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Building and Maintaining Trust in Virtual Teams as a Competitive Strategy

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Abstract

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Elizabeth A. Owonikoko

MBA, Kaplan University, 2013

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Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Many virtual team leaders lack strategies to build and maintain trust among virtual team members, which affects performance and productivity. The purpose of this exploratory single case study was to provide organizational leaders with information about the strategies that virtual team leaders use to build and maintain trust among virtual team members to enhance job performance. Cognition-based and affect-based theories of interpersonal relationships were used as a conceptual framework. In-depth, semistructured electronic interviews were conducted with 10 virtual team leaders of a multinational global organization specializing in management consulting and technology services that has headquarters in Dublin, Ireland. Interview data and documents from virtual team memos and progress reports were content analyzed with NVivo software, and member checking was used to validate transcribed data. Two major thematic categories emerged from data analysis (a) the need for effective organizational and leadership skills and (b) strategies for building and maintaining trust among virtual team members. Recommendations include reevaluating the hiring processes of virtual team leaders and members, providing adequate cross-cultural training to virtual team leaders and members, creating effective strategies for interpersonal relationships, and investing in communication technologies that foster face-to-face collaboration. Building and maintaining trust among virtual team members helps increase team performance and productivity. Implications for social change include promoting social stability, reducing projects' failure, and improving the bottom line.

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Dedication

I would like to dedicate this study to my family and friends, mainly my husband, Lawrence Owonikoko, for his love and support throughout this journey. You did what many husbands would not do; allowing me to stay home and concentrate on my study and the children without nagging. I love you so much. Also, to my covenant children (Praise, Pearl, and Paula) for their patience, support, and understanding throughout the process. You have all learned from mommy the importance of hard work, determination, and dedication to accomplishing one's dream. Lastly, to my late father, Chief Wilson Oke, I promised that I will make you proud, and I have fulfilled the promise. I know that this academic pursuit has removed me from gatherings and events; therefore, I dedicate this doctoral study to everyone for all the support I received over the past few years. Above all, I dedicate this study to God Almighty, the invincible hand that has been guiding me throughout this journey. Thank you, Lord.

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Section 1: Foundation of the Study

Amid increasing globalization, leaders of business organizations are seeking new ways of handling complex projects and performing daily business tasks including moving across national boundaries and investing in virtual teams (D'Souza & Colarell, 2010). Virtual teams consist of people in different geographical regions working for a common goal with the aid of information and communication technologies ICTs (Germain, 2011). The dispersed nature of virtual team members contributed to the lack of in-person face-to-face collaboration; therefore, virtual team members depend on ICTs to carry out their daily tasks (Ebrahim, Ahmed, Abdul-Rashid, & Taha, 2012). Knowing that they can depend on their colleagues and operational processes to meet their goals is essential to virtual team members (Daim et al., 2012). The focus of this qualitative, exploratory, single case study was to develop an in-depth understanding of virtual teams and the strategies virtual team leaders use to build and maintain trusting relationships to enable better job performance among their team members.

Background of the Problem

The world has become smaller since the introduction of the World Wide Web and communication tools such as e-mails, webcams, teleconferences, web seminars, Skype, instant messaging that have bridged the gap of distance, time, and space (Verburg, Bosch-Sijtsema, & Vartiainen, 2011). Using ICTs, business leaders have been able to harness the diverse talents and skills of employees from different parts of the world who work remotely as part of virtual teams (Berry, 2011a; D'Souza & Colarell, 2010). Most

organizations have virtual teams because of practicality, competence, cost-effectiveness, and the potential to change the way businesses perform tasks (Al-Ani, Horspool, & Bligh, 2011; Ebrahim et al., 2012). The benefits organizational leaders derived from using virtual team explains the reason for the growth of virtual teams.

The uniqueness of virtual teams include specific challenges such as project coordination, building relationships, and teamwork that are different from collocated teams (Mancini, 2010). One of the challenges is building and maintaining trust among virtual team members (Kimble, 2011; Purvanova, 2013). Trust is the confidence or assurance in another's honesty, fairness, and consistency (Berry, 2011a). The construct of trust among virtual team members is vital because team members have to foster productive relationships using ICTs without any chance of in-person face-to-face meetings (Daim et al., 2012). Trust among virtual team members contribute to increase innovation, competitiveness, creative thinking, and productivity (Zhu, Newmanb, Miaoc, & Hooke, 2013). Trust among team members help foster knowledge exchange and thus contribute to developing new ideas in performing organizational tasks (Muethel, Siebdrat, & Hoegl, 2010). The objective of this qualitative, exploratory, single case study was to elucidate the strategies virtual team leaders use to build and maintain trusting relationships among virtual team members to help improve their job performance.

Problem Statement

The use of Virtual teams to carry out organizational tasks have grown in the 21st century with the innovation of ICTs (Al-Ani et al., 2011). Approximately 66% of

multinational organizations have virtual teams (Gilson, Maynard, Young, Vartiainen, & Hakonen, 2014). Despite the popularity of virtual teams, managing these teams is difficult (Berry, 2011b). Sixty-nine percent of the challenges faced by virtual teams are due to individual behavior and a lack of understanding among team members (Rod, 2012). The capabilities of teams are associated with emotional and social intelligence combined with cultural understanding and competence (Rod, 2012). The general business problem is that some business leaders undermine the importance of trust among virtual team members and lack strategies to build and maintain trust with their virtual teams. The specific business problem is that some team leaders in management consulting, technology services, and outsourcing companies lack strategies for building and maintaining trust in virtual multinational teams, which compromises their team members' job performance.

Purpose Statement

The purpose of this qualitative, exploratory, single case study was to explore the strategies that team leaders use to develop and maintain trust in virtual multinational teams to help improve their team members' job performance. The participants were leaders of virtual teams and worked for multinational management consulting, technology services, and outsourcing corporations. This corporation is on the Fortune 500 list and have headquarters in Dublin, Ireland but with a global presence in almost 32 countries. At the time that data were collected, team leaders were based in Dallas Texas, Lagos Nigeria, Mumbai India, London England, and Johannesburg South Africa. By

revealing strategies that virtual team leaders can use to build and sustain trusting relationships, I hope to further help management practitioners develop strategies for building and maintaining trust in multinational teams and, hopefully, improve employees' job performance. The implication for positive social change includes providing organizational leaders' information that would help in selecting, training virtual team leaders and members, build trusting relationships, improve job performance, and reduce projects failure.

Nature of the Study

The nature of this study involves a qualitative case study design to understand strategies virtual team leaders use to build and maintain trust among virtual team members. Researchers use three different methods to conduct research: quantitative using numerical data, qualitative using nonnumeric data, and mixed methods using elements of both qualitative and quantitative methods (Yin, 2012). Using a quantitative approach for this study will not address the research questions in the study. Quantitative research begins with a theory and involves detailing all measurements, which may include elaborate equation models to incorporate and compare variables (Madrigal & McClain, 2012). Mixed-methods research is appropriate to complement the strengths and weaknesses of using either qualitative or quantitative methods (Venkatesh, Brown, & Bala, 2013). Mixed-methods research is not appropriate because of the quantitative element. I believe that the qualitative method is appropriate to resolve the problem identified in this study. Qualitative research is vital for revealing deeper processes in

individuals, teams, and organizations and for understanding how those processes develop over time (Bluhm, Harman, Lee, & Mitchell, 2011). By using the qualitative method, researchers are also better able to understand individuals' experiences and how they interpret their experience (Bluhm et al., 2011). Therefore, using the qualitative case study is appropriate for this study.

I used an exploratory single case study design that involves drawing from multiple sources such as interviews and documents, including team memos and progress reports, to allow for an in-depth understanding of the problem in a real-life, intricate process, as recommended by Noor (2008). The research question and the objective for the study aligned with the requirements for a case study (Yin, 2014). A qualitative phenomenological study (Moustakas, 1994) captures the lived experiences of virtual team members, but the focus of this study was contextual because of the setting of virtual team members. Ethnography involves the study and observation of ethnic groups or societies (Denzin & Lincoln, 2008; Merriam, 2014). I did not consider ethnography suitable for this study because I did not focus on an ethnic group or society and its values. Narrative inquiry involves collecting data from autobiographies, field notes, stories, photographs, life experiences, consultations, and journals (Elliot, 2011). I considered a case-study approach appropriate because my focus was on exploring and understanding a business problem through analysis of a specific case.

Research Question

Researchers use research questions to bring together different components of a study (Newman & Covrig, 2013), which allows each component of the study to flow from the original questions (Yin, 2014). Recognizing essential questions is an important first step in the scholarly investigation process (Yin, 2014). The overarching research question guiding this study is as follows: What strategies do team leaders use to develop and maintain trust in virtual multinational teams to improve job performance?

Interview Questions

I developed the interview questions after a thorough review of the literature related to my research question. As recommended by Yin (2014), I used my initial questions to establish rapport and set the stage for a successful interview. My initial questions included the following:

1. As a team leader, how often has the team worked together under your leadership?

2. How often do you see your team members face to face?

3. How do you communicate with your team members?

4. What are your experiences using ICT?

5. How would you describe your experiences leading virtual team members?

I provided participants with Sarker, Ahuja, Sarker, and Kirkeby's (2011) definition of trust, which is the following: Trust is when members of a team or group are susceptible to the action of other individuals with the belief that those individuals will perform an

assigned task that is critical to the group success. I then asked them the following questions:

6. What is your perception of trust in your organization?

7. As a team leader, how can virtual team members build initial trusting relationships to enable them to work together?

8. Using your experience, please explain instances in which team members have exhibited trust issues.

9. From your perspective on trust, what can prevent virtual team members from trusting each other?

10. What actions do you think increase trust among your team members?

11. How has your company supported trust building in your organization?

12. Please explain how each of the following factors affects trust in your virtual teams:

    - Advanced technology

    - Cultural differences

    - Geographical disparity

    - Different time zone

    - Communication.

13. As a leader, what strategies do you think you can employ to help team members build trust?

14. In your opinion, how can you help team members sustain trust throughout their period of working together?

15. What else would you like to share regarding trust in virtual teams?

Conceptual Framework

The conceptual framework underpinning this exploratory single case study is McAllister's (1995) cognition-based and affect-based trust theories for interpersonal cooperation in organizations. Interpersonal trust theory has cognitive and affective foundations. Interpersonal trust refers to the extent a person is confident and willing to perform tasks based on the words, actions, and decisions of another person (McAllister, 1995). The foundation of cognition-based trust depends on job performance relevance such as competence, responsibility, reliability, and dependability through cognitive reasoning (McAllister, 1995). People build affect-based trust from the confidence and care, empathy, and concern they have for others; this type of trust is more emotional than logical (McAllister, 1995). Affect-based trust allows a person to demonstrate positive feelings for another person (Kauffmann & Carmi, 2014). Affect-base trust leads to actions that could make a person vulnerable.

Cognition-based and affect-based theories apply to this study because leaders of virtual team members cannot confirm through observation that the team members are performing their tasks on time and as expected except through constant communication and task completion (Berry, 2011a). Virtual team members can build affect-based trust from constant communication and increase job performance. Affect-based trust opens

doors for team members to share information that can improve productivity and help to minimize geographical and cultural differences (Kanawattanachai & Yoo, 2002). As team members experience an increase in job performance, they become comfortable sharing personal information outside their tasks to build affect-based trust. Cognition-based and affect-based trust theories help to explain how virtual team leaders combine both task related and interpersonal relationship to understand the strategies virtual team leaders use to build and main trust among team members to enhance performance.

Operational Definition of Terms

In this section, I include definitions of various terms used in this study. Each defined term includes a precise contextual meaning that fits the context of the study.

Collocated teams: People who work together as a team in the same location to accomplish a common goal (Mancini, 2010).

Dispersed teams: Distributed teams members who use technology to varying degrees while working across different locations to complete tasks (Ayoko, Konrad, & Boyle, 2012).

Global virtual teams: Teams with members who transcend time differences, nationalities, and geographic boundaries and who work together on a common task using electronic media for communication and collaboration (Mockaitis, Rose, & Zettinig, 2012; Zander, Mockaitis, & Butler, 2012).

Information and communications technologies (ICTs): Technology devices that enable organizations and individuals to handle business operations anywhere and anytime

without the physical presence and a specific location. Examples include video conferencing, telephones, teleconferencing, Skype, instant messaging, webcam, and e-mails (Ebrahim et al., 2012; Aiken, Gu, & Wang, 2013).

Trust: The state that exists when members of a team or group are susceptible to the actions of other individuals because of their belief that those individuals will perform an assigned task that is critical to the group success (Sarker et al., 2011).

Virtuality: The extent to which virtual team members exclusively use technology for communication and collaboration (Berry, 2011b).

Virtual teams: Groups of individuals chosen from different geographical regions without restriction to time, culture, costs, and physical location based on their experience and expertise to carry out tasks using ICT (Germain, 2011; Mukherjee, Lahiri, Mukherjee, & Billing, 2012).

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Assumptions, Limitations, and Delimitations

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Assumptions

Assumptions are facts or events that are not verifiable or testable and may be out of the researcher's control (Neuman, 2011). I assumed that respondents answered openly and honestly to the open-ended semistructured interview questions without bias. Participation in the study was voluntary, and I assured participants of their confidentiality to mitigate the assumption. Also, I assumed that all participants were virtual team leaders who are currently leading team members dispersed across different geographic settings within the organization used for this study. I made every attempt to guarantee that I met

this assumption. The first few questions in the interview confirmed this assumption. There was an assumption that team members use communication technology tools to carry out daily tasks. Meeting this assumption was likely because the selected organization has a sophisticated information technology system. Also, respondents provided their professional experience with virtual teams and identified their means of communication. There was also an assumption that participants would agree to record the interviews. I assured each participant that I will not disclose his or her personal information. I met this assumption because all participants agreed that I should record the interview.

Limitations

Limitations are possible weaknesses that can affect a study outcome (M. L. Mitchell & Jolley, 2010). The study had some limitations. One of the limitations was that because participants for the study are virtual team leaders from different parts of the world, they may have provided culturally biased viewpoints. The study was a single case study on a multinational management consulting, technology services, and outsourcing company that has virtual teams located across the globe. The findings from the study only reflected the views of the virtual team leaders who participated. Conducting the study with only virtual team leaders and not including team members limited the study findings because the study was on a phenomenon that affects both team leaders and team members. The findings, therefore, may not have provided a holistic view of true depth and breadth of the phenomenon (Ostlund, Kidd, Wengstrom, & Rowa-Dewar, 2011).

Limitations existed in the data collection with electronic interviews. The electronic interviews via phone did not capture all facial expressions and gestures as respondents answer the open-ended questions. Another limitation of the data collection method was that there will be no immediate opportunity to ask follow-up questions. However, this limitation was mitigated because participants were willing to answer follow-up questions.

Delimitations

Delimitations entail the bounds of the study and involve narrowing the scope of the study to data that contributes to the overarching research question (Kenny, 2012). The study population consisted of the leaders of a virtual team of multinational management consulting, technology services, and outsourcing company headquartered in Dublin, Ireland. The sample size for the study comprises of 10 adults with no sex differential over the age of 18 and working as a virtual leader in the designated organization. The sample size of 10 is appropriate for a case study because of the multiple sources of data as suggested by Yin (2014). The data for this study includes electronic interviews and documents such as team memos and progress reports.

I limited the study pool to only leaders of virtual teams who had at least one year of experience working for a single Fortune 500 global organization to gather data to explore participants' views on the strategies team leaders use to build and sustain trust among virtual team members to improve team performance. Also, I narrowed the scope of the research to virtual team leaders who were leading teams from different geographical regions where time, distance, and space plays an important part in building

trust among virtual team members. I also limited the study to leaders of virtual teams who collaborated using ICT as the only means of accomplishing tasks. All the team leaders were handling different projects in their various departments in the same organization to capture different perspectives. The delimitations ensure participants have adequate knowledge and insight about virtual teams and about how team leaders can help members build and maintain trusting relationships.

Significance of the Study

Contribution to Business Practice

Organizations form virtual teams to acquire experts in particular skills and to save cost (Chen, Wu, Ma, & Knight, 2011), but research shows virtual teams face challenges different from those faced by collocated teams. One of the challenges is establishing and maintaining trust among virtual team members. Trust is a critical factor for success in virtual teams because team members do not have prior history or relationships with each other; trusting each other to do the right thing to get organizational tasks done becomes the only option (Daim et al., 2012). Understanding the strategies that can help virtual team leaders build and maintain trust among virtual team members may help prevent team members from withholding information that could be of value to team performance. The information from this study may help organizational leaders understand which strategies to adopt to build and sustain trust among virtual team members to improve their job performance. The findings may help virtual team members develop trust based on

task performance but also build interpersonal relationships that bridge the gap of cultural differences.

Implications for Social Change

The study might contribute to a positive social change for organizations with virtual teams. Understanding how virtual teams operate, the importance of trust and strategies for building and maintaining trust in virtual teams could be a competitive strategy for improving the job performance of team members (Berry, 2011a). The findings from this study may help team leaders and members relate to both job and interpersonal levels to accomplish tasks without communication issues like misinterpretation and misunderstanding of task information that could lead to conflict (Daim et al., 2012). The data from this study could help virtual teams to minimize the risk of project failure and contribute to building relationships and networking to foster teamwork and collaboration, satisfying promises, and share ideas that could enhance team performance (Muethel et al., 2010). Furthermore, knowledge sharing and mutual trust facilitates the relationship between diversity levels and team effectiveness (Pinjani & Palvia, 2013).

Understanding the strategies virtual team leaders use in building and maintaining trust among virtual team members may help team leaders and members increase efficiency and contribute to effective virtual team performance and project success rates (Eissa, Fox, Webster, & Kim, 2012). The information from this study may contribute to the existing knowledge on virtual business teams and help promote positive social change

by creating and applying the identified strategies, and actions to improve selection, training of virtual team leaders and members, build and maintain trusting relationships among team memebrs, improve job performance, and reduce projects failure.

A Review of the Professional and Academic Literature

I used a thematic literature review which includes research on virtual teams, the construct of trust, and the relevance of trust in virtual teams. I strove to include multiple perspectives on the strategies that leaders use to build and maintain trust in virtual teams to improve team performance. The analysis of prior studies included information regarding (a) the background of virtual teams, (b) their advantages and benefits, (c) their challenges and disadvantages, (d) virtual team and trust theories; and (e) characteristics of virtual teams (National diversity, Communication, Advanced technology, Geographic disparity, and Leading virtual teams). Surveying existing literature is an essential part of developing a clear foundation for data collection and analysis for scholarly research (Gibbert & Ruigrok, 2010).

The use of Virtual teams have evolved in the 21st century through the innovation of communication-aided technology. Many organizational leaders are employing workforces from different parts of the world to do critical tasks within their increasingly global organizations (Al-Ani et al., 2011). Executives in most medium and large organizations use advanced technologies to meet and work together rather than traveling for a meeting or building branch offices (Berry, 2011b). However, the emergence of virtual teams creates new challenges that impair their success. One of the biggest

challenges specific to virtual teams is that the level of trust is usually low among team members and team leaders. When team members have low trust, they have difficulty building and maintaining trusting relationships (Berry, 2011b). The concept of trust is important to virtual team leaders and members because virtual teams because trust upsurge innovation, competitiveness, creative thinking, and productivity (Zhu, Newmanb, Miaoc, & Hooke, 2013). Therefore, I believe that is critical to identity the strategies that team leaders can use to build and sustain trust to improve virtual team members' performance.

Research on building and maintaining trust in the virtual business team, such as strategies for building trust, sustaining trust in virtual teams, and the relationship between trust and team performance, is scarce. In this literature review, I examine what is known about virtual teams, cognition and affect-based theory of trust in the literature review, and virtual teams' factors. I used the following databases to find peer-reviewed articles: ABI/INFORM Complete, Business Sources Complete, Google Scholar, Academic Search Complete, Emerald Management Journals, ProQuest Central, Dissertation and Theses at Walden, ProQuest Dissertations and Theses Full Text, SAGE Premier, Thoreau, and ScienceDirect. I used the following keywords and phrases: *virtual teams, distributed teams, global virtual teams, dispersed teams, geographically distributed teams, challenges of virtual teams, communication in virtual teams, the use of technology in virtual teams, concept of trust in an organization, trust in virtual teams, components of trust, factors causing difficulties building trusting relationships in virtual teams,*

strategies for building trust in virtual teams, strategies for maintaining trust in virtual

teams, and *leadership role in building trust in virtual teams.* Table 1 contains the

summary of the sources used in the literature review.

Table 1

Summation of Sources in the Literature Review

Reference Type	Total	Five years and above	Below 5 Years
Research-based peer reviewed journals	95	86	9
Non-peer reviewed journals	0	0	0
Research-based on books	1	1	0
Research-based on dissertations	3	2	1

I have organized the literature review into three primary sections: trust in virtual

teams, Cognition-based and affect-based trust theories, and characteristics of virtual

teams. Each central section consists of several subsections. The section on virtual teams

includes a historical overview, advantages and benefits of virtual teams and their

challenges and disadvantages, and the nature of trust in virtual teams. The section on

congnition-based and affect-based trust theory includes trust in virtual team, cognitive

and affective dimension of trust, and trust and virtual team effectiveness. The section on

the characteristics of virtual teams includes discussion of national diversity,

communication, advanced technology, geographic disparity, and leading virtual teams. A

diagram showing the organization of topics in the literature review is in Figure 1.

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┌─────────────────────────────┐
│ Building and Maintaining Trust in │
│   Virtual Teams as a Competitive  │
│             Strategy              │
└─────────────────────────────┘
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| Virtual Teams | Cognition-Based and Affect-Based Theories of trust | Virtual team characteristics |

| Historical Overview | Trust in Virtual teams | National diversity |

| Advantages and benefits of virtual | Cognitive and affective dimensions of trust | Communication |

| Challenges and disadvantages of | Trust and virtual team effectiveness | Advanced technology |

| | | Geographic disparity |

| | | Leading virtual teams |

Figure 1. Organization of the literature review.

