and nonverbal cues to capture implications within responses (Downey, 2015; Finlay, 2016). I remained cognizant of behaviors or expressions so that I can make a note of the implied information and I maintained reflexive interpretation to prevent insertions of bias from myself.

Research Method and Design

The method and design of this study is a qualitative and multiple case study. Choice of method and design is used to encompass the nature of the study. The nature of the study is the basis for this research to reach the participants practicing the phenomenon to gain a broader understanding of the overarching research question.

Research Method

The qualitative research method is selected to obtain the perspective of participants lived experiences. Based on Denzin and Lincoln's (2011) explanation, qualitative research is used to understand lived experiences and to interpret information

specific to the phenomenon sought. Testing hypotheses will not be made since quantitative research is not the method of choice. As a precursor to determining the phenomenon in quantitative research, testing a hypothesis is required (Marshall & Rossman, 2016). Within qualitative research, the point is not to determine a quantitative number of how much or how many (Zamawe, 2015). I choose not to present qualitative and quantitative methods together, as in mixed methods research, due to the added extensiveness of a multiple case study. Marshall and Rossman (2016) provide information on mixed methods research, such as qualitative information and quantitative data used predominantly with case studies. Open-ended questions are used without scales of measurement. Related to Greer and Payne's (2014) mixed methods research, scales of measurement are usually required. Qualitative research is used since I seek to understand a management practice from the participant's view of managing a virtual office.

Research Design

Multiple case study is the research design chosen to gain knowledge from two organizations. I choose to go to the source to gather lived experiences and provide added value to my research with possible literal replication. A multiple case study can be used as a general analysis of more than one case facing a particular phenomenon (Rule & John, 2015). A phenomenological design was not chosen. An aspect of case study research is phenomenological in observing the overall group experience within the field (Rule & John, 2015). However, the phenomenological design was not the design of choice as this study will not be taken from the overall group, rather the individual virtual manager. Ethnography was not chosen. Ethnography is research of human social cultures

and explains certain phenomena of cultures (Marshall & Rossman, 2016). Although my

research involves some field observation, I am not studying from an anthropological

stance as in an ethnographic study (Moustakas, 1994). This research will involve

obtaining information in the exploration of lived experiences. Narrative theory research

was not chosen. Although the narrative of the experience is within the interview process,

this research is not solely based on participant narratives. The narrative research typically

includes the entire narrative of which the entire personal experience is analyzed in a

social context (Marshall & Rossman, 2016). After deciding on the research method and

design, I decided on the choice of population and sampling.

Population and Sampling

Defining the Population

Participants for this study are managers of virtual employees. The overarching

research question is a guide for defining the population. The population for this study is

from a stratified random selection of organizations that have virtual employees that

means virtual managers will be in place. The organizations or overall industry are ranked

as a virtual company and successful according to Forbes or Fortune 500. Organizations in

the health care systems and information technology industries meet participant and

population criteria. As part of the research design, the process should be logical, and the

population should apply to the overall study (Dasgupta, 2015). For example, in Wang et

al. (2016), researchers centered the participants and population by transformational

leaders and feedback seeking followers; whereby the researchers logically selected the

technological industry because feedback to employees was flexible to the nature of the

work. A multiple case study is for analytic generalization with similar or literal replication (Yin, 2017). This qualitative multiple case study is designed as a similarly predictable replication based on using cases in the virtual workforce and similar location.

Sampling

In this multiple case study, I interviewed managers of virtual workers, as they meet the participant criteria within organizations. Although the sample size may be one for a case study, the sample size contained two to four based on the number of volunteer managers available. A case study is used to explore participants to gather their experienced knowledge (Gasman, et al., 2017). The sample consisted of two to four virtual managers from the organizations. A single case study may contain one person as the sample (Marshall & Rossman, 2016). The sample size for a qualitative case study is a varied concept, whereby, each situation is unique (Malterud, Siersma, & Guassora, 2015). The cases represent organizations whose employees can and do work from home or other location where face-to-face supervisory contact is not always possible. The sample of a study should be symbolic of the population for the research (Elman, Gerring, & Mahoney, 2016). For this multiple case study, the participant will need to virtually manage employees for a minimum of two years. To prevent convenience sampling or ethical issues, I chose not to use my workplace. Purposive or convenience sampling may not meet the specifics of a study, and the researcher should focus on the quality of information obtained (Malterud et al., 2015). I relied on the quality of information from eligible participants, as experienced virtual managers, to provide valuable insights for business leaders.

Data Saturation and Sampling

      The business industry decided upon is health care and information technology, where customers and patients seek availability of related services. Healthcare Systems consist of hospitals, pharmacies, or any related organization that provides health care benefits. Information technology (IT) consists of companies that provide IT support, such as communications or network management. The choice of a multiple case study will help to ensure a wider scope of sampling compared to the single case study. A multiple case study can represent a larger population (Elman et al., 2016). Additionally, multiple case study provides a base for building theories (Dasgupta, 2015). A replication design, interview case study protocol, is followed to ensure data saturation from the population sample, and to predict similar results within the two cases. Data saturation in case study research should represent quality and quantity information as much as possible (Fusch and Ness, 2015; Marshall & Rossman, 2015). Multiple case studies may be used to predict similar or contrasting results (Yin, 2017). Supporting information is used, as data, from the literature review. Strategies of research are in the literature and can be used to support participant information (Tran, Porcher, Falissard, & Ravaud, 2016). Semi-structured interviews and an interview protocol is used to fully capture the information. The interview protocol is to collect data relevant to the overarching research question suitable for multiple case study to encompass replication of results (Marshall and Rossman, 2016). A semi-structured interview method can help to gain saturation by asking the same questions to participants (Fusch & Ness, 2015). As the data collector, I requested any company documents including Internet information that may add to my

data collection. Multiple sources of data areused to determine when no new information is gathered. Data saturation is reached when there is no new information, or the new information is not significant to the research (Fusch & Ness, 2015; Malterud et al., 2015; Tran et al., 2016). Upon deciding on the research population and sampling, the next consideration is ethical responsibilities, particularly toward participants.

Ethical Research

An interview protocol was designed to assist in maintaining ethics. One primary process whereby the researcher can comply ethically toward the participant is through an interview protocol and questions should be formulated to answer what the researcher needs to know (Yin, 2017). The Walden University consent form example was used as a guide to present to eligible participants for consent to the research. The researcher needs first to consider the participant, such as obtaining formal consent or protecting privacy (Bernard, 2013). Obtaining informed consent explains the study, data collection procedures, volunteerism of participant, the ability to withdraw volunteerism, risks, and benefits of consent to participate (Walden University, 2017). The informed consent contains information on participant confidentiality, an advocate contact number for the research participant, security of information provided, and any other information based on guidance from Walden University (Walden University, 2017). The consent form should serve as a manner to assure the participant that no harm will come to them due to the obtained information (Bernard, 2013). The participants were informed of their requirement concerning the interview, that no identifying information on individuals or the organization will be revealed, to state to the researcher if they wish to withdraw, and

that data will be stored for at least five years. A password will secure the electronic data that will be deleted from the hard drive and cloud storage at a later date. The hard-copy data will be locked in a secure place within my home residence then shred.

Each participant of this study provided consent to the collection of interview data. The participant consent was obtained by electronic signature. Once I received a reply from potential participant volunteers, I provided an email response requesting a reply of *I consent to participate or I consent* upon reading an attached informed consent. In following the guidance of the Belmont Report, I ensured all participants fully understoodd their role in the study to include that they can withdraw, at any time, during the study. Each participant was provided a written explanation on the consent form, on how to withdraw by notifying myself, as the researcher. Information obtained in an informed consent should reflect voluntary participation, withdrawal from the research information, protection of identifying information, respect for participants, and provide for ethical issues about the collection of data (Marshall & Rossman, 2016). Overall respect for participants will be recognized that includes protection as guidelines provided by the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research (U. S. Department of Health and Human Services, 1979). Additionally, I completed the required training and have a current National Institute of Health researcher certificate.

As part of the protection of human subjects, the participants were identified by number and the organizations identified by alphabet. Participants or the human resource officials of the organization are to be provided a one to two-page summary copy of the

final approved research document. The benefit to participants and society overall is a better understanding of what makes a virtual organization successful based on the case studies for possible implementation of practices. A successful virtual organization provides employees the ability to work from home that affords the employee more time with family, less travel commute, and a better balance between work and home responsibilities. The employer saves on overhead costs of maintaining office space and more work time from employees. Understanding what other organizations do to manage virtual employees is the goal of the information sought. Upon approval from the Walden University Institution Review Board (IRB), the approval number is provided, 08-13-18-0351524 to collect data. The Table of Contents and the appendix will list some documents associated with this study.