Virtual Teams

Globalization has led many organizational leaders to invest in virtual teams (D'Souza & Colarell, 2010). The business environment is evolving and becoming more complex, and organizational leaders are revisiting their strategy and working on improved implementation due to innovation technology (Lilian, 2014). A virtual team consists of members from different geographical areas working together and relying on information communication technology to perform their daily tasks to meet project deadlines (Ebrahim et al., 2012). Another definition of virtual team members is workers who communicate primarily with their colleagues, organizations, and superiors through cyberspace technologies, which makes it possible to perform work anywhere and at any time (Zey, 2012). The apparent simplicity of this definition belies the challenges that virtual teams face compared to traditional teams. These challenges include differences in time zone, cultural diversity, and geographical dispersion (Jawadi, Daassi, Favier & Kalika, 2013).

Virtual team leaders struggle with problems such as relationship building, trust issues, project coordination, and collaboration (Nydegger & Nydegger, 2010). Despite the challenges virtual teams face, their popularity continues to grow with advancements in technology (Mukherjee et al., 2012). Many organizations have virtual team members around the globe that handle organizational tasks (Zander et al., 2012). The construction of virtual teams results in organizations reducing conflicts, space, costs, and time leading to increasing processes that are important for improving productivity. The use of virtual

teams reduces the problem of face-to-face confrontations because of the focus on tasks rather than the interpersonal relationship (Berry, 2011b).

Virtual team efficacy is dependent on team members' experience, skills, and qualifications (Jang, 2013). Organizational leaders use virtual teams to expand their global operations (Germain, 2011). The operational capability of virtual teams depends on using communication devices to reach out to different cultural groups to manage organizational tasks and actions toward attaining collective goals (Zander et al., 2012). Virtual teams developed from the extensive accessibility of reasonably priced technologies used in long distance communications and data relocation; hence, virtual teams have become a core process in companies whose leaders aim to compete in the global economic market while using global talent (Germain, 2011). A positive relationship exists between the use of virtual teams and general organizational performance, improving productivity, effectiveness, and efficiency (Eissa et al., 2012; Palanski, Kahai, & Yammarino, 2011).

Historical Overview of Virtual Teams. Businesses started using virtual teams to perform organizational tasks with the advancement of ICTs (Kraut, Galegher, & Edigo, 1987). ICT tools provided the outlet organizational leaders needed to develop virtual teams because of the financial benefits, project cost reductions, and response time. Virtual teams are taking over every sector, whether private, public or governmental. An example includes online universities with students across culture and background using ICTs to accomplish their educational goals (Carnoy et al., 2012).

Some common terms used by researchers and management when defining virtual teams include temporary, culturally diverse, geographically dispersed, and electronically dependent (Kristof, Brown, Sims, & Smith, 1995). Virtual teams often consist of people who may not have a past working relationship with one another and may not expect to work together as a group again after project completion (Jarvenpaa & Ives, 1994). Therefore, organizational leaders derive benefits from using virtual teams which, includes the ability to employ the best skills, increase business hours by having workers in different time zones, increase productivity due to reduced travel time, and sustain a competitive advantage in the global market. For these reasons, businesses are increasingly using virtual teams to perform business operations (Jang, 2013).

In the 1980s, more employees began to work in their homes using ICTs such as fax machines, postal services, telephones, and conference calls (Kraut et al., 1987; Douglas, Lubbe, & Fabris-Rotelli, 2013). The rise in virtual teams lies in the advancement of communication technologies. People working in different locations, across cultures, and across time zones emerged with the increased use of the World Wide Web in the 1990s (Zander et al., 2012). Compared to the communication tools used in the 1980s, the addition of communication tools such as e-mail, instant messaging, Skype, videoconference, and webcams enable people to work anywhere across the globe, thereby increasing the need for organizational leaders to seek more virtual team members to handle business operations (Verburg et al., 2013; Zander et al., 2012).

As the innovation in ICTs grew, leaders in both private and government organizations continue to use virtual teams to handle tasks because of their need to reach diverse markets (Zivick, 2012). Approximately 102,900 of the United States federal employees were working virtually by 2008 (Green & Roberts, 2010). According to Wall Street Journal, more than half of organizations with 5,000 or more employees and two-thirds of Fortune Global 1000 companies used virtual teams (Caillier, 2011; Nydegger & Nydegger, 2010; & Pazos, 2012). The benefits organizational leaders derived from using virtual teams explained the increased interest in harnessing the potential of virtual teams.

Advantages and benefits of virtual teams. As ICTs become more ubiquitous, organizational leaders have more opportunities to use virtual teams to keep up with the constantly changing global market (Terzakis, 2011). Virtual teams present many advantages to employees, management, and organizations, and using virtual teams to handle business operations is a sustainable solution because of the ability to save costs (Ebrahim et al., 2012). Organizational leaders employ virtual team members based on their expertise and the demands of the project at hand; the expertise of virtual team members and the concentration on task gives virtual teams the opportunity to overtake traditional teams (Al-Ani et al., 2011; Berry, 2011b). The primary concern of virtual team members is leveraging knowledge across organizational boundaries using the advancement in Internet and ICTs to remove the limitation of where, when, and how organizational leaders and employees perform their tasks (Lilian, 2014). Leaders of business organizations appear to be rapidly adopting the use of virtual teams. Research

shows that virtual teams report positive performance regarding efficiency, effectiveness, customer satisfaction, and productivity because team members communicate and exchange documents and files without spending many resources to gather team members in one geographical location (Purvanova, 2013).

Global virtual teams have members with diverse skills and knowledge in multiple countries to handle organizational assignments, thereby reducing cost and maximizing human resources (Chen et al., 2011; Zivick, 2012). Geographically dispersed virtual teams allow organizational leaders the opportunity to communicate with customers globally in a cost efficient way and hence promote competitive advantage (Bull Schaefer & Erskine, 2012). Virtual teams work across distance, time, and organizational borders to accomplish tasks; such teams also remove superficial differences and biased thoughts about team members that can manifest in corporeal encounters (Berg, 2012).

Adding to these benefits and advantages, the increase in globalization and the quest for sustainable business through cost reduction and competitive advantage will always drive organizational leaders to use virtual teams to handle critical business operations (Al-Ani et al., 2011). The use of virtual teams will continue to increase with globalization and technology despite the argument that 82% of virtual teams fail to reach their set goals due to poor knowledge of technology and inadequate training of members and team leaders (Levasseur, 2012). The low percentage of virtual teams that succeed is a result of inadequate training. However, there is no information regarding the preferred methodology for providing training that would increase team members' knowledge of

how to work in a virtual environment and the need for cultural sensitivity (Zaugg, &

Davies, 2013; Zey, 2012).

Challenges and disadvantages of virtual teams. Despite the advantages and

benefits of virtual teams, certain aspects of virtual teams create obstacles to success in

some circumstances. One of the challenges facing virtual teams is conflict management

and prevention arising from increased social distance, use of information and

communication technologies, and cultural differences (Pazos, 2012). Conflict can arise

when team members and leaders do not understand the emotions that influence team

operations and procedures, resulting in a lack of trust and cooperation (Ayoko et al.,

2012). The lack of social signs in virtual teams, which is predominant in collocated

teams, often triggers conflict whenever there are sentimental events in the course of their

interactions that provoke opposing reactions (Ayoko et al., 2012). Organizational leaders

face unique leadership challenges with virtual teams because of the team dynamics.

Leaders of virtual teams need to have effective communication skills, provide feedback,

and relay organizational knowledge to their team members (Eissa et al., 2012).

Some of the largest challenges for virtual teams include building trusting

relationships, overcoming a lack of personal social contact, overcoming communication

barriers, and overcoming cultural differences (Levasseur, 2012). Due to the dispersed

nature of virtual teams, team leaders deal with challenges such as project coordination,

cultural differences, teamwork, different time zones, relationship building, and

inadequate face-to-face meetings (Nydegger & Nydegger, 2010). These challenges

provide an avenue for more research to gain understanding and findings that may help organizational leaders mitigate the problems.

Many of the factors that contribute to the success of virtual teams can also constitute obstacles to virtual team success. When team members are in different geographical locations and different time zones, confirming information or receiving feedback becomes difficult because some members could be sleeping when others are working. In a virtual team setting, finding a suitable time for team meetings could be a challenge if team members are in different time zones (Terzakis, 2011). Virtual team leaders might have more problems handling communication and knowledge sharing among team members than leaders in geographically dispersed teams (Daim et al., 2012; Klitmoller & Lauring, 2012). Virtual team leaders must find ways to acclimatize and overcome these challenges by upgrading, networking, communicating, and training to remain competitive.

The constant advancement of technology is forcing organizational leaders to either adapt or fail. Organizational leaders who fail to keep up with technological innovation are not sustainable. In their attempt to keep up with changes in handling business operations using experts from all parts of the globe, virtual team leaders face the challenge of building trust despite communication barriers. This situation contrasts with face-to-face teams because team members see each other and may interact on a personal level; hence, they build strong relationships that can influence productivity (Shetach, 2012; Suh, Shin, Ahuja, & Kim, 2011). Although virtual teams encounter challenges and

difficulties, the use of virtual teams continues to increase due to the constant innovation in communications technology and the need for competitive advantage and sustainability through cost reduction.

Cognition-Based and Affect-Based Trust Theories

The purpose of this study was to understand the strategies virtual team leaders use to build and maintain trust among virtual team members to improve their task performance. Trusting a stranger with whom there is no prior relationship or a physical encounter is risky, yet this is a crucial factor in the formation and sustenance of virtual teams. The conceptual framework underpinning this study is McAllister's (1995) cognition-based trust and affect-based trust theories of interpersonal relationships. Using 194 managers and professionals enrolled in executive business administration program at a university in Southern California, McAllister used the cognitive trust and affective trust theories to explain interpersonal relationships among members of an organization.

Cognition-based trust is necessary for virtual team members to form initial working relationships based on their thoughts and perceptions of each other (McAllister, 1995). Virtual team members build trust based on proven task performance, which forms the foundation of subsequent collaborations (Berry, 2011a). As cognitive trust grows, team members can feel relaxed and free to share personal information with each other that can lead to trusting interpersonal relationships. Trust based on cognition allows virtual team members to use their thoughts, senses, and intuition to accept and put their faith in team members, believing that other team members will perform their job based

on the initial knowledge from team introduction, or background information

(Kanawattanachai & Yoo, 2002). Affect-based trust emerges from emotions, care,

concern, and empathy displayed as team members observe each other as their task

progresses (Webber, 2008). Affect-based trust takes team trust to the level where team

members are now free to share both task-related and personal information without any

concern for nationality, geographical disparity, communication level or means, and time

differential (Sarker et al., 2011).

A study conducted to examine the growth of two dimensions of trust, cognitive-

and affective-based trust, using student semester projects, Webber (2008) used the

cognition and affect-based trust theories put forth by McAllister (1995). Trust is the

degree to which a person is confident in and willing to act based on, the words, actions,

and decisions of another (McAllister, 1995). The findings from the study revealed that

initial trust develops as a one-dimensional factor early in the lifespan of a team; cognitive

trust and affective trust emerge as separate components over time. Cognitive trust

develops after team members have been working for a while and continues to grow

through successful team task performance (Webber, 2008). As team members continue to

build their cognitive trust, they become free to share personal information with each

other; the closeness leads to building affect-based trust (Webber, 2008). It is important to

develop both cognitive trust and affective trust. However, affect-based trust has a

stronger positive relationship with team performance than cognitive trust because it is

easier to sustain than cognitive trust (Kauffmann & Carmi, 2014).

A study using cognition-based trust and affect-based trust in team leaders to facilitate the relationship between leader behavior and team emotional states, which in turn will drive team performance, Schaubroeck, Lam, and Peng (2011) used 191 teams in Hong Kong and the United States. The findings revealed that cognition-based trust directly influenced team effectiveness and indirectly influenced team emotional safety, whereas affect-based trust directly affected team emotional safety (S7chaubroeck et al., 2011). The findings aligned with the concept that performance relevance such as competence, responsibility, reliability, and dependability through cognitive reasoning is the foundation of cognition-based trust (McAllister, 1995). Affect-based trust behavior refers to the emotions that are convincing that team member's display as they engage in social interactions and interpersonal relationships. Affect-based trust allows a person to exhibit positive feelings for another person to the extent of accepting vulnerability (McAllister, 1995). Cognitive trust and affective trust becomes the facilitating effect of leaders' behavior on team performance (Schaubroeck et al., 2011).

A thorough review of more than 26 different sources such as articles written by organizational development consultants, executives, and professional books using content analysis technique, Kauffmann and Carmi (2014) conducted a meta-study to understand the ways virtual team leaders could use ICT to enhance effective team collaboration. Twenty-nine factors emerged for building trust using cognition-based trust, and seven factors emerged based on affect-based trust according to the type of team. The cognition-based and affect-based trust theories and short-term and long-term virtual teams show

different factors emerged from the content analysis technique, classified based on either cognitive trust or affective trust and also for short- or long-term distributed teams (Kauffmann & Carmi, 2014). Cognitive factors were more task-oriented based on cogent standards rather than on emotional principles. Affective factors are social and emotional based; therefore, team leaders should understand that technologies used for task-oriented purposes may not be suitable for social issues (Ying, 2012). Virtual team leaders should choose technologies that is appropriate for building cognitive trust and technologies that will equate face-to-face meetings, such as using video conferencing to help convey social messages and cues to build affective trust (Kauffmann & Carmi, 2014).

Many businesses need to compete globally with the help of technological advancement to survive. The use of virtual teams has become an effective way to handle global tasks while cutting costs and acquiring expert skills. In a study to explore technology and relationships between team leader personalities, team trust, and team perceived effectiveness, Pierce and Hansen (2013) carried out a survey of 873 virtual team engineers in the United States. The findings showed that cognitive and personality-based trust is a mediating factor in team effectiveness through the impact of the leader's personality (Pierce & Hansen, 2013). The findings offered support for the importance of cognitive trust being relevant at the beginning of virtual team formation because, in the absence of regular social interactions, virtual team members depend on rational assessments of the reliability, dependability, and competence of team members. As the

team progresses, and team members begin to find common ground to share social information, the affect-based trust begin to emerge (McAllister, 1995; Webber, 2008).

Language barriers could influence trust formation in multinational teams. A study conducted to investigate the influence of language barriers on trust formation involved interviews with 90 participants who were team leaders, team members, and senior executives in 15 multinational teams in German automotive corporations. The findings showed that members' cognitive and emotional reactions to language barriers influenced their superficial trustworthiness and intention to trust, which in turn affected trust formation (Tenzer, Pudelko, & Harzing, 2013). The cognitive and emotional effect of language barriers and team members' perception of language barriers could affect team members' coping mechanism at the cognitive level, which explains why people perceive and interpret the reason for their behaviors. Cognition-based trust means that there is a cognitive or rational reason to trust, such as having knowledge of past performance and identity (McAllister, 1995).

Three main factors of cognition-based trust are trust based on the ability to handle tasks, trust based on the integrity of the trustee's adherence to some ethical principles, and perceived favorable intentions toward a person that go beyond self-interest to reciprocity (Kauffmann & Carmi, 2014). The emotion-based trust depends on the situational intention to trust, which allows one to rely on others in a given situation. Cognitive and emotional reactions to language barriers influence perceived trustworthiness and intention to trust, which in turn affect trust formation in multinational

teams (Tenzer et al., 2013). Team leaders should learn how to use ICT to develop and sustain trust that can approximate the atmosphere of face-to-face interactions to improve virtual team interpersonal relationships and job performance (Kauffmann & Carmi, 2014).

      Trust in virtual teams. Virtual team members can share ideas, achieve project goals, and work effectively as a team when there is a trusting relationship between them. Building trust is a major challenge in virtual teams because team members do not have face-to-face interaction. Therefore, it becomes the responsibility of the team leaders to strategize ways to build trusting relationship between team members from the beginning of the team meeting (Chen et al., 2011; Chou, Lin, Chang, & Chuang, 2013). Virtual team members can work more competently when given time to build trust and connections among participants and can devote time to developing leaders and articulating leadership responsibilities with teams when team members put away cultural and professional differences and focus on team goals (Zemliansky, 2012).

      There is an increased need for workers to manage and share their work with people whom they have never met as more business leaders are globalizing and geographically dispersing their organizations (Berry, 2011b). Colleagues on a virtual team may know little about each others locations or even what language they speak, and this brings challenges in establishing trust and collaborative relationships among team members (Khan, 2012). Trust is the core factor for all relationships among team members or between team members and the leader (Khan, 2012). A study to examine the

relationship between team trust level using the construct of transparency show that transparency was an organizational collective-level construct (Palanski et al., 2011). Behavioral integrity and trust, however, is an individual construct conceptualized and operated at the team level to understand their relationship to team performance qualities (Palanski et al., 2011). Using the partial least squares, the findings from 149 students from a public university in the Northeast United States demonstrated that team transparency positively related to team behavioral integrity, which in turn positively related to team trust. Evidence existed of a positive relationship between team trust and team performance (Palanski et al., 2011).

Nonverbal cues are one of the ways of forming first impressions as noted by Burgoon, Guerrero, & Manusov (2011). Nonverbal signals are universal in interpersonal exchanges; nonverbal cues are the first form of communication people respond to when they meet for the first time. Nonverbal communication helps people to make a good impression on others, helps people develop new relationships, and helps to dictate deception in people (Burgoon et al., 2011). The ability to encode and decode nonverbal signals is one of the keys that can help in building and maintaining a healthy trusting relationship (Burgoon et al., 2011). A study of 226 participants in tasks related teams show that a first good impression with the aid of a good 'introductory template' can enhance trust (Rusman, Van Bruggen, Sloep, Valcke, & Koper, 2013). The template should include facts such as nationality, occupation, work experience, and interests. Sharing this preliminary information encourages strong initial perceptions of

trustworthiness, improves the trust levels in virtual teams, and improves their productivity (Rusman et al., 2013). Understanding team members' background increases the level of trust and aids team leaders in the selection, management, and operations of all teams, including collocated, virtual, multicultural, or multiemployer groups (Chen et al., 2011).

Organizations with high-level trust climates tend to perform better regarding creativity, productivity, conflict mitigation, and profitability than organizations with low levels of trust (Brahm & Kunze, 2012). It is important that virtual team leaders emphasize the development of trust from the beginning of the team formation to enable the team to reach high-performance results and to attain high-level trust climates among virtual team members (Tseng & Ku, 2011).

A study describing the assumed relationship between knowledge sharing, trust, collaboration, and team efficiency, Alsharo (2013) noted positive relationships existed between knowledge sharing, trust, and collaboration. The result showed the importance of social individualities and social relationships among virtual team members in promoting a setting of collaboration within the team in the organization (Alsharo, 2013). The findings that social relationships or affect-based relationship amongst team members help to promote collaboration aligned with findings that a direct relationship exists between communication, collaboration, knowledge sharing, and trust and that all these variables influence virtual team performance (Sarker et al., 2011).

Using hierarchical linear modeling analysis revealed that cultural intelligence and global identity significantly increased over time, and the effect lasted for six months, even after the project ended (Erek, Lisak, Harush, Glikson, & Shokef, 2013). The linear modeling analysis shows that trust was a factor that moderated the project's effect on team members' cultural intelligence and global identity. The findings from a study conducted by Zey (2012) also confirms that cultural awareness and training could help in building trust and bridging the gap of geographical differences among virtual team members (Zey, 2012).

The introduction of information communication tools altered communication between coworkers (Alawamleh & Popplewell, 2012). The social relationship between team members in the virtual workplace was almost exclusively work-related, leaving little room for personal acquaintance. When team members make efforts to use phones and e-mail outside of work-related issues, some establish close friendships that increase trust and foster cooperation (Alawamleh & Popplewell, 2012). Distinct from traditional teams, virtual teams do not have interpersonal interactions to draw from as a basis for building trust. Team members build trust on ability, integrity, and benevolence in virtual environments (Brandt et al., 2011). It is important for global business executives to ensure virtual team leaders help team members to build trust (Mansor, Mirahsani, & Saidi, 2012**).**

Virtual team members work in different time zones and geographical settings and help organizational leaders to cut costs and decrease traveling overhead; therefore, virtual

team leaders should train team members on using technology to obtain project success (Mansor et al., 2012). Six factors contribute to building trust, including communication, honesty, skill, training, and work commitment (Mansor et al., 2012). The functioning of the six factors depends on individuals' attitudes about group work and showing respectful working relationships (Tseng & Yeh, 2013). Trust in virtual teams is the stronghold for areas such as leadership, organizational change, negotiation, team processes, strategic associations, and human resource management (Fulmer & Gelfand, 2012).

The cognitive and affective dimensions of trust in virtual teams. Many researchers have developed trust models that depend on the area in which they view the concept of trust over time. The conceptual framework guiding this study is McAllister's (1995) cognition-based trust and affect-based trust theories. Team trust depends on how team members perceive each other regarding their ability, integrity, and benevolence in a global virtual team (McAllister, 1995). Team leaders should create an atmosphere to foster social and interpersonal relationships among team members to trust that team members will perform to expectations (Webber, 2008). One of the major challenges in virtual teams is conquering the world of isolation caused by distance, time, nationality, technology, and lack of traditional workspace (Sarker et al., 2011). It becomes more difficult for team leaders to strategize effective means of establishing strong relationships and bonds that can foster high levels of trust among virtual team members.

The cognitive element of trust develops around rational thoughts, perceptions, and senses. The cognition-based trust uses elements such as competence, reliability,

dependability, and responsibility for standards for building trust (McAllister, 1995).

Team members start with the cognitive dimension of trust based on each other's actions, speeches, and performance in a virtual team setting. Cognition-based trust is mostly task-oriented and professional, but when team members began to collaborate, and their actions are consistent with their speech, trust among team members will increase and team members will be comfortable sharing non-task-related information and providing avenues for social interactions. Such a development supports McAllister's (1995) argument that when team members establish cognitive trust, it becomes easy to form an affect-based trust, which is an emotional bond or relationship with a team member. The development of cognition-based trust has a positive impact on affect-based trust among virtual team members (McAllister, 1995).

When team members observe that they are following a meaningful, shared objective through clear processes outlined by the team leader, they develop high cognitive trust in the leader, which in turn could influence team effectiveness (Webber, 2008). The virtual team setting should be a safe environment for interpersonal risk taking and a place for emotional safety characterized by interpersonal trust, respect for team members' competence, and care and concern for members. Affect-based trust enhances team engagement and collaboration because members believe they are free to participate and make open contributions to team processes without adverse personal consequences (Schaubroeck et al., 2011).

The affect-based trust could develop through the social exchange in virtual teams. Virtual team leaders should establish strong emotional connections with team members to enable team members to perform effectively. A team connected emotionally to the leader will share more information among team members and have less time for conflict. Affect-based trust sustains team cognitive trust over time because team members have overcome fear of disappointment, dislike, cultural issues, distance, and time differential to working for the common good of the team (Schaubroeck et al., 2011). Virtual team leaders should choose strategies that can enhance cognitive and affective trust, knowing that cognitive trust is mostly task-oriented based on performance while affective trust develops when team members engage in social communication other than the task. Virtual team leaders should carefully select communication technologies that will help promote social discussions such as video conferencing, Skype, and webcam, while e-mails, blogs, and wikis should be for task communication purposes (Rusman et al., 2013). Virtual team leaders should strategize ways to build and sustain trust among virtual team members.

Trust and virtual team effectiveness. Team effectiveness is a multidimensional concept that includes several outcomes such as task performance, additional task behaviors, completing tasks promptly, and satisfaction (Webber, 2008). A relationship exists between virtual teams and the overall performance of organizations, which includes increase productivity and efficiency (Eissa et al., 2012; Palanski et al., 2011). A study with 30 project managers using the means-end-chain method allowed for a detailed

visualization of qualitative data to investigate the relationship between task accomplishment and relevant attributes such as benefits and values (Verburg et al., 2013).

The means-end method helps to determine the linking of an object's attributes to its consequences, which in turn links to the attainment of values (Lin & Tu, 2012). The results indicated that conditions for successful project execution in a dispersed setting include rules of communication and its clarity, project management style, and goal setting, and managers' competencies and trust in a team. Project managers also stress the importance of both corporate and technology support in addition to these internal conditions. Using the means-end-chain method enables team members to understand the motivations of project managers more clearly (Verburg et al., 2013). Project managers with experience working in distributed work settings value completion as the most important validation for their work. Project managers and team leaders link achievement to performance and reward in global companies based on their outcomes. The study shows that trust, clear communication, technical support, and overall corporate support are the four most important conditions for getting the work done in virtual settings (Verburg et al., 2013). A study on the value and chain concept of attribute-consequence-value involved using a business simulation game that allowed students to learn to make professional decisions in a virtual setting using a means-end-chain model (Lin & Tu, 2012). The chain concept of attribute-consequence-value helped to understand students' value cognition structures. The findings confirmed that virtual students consider collaboration and diversity as the most important attributes leading to effective exchange

and multithinking (Lin & Tu, 2012); therefore, team members develop interpersonal relationships and a sense of achievement through the emotional exchange.

As virtual teams progress in their collaboration, there is an expectation that team members will trust each other for the sake of accomplishing the task that brought them together. Trust continues to be an issue in virtual teams due to the challenges peculiar to virtual teams such as lack of face-to-face communication, technology breakdown, cultural differences, and geographical disparity (Sarker et al., 2011). A bivariate correlation analysis revealed that the level of trust has a strong positive relationship with team performance and team satisfaction (Tseng & Ku, 2011). As the team members progressed in a task, trust increased, which showed that there were more mature teamwork development stages (Tseng & Ku, 2011).

Team cohesion and openness is one way to attain team effectiveness. A study that involved investigating the moderating role of experience with instant messaging on team interpersonal processes (unity and openness) to team effectiveness, the results revealed that team unity is the strength of the bond that pulls team members together and attracts them to their tasks and team effectiveness (Carlson, Carlson, Hunter, Vaughn, & George, 2013). Using technology can, therefore, foster social relationships and help virtual team members build close relationships that can positively influence team effectiveness. Study findings revealed team member location, culture, nonverbal communication, and trust are the four factors that can influence how effective a team communicates and fulfills its objectives in support of communication technology, trust, and team effectiveness

(Ferreira, Lima, & Gouvea da Costa, 2012). Team leaders should emphasize the type of technology that fits a task, and that will assist in social interaction. Team members should receive training on how to use different types of technology (Carlson et al., 2013).

Trust serves a mediating role in the relationship between leadership effectiveness and team satisfaction, and performance and leadership effectiveness can influence the improvement of trust and team efficiency (Chen et al., 2011). Team member concerns include factors such as communication, commitment to the goal, type of technology used, leadership style and behavior, strategies to handle tasks, and conflict resolution as major factors that can contribute to or disturb team success (Gilson, Maynard, & Bergiel, 2013). The degree of social presence, interaction, and quality of communication are important in a virtual setting. Allowing an avenue to build affect-based trust using communication technology appropriate for social interaction will help to sustain a trusting relationship that will in turn lead to team effectiveness (Webber, 2008).

Virtual teams face challenges from factors such as language, culture, time zone, and distance that hinder the leader's ability to reach high performance (Ferreira et al., 2012). Therefore, the context of virtual teams negatively affects the impact of behavior on performance management (Ferreira et al., 2012). More than 80% of virtual teams fail for reasons such as management's understanding and strategies to lead virtual teams (Levasseur, 2012). Virtual team leaders can manage failure if they understand the characteristics of virtual teams; these characteristics are advanced technology, communication, cultural differences, and geographical disparity (Germain, 2011).

Although most teams use technology, the level of dependence on technology and the location of team members are specific to virtual teams. Understanding these specifics may help team leaders strategize better ways of leading virtual team members to attain project success and satisfaction (Eissa et al., 2012).

Leadership style and skills also contribute to team performance. Leaders who implement transformational leadership qualities promoting team coordination by encouraging cooperation rather than competition will spend less time mitigating conflict (Zhang, Cao, & Tjosvold, 2011). Transformational leaders help team members build shared vision, knowing that shared vision is an important instrument leaders use to improve team coordination, which in turn will lead to attaining higher performance (Mader, 2012). Encouraging cooperation from the beginning of the team and helping team members to build trusting relationships could enable team leaders to attain team effectiveness. Trust is a key concept in a virtual team that would help bridge the gap between the challenges of virtual teams and team effectiveness (Khan, 2012).

An Individual relationship with his or her supervisor, precisely trust in the leader, depends on good work performance and actions associated with commitment to change (Hurley, 2012; Ning & Jing, 2012). Trust in the leader affects employee trust in the organization, commitment, job performance and engagement; therefore, trust in leadership is important because it sets the tone for the rest of the organization (Hurley, 2012).

Virtual Team Characteristics

This proposed study will involve an attempt to gain an in-depth understanding of virtual team leaders' perception of trust and to understand what factors inhibit or promote trust in virtual teams. Virtual teams include individuals with expert skills and experience working on a common goal removing the gap between geographic location, culture, costs, disruptions, and time differential (Germain, 2011). Virtual teams often consist of people from diverse cultures and different geographical locations with a set goal in mind who communicate using electronic devices (Mukherjee et al., 2012). The customary perception of trust is that trust is a feature of personal relationships built on the experiences of people with shared obligation and responsibility who can instigate future and present relationships (Chen et al., 2011). The absence of past and future acquaintance reduces the potential existence of trust (Jarvenpaa et al., 2004). Differences in nationality and geographic settings also challenge the potential presence of trust (Brandt et al., 2011) because diverse cultures and geographical settings create different backgrounds and identities. Trust usually needs corporal touch, which does not exist in virtual teams because of the characteristics of virtual teams; therefore, it becomes a challenge for geographically dispersed teams to build a trusting relationship (Ebrahim et al., 2012).

It is important for virtual team leaders to exhibit characteristics such as flexibility, good communication skills, ability to handle situations, and ability to solve critical problems (Brandt et al., 2011). These characteristics help team leaders manage team members to mitigate issues related to cultural and geographical dissimilarities. Virtual

team leaders are engaging in management practices such as implementing knowledge-sharing ideas, providing adequate feedback on members' performance and contribution, monitoring team performance, and providing sufficient resources help build trust and increase team members' performance (Cogliser, Gardner, Gavin, & Broberg, 2012).

National diversity. National diversity is one of the challenges that virtual team leaders and members face. The challenge of national diversity has made team leaders change their leadership style and strategies to accommodate different cultures (Brandt et al., 2011). Acknowledging the concerns of the inherent issues related to virtuality and cultural differences, proper management of virtual teams could contribute positively toward knowledge creation, satisfaction, conflict mitigation, and building trusting relationships (Zimmermann, 2011). The six intercultural competence areas that global virtual team leaders should pay close attention includes (a) respecting beliefs, (b) navigating ambiguity, (c) instilling trust, (d) adapting socially, (e) having an even disposition, and (f) demonstrating creativity (Tucker, Bonial, Vanhove, & Kedharnath, 2014). Surveys in developed and developing countries identified training as bridging cultural and geographical differences in virtual teams (Zey, 2012). Virtual team leaders should work toward the specific requirements of virtual team members (Holtbrügge, Schillo, Rogers, & Friedmann, 2011). Virtual team members need intercultural training, and only 16% of virtual teams have received intercultural training (Zey, 2012); thus, virtual team leaders should take cultural training to mitigate challenges arising from cultural differences (Chang et al., 2011).

When exploring the challenges of leading cross-cultural teams and the techniques available to improving the capabilities of team leaders, it is important to note that misaligned work values in cross-cultural teams can result in decreased team performance (Hanson, Ward, & Chin, 2012). The challenges of cross-cultural misalignment are the result of the weaknesses in communication and trust formation in virtual team settings. Therefore, it is the responsibility of the team leaders to manage every cultural problem to achieve team goals (Mockaitis et al., 2012). Virtual team leaders may need to depend on cultural assessment tools, tested techniques, and other proven tactics in the field of intercultural communications to allow virtual teams to overcome the challenges coming from misaligned work values (Hanson et al., 2012).

Virtual team leaders contend with cultural challenges that include language dissimilarities, unintentional behaviors, and cultural acceptance (Brandt et al., 2011; Chang et al., 2011). These cultural dissimilarities affect virtual team performance and create concern in virtual team approach issues such as building trust, communications, work ethics, individual perceptions, and approach to solving problems (Chang et al., 2011). Virtual team leaders must possess strong attributes to help cope with multicultural challenges such as beliefs, attitudes, and behavior patterns (Chang et al., 2011). Multicultural challenges dealing with unmitigated behavior patterns can lead to miscommunication and misunderstanding (Chang et al., 2011). A study to determine the relationship between global virtual team members' distinctive and collective positioning, trust, interdependence, communication, information sharing, and conflict mitigation;

Mockaitis et al. (2012) using 43 culturally diverse virtual teams, noted that there is a connection between cultural values and the perceived levels of conflict, trust, and interdependence in global virtual teams (Mockaitis et al., 2012).

A presentation of an overview of strategic roles for organizations to achieve adequate returns on investment and to succeed through cultural awareness, sensitivity, and reciprocity in studying global businesses, team leaders should consider managing cultural differences, intercultural communication, and cross-cultural negotiation and decision-making as the most common challenges (Okoro, 2012). Competitive global skills and competencies like managing cultural differences, intercultural communication, and cross-cultural awareness enable lasting strategic relationships. Cultivating cross-cultural awareness and developing multicultural sensitivity and a global mindset by managers could lead to sustainable growth in international business (Brandt et al., 2011; Okoro, 2012).

The challenge of managing behavioral patterns may decrease with active collaboration training because collaboration training and activities help team members to get to know each other and to build trusting relationships with team members and leaders (Chang et al., 2011). Creating an avenue to build trust will give virtual team leaders an awareness of cultural differences on project issues and help organizational executives to consider cultural variation when employing virtual team members and leaders (Tucker et al., 2014). A study in managing and training for virtual teams in India using companies and individual from Europe posed the challenge of cultural awareness. Virtual delegation

entails intercultural management issues such as lack of face-to-face communication, time zones, communication styles differences, language barriers, and lack of a common mechanism to establish and develop trust (Holtbrügge et al., 2011). Intercultural training occurs shortly before the start of a trip rather than making intercultural training part of the organizational culture. Bridging the gap between current and potential future of international assignment, virtual team leaders and members need intercultural training (Holtbrügge et al., 2011).

Communication. Communication is culture bound and culture specific, and business managers must devote adequate time to learn, understand, and appreciate different cultural habits (Okoro, 2012). Virtual teams consist of geographically dispersed people who can only communicate and accomplish team tasks by using advanced communication devices (Ebrahim et al., 2012; Chang et al., 2011); hence, the development of virtual teams is dependent on the combination of communication and advanced technology (Brandt et al., 2011). Communication has become an issue in virtual teams dealing with different communication technologies, tools, and the procedures for using the tools (Brandt et al., 2011).

Most organizations employ virtual team members with short notice for specific projects, which gives team leaders and members' inadequate time to familiarize themselves with new communication technology and with the project (Chang et al., 2011). The lack of time to learn new technology becomes a challenge for most team members and make them lose the trust of other team members who may be faster in

learning new technology. Organizational leaders should make certain that virtual team leaders are knowledgeable in the type of technology needed for each project and the communication strategies required by the new technology (Chang et al., 2011). Virtual teams may overcome the challenge of building trusting relationships with effective communication. Establishing trust by setting expectations and mitigating perceptions through effective communication procedures can help team members' performance (Suh et al., 2011).

Virtual teams predominantly use computer-mediated technology for communication. Therefore, there is a need for virtual team members to be knowledgeable in computer-mediated communication technology (Carlson et al., 2013). There is an interconnection between communication technology, communication strategies, and communication categories when team members' trust each other, their leader, team tasks, and team effectiveness (Carlson et al., 2013). Exploring the factors that can directly influence the effectiveness of virtual team communication and accomplishing team objectives, the importance of technology in communication, and how team members view each other's messages tells the type of communication devices used (Chhay & Kleiner, 2013). Location of team members, culture, nonverbal communication, and trust emerged as the four factors that can influence how effective virtual teams communicate and fulfill their objectives (Chhay & Kleiner, 2013). Team leaders should pay close attention to factors such as coordination, geographical setting of team members, and cultural differences among team members (Chhay & Kleiner, 2013).

Assessing the perception of the performance of virtual teams using a developed methodology involving questionnaires, focus group sessions, and operation planning techniques to measure the level of understanding of performance measures in diverse teams, Ferreira et al. (2012) identify factors that can improve their performance. The result of the individual items such as behavior over performance was evident, and lack of clear communication, language obstacles, misunderstanding objectives, and cultural limitations have a negative impact on behavior over performance measurement (Ferreira et al., 2012). A misunderstanding of unforeseen event variables such as work practices and strategic alignment, and the neglect of the external environment variables such as culture, language, and academic background, bring confusion to team priorities (Ferreira et al., 2012). Organizational and virtual team leaders should pay attention to unforeseen event variables and the external environment variables because knowing them could help in planning communication strategies and platforms (Pazos, 2012).

Virtual team leaders use communication platforms and tools to manage their teams. These platforms could include collaborative suites, teleconferences, Skype, video conferences, Groupware, IBM Lotus Notes, and Windows Meeting Space (Pazos, 2012). These tools and platforms help virtual team leaders to build trust, regardless of team members' cultural differences while working on projects, collaborating, and interacting with each other at the same time. Virtual team members usually work in different time zones, which helps organizational leaders reduce traveling expenses and other costs (Al-Ani et al., 2011). It is important for virtual team leaders to know how to use technology

to get team members from different time zones at the same pace (Pazos, 2012). It is also vital that virtual team leaders understand effective ways to communicate information and manage processes, which are critical to their decision making and member's performance toward project success (Pazos, 2012).

Communication frequency influences the feelings of dependence and trust, perceived similarity of a project's value, and perceived expertise. Project managers need to pay attention to these variables to increase the level of knowledge sharing among team members, especially in information systems development projects where primary tasks are critically knowledge-intensive (Park & Lee, 2014). Communication helps improve the level of trust in virtual teams because it increases openness and honesty, identification, competence, and reliability on each other and shows team members' concern for stakeholders (Brandt et al., 2011).

Identifying and testing three models (additive, interaction, and mediation) using 111 participants from United States, Norway, and Denmark to understand the theoretical linkages among trust, communication, and member performance in virtual teams, Sarker et al. (2011) showed that the mediating model explains how communication and trust work together to influence team performance. The other factors that can directly influence the effectiveness of virtual team communication and performance include culture, nonverbal communication, and trust (Chhay & Kleiner, 2013). Virtual team leaders should take into consideration factors that can inhibit trusting relationships and find ways to mitigate them.

Advanced technology. The increase in the globalization of business operations led business executives to search for ways to handle multifaceted projects and at the same time reduce cost. Business executives' device virtual teams to handle the complex project by communicating and collaborating using advanced devices (Saafein & Shaykhian, 2014). The use of technology creates an absence of physical experience that makes it difficult for virtual team members to connect with each other on a more personal level. Trust develops more easily based on physical experience, but in a dispersed virtual team, constructing trust is a challenge because members are not able to see each other face-to-face to develop trusting relationship and depend on advanced technology for communication (Daim et al., 2012). Although virtual team members communicate with each other only through the help of technological devices such as webcams, Skype, phone calls, and e-mails, team members who collaborate and learn about each other outside work-related issues can increase their trust level and interpersonal relationships (Zaugg, & Davies, 2013).

Factors that contribute to building trust and enhancing the effectiveness of virtual teams performance include providing technology appropriate to the task, ensuring adequate training for operating new technology, enabling members to convey social signs and useful information (Yang, 2012). Also, planning strategies for fostering working ties in an appropriate manner to improve communication and prevent conflicts (Ying, 2012). A study using 302 undergraduates from three Universities in Taiwan, findings from the contribution of an individual virtual team member to the success of the team and project

showed that task–technology fit and self-disclosure positively relate to working ties, and working ties positively relate to performance and satisfaction (Ying, 2012). Having the right technology and the ability to apply it to tasks helps team members build confidence and trust, demonstrates team members' competence and reliability, and gives teammates an opportunity to trust others to know what to do to any given task (Ebrahim et al., 2012).

Organization leaders can overcome the challenges of virtual teams by establishing and maintaining trust using communication technology, ensuring team members understand and appreciate managing virtual work–life cycle (Hirschy, 2011). Also, using technology to monitor team progress, improving member team visibility within the team and in the organization, and enabling individual team members to benefit from the team are ways leaders could overcome virtual challenges (Hirschy, 2011). Virtual teams mainly use computer-mediated technology for communication; therefore, virtual team members should be knowledgeable about computer-mediated communication technology. The moderating role of experience with instant messaging on interpersonal team processes (cohesion and openness) to team effectiveness shows that cohesion is the connection that pulls teams together and makes team members attracted to the team and its task; hence, unity affects team effectiveness (Carlson et al., 2013). The result also shows that team openness has effect moderated by experience with instant messaging technology because of the level of clarity and promptness given to team task communication (Carlson et al., 2013).

The ways team members view each other's messages tell the type of communications technology used and demonstrate the importance of technology in virtual team communication (Chhay & Kleiner, 2013). Having strong communication skills gives virtual team leaders the ability to share knowledge, show competence, and experience satisfaction through technology (Aiken et al., 2013). Organizational executives and virtual team leaders can gather and use data to benefit them, as long as they use appropriate technology that can bridge the gap of geographic boundaries (Pazos, 2012). The biggest asset of an organization is information collaboration and sharing; therefore, virtual team leaders should manage the progression in technology and train their team members to make certain there is increased productivity and project success through technology, information collaboration, and sharing (Pazos, 2012).

Organizational leaders continue to depend on information communication technology and face communication problems with virtual teams (Brandt et al., 2011). This challenge has generated the need for business executives to train virtual team members and leaders on the best way to use technology in communication and collaboration; however, such training should occur before forming the team and should continue when needed (Gilson et al., 2013). Team leaders should recommend the best communication technology devices and technology tools for each task because different tasks could require different technology and communication platforms (Gilson et al., 2013).

A study of the intervening role of team trust on the connection between virtuality level and task-related and collaborative behaviors included three types of task-related collaborative behaviors: team coordination, team cooperation, and team information exchange (Peñarroja, Orengo, Zornoza, & Hernández, 2013). The laboratory experiment consisted of 65 four-person teams and showed that positive prospects about others' behaviors could lead team members to exchange information and share team resources (Peñarroja et al., 2013). The findings indicated team trust partly facilitated a connection between virtuality level and team coordination and fully facilitated a relationship with team cooperation and team information exchange (Peñarroja et al., 2013). It is important for team leaders to train team members on the effective use of communication technology to collaborate in a way that would build team members' confidence on the information received (Gilson et al., 2013).

An empirical study to understand the relationship between diversity, mutual trust, and knowledge sharing among global virtual teams, with a focus on understanding the moderating impact of collaborative technology and task characteristics, researchers designed a normative structure with data collected from 58 global virtual teams (Pinjani & Palvia, 2013). The findings showed that collaborative capabilities of available technology and levels of the interdependence of the task control the relationship between diversity, team procedures of joint trust, and knowledge sharing (Pinjani & Palvia, 2013). Virtual team leaders and members should invest in advanced technology for

communication and collaboration, knowing that their success depends on the use of technology (Zaugg & Davies, 2013).

Geographic disparity. Geographical differences are comparable to national differences because geographic disparity can affect advanced technology systems due to different sites, locations, offices, and countries (Brandt et al., 2011). The challenge of geographic differences includes time zones, coordination delays, time allocation, physical separation, demographic distance, and the absence of intersecting work hours (Cummings, 2011). One of the ways to build trust is through face-to-face meetings that help to mitigate previous doubts; produce ideas; make complete decisions; and build trustworthiness, commitment, and relationships. However, geographical disparity makes it difficult to experience the benefits of face-to-face meetings (Brandt et al., 2011).

The management of technological issues such as the adaptation and regular use of communication tools is a challenge that faces virtual teams. This challenge may pose threat to the performance of any virtual teams (Ebrahim et al., 2012), however, some researchers contended that the problem could be more noticeable when troubleshooting customers' technical problems is inherently complex and challenging (Saafein & Shaykhian, 2014). Communication technology creates an inability for team leaders to meet their team members face-to-face, which may limit the leaders' effect on team members and lower their trust level (Saafein & Shaykhian, 2014).