Data Collection Instruments

As the researcher, I am the primary data collection instrument for this study. In qualitative research, the primary data collection instrument is the researcher (Fusch & Ness, 2015; Goldblatt & Winterstein, 2016; Marshall & Rossman, 2016). I interviewed participants using a semi-structured interview, open-ended questions, recording device to capture responses, manual note-taking to capture nonverbal information, and analyzed additional organizational documents. I requested a copy of the organizational telework policy to review, if available. By using a case study interview protocol, accuracy will be enhanced with email follow-up on the interviews, and I transcribed with the use of the Nuance Dragon Naturally Speaking software. A semi-structured interview process is used to ask interview questions and is suitable for multiple case study research (Dasgupta,

2015; Marshall & Rossman, 2016; Yin, 2017). Each interview may be up to an hour in length and a follow-up interview will consist of the synthesized interview emailed to participants for clarification or additional information (Dasgupta, 2015). Analyzing additional documents from the organization is a common researcher practice to supplement data collection (Gasman et al., 2017; Yin, 2017). The interview form of data collection is common for qualitative and case study research along with using a recording device (Denzin & Lincoln, 2013; Marshall & Rossman, 2016; Yin, 2017). Case study interview protocols help to maintain the structure of the data collection process (Marshall & Rossman, 2016).

As an added method to analyze data, I used a computer-assisted qualitative data analysis software (CAQDAS) for purposes of validity or trustworthiness of data analysis, reliability, and data trends depending on the number of qualified participants within my sample size population. Using a CAQDAS helps the researcher to find trends, improve the accuracy of analysis, manage the organization of data, and provide rigor (Houghton et al., 2017; Kaefer, Roper, & Sinha, 2015; Marshall & Rossman, 2016). The data collection technique explanation expands my role as the primary data collection instrument.

Data Collection Technique

Data collection consist of the interview technique based on the over-arching research question: What skills do leaders use to manage a virtual office? Using interviews is a qualitative method of gathering data (Bengtsson, 2015; Castillo-Montoya, 2016; Marshall & Rossman, 2016). Interviews provide the knowledge to the lived experience of qualitative research (Dasgupta, 2016; Denzin & Lincoln, 2013; Marshall & Rossman,

2016). The interview protocol was used as a guide to assure that the same steps are used for each participant, and I maintain a practice of epoché during the data collection process. The interview case study protocol is constructed with an introduction, a list of open-ended questions, and conclusion. In the introduction, participants were reminded that confidentiality will be maintained and they can choose to withdraw from the study at any time. Permission was requested to record the interview. One advantage of using an interview protocol is to make sure the questions relate to the main research question (Bengtsson, 2015; Castillo-Montoya, 2016; Marshall & Rossman, 2016). During the interview, I documented nonverbal expressions if needed and other notes to assist during transcription.

After the interview, I thanked the participants and requested email contact for an additional follow-up for clarity, accuracy, and additional information as necessary. Reliability of the research is most important when using a protocol (Dasgupta, 2015; Marshall & Rossman, 2016; Yin, 2017). Using a protocol aids in maintaining member-checking by including a follow-up review of the interview procedures to check for accuracy, additional information, and thoroughness of data (Dasgupta, 2015; Hadi & Closs, 2016; Marshall & Rossman, 2016). Member-checking as part of the protocol provides reliability as the researcher conducts follow-up on the interview information (Castillo-Montoya, 2016; Dasgupta, 2015; Marshall & Rossman, 2016). As a departing assurance, I confirmed that the data collected will be maintained securely, at my home, for five years from the date of completion and approval. Although data collection procedures are important, organizing the data is also necessary to review next.

Data Organization Technique

The interview protocol was used to collect interview data that was labeled as organization A or B and numbered by participant 1, 2, or 3 until the last participant interviewed at each organization. The number of participants depended on the number of virtual managers from each organization although I targeted two to four. The interview information was electronically stored first by using a recording device during the interview then transcribed using Nuance Dragon Naturally Speaking software on a Microsoft (MS) Word document. Interview data was saved in an MS Word document separated by the organization, participant, and interview question; for example, A1(1) describes organization A's first participant by number and the response to the first interview question. Only the response was extracted for further evaluation of that question. The second organization B first question for participant 1 was labeled B1(1) and so on until all labeling or coding was complete. Coding the data is used to analyze trends (Cornellissen, 2017; Gasman et al., 2017; Rose & Lennerholt, 2017).

Each transcribed interview was summarized to capture the overall essence of the session. Handwritten notes and organizational documents were included in the data capture and electronically saved using the organizational and participant coding technique. Literature review information is stored electronically and by using a hard copy filing system by themes such as conceptual framework, leadership, history, and other themes. The electronically stored sources are password protected, and the hardcopy sources will be maintained in a container placed in a secure location at my home (Denzin & Lincoln, 2011; U. S. Department of Health and Human Services, 1979; Yin, 2017).

All sources will be protected and stored for five years from completion of research study publication date. The IRB provides guidance on research and Walden University IRB directs that data be stored for five years after degree concurrence (Denzin & Lincoln, 2013; Marshall & Rossman, 2016; Walden University, 2017). Electronic sources will be subsequently hard drive and cloud deleted from my personal computer. The hard copy sources will be hand shred or taken to a licensed shredding service.

Data Analysis

Data was collected from two case studies instead of one. To gain more information to study the phenomenon, two case studies will give more examples of participant experiences (Downey, 2015). After initial contact and cooperation from the case study human resource or other officials, eligible volunteer participants were contacted to secure the research consent. As potential participants respond, interviews were scheduled. The interview protocol is structured to gather participant responses then a review of the interview to assure accuracy and completeness.

The interview protocol was used for consistency of data collection and interview technique, as well as, help to gather all data. The case study interview protocol is a tool of consistency for data collection and the interview technique (Castillo-Montoya, 2016; Dasgupta, 2015; Gasman et al., 2017). Organizational documents relevant to the research question, such as a telework policy were requested for data collection inclusion. Handwritten notes were generated during the audio recorded interviews. The follow-up interview review is for triangulation and member checking of the data.

Triangulation of research data is to use multiple methods or sources of data for

analysis (Bengtsson, 2016; Cornelissen, 2017; Fusch & Ness, 2015). As all interviews and follow-ups are completed, the information was transferred to an MS Word document using Nuance Dragon Naturally Speaking software for translating from the recording device. A manual data coding was constructed of all responses to each interview and question to determine emerging trends. The manual coding identified the organization by alphabet and the participant by the number associated with the organization's alphabet. The researcher can apply coding during the data collection process by differentiating the interview information by participants, locations, or other means to categorize the data (Dasgupta, 2015; Guest, Namey, & McKenna, 2017). The organizational document and hand notes were identified by organization A or B alphabet and D for document or N for note. All interview data, organizational documents either hardcopy or electronic and hand written notes were included as all data collected.

The manual coding was electronically and manually saved until all collection was complete and provided within a CAQDAS software package, NVivo, to enhance the manual collection method and as an additional reassurance of data analysis. Researchers can use the electronic data management tool to store, code, and evaluate information from the research (Gasman et al., 2017; Guest et al., 2017; Zamawe, 2015).

Both manual and CAQDAS analysis were studied for themes based on concepts of or keywords of SET. For example, a concept of SET is job satisfaction, and the data may reveal this as a theme. However, all themes regardless if a concept of SET were annotated. A word frequency search within the transcribed document can be a step of analysis toward finding themes (Cornellissen, 2017; Gasman et al., 2017; Rose &

Lennerholt, 2017). Data analysis included using a protocol to gather the information, use all information, code data, identify themes, and focus on themes based on the literature and conceptual framework. An important aspect of the data analysis process is the capability to interpret the results to the purpose of the research (Dasgupta, 2015; Elman et al., 2016; Gerring, 2017). Results of analysis should show how this research is significant or not.

Reliability and Validity

As the researcher, I want to show reliable and valid information to support my research. I want others to follow my logic as I present the sequence of my research to provide value and significance. Also, I intend to obtain reliability and validity by gaining credibility, confirmability, transferability, and dependability or trustworthiness of my research. All of these factors, as well as others, are addressed for reliability and validity of this research.

Reliability

Within the data collection phase, I contacted the organizations to access participants. Accessing participants will lead to interviews and other sources of information where I took notes to the point of analysis and summation. My notes are used to help evaluate personal thoughts or feelings to mitigate bias as I think about or reflect on the information gained. I can reflect on the data collection process that includes reasons for my decisions to follow the sequence of my logic. Note taking is used to capture events of this research to assist others to follow my process. Note-taking supports creating a means for other researchers to follow for replication and researcher reflexivity

of the research process and mitigating personal bias (Bengtsson, 2016; Downey, 2015; Levitt, Motulsky, Wertz, Morrow, & Ponterotto, 2017). Reliability of research is to show that replication is possible (Bengtsson, 2016; Wright, 2017).