Virtual team members often collaborate across geographic boundaries, and trust is critical to such teams' success (Kim, Lee, & Kang, 2012). A study on the effects of

boundary-spanning conditions on the development of team trust and team satisfaction using multigroup structural equation modeling, proponents contended that compared to geographically dispersed teams, teams within the same boundary display higher trusting beliefs and higher satisfaction with the collaboration process (Schiller, Mennecke, Nah, & Luse, 2014). Teams within the same geographical settings also show stronger relationships between team trust and team satisfaction.

Virtual teams distributed around the globe have improved organizational flexibility and reduced costs, but it is challenging to manage communication processes because geographic dispersion causes team members to communicate using lean media such as e-mails (Klitmøller & Lauring, 2013). Problems caused by lean media could result from misunderstanding messages due to a lack of body language, no tone of voice, and slow or lost responses. Using rich media such as videoconferencing, Skype, and webcams are more appropriate when sharing knowledge that is intricate because it will capture feelings (Pazos, 2012).

A study involving three dispersed teams examined information exchange and decision-making quality in virtual teams using the theoretical framework of vigilant interaction theory demonstrated that team members perceive, talk about problems, options, and consequences eventually controls the quality of final choices the team make as a group (McLeod, 2013). Norm-based online silence demonstrates the use of time in nonverbal communication signals (Kalman & Rafaeli, 2011). Time awareness plays a

large role in the nonverbal communication process and the quality of the final decision in a geographically distributed team (McLeod, 2013).

As organizational leaders continue to use virtual teams to attain sustainable advantage, reduce traveling costs, and take advantage of acquiring best skills to handle complex projects, they should understand the challenges that come with using virtual teams and the geographical limitations (Zaugg & Davies, 2013). Team leaders should find the best communication technology devices that can help them build trust through collaboration and knowledge sharing to mitigate the challenge of geographic disparity that may stem from lean communication media, time differences, and separation (Aiken et al., 2013; Cummings, 2011).

Leading virtual teams. The specific challenges facing virtual teams have made it impossible for all business leaders to manage virtual teams (Mukherjee et al., 2012). The challenges could stem from time differences, national disparity, geographic dispersion, and technology issues (Germain, 2011). Organizational leaders should ensure virtual team leaders are capable of operating in a flexible manner to be able to analyze team members' behaviors, strengths and weaknesses, and successes and failures and mitigate conflict when necessary (Sidhu & Volberda, 2011).

Managing virtual teams across cultures could be challenging for team leaders because of cultural differences in time management, accents, goals, religious beliefs, business ethics, and leadership methods (Duus & Cooray, 2014). There are few challenges that cultural differences alone can bring. Organizational leaders implementing

virtual teams should critically consider all the characteristics of virtual teams and the challenges each of the characteristics could bring and then research ways to handle any challenge (Strang, 2011).

Virtual team leaders should be flexible, be knowledgeable, and lead by example. Some advocates of virtual team leadership identified some leadership styles that could help virtual team members achieve their goals such as transformational leadership style with such traits as leading by example, motivating others, listening to others ideas, and being people oriented (Quisenberry, 2011). A study by exploring the relationships amongst transformational leadership style, cognitive trust, and collective efficacy, and their impact on team performance, Chou et al., (2013) conducted a study using 39 teams from Taiwan. The findings show that cognitive trust in the leader and cognitive trust among team members mediate the impact of this leadership style on collective efficacy (Chou et al., 2013). Collective efficacy is team members' shared belief regarding the team's capacity to complete a given task, which may result from the building of cognitive trust within a team. A transformational leader displaying ideal influence, intelligent stimulation, motivation, and personalized thought could expedite team members' trust in the leader and shared trust among team members (Zhu et al., 2013). When a team leader displays a transformational leader style, team members will observe a high level of team cognitive trust and be more likely to distinguish others' ability and reliability to complete a task (McAllister, 1995).

A transformational leadership style is an appropriate form of leadership for virtual teams because of the ability to motivate virtual team members and develop strategies that may help successful team performance (Mukherjee et al., 2012). In contrast, a multivariate analysis of covariance study conducted by Strang (2011) identified transactional leadership and motivation as a more effective tools for managing virtual teams than a transformational leadership style (Strang, 2011). Proponents of the transactional leadership style maintain that transactional leadership helps increase productivity, while transformational leadership offers the motivation needed to carry out the task (Kahai, Huang, & Jestice, 2012; Strang, 2011). In addition to transformational and transactional leadership styles, advocates of situational leadership argue that there is no best style of leadership, but leadership style depends on the readiness level of the team the leader wants to influence (Thompson, 2010). Situational leaders interact in two distinctive leadership directions: work motivated or relation motivated (Thompson, 2010). Virtual team leaders should be ready to change their leadership style depending on the task, situation, and people (Thompson, 2010).

Organizational executives should possess the necessary leadership strategies to meet the challenges of virtual teams (Marrewijk, 2010). A study involving the use of the virtual game world to represent activities in business virtual teams, proponents emphasized the role of leadership in virtual teams as building Leader–member relationships by training team members to build self-competence, self-determination, and confidence in their ability to handle tasks (Goh & Wasko, 2012). Virtual team leaders

should possess qualities that can help them improve the use of communication technology to build relationships. Also, ensuring team members understand and appreciate diversity, managing virtual work–life cycles, using technology to monitor team progress, improving member team visibility within the team, and in the organization, and enabling individual team members to benefit from the team (Hirschy, 2011). Virtual team leaders should possess skills such as cognitive capabilities, social capabilities, and behavioral capabilities found to be common attributes of transformational and transactional leadership style (Mukherjee et al., 2012). The cognitive capability allows virtual team leaders to anticipate, think, and judge in various manners. The social skills help leaders apply interpersonal skills to influence various components of the organization while the behavioral skills allow leaders to use their personal behavior to influence members to act in the best interest of the organization (Mukherjee et al., 2012).

Leaders affect team members because of their close, sustained, and personal relationship with team members. The importance of transformational leadership centers on perfect influence, intellectual motivation, personalized consideration, and inspirational motivation (Strang, 2011). This type of leadership influence develops socialized relationships with team members and fosters attitudes that are critical to team success in a virtual team setting (Caldwell et al., 2012).

Virtual team leaders should lead team members to attain project success. In leading team members to achieve project success, team leaders should identify factors

capable of enhancing virtual team success, such as building trust, knowledge sharing, a balanced coordination of activities, using advanced communication tools, and developing an adaptive leadership style (Rahman, 2012). Improved technology and team leaders' knowledge on the use of technology can also contribute to team success (Zander et al., 2012). Virtual team leaders should be open to experience from team members that are creative, imaginative, and unconventional. Leaders who are flexible and open to new experience are more likely to embrace training and development, perform better, and earn team members' trust (Eissa et al., 2012). Also, leaders who are persistent, organized, trustworthy, dedicated, and self-controlled, and who want success, are leaders who exhibit thoroughness (Eissa et al., 2012).

Trust is a factor for effective communication, and effective communication builds trust, provides the creative synergy, and shared leadership capability to accomplish tasks (Berry, 2011a). Virtual team leaders should understand the team characteristics from the formation of the team and find better ways of effective communication that would foster trusting relationships. Virtual team leaders should manage conflict in a way that would not affect the common goal, because it can intermingle with emotions, influence team operations, and affect procedures of trust and cooperation (Ayoko et al., 2012). Team leaders should understand the absence of social signs in virtual teams, which is predominant in collocated teams, could trigger conflict whenever there are emotional issues that could provoke opposing reactions during interactions (Ayoko et al., 2012). Therefore, understanding the role, that conflict mitigation plays in the relationship

between commitment to team goals, and team productivity should drive team leaders to avoid relationship conflict while supporting performance and productivity (Pazos, 2012; Pinar, Zehir, Kitapçi & Tanriverdi, 2014).

Effective virtual team leaders are the key to project success; therefore, it is important to understand the role of virtual team leaders to mitigate project failure. Virtual team leaders should possess skills such as building trusting relationships, technology skills, communication skills, and understanding the mission statement of the organization and the goal of the team. In addition, virtual team leaders should be flexible, good communicators, and excellent problem solvers to lead team members to overcome sustainability challenges stemming from geographical and cultural diversities (Brandt et al., 2011).

Transition and Summary

The intent of this exploratory single case study was to gain an in-depth understanding of what strategies virtual team leaders could use to build and maintain trust amongst virtual team members to increase job performance. I used electronic interviews through electronic media consisting of open-ended semistructured questions. The findings from the study might provide organizational leaders with a better understanding of the construct of trust, and the strategies that could help build and maintain trusting relationship amongst virtual team members. The understanding of trust in virtual teams might help organizational leaders in the selection of virtual team leaders and members. Virtual team leaders could use the knowledge to strategize how to lead virtual team

members into building and maintaining trusting relationship that will help improve their job performance. This section covers key elements for the study to include a problem statement, purpose statement, the nature of the study, research question, conceptual framework, the significance of the study, and literature review.

The literature review provided an understanding of the cognition-base and affect-based theories of interpersonal relationship as it relates to trust and the characteristics of virtual teams and their effect on trust. The literature review presents key viewpoints regarding virtual teams such as historical overview, benefits, and challenges. For the virtual team characteristics, this area addresses the following: national diversity, communication, advanced technology, geographic disparity, and leading virtual teams. Section 2 includes the research methodology, participants, research method and design, population and sampling, data collection procedures, data analysis, reliability, and validity of the study. Section 3 addressed the findings from the study and identified the common themes for building and maintaining trust in virtual teams. I transcribed, organized, and analyzed the data from the participants' responses to open-ended, semistructured interview questions and provided themes and recommendations for further study.

Section 2: The Project

The objective of this study was to explore the strategies virtual team leaders use to build and maintain trust among virtual team members to improve team performance. A qualitative exploratory case study approach was appropriate for exploring trust in virtual teams. Section 2 includes the reiteration of the purpose of the study, a discussion on the role of the researcher, an explanation of participants, the research methods and design, the population and sampling, and the explanation of ethical research. In addition, section 2 comprises details on data collection, instruments, data collection techniques, and data analysis. Finally, section 2 ended with a discussion of reliability and validity.

Purpose Statement

The purpose of this qualitative, exploratory, single case study was to explore the strategies that team leaders use to develop and maintain trust in virtual multinational teams to help improve their team members' job performance. The participants were leaders of virtual teams and worked for a multinational management consulting, technology services, and outsourcing corporations. The corporation is on the Fortune 500 list and have headquarters in Dublin, Ireland. Although the headquarters is in Dublin, Ireland, the corporation has offices and virtual team members around the globe to enable me capture different perspectives from the various team leaders working for the same corporation but in different geographical locations. At the time that data were collected, team leaders were based in Dallas Texas, Lagos Nigeria, Mumbai India, London England, and Johannesburg South Africa. By revealing strategies that virtual team leaders

can use to build and sustain trusting relationships, I hope to further help management practitioners develop strategies for building and maintaining trust in multinational teams and, hopefully, improve employees' job performance. The study could promote positive social change by giving organizational leaders a profound understanding of strategies virtual team leaders could use to establish trusting relationship among virtual team members that might improve their work relationship and productivity.

Role of the Researcher

As Denzin and Lincoln (2008) observe, the researcher is the primary instrument of data collection in qualitative studies because they emphasize their interpretation and experiences when doing textual and other analysis. A qualitative study gives room for biased interpretations and external influences that might compromise study results. Having worked in virtual teams for approximately 3 years before pursuing my doctoral studies, I believe that I was better able to collect relevant data for this study. However, I know that a researcher's experiences may influence the validity and reliability of study findings (Ben-Ari & Enosh, 2011).

Heeding Ben-Ari and Enosh's (2011) recommendation that qualitative researchers try to eliminate individual feelings, ethics, and principles when conducting research, I strove to reduce, as much as possible, any bias that might affect data collection, analysis, and reporting of findings (see Marshall & Rossman, 2011). I put aside personal experiences, principles, culture, and opinion by keeping an open mind, as recommended by Moustakas (1994). In addition, I integrated member checks which is, summarizing the

data; bringing out the interpretation of the data, and sending it back to the participants to verify the accuracy to guarantee accuracy in data collection, transcription, data analysis, and reporting of findings, as suggested by Harper and Cole (2012) and Marshall and Rossman (2011). I believe that I fulfilled my role and reported data in a truthful and unbiased manner.

I am not personally acquainted, or in a working relationship, with my study participants. The absence of working relationship or personal acquaintance enabled me to maintain a neutral stand throughout the data collection process. Also, Denzin and Lincoln (2010) suggested that a qualitative researcher maintained a research journal explicating personal reactions and reflections, insights into self and the past, and bracketing or aligning participants' responses while collecting data. I used the journal to record all actions related to collecting, analyzing, and reporting findings. Using a journal helped reduced the possibility of bias by giving me the means to reflect on personal principles and assumptions that could affect research results, as recommended by Hayman, Wilkes, and Jackson (2012).

Prior to collecting data, I used the purposeful and the snowball sampling methods to recruit participants. I identified the first participants through purposeful sampling who was introduced by a friend to have met the criteria to refer another participant who would be relevant to the study, and the referral continued until I reach 10 partcipants used for this study (see Goodman, 2011; Trotter, 2012). I gave all participants a letter of informed consent explaining the terms of the research, which included voluntary participation and

withdrawal without penalty, as required by the 1979 *Belmont Report*. In the informed

consent letter, I also explained the risks and benefits of the research. (In this case,

participants faced minimal risk of everyday work life experiences like tiredness, stress,

and upset.) I noted that some participants were reluctant to provide team documents

because of the professional risk involved. Therefore, I only worked with participants who

were willing to provide team documents.

I used an interview protocol guide in order to follow a prearranged line of inquiry

as recommended by Draper and Swift (2011). In the interview protocol, I introduced

myself, discussed the background of the participants and in the closing components, and

requested follow-up questions (Draper & Swift, 2011). I used open-ended questions and

spoke in a simple and clear diction so that participants could comprehend and

meaningfully respond to questions. I personally collected, transcribed, and analyzed data

to bring out possible themes and report findings. I maintained the confidentiality of the

participants by using Pseudonym to replace their names, and I secured data in a

password-protected personal laptop. I will destroy all data after five years of completing

the study.

Participants

I recruited participants from a virtual team of a multinational management

consulting, technology services, and outsourcing global organization that is

headquartered in Dublin, Ireland, and is on the Fortune 500 list. The virtual team leaders

who participated in the study live in different geographical regions such as Dallas Texas, Lagos Nigeria, Mumbai India, London England, and Johannesburg South Africa.

I used both the purposeful and the snowball sampling methods to identify participants. The snowball sampling method allows researchers to reach hard-to-reach individuals (Handcock & Gile, 2011; Sadler, Lee, Lim, & Fullerton, 2010). In using the purposeful sampling method through a friend's introduction, I identified a participant who was relevant to the study and asked him or her to refer another individual who was also relevant to the study (Goodman, 2011; Trotter, 2012). Per my sampling criteria, I only selected participants who (a) worked for my target organization, (b) had worked at the organization for at least 1 year, (c) had a minimum of 1 year experience in leading virtual teams and who are leading, or have led, geographically dispersed team members, and (d) are fluent in English. The use of a small sample size in a qualitative study allows researchers to conduct more in-depth research on a phenomenon (Moustakas, 1994). Case studies can suffice with a small sample size because researchers also use multiple sources of evidence (Silverman, 2013). In this study, I used electronic interviews and documents from team memos and progress reports as suggested by Yin (2012). Using Francis et al.'s (2010) data saturation method, I selected a minimum sample size of 10 participants, which I considered acceptable for an initial sample for a case study (Yin, 2012). In addition to the 10 participants, I used data from team memos and progress reports for data triangulation.

The snowball sampling method allows researchers to get through to hard-to-reach individuals (Sadler, Lee, Lim, & Fullerton, 2010). Hard-to-reach individuals may not be easily accessible and may lack a feasible sampling method; therefore, using the snowball sampling method provided access to hard-to-reach individuals (Handcock & Gile, 2011). I maintained an unbroken link with participants especially the participants from hard to reach places like Johannesburg, Mumbai, and Lagos through constant communication through emails and phone calls.

I sent an invitation letter to all identified participants requesting their voluntary participation in the study. (See Appendix E). I requested participants to give me their e-mails and phone numbers and maintained an unbroken communication link through e-mails to enabled access to the participants and established a working relationship with them. I kept all participants informed of the process of the study. Before participating in the interview, participants received an informed consent form electronically that indicated the nature of the research. I explained to participants terms such as confidentiality of their personal information; non-disclosure of data, participants' personal information, or the organization they represent; and the voluntary participation and withdrawal. A copy of the informed consent form is in the appendix (See Appendix C).

I used pseudonyms in the form of letters-number abbreviation for participants (VTL1) followed by a number that begins at 1 and ends at the number of the last participant, so there were 10 participants, their pseudonyms were VTL1–VTL10. The use

of pseudonyms allows me to distinguish between interview responses for proper

transcribing and coding of data (Guthrie & McCracken, 2010; Xie, Wu, Luo, & Hu,

2012). The participants received notifications concerning the medium for gathering their

responses. The interviews took place using a recorded telephone conference as a primary

means of collecting data because the majority of the participants do not have Skype

platform. I stored all data on a laptop protected by a password, and as a backup plan, I

stored all data on a thumb drive and kept in a secure cabinet. Destruction of data will take

place five years after completing the study.

Research Method and Design

Establishing the appropriate research method and design is a major element in

conducting a research study. The three leading research methods are quantitative,

qualitative, and mixed methods. Researchers use the qualitative method when conducting

interviews or using observations to solve the research questions (Qu & Dumay, 2011). A

quantitative method involves using surveys or testing hypotheses for a large group of

participants to solve the research question (Andressen, Konradt, & Neck, 2011). A

mixed-methods study involves both quantitative and qualitative methods (Tseng & Yeh,

2013). The decision to conduct either a qualitative or a quantitative study depends on the

research questions driving the study, prior work, the planned research design, and the

anticipated contributions a researcher wants to make (Bluhm et al., 2011).

Research Method

It is important to select the appropriate research method that aligns with the problem statement and answers the research question for this study. The qualitative research method is appropriate to answer the research question (Ali & Yusof, 2011). I used the qualitative research method with an exploratory single case study design to explore and understand participants' perspectives on the strategies virtual team leaders use to build and maintain trust among virtual team members to help the team members improve their job performance.

The qualitative method addressed the research problem in this study by extracting data from interviews and documentation. Qualitative research is vital for revealing deeper processes in individuals, teams, and organizations, and understanding how those processes develop over time (Bluhm et al., 2011). The qualitative method was the preferred method for this study to gain an in-depth understanding of how virtual teams build and maintain trust because of the context of the participants (Yin, 2014). Using qualitative research allows researchers to provide an additional understanding of the skills needed when leading in a difficult virtual environment (Desper, 2013).

Qualitative research methods supports exploring the complex reality constructed by individuals in the context of their everyday worlds (Brysiewicz & Erlingsson, 2012). The qualitative research relies on the subjective and involved looking at human realities instead of concrete realities of objects. Qualitative researchers use data in the form of sentences to convey thoughts, views, insights, or experiences of individual participants

(Anderson, 2010; Moustakas, 1994). The use of qualitative research methods to understand the construct of trust among virtual business team members answers the research question.

A quantitative approach to the study would not address the research question in the study. The quantitative research involves detailing measurements, which include elaborate equation models to incorporate and compared variables; thus, it may require a basic or strong background in mathematics or statistics to implement (Madrigal & McClain, 2012). The quantitative approach is suitable for measuring variables, analyzing causal relationships between variables, and testing hypotheses; it is objective and involves using numbers to obtain generalizable data (Denzin & Lincoln, 2008; Neuman, 2003). The study did not involve measuring cause and effect, analyzing relationships, predicting, or describing the distribution of an attribute across a population, but rather focused on exploring to understand a phenomenon for the participants (Merriam, 2009).

A quantitative study involves testing hypotheses using numbers (Madrigal & McClain, 2012). Quantitative researchers hold a positivist worldview and rely on carrying out experiments to ensure they separate bias from the study's objective reality by testing hypotheses (Echambadi, Campbell, & Agarwal, 2012). The use of the quantitative method to explore participants' viewpoints on building and maintaining trust among virtual team member is not appropriate for this study (Anderson, 2010). Researchers present quantitative research in a prescriptive manner while qualitative research is in a descriptive form (Ali & Yusof, 2011).

Mixed methods research is a combination of both quantitative and qualitative methods (Yin, 2012). The research involves using quantitative data as a logical approach to testing hypotheses and qualitative as an inductive approach for collecting data through interviews and observations (Bansal & Corley, 2012). Mixed methods research complements the strengths and weaknesses of qualitative and quantitative research (Venkatesh et al., 2013). However, quantitative method is not the best for this study because of the quantitative element. I did not test any hypotheses or examined the relationships between two variables but rather gained an in-depth understanding of a phenomenon through inquiry.

Research Design

The study involves an exploratory single case study design drawn from multiple sources such as interviews and documents to allow for a deep understanding of the problem in its context (Noor, 2008). The study was not on the entire organization, but focused on a particular issue, and the units of the study were the selected virtual teams.

The research questions and the purpose of the study aligned with the requirements for a case study as mentioned by Yin (2012). The use of a small group of participants to explore strategies that leaders can use to build and maintain trust among virtual team members was suitable for a case study design. A case study is appropriate to understand the impact of organizational and environmental context on a social process and when trying to understand everyday practices and their meanings to those involved, which would emerge from brief contact (Merriam, 2009).

Case study design is useful when researchers take into account the contextual conditions of a phenomenon under study. The case study design helps reveal how the context affects the phenomenon under study (Amerson, 2011). Case study researchers emphasize the situation surrounding the experiences rather than the actual lived experiences (Petty, Thomson, & Stew, 2012). Case study design is suitable for this study because the emphasis of the study is to gain an in-depth understanding of the strategies virtual team leaders use to build and maintain trust among members of geographically dispersed teams. Case study design allows researchers to concentrate on a single phenomenon and to uncover the interaction of significant factors of the phenomenon (Merriam, 2009). A case study design involves using multiple sources of evidence to collect the data needed to gain an understanding of the experience in a real-life context (Yin, 2012).

The other research designs that I considered were phenomenology, narrative inquiry, ethnography, and grounded theory, but they are not suitable for this study. Phenomenology is appropriate to understand the meaning of lived experiences among individuals with like experiences and the interpretations of those experiences (Applebaum, 2012; Moustakas, 1994). The phenomenological design is not appropriate because of the contextual conditions of the participants in the study. Narrative inquiry comprises using field notes, stories, autobiographies, photographs, life experiences, consultations, and journals as sources of data (Elliot, 2011). I did not use data from any

of the instruments mentioned in narrative inquiry; therefore, the narrative inquiry is not appropriate for my study.

Ethnography involves the study and observation of ethnic groups or societies (Denzin & Lincoln, 2010; Merriam, 2014). The focus of the ethnographic approach is about culture or a culture-sharing group; this research did not involve examining the cultural behaviors, beliefs, values, or learned patterns related to any ethnic group (Lambert, Glacken, & McCarron, 2011). I did not consider or observe any ethnic characteristics or factors such as culture and race of employees in an organization to understand the strategies virtual team leaders use to build and maintain trust among team members to enable them to improve team members' job performance.

The focus of grounded theory is on performing an in-depth analysis of an event for a prolonged period with the aim of developing a scientific theory (Breslin & Buchanan, 2011). Researchers who use grounded theory build a theory and they use the results of the study to enhance organizational practices (Breslin & Buchanan, 2011). The purpose of this study was not to develop any scientific theory; hence, grounded theory was not appropriate for the study.

Data saturation occurs when no additional new data emerges during the data collection process that contributes to answering the research question in the qualitative, exploratory, single case study (Carlsen & Glenton, 2011; Yin, 2014). I ensured data saturation by following the steps suggested by Francis et al. (2010) by selecting initial sample size of 10 participants for the semistructured interview. Interviewing ceased after

the first interview because no new ideas emerged. Also, participants responded to follow-up questions to ensure data saturation. The use of member checking as an additional means of obtaining data validity was appropriate because participants had the chance to review the synthesized data to endorse its accuracy or add additional data as suggested by Harper and Cole (2012) and Marshall & Rossman (2011). Data from team memos and progress reports helped with data triangulation and provided additional data for the study to reach data saturation.

Population and Sampling

The population for this study was virtual teams of multinational management consulting, technology services, and outsourcing Fortune 500 global organization headquartered in Dublin, Ireland. I used both purposeful and snowball sampling methods. I used a non-random purposive technique to select experienced virtual team leaders who fitted the criteria for participating in the study and understood the research and interview questions as mentioned by Trotter (2012). The snowball sampling method allows researchers to identify a participant relevant to the study and then to ask the first participant to refer another individual who will be relevant to the study (Seidman, 2013. The process continues until the researcher reaches the required sample size, and this was the sampling method for this case study (Goodman, 2011). The snowball sampling technique allows researchers to contact hard-to-reach participants (Sadler et al., 2010).

The sample size of 10 virtual team leaders was a suitable size for a qualitative case study because of the use of multiple sources (Silverman, 2013; Yin, 2012). The

purpose of the small sample size in qualitative research is to allow the researcher to conduct more in-depth interviews (Moustakas, 1994). The sample size is an issue of research preference; therefore, the sample size for this study stopped at 10 because I reached data saturation. After the initial interview, I did not conduct any more interviews because participants provided elaborate explanations to the interview questions and the follow-up questions. Data saturation occurs when no additional new information emerged that help to answer the research questions. I asked probing follow-up questions when necessary and constantly compare themes until no new data themes emerged as recommended by Francis et al. (2010).

The criteria for selecting the participants were as follows: (a) virtual team leaders who work for the same organization, (b) team leaders must have worked for the organization for at least 1 year, (c) team leaders must have a minimum of 1 year experience in leading virtual teams, (d) team leaders are leading, or have led, geographically dispersed team members and proficient in English language. Using criteria to select the study participants in the study demonstrated their knowledge and experience in the research area (Borrego, Douglas, & Amelink, 2011). Gender of virtual team leaders was not a criterion for selecting participants in this study. Also, all participants were over 18 years old.

Data collection was from in-depth interviews and another case study instrument like documentation as recommended by Yin (2009). The interviews were audio recorded electronic interview conducted via telephone conference because of the dispersed

locations of participants. Electronic interviews via electronic media such as phone is comfortable to virtual team leaders, convenient, and save traveling costs compared to face-to-face interviews (Stacey & Vincent, 2011). Data from documentation such as team memos and progress reports provided useful data for the purpose of data triangulation. Collecting data from multiple sources and triangulating the data helps support the reliability of the case study findings more than using a single source of evidence (Yin, 2014).

Ethical Research

Preceding data collection, the Walden University Institutional Review Board (IRB) evaluated and approved the research proposal as meeting ethical protection standards. The IRB approval was necessary because ethical issues may arise when research involves human participants (K. R. Mitchell & Wellings, 2013). Disclosing all phases of the qualitative data to participants was one way to maintain ethical research (Yin, 2012). This section contained a description of the consent process, voluntary participation, security measures to protect the identity of participants, and data storage.

The consent portion of the ethical research process includes participants receiving an informed consent form through e-mail. The participants read and filled out the consent form and affixed their signature electronically as an agreement to participate in the study and returned it through e-mail. Through the informed consent form, the participants learned about the interview process, how to respond to open-ended questions and the purpose of the study. No participant received an incentive to obtain agreement to

participate in the study. I provided each participant with a 1-3 page summary of the study as one of the ways to assure data accuracy and validation. The study might contribute to the understanding of better strategies virtual team leaders use to build and maintain trust among team members to help improve performance and productivity. The study might also contribute to helping minimize geographical and cultural differences in virtual teams. The informed consent form is in the appendix section of the study.

Participants knew from the consent form that participation was voluntary and confidential. Participants were free to withdraw from the study at any time by giving me verbal notice. At all times, I secured any data collected on a computer hard-drive that is password protected. I informed all participants of the confidentiality of their personal information and the name of their organization. I was the only person contacting the participants because I am the only person who knows their identity. The final study manuscript included the Walden University IRB approval number to certify that I conducted the study in an ethical manner. Pseudonyms replace all participants' names, such as VTL1-VTL10 (Guthrie & McCracken, 2010; Xie et al., 2012). I kept all data in a secure password-protected laptop and cabinet. Data shredding will occur five years after completion of the study.

Data Collection Instruments

I was the primary instrument of data collection in this qualitative, exploratory single case study as recommended by Denzin and Lincoln (2010). The second data collection instrument consisted of electronic interviews via recorded telephone

conference. For the purpose of data triangulation, I also used documents from team

memos and progress reports as suggested by Yin (2014). The interview process was

through electronic media via telephone conference to ensure ease of accessibility to both

the researcher and the participants as recommended by Stacey and Vincent (2011). The

electronic interview consisted of semistructured, open-ended questions developed after an

extensive review of the literature. The other instrument was documentation, which

included data from team memos and progress reports. The organization provided a letter

of cooperation to obtain team memos and progress reports from the team leaders,

granting access to participants and data that would be relevant to the study (See Appendix

D). The organization also sent a copy of the letter of cooperation to Walden University

IRB.

The use of semistructured electronic interviews via electronic media with open-

ended questions is appropriate for gaining an understanding of the strategies leaders use

to build and maintain trust amongst virtual teams. Desper (2013) used semistructured

interviews via electronic media to explore the leadership characteristics and strategies

that effective virtual team leaders apply to managing virtual teams. Also, Wilton, Paez,

and Scott (2011) used the semistructured interview to understand the role of social

contact in the process of acquiring information and making decisions about

telecommuting. Semistructured interviews provides an opportunity to gain information

about participants' perspectives and experiences (Wilton et al., 2011). Qu and Dumay

(2011) noted that semistructured interviews provides the most common qualitative

research data because it involves preparing questions to detect shared themes (Qu & Dumay, 2011).

Open-ended questions increases the probability of obtaining enough information to answer the research question (Borrego et al., 2011). Electronic interviews allows participants to respond to questions involving intricate topics compared to the information participants may provide during the face-to-face interview (Egan, Harcourt, & Rumsey, 2011). Electronic interviews is comfortable to virtual team leaders and gives the researcher more convenience and saves traveling costs compared to face-to-face interviews (Stacey & Vincent, 2011).

I used documents from team memos and progress reports for the purpose of data triangulation, which was in line with case study research in addition to electronic interviews. Documentation provides access to a variety of events and settings using stable documents that contained specific references and details of events that researchers can frequently review (Yin, 2014). Documentation provides evidence for data triangulation, increased the reliability in the research data, create resourceful means of understanding a problem, and offered a richer understanding of the research phenomenon (Yin, 2014). Data triangulation also helps to validate the study by comparing data from different sources and ensured completeness of data through data saturation, which occurred when no new data or concepts emerged from the instruments (Houghton et al., 2013).

A researcher in a qualitative case study establishes rigor by observing the elements' credibility, dependability, transferability, and confirmability (Houghton et al.,

2013; Yin, 2014). Enhancing the reliability and validity of the data collection instrument, involves integrating member checking by sharing the synthesized data with the participants and providing the participants the opportunity to add new views, clarify the interpretations, and ratify the data (Goldblatt, Karnieli-Miller & Neumann, 2011; Harper & Cole, 2012). I provided a thick and thorough description of data to allow the readers to assess the alignment and efficacy of the instrument to capture a full view of case components as suggested by Goldblatt et al. (2011) and Harper & Cole (2012).

I created an interview protocol guide (See Appendix A) to lead participants' conversation along a prearranged line of inquiry and have included a request for follow-up questions if needed. The purpose of the interview protocol is to guide the process that participants use to complete the interview (Draper & Swift, 2011). The use of follow-up questions helps to ensure data saturation. The interview protocol guide consists of an introduction to the researcher, background information on the participants, closing components, and a request for follow-up interviews. The disadvantage of using electronic interview through telephone conference was the inability to interpret body language and see participants face-to-face. I was able to ask follow-up questions but could not mitigate the disadvantage of interpreting body language. The semistructured interview questions and the protocol guide are in Appendix A and B.

Data Collection Technique

The data collection technique includes obtaining responses from the electronic interviews with open-ended questions. The data collection procedure included

administering electronic interviews through electronic media to 10 virtual team leaders from a Fortune 500 global organization and through documents such as virtual team memos and progress reports. The electronic media used was Telephone conference. Using multiple sources of data collection helps to triangulate the data to increase the reliability and validity of the data (Yin, 2014). Semistructured interview questions help to provide participants with an understanding of the research concepts and the relationship between the concepts (Eide & Showalter, 2012). When a researcher has only one opportunity to interview study participants, using semistructured interview questions is appropriate (Eide & Showalter, 2012).

The use of open-ended questions enable me to gain a comprehensive view of the participants' reactions because open-ended questions did not restrict participants' responses and gave them an opportunity to present detailed views on the interview questions (Borrego et al., 2011). The primary data collection technique was semistructured interviews conducted using electronic media that will be convenient for the participants and I. Conducting interviews using electronic media enable participants to respond to research questions on more complicated topics compared to the information the participants may provide in a face-to-face interview (Egan et al., 2011). Electronic interviews offered virtual team leaders and me more convenience and saved traveling costs compare to conducting face-to-face interviews. The disadvantage of using semistructured electronic interviews through electronic media was the inability to ask participants follow-up questions immediately and interpret body language. I addressed

this disadvantage by soliciting participants' permission to ask follow-up questions before sending the electronic interview questions as recommended by Draper and Swift (2011). However, I could not mitigate the disadvantage of interpreting body language because of the use of telephone conference.

Researchers have created many techniques to evaluate the accuracy or credibility of qualitative data. I incorporated member-checking techniques by providing my interpretations of the data to the participants and gave the participants the chance to discuss and clarify the interpretations after data transcription to meet the requirement for reliability and validity as mentioned by Goldblatt et al. (2011) and Harper & Cole (2012). The member-checking technique provides the participants the chance to add new or additional perspectives and to correct any misguided information (Harper & Cole, 2012; Marshall & Rossman, 2011).

Participants received an invitation to participate in the study. Participants also received an Informed Consent Form for review, consent, and return data electronically after signing the Informed Consent Form. I provided participants with an interview protocol guide to help throughout the interview process. I also asked participants for permission to ask follow-up questions if needed. The participants had the opportunity to review the synthesized data for clarification and to ensure the accuracy of the data interpretation. Participants received a 1-3 page summary of study findings. The semistructured electronic interview questions, the interview protocol guide, and the consent form are all in the appendices.

Data Organization Technique

Data labeling and transcription occurred after each interview using a word processing document and saved each interview as a separate file with a designated name, date, and category for ease of accessibility as recommended by Ritholz et al. (2011). A well-labeled journal file for notes taken during each interview reflected participants' responses during the electronic interview. I stored all data in a locked cabinet. There was a backup for all documents collected to prevent loss and file corruption and to ensure data integrity (Bluhm et al., 2011). I categorized and saved all documents in a file layout using different colors as identifiers for each participant's data in addition to using a thumb drive according to the recommendation by Marshall and Rossman (2011).

The study includes two types of data: data from electronic interviews and documentation from team memos and progress reports, to fulfill data triangulation as recommended by Yin (2014). I imported all transcribed data from electronic interviews into NVivo software for data management and to identify themes that addressed the research question. I also imported the data from the team memos and progress reports into NVivo to identify similarities and discrepancies with the data collected from the electronic interviews.

I assigned aliases to replace participants' names to conceal their identity during data transcription and throughout the study as suggested by Guthrie and McCracken (2010) and Xie et al. (2012). I kept all hard copies and hard drives in a locked cabinet that I alone can open, and I kept all data in a secured file on my laptop that I only can access

with a password. I will shred all hard copies, erase hard drives, and destroy any data

related to this study five years after completion of the study.

Data Analysis

The focus of the study is on the alignment of the research question, data collection

instruments, and the data analysis techniques (Yin, 2014). The overarching research

question and the semistructured interview questions were the guiding tools throughout

the study. The qualitative data analysis involves developing codes and using the codes to

classifying data (Decuir-Gunby, Marshall, & McCulloch, 2011; Mazaheri et al., 2013).

The codes include categories relevant to the research problem, purpose statement,

research questions, and conceptual framework guiding the literature (Tracy, 2010). I used

the content analysis technique to analyze data from both interviews and documents. The

content analysis technique allows me to categorize data and identify emergent views on

the strategies virtual team leaders use to build trust among virtual team members to

improve their job performance.

I transcribed all electronic interviews into Word documents and imported the

Word documents using NVivo software. NVivo software is a useful tool for organizing,

coding, and analyzing the qualitative data. NVivo provides features for performing data

analysis to ensure uniformity and validity of process (Buchanan & Jones, 2010). NVivo

software provides the same thematic coding standards throughout the data analysis

section to ensure consistency and put the coded portion of data into one place for the easy

identification of commonalities. The content analysis technique allows the integration of

the field of the research subject to the analysis. The use of content analysis technique involves a systematic analysis of data using a categorization process to develop the material with a conceptual framework method to filter the material into a model of communication to bring out coding patterns from themes and content from interviews and documents (DeCuir-Gunby et al., 2011).

The data analysis procedure consists of the following steps to analyze documents using content analysis: I transcribed all data using Microsoft Word document and imported the transcribed data into NVivo. After the transcription, I converted all transcribed data into reduced protocols by selecting data that have relevant content as recommended by DeCuir-Gunby et al. (2011). The next step involves identifying and applying rules to divide each text into segments as separate units of analysis called categorization using NVivo. I use NVivo software to construct and apply codes to each section. Finally, I analyzed the coded data to choose the themes that appear to recur. I analyzed the context and the way the themes aligned with each other and to answer the research question.

I compared the emergent concepts with the existing literature using content analysis; aligning the emergent concept of the existing literature improves the internal validity and the conceptual basis building from the case study (Tangpong, 2011). I analyzed data from team memos and progress reports using the same systematic categorization techniques integrating the conceptual framework into the analysis for coding and assigning themes using NVivo to ensure a comprehensive case study.

Triangulation involves integrating different material collected through multiple sources using qualitative content analysis in case study research (Yin, 2014). I used codes to conceal participants' identities and maintained confidentiality throughout the study.

The following interview questions helped to answer the research question for this study:

1. As a team leader, how often has the team worked together under your leadership?

2. How often do you see your team members face to face?

3. How do you communicate with your team members?

4. What are your experiences using ICT?

5. How would you describe your experiences leading virtual team members?

I provided participants with Sarker, Ahuja, Sarker, and Kirkeby's (2011) definition of trust, which is the following: Trust is when members of a team or group are susceptible to the action of other individuals with the belief that those individuals will perform an assigned task that is critical to the group success. I then asked them the following questions:

6. What is your perception of trust in your organization?

7. As a team leader, how can virtual team members build initial trusting relationships to enable them to work together?

8. Using your experience, please explain instances in which team members have exhibited trust issues.

9. From your perspective on trust, what can prevent virtual team members from trusting each other?

10. What actions do you think increase trust among your team members?

11. How has your company supported trust building among virtual team members?

12. Please explain how each of the following factors affects trust in your virtual teams:

   - Advanced technology

   - Cultural differences

   - Geographical disparity

   - Different time zone

   - Communication.

13. As a leader, what strategies do you think you can employ to help team members build trust?

14. In your opinion, how can you help team members sustain trust throughout their period of working together?

15. What else would you like to share regarding trust in virtual teams?

Reliability and Validity

Reliability

There are four different criteria for determining the thoroughness of qualitative research: credibility, dependability, confirmability, and transferability (Lincoln & Guba,

1985). In this study, one of the ways to ensure reliability and remove doubts was the consistency of the research method throughout the study as suggested by Svensson and Doumas (2013). The use of more than one data collection instrument for achieving data triangulation is one of the ways to attain reliability in this study. Using two types of instruments in the study of one phenomenon demonstrates confirmation and completeness of data (Yin, 2014). In this study, confirmation occurred when comparing data collected from different sources to discover the degree of corroboration of the findings (Marshall & Rossman, 2011).

I gathered data from electronic interviews and documents from team memos and progress reports to get diverse perspectives and to show different views on the phenomenon. Also, making sure that I reach data saturation and confirming the analysis that there were no new data or concepts emerging from the study increases the credibility of the research method (Houghton et al., 2013).

Member checking is a quality control procedure that allows researchers to improve the credibility of the data collected during interviews, thereby increasing the credibility of the study (Harper & Cole, 2012). Member checking occurred toward the end of data analysis by summarizing the data; bringing out the interpretation of the data, and sending it back to the participants to verify the accuracy (Harper & Cole, 2012). Researchers use member checking to reduce the occurrences of false data and misinterpretations.

Member checking entails going back to the person who provided the information to verify if the assigned categories and themes are accurate interpretations of the data (Thomas & Magilvy, 2011). During member checking, participants correct, add, or query the researcher if they have any concern regarding the data interpretation (Houghton et al., 2013). I used member checking by asking participants to read the synthesized data from the interviews after analyzing the data to certify the accuracy of the data and satisfy its credibility. I also used a reflexive diary to record thoughts about decisions made to improve dependability and highlight the clarity of the research process. All the opinions and notions documented during the data collection process helps to determine the themes emerging from the study (Houghton et al., 2013).

Qualitative research includes a thick and thorough description of the study to achieve transferability of data (Ali & Yusof, 2011). It was my responsibility as the researcher to provide detailed descriptions of the study to the reader to enable the reader to make knowledgeable decisions about the transferability of the study findings to other organizational contexts (Ali & Yusof, 2011).

The thick description included giving an account of the context, the research method used, and if the reader can access other data to determine whether to transfer the findings to another context. The use of more than one data collection instrument for achieving data triangulation is one of the ways to attain reliability in this study. Using two types of instruments in the study of one phenomenon demonstrated confirmation and completeness of data (Yin, 2014). A confirmation occurs when comparing data collected

from different sources to determine the degree of corroboration of the findings as recommended by Marshall and Rossman (2011).

Validity

One of the problems identified by researchers in qualitative research is insuring the validity of the findings (Ali & Yusof, 2011). I collected and analyzed recent data from multiples sources ranging from interviews to documentation such as team memos and progress reports to establish the reliability of this study. It also added to the rigor of this study by providing the reader with the strategies employed to achieve thoroughness in this study. The strategies include the basis for study methodology, multiple sources, participants, interview questions, data collection, organization and analysis, and presentation of findings (Marshall & Rossman, 2011). Also, transcribing the data and presenting the interpretation to the participants for confirmation of the accuracy of the information contributes to the validity of the study (Harper & Cole, 2012; Marshall & Rossman, 2011).

The following criteria serve as a yardstick to demonstrate the validity of qualitative research, (a) confirmability, (b) credibility, (c) transferability, and (d) dependability. Confirmability refers to the degree to which others can verify the findings. Confirmability happens by developing and maintaining a chain of evidence that aligns data collection and analysis to the result, showing that the qualitative research is credible using the perspective of the participants, multiple sources of evidence for data triangulation and validation, and member checking (Andrade, 2009). Data analysis

includes a coding stage that involved creating and assigning categories for pattern matching to ensure credibility. The codes, categories, pattern matching, and integration of conceptual framework aligns with the research question (Thomas & Magilvy, 2011). Transferability means showing a rich description of data by providing rich and detailed descriptions to give practitioners and anyone interested in the study a good basis to draw comparisons (Andrade, 2009). Reporting the data collection and analysis techniques in detail also helps the reader reinvent the process (Andrade, 2009). Accounting for the dynamic nature of the research context helps to demonstrate its dependability.