Additionally, following the case study interview protocol includes one more contact with participants to gain more information and double-check accuracy. Double-checking and member checking accuracy is used to make sure the intent of the participant is clear, allow for added information, and make sure my transcribing is correct. A strong interview protocol is one measure that can be followed by others to support reliability (Castillo-Montoya, 2016). An interview protocol includes measures of member-checking for accuracy and follow-up of data collection (Castillo-Montoya, 2016; Dasgupta, 2015). To further support my interpretation of data I used NVivo, a computer data analysis tool to add to the reliability and dependability of research. As I strive for research reliability, results from NVivo can enhance both reliability and validity. The data analysis tool, NVivo, is used to find statistical values of text information (Sotiriadou et al., 2014; Zamawe, 2015).

Following the case study interview protocol, note-taking, member or participant checking, transcript checking, computer-assisted data analysis, and saturation of information is used for reliability because these steps show dependability of my research. This process aided me in obtaining data saturation because I obtained as much information as possible from participants. Data saturation was noticed when I saw repeat information. Data saturation can be assessed through repeated themes or information found in the data collection (Dasgupta, 2015; Gerring, 2017). Although data saturation

for case study research can be questionable, it is useful for reliability purposes (Gerring, 2017). Using two case studies assisted in gaining data saturation by providing more information to analyze.

Validity

A multiple case study adds to validity by providing participants from two organizations that expands my sample size, provides a broader perspective of the phenomenon and more data to analyze to reach saturation. Multiple case studies can increase saturation by obtaining more data, thus; increasing the ability to understand the phenomenon (Dasgupta, 2015; Downey, 2015; Marshall & Ross, 2016). The multiple case study provides validity to support my research as trustworthy. Qualitative research factors for validity are credibility, confirmability, transferability, and dependability (Marshall & Rossman, 2016). Trustworthiness is a factor that encompasses reliability and validity that the researcher should address (Marshall & Rossman, 2016). For validity, I maintained conscientious of personal bias to present trustworthiness. An example of personal bias restraint is by reflecting on the interviews and other data to maintain bracketing or epoché for a fair interpretation. Reflexivity incurs trustworthiness because the researcher continually reflects upon personal thoughts to prevent bias (Levitt et al., 2017). The validity of this research may be contracted through credibility, confirmability, transferability, and dependability.

Credibility. I strived for rich data by seeking in-depth interpretations through member checking the interview documentation, taking field notes, and reflecting on the progress of the research. Member checking was conducted through the follow-up

interview review where the participants had an opportunity to review transcripts for validity and clarify information as necessary. Additionally, triangulation was conducted through the follow-up interview review, interview protocol to maintain consistency, note-taking for observed expressions from the interviews, and organizational document review. The case study interview protocol was created to maintain the consistency that other researchers can follow.

Credibility is gained by using appropriate processes to the study method that can be followed by another researcher (Bengtsson, 2016). Practices such as member-checking, triangulation, rich data, alternative evidence or an assessment of supporting statistics can be applied to validity (Marshall & Rossman, 2016). Member checking for accuracy of information is an important step for credibility (Hadi & Closs, 2016). Practicing bracketing or epoché supports my claim of credibility through reflection of data and removing personal bias. The researcher practices epoché through internal reflection (Downey, 2015).

Confirmability. As the instrument to data collection, I transcribed the data after collection from all selected sources. After transcription and member checking of the data, I reviewed the data to find trends or themes and establish codes for documentation and analysis. Coding the data and searching for themes helps me to determine if there are no new themes for purposes of reaching data saturation. Validity is supported by data saturation which is reached when no new themes are found, and the research can be replicated (Fusch & Ness, 2015; Tran et al., 2016). Member checking to support credibility will be similarly used to support confirmability. Participants confirmed the

accuracy of the interview information through follow-up interview review, as directed, within the interview protocol. The email follow-up review is where participants were provided a copy of the transcript to review for accuracy and additional information if needed. Any documents I obtain in hard copy or from the corporate website, such as, the telework protocol, was reviewed for data that pertains to my research.

Additionally, personal note-taking was evaluated for data to aid in confirmability as triangulation of the data. Member-checking and triangulation are methods of applying validity (Marshall & Rossman, 2016). The NVivo software was used as additional data analysis to provide rigor to the research by supporting my data interpretation. A CAQDAS analysis tool, such as NVivo assists in my confirmability by providing an additional set of interpretations and summations. A researcher can manage and analyze data by using a CAQDAS software package (Sotiriadou et al., 2014). A CAQDAS software package is used to transform text from notes, interviews, or other documentation into a statistical analysis (Sotiriadou et al., 2014). Confirmability is applied along with transferability, credibility, and dependability to show how the research can be confirmed through logic interpretation by other researchers (Marshall & Rossman, 2016).

Transferability. Interviewing participants from two corporations, using an interview protocol, and note-taking is used to provide detail of my research data gathering for others to follow. The participants are managers in the health care and IT industries within the Washington D.C. area that manages a virtual office, and the over-arching research question addresses their methods. The case-study interview protocol is designed to follow the same data collection steps with each participant. Within case study

research, the sample of participants should be narrow for a specific or targeted research question (Malterud et al., 2016). The multiple case study is for gathering data from two sources for saturation purposes. I practiced epoché through internal reflexivity and noting personal bias while interpreting the data. Interpretation of data is made by the researcher practicing epoché through internal reflection to remove or reduce bias (Downey, 2015). The case study interview protocol can be a constructive tool to focus the research (Castillo-Montoya, 2016).

Practicing the qualitative methods as outlined, will help in gaining dependable and trustworthy data analysis for transferability. Trustworthiness of data is needed for transferability aspects of the research (Graneheim, Lindgren, & Lundman, 2017). Transferability is related to credibility in as much as providing rigor through appropriate and detailed descriptions of processes used in the research for other researchers to follow (Hadi & Closs, 2016). Validity can also be supported by the use of a multiple case study to provide an ability to replicate the study with rich data and documentation (Elman et al., 2016). Factors for transferability are similarly found in credibility and confirmability as all provide validity along with the reliability of this research.

Dependability. Dependability of research encompasses a process to follow for replication purposes although, conditions of the phenomenon changes (Marshall & Rossman, 2016). The interview protocol that I created is a research tool to use for consistency of the data collection, as well as, a tool for member checking. The protocol contains information that I may maintain consistency with each participant to schedule a follow-up interview review. At the follow-up review, each participant was provided a

synthesized transcript of the original interview to check it for accuracy and additions, if any. Providing participants with an opportunity to review interview transcripts is a method of member checking (Denzin & Lincoln, 2013; Marshall & Rossman, 2016). I strive to gain dependability with trustworthy data. Trustworthiness of research is obtained through member checking the interview information and using a protocol (Castillo-Montoya, 2016).

I gathered organizational information, such as a telework policy, to include with the interview data and use handwritten notes taken during the interview. The handwritten notes consists of nonverbal observations of the participant that may be relevant and to record my reflexivity during the interview. Data used from multiple sources is a triangulation of the data collection and is consistent with validation (Denzin & Lincoln, 2013; Marshall & Rossman, 2016). My efforts to gain member-checking and triangulation of data supports the trustworthiness of data. Additionally, I manually coded the data and electronically analyzed the data using NVivo software to gain rigor of the data analysis. The NVivo tool is ideal for use in collaboration with data analysis (Zamawe, 2015). In gaining enough data to critically analyze, I can interpret themes with comparative data analysis. Member checking, triangulation, a multiple case study, and the NVivo tool are my avenues to assist in data saturation and critical analysis. Repetitive patterns of data collection and analysis is an indication to the researcher of data saturation (Marshall & Rossman, 2016).

Transition and Summary

The proposal of research, in Section 2, is an expression of how the researcher will

conduct the project. The proposal identifies participants, research method and design, regard for ethics, population, and sampling. The main focus of the proposal is the researcher's explanation of data analysis, reliability, and validity. The proposal section is used to address how research protocol supports reliability and validity factors. Expressing how the research will be conducted ties into the next phase of the application. Within the application, Section 3, the first step was to have approval from the IRB to collect the research data. Section 3 consists of a presentation of the findings to show the analysis and the application to practice. Additionally, I provided a description of the effects of social change from the analysis, any recommendations to apply the research, and the need for future research. A concluding statement of the research practice is provided, as well as, results of the research and shared reflections of researcher experience.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of this qualitative multiple case study was to seek skills leaders use to manage a virtual office. The participants of this study are managers of virtual or teleworkers who work in either the healthcare or information technology industry. A manual analysis, conducted by the researcher, found similar responses or themes from each participant on each interview question. The three primary themes found from the data analysis were communication, leadership, and developing relationships. The data was submitted into NVivo, automated data analysis software, to enhance the manual results and validity. The main themes are consistent with the conceptual framework, social exchange theory, and the literature review.

The benefit of this research provides commonalities and differences of management between a traditional and virtual office in professional practice. Another benefit of this research is the managerial insight learned from participants to managing employees who work from home or other alternate location. Telework provides greater job satisfaction because employees can balance work and home responsibilities, training requirements, and other business functions without the need to travel away from home. The overall society benefits because more employees are teleworking. The benefit of a virtual office contributes to less energy use for organizations, as well as, beneficial to society through corporate responsibility actions that help preserve the environment.

Presentation of the Findings

The overarching research question for this study is: What skills do leaders use to

manage a virtual office? The data collected includes the interview information, researcher notes, and company documents. The presentation of findings encompasses a detailed discussion of all findings and how themes were identified that would be discussed in detail.

Data were collected from managers of virtual workers or teleworkers in the healthcare and information technology industries located in the Washington D.C. and surrounding areas through interviews. After receipt of consents from organization A and B, informed consents were provided to proposed participants who responded with a statement of consent agreeing to participate in the study. I conducted face-to-face interviews that were audio recorded. Interviews were conducted using an interview protocol with seven semi structured, open-ended questions asked to each of four participants. By the second and third interviews, participants answered questions with similar responses. I reached data saturation because the fourth interview obtained no new information.

I conducted each interview in the same manner and asked the same questions of each participant to gain reliability and validity through credibility, confirmability, transferability, and dependability. Reliability and validity are measured by my transcribing and summarizing or synthesizing interviews and submitting to participants for member checking. I transcribed interviews using Nuance Dragon Naturally Speaking software. Each participant reviewed their respective synthesized interviews to make sure that I captured their responses correctly. Member checking also supports credibility by triangulation of data, such as synthesized interviews, company document review, and

researcher notes. Using multiple types of data collection provides triangulation. As the data collector, I took written notes on each interview to ascertain any nonverbals or my impression of the participant. The written notes were coded by the company letter and participant number. Notes on each participant were reviewed for trends. I also requested company documents on telework protocols from participants of each company. Company documents were reviewed and considered in relation to this study and coded. However, company documents were not included in the trend analysis and discussed separately because only one document was relevant.

Confirmability is supported because data collection consists of transcribed and synthesized interviews reviewed by participants, achieving saturation of data, and using a CAQDAS software as an additional method of data analysis. Using the interview protocol helped me to achieve transferability to follow the same data collection steps with each participant. All methods of data collection are by using a protocol, triangulation, member checking, data saturation, and using the CAQDAS software to support dependability to this research.

I coded the data as transcribed interviews with A1, B1, B2, and B3 participants then synthesized by participant code. Companies are identified as A and B, notes are identified as N associated with the participant and company. Documents are discussed separately because only one company had a telework policy. All data was manually assessed and coded as nodes before I entered it into NVivo. NVivo is a CAQDAS database for purposes of automated data analysis. Automated data analysis was completed using the NVivo database to assist in obtaining validity. Interview transcripts,

synthesis of interviews, and notes composed the creation of multiple nodes. The manual analysis was conducted through a word search for similarities. Similarities were sought by reviewing each response by each participant interview responses. Some occurrences were subjective because the researcher determined the similarities from the manual and NVivo analysis. A word frequency was generated from the triangulated data entered into NVivo.

Table one represents the combined identified multiple themes by the number of occurrences from highest to lowest from the analysis. Some occurrences, shown in table one, have dual applicability to each theme and will be applied accordingly in the theme analysis. Based on the triangulated data, the three outstanding themes were identified. Communication occurred 18 times, leadership occurred 12 times, and developing relationships also occurred 12 times.

To understand the meaning of some themes on the table, the theme listed as clear refers to clear communication, the CPI acronym means corporate production indicators, sales refers to background manager experience, the theme one-on-one indicates individual face-to-face meetings, and the theme breakdown refers to task breakdown methods used by the managers. All other themes are incorporated into the three main themes discussion for simplicity of data analysis. The total at the end of the chart is the number of nodes coded into NVivo that equals to 14 nodes. The symbol N, across from each node or theme represents the number of occurrences found through manual and NVivo analysis.

Table 1

All Nodes or Themes (N = occurrences)

Nodes or Themes	*N*
Communication	18
Leadership	12
Develop Relationships	12
Trust	10
Clear	10
Experience	10
Tools	9
Feedback	8
CPI	6
Sales	6
Openness	5
One-on-One	5
Breakdown	3
Profit	3
Total multiple nodes	14

Themes are analyzed by relevance or nonrelevance to the conceptual framework, SET. Also, a review of the literature is included to confirm or not confirm the significance of the data analysis findings. A discussion of researcher notes on the participants and company documentation is provided as part of the data analysis. The relevance of all subthemes is included in the main themes.

Communication

Studies involving organizational communication are associated with SET, and communication is a determinant of SET (Collins, 2016). This study is an exploration of required management for virtual employees that require non-face-to-face communication some of the time or all of the time. All of the participants expressed the need for frequent and clear communication. The SET determinant in communication blends in with employee engagement or social presence and both lean toward the construct of SET (Chaudhry & Song, 2014; Baralou & Tsoukas, 2015).

Participants referenced clear communication within nearly all of the interview questions, for example, all participants conducted daily and weekly communication contacts with employees. All participants expressed concern for ensuring task understanding and the remedy for this is to provide excellent communication. Although communication is a determinant of SET, it is a stronger determinant for employee engagement and social presence. For the virtual leader, proper and frequent communication is also needed to avoid employee isolation problems (Prasad, DeRosa, & Beyerlein, 2017). Regarding communication in the conceptual framework of SET, it is a means for managers to enhance knowledge sharing power through reciprocity between employees, as well as, leaders (Huang, Cheng, Huang, & Teng, 2018).

Clear and frequent communication is essential for the virtual leader because communication lacks body cues (Braun et al., 2015). Some participants stated it was a disadvantage to not have eye contact when communicating with employees. For example, participant B1 claimed employees are more productive as a group when they are face-to-

face, and participant B2 claimed difficulty in assessing if the communication was fully understood. Virtual communication can be misunderstood due to a lack of body cues or just unfamiliarity with a communication style according to participant B2. Clear communication in a virtual environment lacks visual perception and this is a main feature for managers to overcome (Liu et al., 2018). Frequent communication in the virtual realm is required between management and employee's (Wojcak et al., 2016).

Clear communication encompasses openness of communication that is based on the replies of some participants. Openness was the forum for situations of one-on-one meetings with employees according to participants B2 and B4, the majority of the time. All of the participants explained frequent communication to include one-on-one communication and one-on-one communication was conducted to build relationships, clarify task assignments, as well as, for positive or negative reasons. Some participants claimed that openness was used to describe the type of communication used in leadership practices, such as, providing feedback and developing relationships. Particularly positive feedback is useful for improved attitude and competence (Hickman & Akdere, 2018). Participant A1 stated, as managers they are open to employee feedback. Participant B1 said an open communication environment assists with one-on-one meetings with employees and participant B2 similarly said open communication assist with understanding each other, mainly when explaining tasks. Participant B3 explained open communication is needed to promote an environment of trust. The participants generally expressed that developing positive relationships helps with openness because it eases the exchange of communication, and keeping an open work atmosphere is recommended.

Some participants mentioned that explaining task breakdown instruction assist in clear communication to provide an understanding with task requirements. For employees, the tools needed to perform the job was provided by the company. Company tools are computer hardware, software, and sometimes cell phones. Also, managers instill empowerment of employees by providing the tools to do the job and allowing group decision making (Burch & Guarana, 2014; Rowold et al., 2014). Participant B3 shared that identifying team members with each other to ease communication that will ease the give and take of feedback while working on team projects.

Participant B2 and B3 shared that communication through ICT did not assure if an employee was present throughout a meeting. There is a perceptive difference between a sense of presence of other team members in a virtual environment, compared to working with a team in a face-to-face environment (Kim & Timmerman, 2018). The perceptive difference is working with others on a face-to-face team provides visual feedback. If the feedback is positive, team members are confident and motivated (Kim & Timmerman, 2018).

Poor communication between the employer and employee can create a lack of trust that can lead to an overall lack of job performance (Khattak et al., 2014). Participants expressed mutual trust is needed within all aspects of virtual management. The practices gained from participants on evaluations of effectiveness, employee interaction styles, and practicing mutual trust were associated with the quality of communication. Practices of mutual trust are essential especially when face-to-face personal contact is limited or absent. Issues of a lack of trust can lead to negative

employee satisfaction and low productivity (Maduka, 2018). Trust is included as a psychological relationship of social exchange and an emotional bond between parties (Colquitt et al., 2014). Developing mutual trust assists in keeping employees engaged in the job, as well as, maintaining job satisfaction (Dube & Marnewick, 2016). Half of the participants mentioned trust as relevant and the other half implied the relevance of trust.