Transition and Summary

The purpose of this qualitative case study was to explore the strategies virtual team leaders use to build and maintain trust among virtual team members. The population of this study was virtual team leaders from a Fortune 500 global organization headquartered in Dublin, Ireland, but with team leaders and members residing in Dallas Texas, Lagos Nigeria, Mumbai India, London England, and Johannesburg South Africa. The findings from this study might contribute to social change by increasing the understanding of organizational leaders on strategies to build and maintain trust among virtual team members. The sample size for this study consisted of 10 participants. I collected data using open-ended electronic interviews and from documents such as team memos and progress reports. I used both the purposive and snowball sampling method to locate participants for this study. I used NVivo software for managing, organizing, coding, and analyzing data from both interviews and documents. The data analysis

technique chosen was content analysis, which allows categorizing data and identifying emergent views. Also, I employed member checking by having participants read the synthesized data after the analysis for accuracy and validity. I sent out an informed consent form with the summary of the study through participants' e-mails. Participants received information on voluntary participation and the need to keep their personal information confidential. I will keep all data obtained during the study in a locked cabinet for five years before destroying them.

Section 3 includes identifying common themes for building and maintaining trust in virtual teams. I presented the findings and aligned findings with the conceptual framework, available literature, and research question. Also, I explained the study's application to business practitioners, implications for social change, reflections, and recommendations for future research.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of this qualitative, exploratory, single case study was to explore the strategies that team leaders use to develop and maintain trust in virtual multinational teams to help improve workers' job performance. In other to answer the research question, I conducted semistructured interviews with 10 senior managers who are virtual team leaders in the same organization. I also use team memos and team progress reports to confirm my interview data (Yin, 2012). Six participants provided access to their team memo and team progress reports. The team memo consisted of team members' names, regions, introductions from all team members, a welcoming message from their team leaders, team objectives, organizational expectations, project title, chat messages, minutes of meetings, and exceptional performance evaluations, among other materials. The team work progress report indicates the work breakdown, workflow, milestones, risk level, and completion of projects.

I used NVivo 10 software to analyze data. After analyzing and synthesizing data, I gave each participant a copy so that they could assess my interpretation of their responses. I offered participants the opportunity to make corrections or add more data to assure reliability, trustworthiness, and saturation of data.

Two thematic categories emerged; the first thematic category consisted of seven themes while the second thematic category consisted of five themes. All participants recognized training for cultural awareness and respect for individuality as strategies for

building trust among virtual team members. Also, findings showed that effective

communication using appropriate technology helps in building trusting relationships.

Overall, participants acknowledged that increased job performance relevance and

interpersonal relationships are necessary for building and maintaining trust among team

members. The results from this study may help organizational leaders and virtual team

leaders improve strategies that could help team leaders build and sustain trust among

virtual team members to enhance team performance. Business leaders might use the

findings for business decision making and to build and maintain trust in virtual teams to

improve team performance and productivity.

Table 2 indicates the demographic data for 10 participants who are senior

managers and virtual team leaders. Gender was not a criterion for participation. However,

for validity reason; there were eight males and two females. The geographic composition

of the participants was two participants from Dallas Texas, two from Lagos Nigeria, two

from Mumbai India, two from London England, and two from Johannesburg, South

Africa. The 10 participants (100%) work for the same organization. The working

experience showed that four participants (40%) had been working for the same

organization for more than 12 years, three (30%) had worked for 7-10 years, and three

had worked 1-6 years. Regarding the length of experience as virtual team leaders, four

(40%) had been leading virtual teams for 10 years, three (30%) had been virtual team

leaders for 6 years, and three (30%) had been leading virtual teams for 3 years. All 10

leaders are currently leading virtual teams and are handling projects. Table 2 includes a

summary of the participants' gender, number of years in working with the same

organization, and number of years of experience leading virtual teams.

Table 2

Demographic Data for Virtual Team Leaders

Categories and item	Participant (N=10)	Total	% of total
Gender			
Male	VTL1, VTL2, VTL4, VTL5		
	VTL7, VTL8, VTL9, VTL10	8	80
Female	VTL3, VTL6	2	20
Years working for the same organization			
1-6	VTL2, VTL6, VTL8,	4	40
7-10	VTL3, VTL5, VTL7	3	30
8-15	VTL1, VTL4, VTL9, VTL10	3	30
Years as virtual team leader			
1-3	VTL2, VTL6, VTL8	3	30
4-6	VTL3, VTL5, VTL7	3	30
7-10	VTL1, VTL4, VTL9, VTL10	4	40

Presentation of the Findings

The central research question was, What strategies do team leaders use to develop

and maintain trust in virtual multinational teams to improve workers' job performance?

Participants included 10 virtual team leaders from a multinational management

consulting, technology services and outsourcing organization. I enrolled the participants

of this study by using purposive and snowball sampling techniques. I divided the

interview questions into two segments. (See Appendix B.) The focus of questions 1-5 is

on understanding the concept of virtual teams while the focus of questions 6-15 is on

participants' understanding of the concept of trust in virtual teams, factors that could

cause trust issues, and strategies team leaders could use to build and maintain trust in virtual multinational teams. In addition, I collected and analyzed participants' team memos and progress reports to enhance data saturation and credibility.

I used thematic analysis to code and analyze data. The thematic technique allowed me to synthesize data and decide how much data supported the emerging themes (see DeCuir-Gunby et al., 2011). To find emerging themes, I constructed and named categories that captured most recurring patterns from the transcripts of the responses from the participants. I converted all transcribed data into reduced segments and as separate units or categories by selecting data that have relevant content using NVivo 10 software. I used NVivo software to apply codes to each segment, recurring words, and phrases. Manually playing back and transcribing data recordings brings researchers closer to data and results in better analysis (Jenks, 2013). From the participants' responses, two categories of themes emerged to uncover team leaders understanding of virtual teams and the strategies team leaders use to build and maintain trust among virtual team members in a multinational organization. Table 3 contains the interview questions and the coded themes from participants' responses.

Table 3

Interview Questions, Theoretical Proposition, and Coded Themes

No.	Participant question	Theoretical Proposition	Coded themes
1	As a team leader, how often has the team worked together under your leadership?	Team changes are depending on the skills needed for the project.	Hire and train relevant talent

2	How often do you see your team members face-to-face?	Geographically dispersed teams are hard to see face-to-face	Strategies for communication
3	How do you communicate with your team members?	Virtual teams use different ICT	ICT facilitates virtual operations
4	What are your experiences using ICT?	Virtual teams rely on ICT to accomplish tasks	Use appropriate ICT
5	How would you describe your experiences leading virtual team members?	Leadership skills and strategies for success	Strategic organizing and planning, set clear goals, flexible leadership skills, cultural awareness, build interpersonal relationship
6	What is your perception of trust in your organization?	Understanding the value of trust in the organization	Make trust a core organizational value
7	As a team leader, how can virtual team members build an initial trusting relationship to enable them to work together?	Strategies for initial trust-building, leadership skills	Strategic organizing and planning, set clear goals, communication, job performance relevance
8	Using your experience, can you explain instances that team members' exhibit trust issues?	Incompetency in handling assigned tasks,	Job performance relevance,
9	From your perspective on trust, what could prevent virtual team members from trusting each other?	Hindrances to trust in virtual teams	Poor Job performance relevance, no personal relationship, strict leadership skills
10	What action do you think increase trust among your team members?	Strategies that facilitate trust building	Job performance relevance, flexible leadership skills,

No.	Participant question	Theoretical proposition	Coded themes
11	How has your company supported trust building among virtual team members?	Organizational strategies for trust building	constant communication, Respect, cultural awareness, recognition and rewards for good performance, build interpersonal relationship
12	Please, explain how each of the following factors affect trust in your virtual teams: (a) Advanced technology (b) Cultural differences (c) Geographical disparity (d) Different time zone (e) Communication	Leadership strategies for leading virtual teams	Make trust core organizational value, hire and train relevant skills, recognition and reward for good performance, invest in ICT, training on cultural awareness
13	As a leader, what strategies do you think you can employ to help team members build trust?	Leadership strategies for building trust among virtual team members	Understanding team uniqueness, cultural awareness, constant communication, appropriate ICT
14	In your opinion, how can you help team members sustain trust throughout their period of working together?	Leadership strategies for sustaining trust among virtual team members	Set clear goals, encourage respect, cultural awareness, flexible leadership skills, recognition and reward, encourage strengths and help team members overcome weaknesses, build an interpersonal relationship, effective communication

No.	Participant question	Theoretical proposition	Coded themes
15	What else would you like to share regarding trust in a virtual team?	Participants final note on trust in virtual teams	Effective communication, show support, empathy, understanding, and respond to their needs (interpersonal relationship), flexible leadership skills, recognition and rewards, respect, cultural awareness
			Trust as core organizational value, Hire and train relevant skills, invest in the right ICT, training on virtual team uniqueness and cultural awareness, flexible leadership skills, build interpersonal relationship

The findings from the study revealed twelve themes related to strategies virtual team leaders used to build and maintain trust among virtual team members to improve team performance. Organizational leaders may use these themes to understand the views of the participants and initiate strategies that enable trust-building among virtual team members. Two thematic categories emerged containing twelve identified themes from the two categories shown in Tables 4 and 12.

Table 4

Thematic Category 1: Effective organizational and leadership Skills for leading virtual

teams

Themes	No. of participant responses	% of participant responses
Trust as a core organizational value	68	12
Hire and train relevant talents	61	10
Strategic organizing and planning	72	12
Effective communication	125	21
ICT facilitates virtual team operations	97	16
Set clear goals	90	15
Job performance relevance	78	13
Total	591	

In summary, all participants stated the need for organizational leaders to include

trust as one of their major organizational core values (12%). Participants also stated the

need for organizational leaders to hire and train virtual team workers with relevant talents

to enhance job performance relevance (10%). Participants regarded effective

communication (21%) as a high-level leadership skill when leading virtual teams. All

participants established the need for organizations to invest in the right type of ICT (16%)

that can help facilitate virtual team operations. Participants views strategic organizing and

planning (12%) which includes forming, storming, norming, and performing as necessary steps to building initial trusting relationship among virtual team members. In addition, participants viewed setting clear and attainable goals (15%) as a leadership skill that helped set team members in the right direction to handle tasks. All participants regarded job performance relevance (13%) which included competence, reliability, availability, openness, and accountability as leadership practice and strategies for leading virtual teams.

Thematic Category 1: Effective Organizational and Leadership Characteristics

Theme 1. Trust as a Core Organizational Value

Trust as a core organizational value entails that trust is essential for different areas, such as leadership, team processes, negotiation, human resource management, organizational change, entrepreneurship, and strategic alliances (Fulmer & Gelfand, 2012; Khan, 2012). The participants responded that organizations should incorporate trust as a major organizational core value to maintain a competitive advantage because trust is the cornerstone of every business transactions (Huang & Wilkinson, 2013). The participants mentioned that building initial trust should start with organizations making trust one of their major core values. Data from different team memos indicated in the welcoming note the importance of trust as a major organization core value. Team leaders explained in the memo that trust among all stakeholders gives the company a competitive advantage. The data from WPR also support this theme because there was no record of late or failed projects. To affirm this perspective, VTL 1 stated,

One of our core values is trust; our organization believes that working together to accomplish tasks means we both trust each other to do the right thing. Every relationship, whether business or personal, needs trusts to survive. To me, without trust there would not be any meaningful accomplishment. I believe that organizations should not underestimate the power of trust. It should be a core value guiding employment.

VTL 3 stated; trust in our organization is a given. It is our core organizational value, and I will strongly advise it for other organizations. The organization employs you because they believe you are whom you said you are. The experiences, skills, competence level, and the certificates you presented gives the organization the initial trusting relationship to employ you. To me, you have to sustain that trust by proving through your productivity that all that you said are true.

VTL 4 affirmed with the following words, my perception of trust in my organization is that trust is our core value. It is written in black and white for every employee to see. The moment the organization discovered that you are not whom you said you, you are on your way out. Trust should be the core of every relationship if you want to accomplish anything tangible. Organizations should make trust a core value.

VTL 6 mentioned in his response, trust should be a core organizational value. I work in projects environment where we use virtual teams a lot; I do not think we

can accomplish anything without trust. The company helps start the initial trusting relationship by employing people with the right skill and competence. The company employs people with steady work ethics, and this help us as team leaders to trust team members even when I do not know them or see them face-to-face.

VTL 7 asserted; trust is a core value in our company. The company hires candidates they trusted to have the right skills, work ethics, and steady growth. As a team leader leading virtual teams that initial trust is what I need to build on to work with my team members. Organizations should lay the foundation for that initial trust.

VTL 9 stated: trust should be a core value for every organization. I know that it is often overlooked, but I cannot work with somebody that I do not trust. The human resource department should hire based on competence, skills, and experience. Employment should not be biased but based on the fair treatment of interview performance.

VTL 10 confirmed; our organization is built on trust at every level. Every stakeholder is aware that trust is one of our core value. That means when you are submitting your resume; you are saying, you can trust me to deliver on any task within my capability. We do not want to tarnish our integrity, so trust is our competitive weapon. Table 5 includes participants' open-ended question responses to trust as a core organizational value.

Table 5

Trust as a core organizational value

Open-ended question	No. of participant responses (N =10)	% of participant responses
1	2	3
2	2	3
3	4	6
4	3	4
5	4	6
6	15	22
7	10	15
8	4	6
9	2	3
10	2	3
11	9	13
12	3	4
13	3	4
14	3	4
15	2	3
Total	68	

Theme 2. Hiring and Training the Right Talent

Organizational leaders should define and operationalize talent based on the organizational mission, culture, environment and type of work. That is, organizational leaders should hire talents based on the industry, sector, and labor market because people can perform below or above their normal level depending on their environment, leadership, and the team they are working with (Gallardo-Gallardo, Dries, & Gonzalez-Cruz, 2013). Talent is not just about the skills but also about the quality of the job, the individual performs. Organizations should focus on talents that have verified achievements when hiring (Gallardo-Gallardo, et al., 2013). Participants maintained that

hiring and training the right talent as virtual team workers is an effective leadership strategy to help build and maintain trust among virtual team members. The participants mentioned the importance of selecting team members that are right for the job, not just the skills but also character and work ethics to be a successful virtual team. Participants mentioned hiring individuals who are competent, experienced in a project environment, committed, the ability to work independently, work as a team, problem-solving, and self-control as traits to successful virtual teams (Al-Ani et al., 2011; Berry, 2011b). Recognizing and hiring people with those qualities would help team leaders lead a successful virtual team. The team memos and WPR did not contain any idea regarding this theme. The only data on training were a remind memo sent to all team members was concerning taking some organization assigned training. To support the theme, participants responded with the following words

> VTL 1 stated: ensuring competent and successful virtual teams start with the human resource department hiring the right candidate with the required skills for the job. It is good to hire candidates with experience, but they still need to undergo basic training to their perform task. I will also recommend basic training on cultural awareness, work ethics, teamwork, and conflict resolution. I notice over the years that team members withdrew from active participation if they could not perform an assigned task, and that breaks trust. On the other hand, when a team member is competent, focused, and delivered on a task that builds trust because he (or she) was able to perform.

VTL 2 stated, I know that these days' people write a bogus resume and add skills that they had no experience performing believing that when they get the job, the organization will train them. It is very critical that human resource management hires people with the right skills especially for virtual teams because once project start; it is dealing with deadlines and no time for training. I will recommend that human resource gives out testing that would center on what each department does and on the basic skills needed for the job; the candidate was applying to do.

VTL 3 responded; one of the strategies to build and maintain trust starts with HR hiring and training people who have the capability to handle the task, people who can work in a team even while they are alone. People who have a record of accomplishment show, and good work ethics.

VTL 4 confirmed; a trusted, and successful teams start with hiring the right candidate with the needed skills. It is very important to hire correctly when using remote teams or else that project would be a failure.

VTL 5 responded; you could only trust somebody who says he would do a thing, and he does it. That means the person has the necessary capability to deliver on what he promised. Getting such people begins with the hiring and training process.

VTL 7 asserted; as a team leader, I believe that when I assigned the tasks to you, and you complete it successfully, you are telling me that you I and other team members can trust you. The trust can grow into a personal relationship if you

continue to prove that you are trustworthy by constantly delivering on your task.

Having this type of candidate starts with HR hiring people with the needed skills,

good work ethics, experience, and are disciplined.

VTL 10 stated, hiring and training people who have the skills needed for the

project is the beginning of building trust. They can sustain that trust when they

keep delivering on their task. I had worked with some team members whom at the

end of the project I wished to have them back on my team again, and I have had it

the other way round. Table 6 shows participants' responses to open-ended

questions leading to hiring and training the right talent.

Table 6

Hire and train the right talent

Open-ended question	No. of participant responses (*N* =10)	% of participant responses
1	9	15
2	3	5
3	3	5
4	3	5
5	4	7
6	3	5
7	6	10
8	4	7
9	3	5
10	2	3
11	15	25
12	1	2
13	2	3
14	2	3
15	1	2
Total	61	

Theme 3. Strategic Organizing and Planning (Forming, Storming, Norming, and Performing)

Team introduction activities provided team members excellent opportunities for knowing each other's personal and cultural information at the formation stage of the team (Tseng & Yeh, 2013). Knowing each other from the beginning reflects the assertion that team members can build initial trust as team members learn how others wish to be treated and then act accordingly (Tseng & Yeh, 2013). Participants mentioned that virtual team leaders must follow these four stages: forming, storming, norming, and performing in the life cycle of virtual teams to create and sustain trust (Furst, Reeves, Rosen, & Blackburn, 2004). The participants stated that the forming, storming, and norming stages were necessary because team members get to know each other by asking questions about previous projects, challenges they encounter in the last project, how did they handle challenges, what could pose challenges for them in this new assignment. Data collected from six team memos supported this theme. Six team leaders in their welcoming note mentioned the strategies of forming, storming, and norming as used to get to know team members before the performing stage. The data from progress reports only mentioned stages of project completion and the anticipated time to complete tasks. To support this theme VTL 1 responded,

> I believe that virtual team leaders should take their team through the four stages of team formation, which in our organization are forming, storming, norming, and performing. Some virtual team leaders jump straight to the performing stage with

getting to know the virtual team, members. This is dangerous because, unlike the traditional teams, you are dealing with strangers whom you need every piece of information to make the working relationship productive. The best time to bond after the forming stage is the storming and norming. During the storming and norming stage, you can ask a question about previous projects, what worked and what did not, their like and dislike, their cultural values to time, teamwork, and personal relationships, and anything that would constitute challenges to them during the life of this project.

VTL 2 stated, in our organization there are four stages a virtual team leader should take the team through to have a successful teamwork. The four stages are forming, storming, norming, and performing. The storming and norming stages are very important to the success of the team because that is when you learn about an individual team member.

VTL 3 affirmed, as a virtual team leader, you could not just jump to start project execution, especially with virtual team members. After the formation of the team, give time for storming and norming through several video, audio, and phone meetings. This would make the performing stage easy and fast because team members had bonded and aware of individual characteristics that are basic for them to have a healthy and productive teamwork.

VTL 5 asserted, as a virtual team leader, I have to know the people I am going to work with. Every project is unique and sometimes with new team members from

different parts of the world. It is my responsibility as the leader to strategize how to make the members work as a team to accomplish organizational goals. It is my duty to make out ample time for team bonding via video and audio conference meetings. During these meeting we dig into our previous work life, talk about what is unique to us and our culture, our like and dislike, and many more. I have always had a successful team.

VTL 7 stated, I have been leading virtual teams for years now, and I can tell you every team and project is different. I would advise that you do not jump into project execution without getting to know your team members. There should be the forming, storming, norming, and performing stage.

VTL 10 confirmed working with virtual teams calls for strategic planning; it is different from working with traditional teams. I have learned never to jump into project execution without getting to know my team members first. After the forming of the team, there should be time created for storming and norming before performing. The storming and norming process is what would help team members know each other outside the present project and help them establish a working healthy relationship to accomplish team goals. Table 7 includes participants' responses to open-ended questions leading to strategic organizing and planning.

Table 7

Strategic organizing and planning

Open-ended question	No. of participant responses (*N* =10)	% of participant responses
1	3	4
2	3	4
3	2	3
4	2	3
5	20	28
6	3	4
7	15	21
8	4	6
9	3	4
10	2	3
11	2	3
12	2	3
13	5	7
14	4	6
15	2	37
Total	72	

Theme 4. Effective Communication

Establishing trust by setting prospects and moderating opinions through effective

communication procedures can help team members' performance (Suh et al., 2011).

Carlson et al. (2013) noted that there is an interconnection between communication

technology, communication strategies, and communication categories when team

members' trust each other, their leader, team tasks, and team effectiveness. Participants

mentioned that one of the greatest strategies to build and maintain trust in virtual teams is

communication with virtual team members (Verburg et al., 2013). The participants

mentioned that because of the challenges created by geographical disparity and cultural

differences, it is important to keep effective communication using appropriate technology (Germain, 2011).

Participants argued that team leaders could mitigate the challenge created by the distance between team members by scheduling regular meetings using video, audio, Skype, and web calls. Several participants mentioned that using communication technology that could add a face and show body language to the name and voice of team members help to create a feeling of togetherness towards a common goal (Pazos, 2012). Participants recommended that team leaders should have weekly phone calls to each team members to establish a connection and keep team members from feeling lonely. Participants also recommended free flow of information to all team members, maintaining steady progress report, and management level decisions are leadership strategies to building and maintaining trust among virtual team members. Team memos and work progress reports show no lapses in communication. Six different team memos shows "constant memos, phone calls, emails, instant messaging, and video conference meetings." In support of this theme, VTL 1 stated

> Effective communication using appropriate technology is the only way virtual
> teams could collaborate to accomplish tasks. As a team leader, be sure not to
> break the chain of communication with your virtual team members. I use video
> conferencing for our team meetings to capture faces and body language.
> Maintaining effective and constant communication keep teams in a close
> relationship.

VTL 2 affirmed, as a team leader, keep constant touch with your team members

using video or audio conference calls, emails, instant messaging, and phone calls.

I use video conferencing for team meetings and collaborations because it

replicates face-to-face meetings. I can put a face to the voice I hear over the

phone.

VTL 4 maintained; virtual teams are all about communication and using the

appropriate technology. I feel like there is a break in communication if I do not

check on my team members regularly. I make phone calls; send emails, instant

messaging, hold video conference meetings when necessary. Keeping in contact

with team members eliminate loneliness and create togetherness and trust.