Clear communication is essential to provide clarity to a vital organizational task, instill mutual trust between employees and managers, or to see an employee engaged to the task especially since the employee is virtual (Braun et al., 2015). Frequent communication keeps employees engaged with organizational goals that will reduce or prevent employee isolation, employee disengagement, and cyberloafing to help keep employees productive (Mercado, Giordano, & Dilchert, 2017; Prasad et al., 2017). The analysis of the theme of communication is significant as an improved virtual business practice.

Leadership

All participants stated a belief that their leadership style of leading by example is necessary for managing virtual employees. For example, participant B1 frequently gave examples of personal behavior at work for employees to follow, such as being on time. Participant B3 practiced openness and honesty as examples for employees to follow. One instance where employees will follow the leader is based on perceptions of ethics (Kanfer et al., 2017). If employees think a manager is fair and trustworthy, the manager may be viewed as having high ethics and conveys a positive outlook to employees (Breevaart et al., 2014; Cowart et al., 2014; Kanfer et al., 2017).

All participants conveyed an expectation of reciprocation of behaviors when showing, by example, that employees would reciprocate. The reciprocation of employee positive perception of the manager is an example of social exchange. When employees have a positive outlook, through positive manager behavior, the employee will likely reciprocate with positive behavior (Collins, 2016). The reciprocity of social exchange between parties explains the concept of SET (Emerson, 1976). If the manager maintains a positive perception from employees, the reciprocity of behavior can continue; however, the employee can become complacent or lose their positive perception of the manager (Dube & Marnewick, 2016; Lilian, 2014).

Participants conveying statements of their leadership styles is referenced within this research. Participant A1 expressed being flexible meaning to go above and beyond in assisting employees, thereby gaining a reciprocated behavior from employees. Participant B1 practices punctuality and hopes this trait will motivate employees to be punctual. Participant B2 expressed a high concern to display fairness to maintain a positive work environment. Participant B3 expressed the need to have reciprocated behavior from employees to establish firm expectations of behavior. Relevant to SET, social learning and exchange are ways that managers can influence employees through high ethical standards (Theil, Hardy, Peterson, Welsh, & Bonner, 2018).

Additionally, this research contains information on transformational, LMX, and *e*leadership discussed in the literature that can be associated with the leadership the participants described. Some participants described leading by example, whereby, transformational, LMX, and *e*leadership are applied to SET and are characterized by

participants as examples of leadership styles practiced. For example, transformational

leadership is characterized as inspirational and individualized (Hickman & Akdere,

2018). The LMX leadership style is mentioned to show the lead-by-example techniques

(Thiel et al. 2018). The *e*leader is perceived as someone who is an expert with

information communication technology (Liu et al., 2018). When the manager is thought

to have a vast knowledge, as well as, experience and is flexible with employees, as in

*e*leadership, the manager can be someone employees will follow (Liu et al., 2018).

Participants explained that they graded their management competency on feedback and

meeting profit indicators instead of virtual management skills. In the interim, virtual

managers can seek alternative methods of gaining specific knowledge, such as,

transactional and transformational leadership styles that are suggested in another study

(Maduka, 2018).

Some participants mentioned keeping current on technological skills as a training

need. To keep up to date on technological knowledge, participant B3 mentioned that

managers should have training avenues and technological training is available to pursue.

General use of technology includes the manager knowing about technological innovation

(Garcia-Morales, Martin-Rojas, & Lardón-López, 2018). Technical knowledge

competencies should be sought by virtual managers (Garcia-Morales et al., 2018).

Participant B3 suggested that virtual manager training to learn competencies particular to

the subject is essential. Participant B3 made a strong point that, as the leader or manager,

they need to be on top of technology. In association to SET, the three leadership

techniques can create a high-quality exchange between leader and follower (Theil et al.,

2018). Determinants of SET, such as, providing trust, commitment, motivation, and job satisfaction are associated with a manager who leads by example (Collins, 2016; Colquitt et al., 2014).

Some participants stated and implied establishing mutual trust as a leadership skill. Participant B3 mentioned the issue of trust while conveying that there was presence or communication uncertainty when face-to-face communication was not available. Participant B3 also stated trust as a measure to manage virtual employees, meaning untrustworthy employees were removed. Trust should be developed, as well as reciprocated between the employer and employee (Theil et al., 2018). The virtual office is a domain where mutual trust should be maintained between communicators (Liu et al., 2018). Trust is a feature of leadership competency, as well as, virtual leadership due to the nature of communication through ICTs. As a leadership competency, obtaining employee trust is featured in the literature review and from participant replies.

Participant B1 discussed creating profitability as a measure of leadership ability. The SET determinants may be applied to profitability, as based on participants B1 and B3 who stated that meeting profitability goals is a measure of their management effectiveness. As in traditional business practices where profit may be the goal of the business, it is also the goal of virtual business practices except the business is conducted using ICTs (Fan et al., 2014; Smith, Patmos & Pitts, 2018). Social exchange theory is significant to the employer who equates profit gain to organizational success (Smith et al., 2018). Reciprocity of positive behaviors creates a satisfactory work environment through feelings of well-being (De Gieter, Hofmans & Bakker, 2018). The perception of

satisfaction can be fulfilled by an individual feeling of competency, autonomy, and relevance at work (De Gieter et al., 2018). When virtual employees lose the perception of relevance, the employee can feel anonymous and isolated that leads to cyber or social loafing that affects production (Chen & Cheng, 2018). Low productivity from employees would cause unmet profit goals within the organization (Mercado et al., 2017). Therefore, the participants discussing leadership skills that affect company profits is a legitimate concern based on this study.

Some of the participants responded that they received feedback from employees, as well as, from managers as peers or above them on manager performance. Participant B2 explained that if employees needed repetitive task explanation that this was an indication, through feedback, of management in-effectiveness. Feedback received from employees and other managers can be influenced by the quality of the social exchange and relationships (Chaudhry & Song, 2014; Hill et al., 2014). Participant B3 sought formal feedback from employees. Subordinate feedback can be widely subjective and biased (Martinko et al., 2018). Participant A1 values a positive and high-quality working relationship with employees. Leader and follower relationships will gain positive feedback if the relationship is high-quality (Martinko et al., 2018). Regarding social exchange, if the employee perceives satisfaction from the employer, the feedback to the employer may be reciprocated (Ouyang, Liu, Xu, Huang, & Tang, 2018). The nature of the feedback can be influenced by determinants of SET, such as trust, commitment, performance, production, communication, motivation, fairness, job satisfaction, and job respect (Colquitt et al., 2014; Greer & Payne, 2014).

One participant's strategies of managing and evaluating virtual employees are interesting to mention as a management tool. Participant B3 explained that using individual development plans is a management and evaluation strategy. The participant describes the individual development plans to contain questions of customer service, skill development, mentoring, and continuous service improvement. The manager participant provides a template for the individual development plans to employees to target five key items and other items of significance. The participant stated that these items are evaluated at the end of the year on employees.

All four participants stated that they did not have virtual or telework leadership training to assist with their jobs. Participants stated previous leadership experience, or other background experience, and education as qualifications for virtual management experience. Skill competency of virtual management was not due to specific training and is retrieved from previous work background experience and formal education. Within the literature review, specific training or experience for virtual leadership is lacking and this is the case based on the participants of this study. Otherwise, based on the body of knowledge, determinants of SET, the theme of leadership is significant to this study.

The theme of leadership is significant to the overarching research question of this study since it entails the skills leaders use to manage a virtual office. The finding that none of the participants had specific virtual management experience or training nor was it available for them is consistent with the body of knowledge in this research. For example, previous research shows an abundance of traditional leadership studies, but studies geared toward the specialty of virtual leadership is scarce in comparison (Avolio et al.,

2014; Dinh et al., 2014). Additionally, within the extensive literature the imbalance of traditional leadership studies to virtual leadership studies still exists (Hickman & Akdere, 2018). Therefore, the finding that all participants had no formal virtual leadership training nor were aware of such training within their organizations is highly significant to this research.

Developing relationships

Developing relationships is a skill of communication and leadership. As a communication skill, participants referenced how developing relationships improved communication. The exchange within a relationship between parties involves the perceived value of the relationship and the value can increase or decrease over time (Chaudhry & Song, 2014). Regular communication builds relationships so that the feedback will have value (Wojcak et al., 2016). The study of developing relationships is associated with the concept of SET (Collins, 2016; Greer & Payne, 2014). Some participants expressed that developing relationships is important to get to know the individual to enhance communication and leadership. Participant A1 and B2 expressed high regard for building relationships with employees, fellow managers, and people in general. The participants believe in establishing friendships to gain relationships. Employee engagement, which is associated to SET, is relevant to managers developing relationships with employees (Anitha, 2014). Both employee engagement, associated to SET, and SET may be used as a conceptual framework for developing relationships.

Participants B2 and B4 talked about conducting frequent meetings so all team members will know each other and stay familiar with work situations. One method of

developing relationships within the workplace is by ensuring employees maintain a social status within the organization (Ouyang et al., 2018; Liu et al., 2018). Participant B3 gave an example about employee that an employee in another state can take care of an issue with guidance through ICT without the need of management travel. Participant B1 also mentioned that virtual workers using virtual technology permits organizational expansion of service that otherwise may not be available. Maintaining a social status could be through employee knowledge that means if each employee is a subject matter expert, then each employee will have a subject to exchange information (Hickman & Akdere, 2018; Ouyang et al., 2018). Since virtual workers can be in different locations while working on a shared project, building relationships are necessary for managers and employees (Bisbe & Sivabalan, 2017; Orhan, 2014). Participant B3 described a scenario where employees are given an opportunity to share perspectives on mutual projects. The participant explained that this was done to develop relationships between employees. Virtual managers will want to keep employees engaged in the mutual project to maintain high productivity (Germain & McGuire, 2014). Methods of developing relationships for the manager, as well as, between employees is by creating mutual trust, frequent communication, and allowing autonomy of work ideas (Thiel, Hardy, Peterson, Welsh, & Bonner, 2018).

Participant B2 explained getting to know employees on a personal level as a method of developing relationships. Also, participant B2 believes that getting to know employees on a personal level enhances communication to help understand task assignments by creating a bond with the employee. Participant B2 mentioned that

psychologically bonding with employees can develop relationships. The association between developing relationships and SET is a psychological perception between parties (Dube & Marnewick, 2016, Lilian, 2014). Overall, managers developing personal relationships should be non-superficial, fair, reciprocal, meaningful, trustful, and open (Theil et al., 2018). The ability to effectively develop relationships can be accomplished by incorporating the determinants of SET; such as developing trust, commitment, productivity, retention, communication, job satisfaction, contract fulfillment, and the sharing of mutual goals (Anitha, 2014; Collins, 2016; Dube & Marnewick, 2016). As derived, from this research, the ability to develop a positive relationship with a virtual employee is a competency that would benefit the virtual manager to gain a psychological connection with the distant employee.

Research Notes and Company Documents

In addition to the themes of this research, I include researcher notes and company documents as the data collection. As the researcher, I noted my observations and additional comments from each participant during the interviews and summarized a review of organizational documents. I took researcher notes to assess statements provided by each participant. On the assessments, I made note that participant A1 suggested a preference for the virtual workplace and overall suggested that making friends is needed for a successful work relationship. Participant A1 is focused toward a congenial workplace and my observation is this manager has charismatic leadership qualities.

Participant B1 preference was to end telework and overall belief is to be consistent with employee punishment and reward to obtain desired behavior. Participant

B1overall focus is for employees to follow rules and be productive. My observation, as noted, is that this manager has autocratic leadership qualities. Participant B2 preferred the virtual workplace and preferred overall fairness to obtain employee cooperation. Participant B2 focus is on good communication to promote understanding and my observation is this manager has transformational leader characteristics. Participant B3 favored the virtual workplace and overall suggested that the best way to be successful is through active listening skills. Participant B3 primary focus is good communication through proper listening and my observation is this manager has leader-member exchange characteristics.

As the data collector, I requested subject matter documents from the two companies. One company provided a document titled, *Workflex and Telework Guide* and the other company provided a telework acknowledgment. The *Workflex and Telework Guide* was no longer used by the company, it was used as a temporary guide but offered to me for review. The company with the telework acknowledgment used it as documentation concerning employees, in general, understanding of company policy to include the teleworking policy. Since only one company provided a document that could be used as a telework policy, the documents were reviewed and synthesized as added data collection but not included in the manual and automated count.

The *Workflex and Telework Guide* document represented by company A contains three sections with the third section that is written for the teleworker or potential teleworker to apply for and optimize the alternative work situation. The telework acknowledgment document represented by company B is an overall work-related policy

that includes information for telework. This document contains a signature page for the employee and approver concerning the overall understanding, as well as, telework agreement. Basically, the telework acknowledgment covers possible legal ramifications for the company concerning teleworkers. Otherwise, the acknowledgment outlines that telework is a voluntary benefit provided by the company. The teleworking employee needs to maintain a position of work satisfaction, meaning there are no performance or disciplinary involvements. Since only one document is an actual document used by one company, the brief description of documents is provided because documents are part of the data collected.

The total identified data collection includes a manual data analysis, an automated analysis, transcription of interviews, synthesis of interviews for member checking, researcher notes, and company documents. Throughout interview sessions, I practiced epoché through reflexivity. Except for labeling the participant's supposed leadership styles, all information and observations were documented without personal bias. For example, participants either implied or directly stated a favor or disfavor of telework, whereby I had no impression of bias toward the participant opinion. The analysis of themes is based on three prominent themes and is related to the conceptual framework. The body of knowledge found in the literature support the themes, as evidence related to the findings.

Summary

The themes found from the manual and automated analyses are considered relevant events of this research. Based on the triangulation of data, I surmised three main

themes from the collected data. Communication, leadership, and developing relationships relevancy are thoroughly analyzed by the conceptual framework and literature of this study. The determinants of SET apply to each main theme. The literature within this study, as well as, other literature is supportive of the main themes. The finding that participants had no formal training in the management of virtual employees significantly supports the problem statement. The participants discussed their managerial experiences identifying and describing communication, leadership, and developing relationships skills to primarily responding to the overarching research question. The analysis of the themes can help to explain how this study is relevant to the professional practice of managing virtual employees because the use of ICTs mediates communication. Therefore, the overall theme analysis will be discussed by the application to professional practice.

Applications to Professional Practice

Managing the virtual workplace includes managing telework employees. Applying specific training or virtual management of employees remains questionable (Liu et al., 2018). Research indicates that since 2010, approximately 28 million people teleworked in the U. S. (Smith et al., 2018). Other research statistics indicate that, in the United States, 8.4 million people are teleworkers (Maduka, 2018). This study applies to professional practice because virtual employee management training remains absent for managers in virtual organizations. In 2010, telework privileges were granted to executive agencies within the federal government (U.S. OPM, 2016). Since 2016, most employees can telework three to four days a week in some organizational services. The specific training skills or experience for managing teleworkers is still lacking, which is a feature

of this research.

The vast literature on traditional management research compared to the limited nontraditional management research, specifically virtual management, continues to be the reality from 2010 to 2018 (Hickman & Akdere, 2018). Therefore, more research on virtual management is needed to add to the existing body of knowledge. Virtual organizations exist in the millions and in nearly every business industry where virtual management leadership skill is required (Gupta & Pathak, 2018). The participants, of this study, provide valid reasons why this study is significant to business practice, for example, some participants mentioned the disadvantages of non-face to face communication.

Employees can take care of some home-related issues and complete work-related tasks while working from home and this study is significant to business practice in that teleworking is preferred by many employees for work-life balance and work flexibility (Talukder, Vickers, & Khan, 2018). Working from home presents a more significant opportunity for employment for those with a physical handicap or those who cannot work away from home (De Gieter, 2018). Based on information from participants of this study, working from home advantages or disadvantages were presented. Employees who work from home eliminate commute time, take less sick leave, and improve their overall quality of life (Shabanpour, Golshani, Tayarani, Auld, & Mohammadian, 2018). For the employer, increased productivity may occur because teleworkers typically work longer hours (Talukder et al., 2018). Employers can reduce: the cost of operating a building, travel expenses, and reduce training costs due to virtual employees. Business leaders may

consider providing training for managers to improve clear communication, leadership, and developing relationships that may have a significant impact on managing a virtual office.

Implications for Social Change

Implications for social change involve benefits to society, community, institutions, cultures, organizations, or individuals. Benefits to society extend from the findings of this research as virtual organizations can reduce organizational overhead costs, travel cost, energy use, and support work-life balance. A virtual office adds value to society when individuals have the flexibility to complete work responsibilities and, at the same time, take care of home responsibilities (Talukder et al., 2018). The employee flexibility compliments a happier society (Talukder et al., 2018). In the community, individuals with work-life balance have improved job and life satisfaction (Talukder et al., 2018). Providing work-life balance gives employee flexibility and job satisfaction (DeGieter et al., 2018).

The conceptual framework, SET, is relevant to use in assisting managers to embrace the benefits of virtual organizational, societal change (DeGieter et al., 2018). The determinants of SET are relevant to transition from traditional managers to virtual managers (Collins, 2016). A virtual office reducing organizational overhead costs and energy use is also preserving natural resources by reducing the use of supplies and utilities (Shabanpour et al., 2018). Based on participant statements concerning the ability to conduct business, regardless of physical location, and providing workers with the ability to reduce travel for work or other business is valuable to them. A virtual office

that reduces travel helps to reduce carbon dioxide emissions to improve air quality for the community (Shabanpour et al., 2018). Reducing work-related travel, such as, for training purposes is significant in improving environmental issues (Shabanpour et al., 2018). In the United States, carbon dioxide emissions and other energy use accounts for 27 percent of total greenhouse gas emissions (Shabanpour et al., 2018). Further, a virtual office providing improvements to the global environment is practicing social responsibility, sustainability, and corporate responsibility through green information technology (Bowen, Kuralbayeva, & Tipoe, 2018; Soytas & Atik, 2018).