VTL 6 stated; choosing the right communication technology makes the

communication effective. I usually use emails when I am attaching files; all my

team collaborative meetings are via video conference and Microsoft Link

platform. Effective communication brings closeness and foster the building and

sustaining of trust among team members.

VTL 8 confirmed; as a leader, I believe that you cannot establish a trusting

relationship with somebody unless you regularly communicate with the person.

My virtual team members are from five geographical regions that I cannot visit

during the cause of our working together. The only way to know them is to

communicate personally and collectively with them. I used video conferencing for

team meetings, phone calls and chats for personal meetings, and email to send

attachments.

VTL 9 asserted; team leaders should make out time to communicate with team

members on a daily basis. If the task and composition of the team needs a one-on-

one phone call, do not hesitate to place the call. Using appropriate communication

technology makes the communication effective. Table 8 consists of responses to

open-ended questions primary to effective communication.

Table 8

Effective communication

Open-ended question	No. of participant responses ($N=10$)	% of participant responses
1	2	2
2	14	11
3	3	2
4	3	2
5	10	8
6	3	2
7	12	10
8	4	3
9	3	2
10	12	10
11	2	2
12	16	13
13	18	14
14	15	12
15	8	6
Total	125	

Theme 5. ICT Facilitates Virtual Team Operations

The perception that virtual team members communicate using information communication technology resounded from participants' responses. Virtual team members may not see face-to-face but with the help of technological devices such as webcams, Skype, phone calls, and e-mails, team members can collaborate and learn about each other outside work-related issues and increase their trust level and interpersonal relationships (Zaugg, & Davies, 2013). The operative and effective technology is a primary enabler in the design and execution of a successful virtual team (Rodriquez, 2013). The participants expressed a common understanding of virtual teams as teams that use ICT such as telephone, Microsoft Link with video and audio conferencing facilities, emails, webcam, instant, messaging, and SharePoint to communicate (Verburg et al., 2011). Participants maintained that using the right type of ICT drives virtual team communication and provide an avenue for building a trusting relationship (Brandt et al., 2011). Documentation from team memo and work progress reports shows that team leaders and members frequently communicate using emails, phone calls, and Microsoft link video and audio conferencing facilities. Sixty percent of the team memos affirmed that team leaders used more of video and audio conference when holding collaborative meetings with team members. Participants responded with the following words:

VTL 1 stated; ICT is the brain behind the use of virtual teams. Without ICT, there would be no virtual teams. I do not see how it could be possible to handle

business operations with people from different geographical regions and obtain

success without using emails, phone calls, audio and video calls, webcam, etc.

Our organization knew this fact and invested into the right types of ICT. I use

more of emails to send correspondents but prefer to use video calls for

collaborative meetings. I love seeing the faces of whom I am dealing with and put

a face to the voice that I have been hearing. I have never had any negative

experience using the facilities provided by the company within and outside the

company platform.

VTL 3. ICT is everything in virtual teams. Without emails, phones, Microsoft

Links, instant messaging, audio and video calls, and SharePoint there would be no

virtual teams. I have my team members in India, London, Johannesburg, China,

and in the Philippines, I know that I make phone calls when it is urgent, send

emails, share files, holds video and audio conference meetings through our

Microsoft Link. ICT is the bedrock of virtual teams.

VTL 4 stated, let me say this; ICT is what gave birth to the use of virtual teams.

Doing business across the globe would not be possible if organizations have to

build offices around the globe because of the cost. My organization knew this fact

and invested heavily into ICT. The company provided the best platform for virtual

communication. There is a system call Microsoft Link that we use. Microsoft

Link has chat link, audio and video conference link. I also use emails and

telephone. The most useable is sending emails because through emails; you would

be able to send documents and review work. When holding meetings, I use mostly video conferencing. I have never had any challenge using the company provided ICT.

VTL 6. ICT is what drives virtual teams. Any organization that wants to go global by using virtual teams to handle some of their business operations must invest in the right ICT. We do not only use emails; but we also use telephone calls, Microsoft Link with audio and video devices, SMS, and Webcam. I can put a face to the voice of my team members. The challenges are minimal and very rare if we use the technologies provided by the organization.

VTL 7 stated, I have never had any issue using technology since I have been working as a senior manager and a team lead. The company knows how important technology is to teams that work virtually so they invest adequately into ICT. Virtual teams cannot function without ICT.

VTL 8 responded, In the first place, I would say there would be no virtual teams without ICT. The innovation of various ICTs is what gave birth to virtual teams. Using emails alone is not enough for virtual team operations. Therefore, I use a webcam, video and audio calls for meetings. I use more of the video conference to help create that bond among my team members. They can know who is talking through video conference calls.

VTL 10 stated, ICT is the reason the virtual platform is existing. Without ICT, there would be no virtual teams. ICT is a huge benefit to the virtual team and

organizational operations. Table 9 includes participant' responses leading to ICT

as a factor that facilitates virtual team operations.

Table 9

ICT facilitates virtual team operations

Open-ended question	No. of participant responses ($N=10$)	% of participant responses
1	2	2
2	2	2
3	16	16
4	18	19
5	3	3
6	3	3
7	11	11
8	3	3
9	3	3
10	2	2
11	12	12
12	16	16
13	2	2
14	2	2
15	2	2
Total	97	

Theme 6. Set Clear Goal and Clarifying Expectations

Effective virtual team leadership should include leadership strategies such as set

goals that require teamwork, establish team operating procedures, effective

communication, build an information exchange procedure, track team progress, and

provide constructive feedback (Marrewjik, 2010). Setting clear and achievable goals

enhance performance (Hu & Liden, 2011). It is important to for team leaders to set

common goals, clarify goals, and drive the team towards a common goal to motivate both

team leaders and team members (Vayrynen & Aalto, 2013). The participants explained

that in a virtual context, team leaders should set clear, detailed, and attainable goals.

Participants also mentioned that measuring team members' responsibility is important to

maintain a progressive workflow. Six participants explained that team leaders should

always ask team members to clarify expectations by playing back or reiterate in their

words how they understood their task to avoid misunderstanding and time wastage. The

team memos clearly mentioned team members should clarify expectations by sending

emails to the team leader by reiterating how they understood the collaboration. Also, in

the work progress reports team leaders referred to team members to check the work

breakdown structure for the progress task measurement. In support of this theme,

participants responded with the following statements:

> VTL 1 stated, when leading virtual teams, be very clear in your communication.
>
> State goals clearly and let team members know how decisions would be made,
>
> and the consequences of not following decisions. Let team members know the
>
> timelines to attain each milestone. Always ask team members to repeat how they
>
> understand the task given to them.
>
> VTL 2 responded, team leaders should understand that virtual team are very
>
> different from traditional teams that you see every day. As team leaders, every
>
> communication should be effective, productive and towards a goal. Team leaders
>
> should use detailed, simple and clear diction, repeat their expectations and equally

ask team members to play back in their words how they understood their task to avoid misinterpretations.

VTL 4 asserted, as a virtual team leader, I have come to understand the people understood and interpreted things differently because of cultural and language differences. I tried to use simple terms and English that is common to all culture. I give detailed systematic instructions on how to complete tasks. Team members receive reports on their progress and remind on milestone timeline completion.

VTL 5 confirmed; virtual team leaders should set clear, detailed, and attainable goals. Use simple choice of words to convey your message. As a virtual team leader, I know effective communication is crucial in virtual teams, so I make every communicative effective. I sent emails, make phone calls, and schedule video conference calls to make sure that is no break in communication.

VTL 7 stated; one of the strategies to build trust is when team leaders set clear and attainable goals, communicate company policies, expectations, and consequences clearly to team members. Be sure to let team members know the deadline to submit tasks.

VTL 9 confirmed; state group goals and individual expectations clearly using good communication skills. Be very detailed and clear with guidelines and expectations knowing that your virtual team members do not have access to you physically. I always request my team members to clarify expectations with me to

avoid misunderstanding. Table 10 includes participants' responses to open-ended

questions leading to setting clear goals and clarifying expectations.

Table 10

Set clear goals and clarify expectations

Open-ended question	No. of participant responses (N =10)	% of participant responses
1	2	2
2	1	1
3	3	3
4	3	3
5	22	24
6	3	3
7	15	17
8	4	4
9	3	3
10	2	2
11	2	2
12	2	2
13	20	22
14	6	6
15	2	2
Total	90	

Theme 7. Job Performance Relevance

McAllister (1995) and Schaubroeck et al.(2011) noted that performances

applicability such as competence, dependability, accessibility, honesty, and responsibility

drives team trust between the leader and team members, among team members, and also

increase team performance. The above theme has to do with virtual team leaders leading

by being a good model. Virtual team leaders must be competent, reliable, available,

approachable, and accountable to all team members (Brandt et al., 2011). Virtual team

leaders should lead with competence, openness to team questions and decisions, and be able to fulfill promises. The Teams' work progress reports and team memos from six participants supported this theme. Team leaders explained in the various team meetings that one of the ways to build trust is when "team members display competence, deliver tasks on time, reliable, and accountable." The theme occurred so any times in the team memos. The following responses from participants confirmed the theme.

> VTL 1 stated; you cannot get what you cannot give as a virtual team leader. I believe that if the team leader were competent, reliable, open, available, and answerable to team members, team members would automatically trust him and the same trust momentum would follow through with all team members. As a team leader, I try to be open and do my best to lead by example.

> VTL 2 confirmed; virtual team leaders should be open to questions. A virtual team leader who shows understanding and respond to the needs of team members would build trust easily. I am always involved with my team; I guide them through tasks and help them clarify expectations.

> VTL 5 mentioned, as a virtual team leader, I have to be involved with my team members. All my team members have my personal phone contact and the appropriate time to call outside work hours. I have realized that being responsive and available is important to lead virtual teams successfully.

> VTL 7 stated, I work with my virtual team members by showing an example. I do not believe in telling someone to do what I would not do. I make sure I deliver on

every goal set to accomplish for the team. Doing my part gives me the boldness to

do a fair evaluation. My virtual team members know that I am up and doing, and

so my team always trust each other to accomplish tasks on time.

VTL 8 affirmed with the following words; as a virtual team leader, you must

fulfill your promise to team members. If you promise to call a team member at a

given time, please, put the call through. That would build a level of reliability for

you. Do not do no call no show, and no explanation; else, your virtual team

members will take you to be unserious.

VTL 10 gave his perspective; as a team leader, I am always available to handle

any issue or questions that my virtual team members may send or call to ask. My

email is open 24 hours, and my phone is open to communication. That is the only

way I can get them to trust me, and the same goes and me for every team member.

Tables 11 included responses to questions leading to job performance relevance.

Table 11

Job performance relevance

Open-ended question	No. of participant responses ($N=10$)	% of participant responses
1	2	3
2	2	3
3	2	3
4	3	4
5	5	6
6	3	4
7	12	15
8	10	13
9	11	14
10	18	23

11	2	3
12	1	1
13	3	4
14	3	4
15	1	1
Total	78	

Table 12

Thematic Category 2: Leadership Strategies for building and maintaining trust among

virtual team members

Themes	No. of participant responses	% of participant responses
Flexible and transparent leadership skills	79	19
Cultural awareness and respect for individuality	111	27
Encourage strengths and help team members overcome weaknesses	56	13
Recognition and rewards for good performance	73	17
Build interpersonal relationship	99	24
Total	418	

Presenting the summary, all participants stated the need for flexible and

transparent leadership to include openness, transparency, willingness to accept

vulnerability, team involvement in decision-making as a strategy to building and

maintaining trust among virtual team members (19%). Participants mentioned that

cultural awareness and respect for individuality might help team members feel comfortable and valued (27%). Participants regarded encouraging strengths and helping team members overcome weaknesses (13%) as a leadership skill when leading virtual teams. All participants established the need for recognition and reward of good performance as a way to motivate team members and build in them a feeling of appreciation (17%) that can help facilitate team trust. Participants view building an interpersonal relationship (24%) as a leadership strategy for building and maintaining trust among virtual team members to improve performance.

Thematic Category 2: Leadership Strategies for Building and Maintaining Trust among Virtual Team Members

Theme 8. Flexible and Transparent Leadership Skills

Organizational leaders who exhibit flexible leadership skills are open to new experience from team members who are resourceful, inventive, and exceptional; and are more likely to embrace training and development, perform better, and earn team members' trust (Eissa et al., 2012). Participants responded that virtual team leaders are effective when they supervise their team members without micromanaging them. The leaders should allow team members to take decisions and be open to new ideas. The participants mentioned being flexible and transparent in dealing with team members without showing preferential treatment. The data from six team memos supported this theme. Team leaders in their different team memos constantly reminded team members that they would try to be "flexible in their leadership roles to accommodate their

individualities." Also, the findings from the team memos show team leaders supporting

team members by planning their different festivals into the team schedule. The data from

the work progress reports also affirmed this theme because there were instances of team

leaders asking team members to give their perspectives on the assigned task. For

instance, a team leader stated, "Please, team, I welcome ideas. Thank you." "Bring in

your different perspective, we are a team." The participants responded,

> VTL 2 stated, as a virtual team leader, I allow my virtual team members to give
>
> their input on any issue. Each team member brings a different thing to the table. I
>
> hate doing the talking. I would rather have to listen to my team members give
>
> their perspective than me being the overall boss. I am transparent in my decisions,
>
> and I do not give biased treatment because I do not want to lose me credibility.
>
> VTL 4 mentioned, I know that my team members are from different parts of the
>
> world, and they would have their way of doing things. I tried to explain the
>
> organizational approach as well as allowing different approaches to decision
>
> making as the team progresses. I tried to be flexible and to adapt to different ways
>
> of doing things. I treat my team members equally because I do not want them to
>
> discredit my leadership.
>
> VTL 5 affirmed, as a virtual team leader, allow the team members to participate in
>
> decision-making. Be open and willing to accept vulnerability. Accommodate each
>
> person's opinion and make him or her feel appreciated. The moment team
>
> members know that you are biased they will never trust you.

VTL 7 stated, one of the things that prevent trust is when a team leader whether virtual or traditional believes he knows it all. A team leader with such character trait would not recognize talents or good decisions because they believe they are always right. I have a problem with people who talk without pausing to listen to others. I encourage my virtual team members to approach each task with an open mind and shout for help when necessary. No man is a know it all.

VTL 9 affirmed with these words; I am not 'know it all' virtual team leader. I know that these virtual team members are experts in their various skills so I should trust their judgment. I am flexible and transparent to learn new things and to respond to situations base on the context. I am flexible and open in my leadership skills.

VTL 10 declared, as a virtual team leader, I am aware of the challenges facing virtual teams like culture, language/accent barrier, different time zone and many more. I have to be flexible and open in my leadership skills. I have to take into consideration the individuality of my virtual team members and change my leadership approach when necessary. Table 13 reflects responses to questions primary to flexible leadership skills.

Table 13

Flexible leadership skills

Open-ended question	No. of participant responses (*N* =10)	% of participant responses
1	2	3
2	2	3
3	2	3
4	1	1
5	16	20
6	3	4
7	2	3
8	4	5
9	9	11
10	12	15
11	2	3
12	1	1
13	11	14
14	10	13
15	2	3
Total	79	

Theme 9. Cultural Awareness and Respect for Individuality

Participants also mentioned cultural awareness and respect for individuality as one of the strategies virtual team leaders could use to build and maintain trust among virtual team members. Zey (2012) argued that intercultural training and awareness may bridge cultural and geographical differences in virtual teams. Using cultural assessment tools, tested techniques, and other verified strategies in the field of intercultural communication might allow virtual teams to overcome the challenges of misaligned work values (Hanson et al., 2012). One of the challenges identified for virtual teams was cultural differences because team members come from the different geographical

background. Participants mentioned that taking out time as a team leader to study the

basic cultural beliefs of your team members helps the team leaders handle differences.

Knowing your team members beyond work give them the impression that you value their

individualities and create a sense of oneness among team members. Five team leaders

mentioned respect for individual differences and cultural awareness in the team memos

and team minutes taken at the beginning of the team. Five team leaders specifically

advised team members to show respect to each other's language, accent, does and do

nots, and be careful in their choice of words when addressing team members. The There

was nothing on respect for individuality and cultural awareness in the team progress

reports. In the words of the participants,

> VTL 1 stated, working with virtual teams means working with people from the
>
> diverse cultural background. This means different language and accent, different
>
> ways of reacting to situations, different work ethics, and different personalities. I
>
> always encourage my team members to do a little basic study of the cultural belief
>
> of each team member. In my team, I recommend that people talk slowly during
>
> team meetings so that everybody would understand what you are saying. Cultural
>
> awareness and closing the barrier created by language and accent fosters the spirit
>
> of oneness and helps build trust.
>
> VTL 4 confirmed, showing respect for individuality and cultural awareness
>
> creates the spirit of teamwork. One of the biggest problems we have in virtual
>
> teams is language and accent; I always send out memos to every team meeting to

remind team members to speak slowing, not raising their voice during team meetings. I have Muslims, Christians, and Hindus in my team, and I always send them greetings when they are celebrating their festivals or any special event. Also, I will send memos to team members to send their greetings. Doing this makes team members feel your care and appreciate their individuality.

VTL 5 stated, as a team leader, one of the strategies team leaders could use to build and maintain trust is by respecting team members' individuality and cultural values; this includes language and accent. Another thing, in term of the culture, for example, I am leading teams that consist of both Christians and Muslims, and now is the Ramadan period when the Muslims fast and observe different prayer times, I need to respect that and understand that there could be lapses and find a way to cover those lapses. I can guarantee that there will be team trust, and the team would be a happy team if you respect their individual preferences.

VTL 7 asserted, as a team leaders, when you respect to team members individuality and encourage team members to do same, team members would develop trust easily because they know that they are treated with respect and valued despite their individuality.

VTL 9 confirmed, understanding that team members come from a different cultural background and that their culture could influence their professional and personal behavior and take appropriate measure to mitigate that aspect could help team leader build and sustain trust among team members. At the beginning of the

team, I always send out memos to team members that would contain company

policies and my team policies. I would let team members know that because of

language and accent barrier, team members should speak slowly with a simple

choice of words. Table 14 includes responses to questions primary to cultural

awareness and respect for individuality.

Table 14

Cultural awareness and respect for individuality

Open-ended question	No. of participant responses (N=10)	% of participant responses
1	2	2
2	2	2
3	1	1
4	1	1
5	15	14
6	3	3
7	6	5
8	4	4
9	3	3
10	18	16
11	9	8
12	17	15
13	16	14
14	12	11
15	2	2
Total	111	

Theme 10. Encourage Strengths and Overcome Weaknesses

The participants mentioned virtual team leaders finding out the strengths and

weaknesses of team members and work with them to build on strengths and overcome

weaknesses. Virtual team leaders should find ways to help team members understand

their strengths and weaknesses to help them enhance their performance (Siakas & Siakas, 2015). Virtual collaboration helps team members explore their style of interaction and discover their strengths and weaknesses (Kapur, Paul, & Gupta, 2013). Team leaders should evaluate their members' strengths and weaknesses to build on the strengths and facilitate the improvement of their weaknesses (Agrawal, 2012). Motivating, inspiring, and empowering virtual team members should be a skill set that virtual team leaders should have. The participants mentioned that a team leader that exhibited the necessary skills aimed at bringing out the best in their team members does not need to solicit for their trust. Data from team memos from six participants supported this theme. In team several minutes, team leaders mentioned, "encouraging, motivating, and helping team members build on their strengths and would work with them to mitigate their weaknesses." Also, data from work progress reports show timely delivery of tasks, teamwork, and the team leader helping team members make every necessary correction to tasks. To confirm this theme, participants responded,

> VTL 1 stated, as a team leader whether virtual or traditional should know the strengths and weaknesses of his team members as the project progresses. I tried to use the first four weeks of the project to get to know my team. Every man has his strengths and weaknesses. Motivate team members to build on their strengths and help find ways to overcome their weaknesses. Do not expose their weakness else, you hurt them and make them withdrawn from the theme. Motivating and

encouraging team members build their trust in the leader, which transferred to the team.

VTL 2 confirmed; I believe from experience that if a virtual team leader understood the strengths and weaknesses of his team members, he should encourage and motivate team members to build on those strengths. In my team, I do not struggle to earn the trust of my virtual team members. I may not see them face-to-face, but we have a trusting working relationship. I do not use team members' weaknesses against them but rather find ways to help them overcome those weaknesses.

VTL 5 asserted, encouraging individual contribution and acknowledging the importance of each team member to the success of the project helps virtual team members open up to each other. Virtual team members are experts in their field and with good motivation, encouragement, and inspiration they can go the extra mile to get tasks completed.

VTL 7 stated, as a virtual team leader, show your virtual team members interest in their progress. Empower and encourage them to go the extra mile. Let your team members take turns in leading team meetings. Equip virtual team members with the right tools to succeed in every given task.

VTL 9 confirmed the theme with the following words; as a virtual team leader, I give both verbal and written encouraging words to my virtual team members. I do not like my virtual theme members to feel alone while handling tasks. I called,

send emails, and openly commend each team member to motivate and encourage

them to know we are working towards the same goal. Table 15 included

participants' responses showing encouraging strengths and overcoming

weaknesses

Table 15

Encourage strengths and overcome weaknesses

Open-ended question	No. of participant responses (N =10)	% of participant responses
1	2	3
2	1	2
3	1	2
4	2	3
5	6	11
6	3	5
7	3	5
8	3	5
9	2	3
10	6	11
11	2	3
12	1	2
13	18	32
14	5	9
15	1	2
Total	56	

Theme 11. Recognition and Reward for Good Performance

Organizational leaders should design rules, policies, and structures that allow

employees to work and receive appreciation for task completion and achievements

(Manzoor, 2012). Participants mentioned that one of the strategies team leaders could use

to build and maintain trust among virtual team members was to recognize and reward

good performance. Six participants recommended that team leaders should recognize and reward individual team member's accomplishment. The manner or type of reward is of less important but the idea that good performance would be recognized and rewarded publicly is a strong strategy to build and maintain trust among virtual team members. Recognizing and rewarding good performance helps to build confidence and serve as a motivating factor for other team members. Data from team memos and progress report from the different virtual team leaders supported this theme. There were no instances of verbal recognition and rewards but a written memo to team members from acknowledging team members' contribution to achieving the team goal. In one of the memos, a team member was commended for helping other team members get through their task after he had finished his assigned task. In another memo from another team leader, the team leader applauded a team member for volunteering take team minutes, schedule meetings, and send out reminds. There was no mentioning of monetary rewards, but almost all the team memos and progress report at one point in the life of the project sent recognition memo to a worthy team member and copied every team, member. In the Sixty percent of participants responded with the following words

> VTL 1 stated, as a team leader, one of the strategies for maintaining trust among team members is by acknowledging the contributions of team members. I did this by sending commendation memo to the team member and copied all team members, and I mentioned it in our team meetings.