The results of the study support improving the social-economic community because a virtual office allows hiring individuals with disabilities that previously could not be hired. The results also supports the social-economic community by providing more job opportunities, in general, through virtuality. Virtual organizations can help to improve the social-economic community by providing individuals with ways to work who could not physically go to work (Choi, 2018). The availability of nontraditional work can extend to foreign societies as a benefit (Choi, 2018). As virtual organizations continue to develop into well-functioning microcosms of the community, the influence will affect the community. Therefore, virtual organizations improving communication, leadership characteristics, and developing relationships will impact profits to sustain the community.

Recommendations for Action

The results of this study may be of primary interest to managers of teleworkers, organizational leaders of virtual offices, and educational institutions. Employees who telework and individuals of the general society should have a secondary interest in the

results of this study. As the researcher, I sought to explore lived experiences of virtual managers in managing virtual employees and provide recommendations for action. Some recommendations for action, based on this research, are that managers should create an open environment to ease communication and training on virtual management is needed for organizational leaders and to develop working relationships.

Communication

Based on the themes, a recommendation to managers is to incorporate open communication to improve the work environment. Clear communication can help with task clarification and accomplishing organizational goals. Some managers conveyed that an open work atmosphere promotes good two-way communication that can prevent or minimize problems associated with a virtual worker situation. With virtual employees, ease of communication can function as a psychological bonding for understanding, trust, employee satisfaction, and to maintain engagement with employees. However, face-to-face communication is recommended at different intervals during the year (Smith et al., 2018). Regularly scheduled group or individual meetings is included to enhance the open work environment. Since the work is virtual, keeping close contact and the ease of contact is implied by participants interviewed.

Virtual communication remains an issue when managing a virtual office (Liu et al., 2018). All of the participants explained that frequent one-on-one communication is open communication. Frequent and clear communication is a quality of the virtual leader, therefore maintaining an open communication environment is recommended.

Leadership

Leaders who do not have the benefits of face-to-face employee management can influence employees through practices of social exchange. Leading by example is a useful form of social exchange and is a leadership recommendation. Leading by example is described by the participant managers as a means to manage virtual employees. Gaining employee trust, job commitment, and job satisfaction are accomplished when managers lead by example.

To encourage employee knowledge, leaders should develop and maintain expert knowledge. Based on participant discussions, virtual managers need to have expert knowledge or some basic knowledge of the technology used. The literature review is suggestive of technology knowledge. For example, efficient use of the virtual platform is needed to conduct virtual group projects and knowledge on using technology in general (Maduka, 2018). When leaders want positive outcomes from employees, providing a satisfactory work environment is required. The conceptual framework of SET is based on a reciprocal relationship. Therefore, leading by example can inspire employees to reciprocate behavior shown by employers.

Consistent with the literature in this study, there is no relevant training information from the participants that target virtual managerial skills necessary for leading virtual employees. A lack of specific training resources is a significant finding of this research. Recommended to educators and organizational decision-makers is to develop training specific to virtual management and the organizational decision-makers should contract and mandate this training. All participants supposed that their skills of

managing virtual employees stemmed from previous job experience, in general. Previous job experience is the experience obtained as managers; thus, traditional managerial techniques are used within the virtual office.

Developing Relationships

As the researcher, my observation is that developing relationships is related to this research based on the determinants of SET. Developing employee relationship helps to not only improve communication but also to motivate employees to maintain job satisfaction (Breevaart et al., 2014). I recommend managers develop employee relationships through good communication and create mutual trust between managers and employees through leadership skills. There should be a high-quality relationship respective to ethical behaviors by both parties (Johnson, Jensen, Sera, & Cimbora, 2018). Therefore, managers should be conscientious of using the determinants of SET by maintaining high-quality relationships for reciprocity when seeking feedback. As one of the participants explained, maintaining a high-quality relationship with employees is essential because the feedback will not be beneficial if employees feel there is not equal reciprocity in the relationship. Isolation and a lack of trust, for employees, can cause social loafing, disengagement, job dissatisfaction, a lack of performance, and a lack of motivation (Betts et al., 2014; Huma et al., 2017). On many occasions, one-on-one communication was conducted to build relationships, clarify task assignments, and for performance related issues.

Another method of developing relationships within the workplace is by ensuring employees maintain a social status within the organization (Ouyang, Liu, Xu, Huang, &

Tang, 2018; Liu et al., 2018). For example, making sure each employee is empowered as a subject matter expert, then each employee will have a subject to exchange information that validates their worth as a team member. Managers can create a means to exchange information between employees through teamwork and regular team meetings to promote individual employee self-esteem, as well as, reciprocity between employees. Overall, managers developing personal relationships should be non-superficial, fair, reciprocal, meaningful, trustful, and open (Thiel et al., 2018). Managers can set aside time to get to know employees on a personal level to get to know each other better within the working relationship. As leaders, gaining employee working relationships aids in an ability to meet organizational goals.

Company Documentation

The data collection includes company documentation and one company provided a telework policy. Creating a telework policy is recommended. All aspects of working away from the job site are recommended to include in the telework policy. The telework policy should pertain to employees that work some of the time away from the job site or work exclusively away from the job site. Managers training should include incorporating a telework policy (Jennings et al., 2014). The literature review barely represents using written protocols to protect the organization. There should be an official telework policy constructed for thorough efficiency, consideration of various legal issues in association to a virtual office for clarity of communication, and for documentation purposes (Jennings et al., 2014; Thomas, 2014). Virtual leadership or manager training includes knowledge of the ICT platform and creation of a telework policy as enhancements for leadership.

Managing in the traditional realm is different from managing in a virtual realm (Hickman & Akdere, 2018). The recommendations of this study may be disseminated when published to add to the existing literature. The recommendations may be inferred within the summary provided to participants of this study. As a result of sharing a summary of this study, the recommendations can be applied to other managers in organizations that are virtual or managers with staff in multiple locations.

Recommendations for Further Research

Some recommendations for further research are based on the limitations and delimitations of this study. Recommendations for further research are expected since the qualitative study has limits to generalizability and results can be transferable (Marshall & Rossman, 2016). A discussion of recommendations for further research is needed due to the limitation of the target population (APA, 2010). Recommendations for further study is taken from the information provided by the participants of this study. Participants revealed training for virtual or telework management is needed. Although specific training is found to be limited, this affects the lack of experience for specific virtual management. Therefore, further research is recommended based on the findings of the participant manager experience.

This study is limited by the two case studies and gathering data from only managers, the small sample size, and the targeted population. This study can yield a greater representation of the problem if the number of participants represents a more inclusive gathering. Although I provided two case studies, the number of participants can be greater within studies of virtual or teleworking organizations. The participant's range

of gathering was limited because the target population was only from the Washington D. C., Maryland, and Virginia tri-city region of Washington D. C. Although the tri-city region is a concentrated area for nearly every industry and corporate workers, a wider reach of participants would represent a more accurate representation. A broader reach of data from other professional databases, such as Society of Human Resource Management, WorldatWork, or the Bureau of Labor and Statistics can be used in the data analysis and would yield a broader result. A broader result would be more representative of the virtual management issue in the United States.

Additionally, the population was only represented by managers of virtual workers. Due to the bounded population, the representation does not capture a more comprehensive understanding of the effects of the problem when the population is not all inclusive and delimits the sample. A more comprehensive level of generalizability can be gained if all employees, workers, and managers were evaluated in association with the problem. For example, a subordinate's perspective is relevant to the lack of specific skills or training of virtual managers. The inclusion of all employees may yield results not found by only using a manager's perspective. Recommendations for further research would expand the net for participants within a broader geographical area and reaching out to all employees to gain a fuller comprehension of the problem.

Since the lack of virtual training is found, this validates a lack of experience and skills, based on this research, that is specific to virtual leadership. Further research is recommended based on the occurrences of managers revealing no specific training, skills, or experience. More than 18 percent of the world population is involved in the virtual

team experience (Gupta & Pathak, 2018). From this statistic and other information, I surmise virtual managers will need more experiences in virtual management competencies that can be obtained through training. All managers interviewed spoke of using background training as experience used to manage virtual employees, however, the training was not specific to virtuality and this is a lack of skill that requires further exploration. All participants also explained using formal education as a form of virtual leader quasi-training.

Management techniques are traditional for face-to-face scenarios instead of virtual scenarios. Because traditional training and experience is used to manage virtual employees, further research is recommended to add to the validity of specialized training. For example, further research may assess if specialized training is truly necessary or if traditional management is sufficient for virtual management. Otherwise, none of the participants could provide an example of specific training. Therefore, recommendations for further research include virtual management training, a broader study sample to include all members of an organization, and what experience is need to be a virtual manager or leader.

Reflections

While interviewing the participants, I concentrated to maintain epoché by dismissing judgmental determinations and decided on clinical descriptions of participant leadership styles. Also, I considered my thoughts to maintain an unbiased opinion during the interviews. For example, when participants stated a personal opinion on the use of telework. I took a moment to consider my thoughts and concluded that my attitude was

indifference. That made me realize that my efforts of controlling personal bias were working.

Personal reflections are involved with different subjects throughout the data collection and analysis process. For example, my observation of developing relationships is that it is an unexpected theme. The theme was not a keyword found within the literature review nor is it described as a direct determinant of SET but I perceived it as a determinate because SET can be used as a conceptual framework in a variety of studies. Although developing relationships is not listed as a determinant of SET, for example, it is listed as a study where SET is commonly used as the conceptual framework (Chaudhry & Song, 2014; Colquitt et al., 2014).

My reflection on the doctoral business administration (DBA) degree process is that I should have taken more time to consider this before I committed to it. I should have considered my age, health, job stress, financial investment, and desire for simplicity of life. Basically, I did not fully assess or comprehend what I was getting into. One recommendation that I would share, is individuals should question others about their experience in obtaining a doctoral degree. Questioning others would provide more insight into consideration not otherwise realized. This statement is not necessarily negative or positive, it is merely informative and my personal reflection.

As a positive comment, I had fun at the beginning of my DBA adventure. I enjoyed it because of what I learned from my general courses. Since beginning the DBA process, I have noticed a broader level of thinking and a more mature level of thinking. I genuinely appreciate the work that went into obtaining this degree. I have a better

understanding of the value of higher education and a sense of humbleness toward this achievement. I have maintained my goal to accomplish this degree and move on. I am pleased to realize that my God, family, and friends have genuinely supported me with encouragement that helps me to endure completing this goal.

Conclusion

The problem statement is validated by the evidence in the data collection and statements from the participants. At least in the target population, of this study, there is a lack of specific virtual management skills. As the researcher, I contend that clear communication and a specific leadership style, as well as developing employee relationships are conducive to virtual management. Additional information gained from virtual managers, within this study and the literature obtained, includes the ability to provide and accept feedback, to foster mutual trust and a leadership ability to gain company profitability is needed. Primarily, targeted virtual leadership training and experience is lacking for virtual managers.

Information from the data supports the benefit to applied business professional practice and society. Based on this research, the evolution of virtual organizations is significant to business practices, society, and the environment. As the number of virtual businesses has increased, leaders should know what practices are effective for managing in a virtual platform. What is required is the specific skill training based on the progression of information communication technology. For society, managers understanding the benefits of virtuality contributes to a happier society because of work and home responsibilities that can be concurrently balanced. Managers understanding the

benefit to the environment that virtuality contributes is an added responsibility that may be learned through specific training.

Recommendations for action suggest that primarily managers need to create an open forum for communication and targeted training for virtual or telework managers. Other recommendations include creating a telework policy and developing or maintaining technical skills as required enhancements for virtual managers. Further research recommendations are based on the limitations of this study and the need for specific leadership training. Through dissemination of the result of this study, will bring more attention to the required management of virtual workers. The professional practice and overall society can continue to advance in recognizing that virtual management skills are not the exception, this is the new normal.

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Appendix A: Interview Protocol

Case Study Interview Protocol	
Protocol	**Script**
Introduce myself and give a brief purpose statement	I am Cheryl Howard, a student with Walden University working on my Doctorate in Business Administration. My study topic is required management of virtual employees. This company was selected based on its virtual or telework employee capabilities and based on Forbes and Fortune 500 listing of top virtual organizations. I truly appreciate your willingness to meet with me. I have seven questions, and this should take about 45 minutes to one-hour. I will need to record your responses to transcribe later and to make the session go quicker. I will delete it after I transcribe. Do you choose to continue as a participant on this research project? Do I have your permission to record? Any questions before I begin with the first interview question?
• Watch for nonverbal queues • Paraphrase as needed • Ask follow-up probing questions to get more in-depth information,	1. What strategies do you use for virtual office management? 2. What skills do you use to manage virtual employees? 3. What training do you have for managing virtual employees? 4. What performance management tools do you use to evaluate virtual employees? 5. How do you measure the effectiveness of your virtual management skills?

if needed. • Be conscientious of personal bias to note.	6. What are some leader characteristics you use to manage a virtual office?
	7. What additional information can you offer on this topic?
Wrap up interview thanking participant	Thank you again for your participation. As I mentioned, I will delete the recording after transcribing and this will help me maintain confidentiality. No names will be used in my study to include the company name. Is there a company telework policy you can provide to me by hardcopy or link to include in my data collection? (If I already have a copy of this company telework document, no need to request it but mention I have it)
Schedule follow-up member checking interview	Due to the protocol of deleting the recording, I will need to follow-up with you, at least one more time for accuracy of the transcription. May I email you to review for accuracy and to possibly add information you decide to include to add to clarity of response? Your email address will be used strictly for follow-up and will not be shared or no one will be copied on the message. I will send a copy of the transcript so you may review my synthesis of the responses within the email follow-up. I project three to five business days to provide the transcript.
Follow–up Member Checking Review	

Follow-up email	Good day, this is Cheryl Howard the Walden University student who interviewed you at an earlier date. As mentioned, this is the follow-up review. Attached is my transcription and synthesis of our face-to-face interview. Please take a moment to review it to assure that I captured your responses to the interview questions correctly. Note that I synthesized some or all of the responses, thus, your clarification is needed to make sure I captured your intended response. Also note any identifying information is removed and only the fact that you are a virtual or telework manager will remain. Feel free to make edits and add information as needed. Your review should take about 30 to 45 minutes of your time. I will check back with you in about three to five business days from today if I have not received a response from you. As I also mentioned, you may let me know if you choose to no longer participate in this study. Otherwise, I look forward to your reply on this review follow-up sometime in the very near future. Respectfully, Cheryl Howard.
Send via email a copy of the succinct	__is this interpretation accurate and was anything missed?

synthesis for each question to each participant	
(Transcripts on each participant will be separately attached)	
Send participants a thank you email and reiterate privacy protection and state the final contact will be the research summary.	Hello, this is Cheryl Howard, research student. I want to thank you again for your valuable input toward my research study. Recall that I will provide strict security to your identity and that of your organization. I kindly ask your patience as the degree conferral process is completed. After that time, I will make final contact to provide the summary of my research to you. Feel free to contact me, if you have further questions. Sincerely, Cheryl Howard
Individually email the participant to send the research summary.	Send one to two-page research summary
Email each	Send one to two-page research summary

organization to send the research summary.	

Appendix B: Organizational Introductory Letter

Date:

To the Organizational Human Resource Department:

I am a doctoral student at Walden University and I am conducting my doctoral research titled, Required Management of Virtual Employees. I selected your organization because of its virtual or telework capabilities that will meet my need to interview managers or supervisors of virtual employees. I selected your organization because of the virtual or telework nature of business and significance on the Forbes and Fortune 500 lists. The capability of providing employees work and life balance, as this organization does, is a significant value to society. The interviews will certainly benefit my research by adding to the limited study of virtual organizational management. I will respect your organization and managers by maintaining privacy of both within my research. Additionally, you are obliged to deny my access for interviews if you choose at this time or at a later date.

I kindly request that your organization allow me access to your virtual managers to interview. For data collection, I am requesting to interview two to four managers who have supervised teleworkers for a minimum of two years. Please read the attached letter of cooperation posed from a research partner perspective that provides more information about this research project and how to respond to this request. Also attached is a letter of introduction to your managers for you to forward, if your office or other authority, within your organization, choose to participate. I will respond to volunteers individually with more information pertaining to the study and the managers are to respond directly to me. This research is not seeking company production or any business competitive information except to interview managers of teleworkers. I also kindly request a response within three to five business days, otherwise, I appreciate the consideration from this organization.

My contact information, Cheryl Howard, Walden University Doctoral Student, Cheryl.Howard@waldenu.edu.

Sincerely,

Cheryl Howard
Walden University Doctoral Student

Attachments:
Letter of Cooperation
Potential Participants Introductory Letter

Appendix C: Interview Questions

1. What strategies do you use for virtual office management?

2. What skills do you use to manage virtual employees?

3. What training do you have for managing virtual employees?

4. What performance management tools do you use to evaluate virtual employees?

5. How do you measure the effectiveness of your virtual management skills?

6. What are some leader characteristics you use to manage a virtual office?

7. What additional information can you offer on this topic?