VTL 2 responded; one of the ways to build and maintain trust among virtual team members was to commend constantly real accomplishment. Acknowledging team members' accomplishments and contributions motivate team members to work hard and keep their mind set on the outcome.

VTL 3 confirmed; an effective team leader could build and maintain trust among team members by acknowledging and rewarding their contributions to the team. Team members could lead an initiative; help other team members and many more. Recognizing and rewarding team members builds their confidence and connection.

VTL 5 stated; any team leader who wanted to build and maintain trust among team members was to show appreciation for good well done. When you fairly appreciate team member's contributions, you build confidence and make them want to do more. Everybody love to be praise.

VTL 7 asserted; as a team leader, if you want to earn the trust of your team members, acknowledge and appreciate them when they do something positive to improve team performance. Do not take their contribution for granted.

VTL 10 affirmed, recognizing and rewarding real positive contributions is one of the ways to build and sustain trust. Show team members that you value their contribution so that they can do more. Table 16 includes participants' responses leading to recognition and reward for good performance.

Table 16

Recognition and reward for good performance

Open-ended question	No. of participant responses (*N* =10)	% of participant responses
1	1	1
2	1	1
3	1	1
4	1	1
5	4	5
6	2	3
7	2	3
8	4	5
9	3	4
10	12	16
11	14	19
12	1	1
13	15	21
14	11	15
15	1	1
Total	73	

Theme 12. Build Interpersonal Relationship (Show Support, Empathy, Understanding, and Respond to Their Needs)

Building interpersonal relationship increases team commitment and collaboration because members believe they are free to make open contributions to team processes without facing any form of discrimination (Schaubroeck et al., 2011). Participants explained that knowing your team members personally outside work by showing interest in things that goes on in their personal life is one strategy for building and maintaining trusting relationships among virtual team members (Webber, 2008). Virtual team relationship is mostly professional because team members cannot meet face-to-face at the

coffee stand, have group dinner, and invite each other to functions. Relationships are easy to build when there is face-to-face interaction (Brandt et al., 2011). Participants mentioned that virtual team leaders should always make an effort to make team members feel loved and valued. Showing emotional concern helps to foster trust in the leader. Understanding and responding to team members needs either personal of professional put team members in the right frame of mind to build and maintain trusting relationships (Rahman, 2012). The data from team memos show instances of team communication outside work. The team memos mentioned what they use their 60/60 time; each team leader is entitled to spend 60 minutes in every 60 days with team members outside work for social collaboration. Participants stated that the organization paid for 60/60 time without monitoring or recording the conversations. In addition to the 60/60 plan, five team leaders mentioned in their welcoming message, "We will use more of video conferencing facilities through our Microsoft Link." Team leaders explained that using video conferencing replicates face-to-face meeting and foster a sense of oneness. The work progress reports did not show any data related to this theme. Supporting this theme

> VTL1 stated; as a virtual team leader, I have come to understand that building trusting relationship among team members comes from how you relate to your team members. The more competent, reliable, and productive a team member is, the more you build trust in that team member. The company knew the importance of personal relationship and provided us with a 60/60 plan to discuss things

outside work. I tried to ask simple questions about how their family is doing, and most of the time, it triggered a long discussion.

VTL 4 confirmed; as a team leader, I have to extend my relationship with my virtual team members beyond work. I call my team members to find out how they are doing outside work. I showed understanding and empathy when they expressed concern. I always suggestions and made them understand that I care about the well-being.

VTL 5 stated; before you start a team, try to know each other, relate to them individually. One key thing is that can build trust is the function of the leadership. The company has empowered everyone in term of communication technology by providing those tools I mentioned earlier. You can talk to each other anytime without having to spend money using what we call 60/60.

VTL 7 affirmed; as a virtual team leader, it is my responsibility to know my team members beyond work. Building interpersonal relationship starts by showing understanding, empathy, attending to the needs, and closing the gap of loneliness through constant calls. Trust develops when there is some level of personal relationship.

VTL 8 stated; I believe that one of the ways to build trust is through consistent communication outside work related issues. When team members know that you relate to them beyond work, they give you their trust and release information

freely. We have what we call the 60/60 strategy where you can spend at least 60 minutes within 60 days with each team member on social collaboration.

VTL 9 asserted; as a team leader, one of my goals is to try to know my virtual team members beyond work. I spend time with each team member to discuss issues outside work; we talk about our culture values, life challenges and experiences, family, and adventures. Having personal discussion helps us build trusting relationships.

VTL 10 confirmed; one of the strategies team leaders should use to build and maintain trust is by showing understanding, empathy, and support for personal needs. I believe that as the project progresses, you get to know team members' capabilities, work ethics and their reactions to others. Knowing how they react to other people would give ideas on how to extend the relationship beyond work.

Table 17 includes participants' responses leading to building interpersonal relationship.

Table 17

Building interpersonal relationship

Open-ended question	No. of participant responses (N=10)	% of participant responses
1	2	2
2	3	3
3	3	3
4	2	2
5	10	10
6	3	3
7	3	3
8	4	4

9	9	9
10	14	14
11	2	2
12	1	1
13	18	18
14	17	17
15	8	8
Total	99	

Relating Findings to Available Literature

Understanding the strategies leaders use to build and maintain trust among virtual team members to maintain competitive advantage are important to the success of virtual team operations. Virtual team leaders could benefit by integrating the identified strategies in this study to improve productivity (Mukherjee et al., 2012). The advancement of technology is leading organizations to go into global operations causing an increase in the use of virtual teams to perform tasks (Germain, 2011). Virtual team leaders face challenges ranging from overcoming cultural differences, overcoming the lack of personal social contact, building trusting relationship, and overcoming communication barriers (Levasseur, 2012). Business leaders use virtual teams to handle intricate projects by collaborating and communicating using advanced communication technologies despite the challenges (Saafein & Shaykhian, 2014). Using virtual teams to handle organizational tasks save costs and maximize human resources because virtual team members are expertise, they handle task faster than traditional teams (Chen et al., 2011; Zivick, 2012). The findings from this study could add to the body of knowledge by supporting the

leadership strategies team leaders use to build and maintain trust among virtual team members as a competitive strategy.

The first thematic category on effective organizational and leadership characteristics include the following themes : Trust as a core organizational value; Hire and train relevant talents; Strategic organizing and planning; Effective communication; ICT facilitates virtual team operations; Set clear goals and give opportunity to clarify expectations; and Job performance relevance. There is available literature supporting each of these themes.

Trust is the core factor for all relationships among team members or between team members and the leader (Khan, 2012). Team leaders should emphasize the importance of trust from the formation of the team (Tseng & Ku, 2011). Hiring and training relevant talents should be an organizational decision based on the organizational mission, culture, environment, industry, sector, and labor market (Gallardo-Gallardo, et al., 2013). Organizational leaders should hire and train people with the relevant skills because virtual team efficacy is dependent on team members' experience, skills, and qualifications (Jang, 2013). Sharing preliminary information such as such as nationality, occupation, work experience, and interests encourage strong initial perceptions of trustworthiness, improves the trust levels in virtual teams, and improves their productivity (Rusman et al., 2013). Also, effective communication helps to increase the level of trust in virtual teams because it increases openness and honesty, identification, competence, and reliability on each other (Brandt et al., 2011). Using the right

communication technology helps team members build confidence and trust, demonstrates team members' competence and reliability, and gives an opportunity to trust that others can handle their assigned task (Ebrahim et al., 2012). Virtual team members build trust based on demonstrated task performance, which forms the foundation of successive collaborations (Berry, 2011a). Performance relevance such as competence, responsibility, reliability, and dependability drives team trust and productivity (McAllister, 1995; Schaubroeck et al., 2011). Cogliser et al., (2012) mentioned reliability, flexibility, visionary, motivation, and strategic organizer as the five personality factors for effective virtual team leadership.

The second thematic category consists of five themes regarding leadership strategies for building and maintaining trust among virtual team members: Flexible and transparent leadership; Cultural awareness and respect for individuality; Encourage strengths and help team members overcome weaknesses; Recognition and reward for good performance; and Build an interpersonal relationship. The ability of virtual team leaders to operate in a flexible manner to be able to analyze team members' behaviors, strengths, and weaknesses, and successes and failures and mitigate conflict when necessary are characteristics of good leadership (Sidhu & Volberda, 2011).

The findings provide organizational and virtual team leaders additional understanding of factors that could help build and maintain trust among team members. Team transparency is a behavioral integrity that positively affects team trust and team performance (Palanski et al., 2011). Cultural awareness and training could help in

building trust and closing the gap of geographical differences among virtual team members (Zey, 2012). Team leaders link achievement to performance and reward in global companies based on their outcomes (Verburg et al., 2013). Trust in the team leader empowered team members to trust the organization, commitment, job performance, and engagements (Hurley, 2012). The findings from this study offer organizational leaders understanding suggesting strategies virtual team leaders could use to build and maintain trust among virtual team members to improve job performance.

Relating Findings to Conceptual Framework

The conceptual frameworks underpinning this study were the McAllister's (1995) cognition-based and affect-based trust theories of interpersonal cooperation in organizations. Understanding the strategies team leaders use to build and maintain trust among virtual team members to improve team performance can help organizational leaders overcome the challenges associated with building and maintaining trust in virtual teams. Several studies showed that trust develops when there is both cognition-based and affect-based relationships. Team leaders can employ the attributes of Cognition-based and affect-based trust to build and maintain trusting relationships among virtual team members. The results from the participants' responses and the various team memos and work progress reports help to identify both elements of cognition-based and affect-based trust, which include competence, reliability, dependability, responsibility, openness, respect, empathy, care, concern, recognition and rewards, and cultural awareness. Mansor

et al. (2012) identified six factors that contribute to building trust that include communication, honesty, skill, training, and work commitment (Mansor et al., 2012).

Cognition-based trust creates the initial trusting relationship based on thoughts, senses, and instinct to accept and believe that a team members will perform depending on whatever gave them that impression, it could be from their profile, initial team meeting introduction, or background (Kanawattanachai & Yoo, 2002). The cognitive component of trust develops around rational thoughts, perceptions, and senses.

The cognition-based trust builds around elements such as competence, reliability, dependability, and responsibility (McAllister, 1995). Cognition-based Trust is mostly task-oriented and professional but as team performance increases and team members continue to prove their worth and trust increases (Webber, 2008). The result of this study includes several two major thematic categories regarding virtual teams and the strategies leaders use to build and the maintain trust among virtual team members to help improve team performance. Trust is the pillar of any relationship. Working with geographically dispersed team needs trust because of the identified challenges such as lack of in-person face-to-face interactions (Daim et al., 2012). Team leaders and team members build initial trust based on rational thoughts, perceptions, and senses. The participants identified the elements of competence, reliability, dependability, and responsibility as strategies team leaders could use for building trust, which were also the elements for Cognition-based Trust (McAllister, 1995).

Affect-based trust allows a person to exhibit positive feelings for another person to the extent of accepting vulnerability (McAllister, 1995). Affect-based trust emerges from emotions, care, concern, and empathy displayed as team members observe each other as their task progresses (Webber, 2008). The virtual team scenery should be a safe atmosphere for interpersonal risk taking and a place for emotional safety characterized by interpersonal trust, respect for team members' competence, and care and concern for members (Schaubroeck et al., 2011). Affect-based trust improves team commitment and teamwork because members believe they are free to offer their perspectives on team processes without facing any form of victimization (Schaubroeck et al., 2011).

Cognitive trust and affective trust becomes the facilitating effect of leaders' behavior on team performance (Schaubroeck et al., 2011). Therefore, once virtual team leaders identify their team members, the leaders may implement best strategies that include both the cognitive and affective trust elements to enable virtual team members to build and maintain trusting relationships with better performance.

Business Practice

Organizational leaders and virtual team leaders can benefit from the results of this study by applying the identified best strategies. Understanding the strategies team leaders use to build and maintain trust among virtual team members provides organizational leaders more knowledge on ways to minimize those unique challenges team leaders experience when leading virtual teams. The impact on business occurs through improving team relationships, performance, and reducing projects failure rates by helping

organizational leaders in detecting the leadership strategies use to build and maintain trust among virtual team members to improve team productivity.

The results of this study exemplified the leadership strategies used by virtual team leaders. The data provided by the participants and documents from different team memos and progress reports helped in identifying the strategies virtual team leaders use to build and maintain trust among virtual team members. Eissa et al., (2012) noted that understanding the strategies virtual team leaders use to build and maintain trust among virtual team members may increase team efficiency, performance, and project success rates. Similarly, Zhu et al., (2013) maintained that trust among virtual team members increase innovation, competitiveness, creative thinking, and team productivity. The result from the participants' responses and the various team memos and progress reports helped to identify both elements of cognition-based and affect-based Trust as the conceptual framework supporting this study (McAllister, 1995). Organizational leaders and virtual team leaders can employ the identified strategies to build and maintain trust among virtual team members to improve team performance and productivity.

Applications to Professional Practice

The results of this study have various aspects relevant to organizational leaders and team leaders. Also, this study adds to the existing body of knowledge on the strategies virtual team leaders use to build and maintain trust among virtual team member to improve team performance. The findings of this study revealed virtual team leaders' view within one multinational organization about the strategies the virtual team leaders

use to build and maintain trust among their virtual teams. Business leaders who are presently employing or wish to use virtual teams require up-to-date information on ways to build and maintain trust among virtual team members.

Using virtual teams to perform organizational task helps save cost, use of expert hands, fast project delivery, and reduce face-to-face conflict. However, the absence of face-to-face communication, cultural differences, and reliance on advanced technology due to geographical disparity posed some unique challenges to virtual team leaders among which is the inability to build and maintain trust among virtual team members (Kimble, 2011; Purvanova, 2013). Trust is the major factor for team leaders and members' relationship (Khan, 2012). Brahm & Kunze (2012) argued that organizations with high-level trust climate perform better regarding reducing conflict, creativity, productivity, and profitability. Therefore publishing the findings from this study offers resources for organizational leaders and virtual team leaders to use when leading virtual teams.

It is significant that virtual team leaders emphasize trust building from the formation of the team to enable relationship building that would lead the team to attain high-performance results (Tseng & Ku, 2011). Virtual teams are increasing across the globe with an increase in organizations with global operations (D'Souza & Colarell, 2010). Therefore, it is important that organizational leaders and virtual team leaders understand the importance of trust in virtual teams and ways to build and maintain trust among virtual team members to improve team performance, reduce projects failure, and

increase productivity. In addition, advanced communication technology is the center of virtual teams operations.

The results of this study could help organizational leaders in invest and implement the appropriate technology that is task-fit and technology that equates face-to-face meeting and bridged the gap between distance, separation, and team members. Also, organizational leaders could use the data from this study to assist with the interviewing of potential virtual team leaders and members to determine their eligibility. Organizational leaders could use data from this study to create procedures to help virtual team leaders with the strategies to lead virtual teams effectively to improve team performance and productivity.

Findings and conclusions from this study may help organizational and virtual team leaders to assess their current strategies for building and maintaining trust among virtual team members. In the cause of this study several themes emerged. However, one of the themes identified was a new finding, not previously mentioned in the literature. Based on the research results, there is provision for recommendations for strategic action as well as further studies. Therefore, business practitioners may find the recommendations useful in their search to understand the strategies virtual team leaders use to build and the maintain trust among virtual team members to improve job performance and productivity.

Implications for Social Change

Building and maintaining trust among virtual team members is essential to attaining virtual team goals (Daim et al., 2012). Findings and recommendations from this study may contribute to a positive social change. These study findings revealed information on strategies virtual team leaders can use to build and maintain trust among virtual team members that could increase team performance and productivity. Building trusting relationships among virtual team members may be beneficial in promoting, innovation, competitiveness, creative thinking, and team productivity. As seen in the presentation of findings, good social skills are essential for:

Teamwork and collaboration: Conflict resolution and negotiation skills are important to collective work. Conflicts often occur about group goals, work approaches, tasks, amount of work, and recognition (Verburg et al., 2013). Team members with good conflict and negotiation skills are better prepared to handle problems without fear, to listen and understand diverse viewpoints, and to resolve issues in commonly helpful ways, increase working conditions, and improve the company's bottom line (Brahm & Kunze; 2012; Brandt et al., 2011).

Relationship improvement and networking: Sharing significant information, satisfying promises, readiness to be influenced, and listening are structures of mutuality and the advancement of trust (Rahman, 2012). When team members trust one another, they are more dedicated to accomplishing common goals, more probable to help one another through complications, and more eager to share and develop new ideas (Chung &

Jackson, 2013). Coming to share individual visions is a collective and powerful mechanism in the first step towards social change.

Learning and development: Various organizations endeavor to be learning centers to generate settings in which workers learn not only through prescribed training but also through relationships with colleagues. Learning relationships built on combined problem solving, insight sharing, learning from mistakes, and working closely together to support communication of implied knowledge (Berry, 2011a). Learning also grows from mentoring relationships between beginners and those with knowledge and organizational expertise.

Lastly, building and mainting trust among virtual team members could promote positive social change by providing organizational leaders' information that would help in selecting, training virtual team leaders and members, build trusting relationships, improve job performance, and reduce projects failure.

Recommendations for Action

As globalization increases, organizational leaders attempt to remain competitive by using virtual teams in expanding their global operations (D'Souza & Colarell, 2010). The findings from this study and the recommendations for action could advance the organizational strategies, functions, processes, success rates, and virtual team productivity. I am committed to updating pertinent business leaders of these study results as they apply to organizational practices. Organizational leaders have a significant part to play in helping to evaluate and ratify where appropriate, virtual team strategies especially

in the area of the building and maintaining trust among virtual team members to increase team performance and productivity. Organizational and virtual team leaders should pay attention to the findings of this study and to educate themselves on the strategies for building and maintaining trust among virtual team members to improve team performance and increase productivity.

As the findings from the study revealed, building and maintaining trust among virtual team members can help reduce most of the challenges identified when leading virtual teams and increase team performance and productivity. Trust is important to the operation of virtual teams knowing team members can only team goals and build interpersonal relationships using ICT without chances of face-to-face meetings (Daim et al., 2012). Organizational leaders and virtual team leaders could gain knowledge from this study to develop processes that incorporate these strategies to enhance virtual team performance. I recommend that organizational leaders use the results of this study and recommendations to support their organization.

1. Organizational leaders should assess the potential virtual team leaders to be certain they have knowledge of the strategies to lead virtual teams.

2. Organizational leaders should evaluate virtual team leaders to be sure they possess the strategies to build and maintain trust among virtual team members to enhance team performance and productivity.

3. Organizational leaders should provide training for virtual team leaders and members on major issues in virtual teams such as cultural awareness, building

interpersonal relationships, and building and maintaining trust among virtual team members as a competitive strategy.

4. Organizational leaders should use the results of this study as a resource for hiring virtual team leaders and members.

5. Organizational leaders should use the results of this study to develop and manage virtual team operations.

I plan to distribute the a comprehensive summary of the study result via emails to research participants, immediate family, and the organization used in the study. Also, I plan to publish the study in various academic research publications, journals, and for a broader audience. Where possible, I plan to publicize the research findings using appropriate platforms such as academic and professional seminars and conferences. Various organizations and business leaders could use the results from this study as a competitive strategy to enhance business operations, expansions, implementation, and improve virtual team performance.

Recommendations for Further Study

The study involved virtual team leaders who possess experience in leading dispersed teams. The study was specific to virtual team leaders within one multinational management consulting, technology services, and outsourcing organization. The population consisted of 10 senior managers and virtual team leaders. After I collected and analyzed data, several themes emerged but there were several limitations and areas I would like to make recommendations for further research.

As the researcher, I identified several limitations that were out of my control. The limitations are: (a) the sample size was small, (b) the interview was via audio recording (there was no possibility to interpret body language), (c) I focused the study on one corporation. Therefore, the perspectives may be limited to that organization as opposed to the entire business field. I strongly recommend that further study includes more than one industry and firm to increase possibly the study domain for external validity.

The first recommendation is a follow-up study using the case study and interviews with virtual team leaders and members to determine possible differences. The second recommendation is a follow-up study using the phenomenological approach that involves leaders from different industries regarding the focus of this study; that is, strategies virtual team leaders use to build and maintain trust among virtual team members to improve team performance. Also, I recommend a study of employee individuality and jobs not appropriate for virtual team operations. I also recommend a follow-up study using communication theory, which could offer a different viewpoint to the interview questions. Finally, I recommend further study on the relationship between communication and trust as recurrent communication can lead to suspicion of being monitored and rare communication can be seen as not providing the needed information to help the team succeed.

Reflections

Virtual teams are part of a global strategy used by organizational leaders to handle complex projects and save operational cost (Al-Ani, Horspool, & Bligh, 2011). The

construct of trust as a competitive strategy is critical to the success of virtual teams (Huang & Wilkinson, 2013). It is important that business leaders gain adequate knowledge of the strategies virtual team leaders use to build and maintain trust among virtual team members to improve team performance and productivity and put their business in a competitive advantage.

When I started this study, I had no preconceived ideas about the research topic, but as I reviewed the literature, I found that many organizational leaders do not pay close attention to the construct of trust in virtual teams; how building and maintaining trust among virtual team members could help enhance team performance and productivity. To refrain from personal bias, I relied solely on the data from participants and documents to address the answer to the research question. The participants were willing to share their different strategies and experiences as virtual team leaders. Six participants were willing to send their recent team communication memos and progress reports that were kept confidential through a secure website. Participants were willing to accommodate follow-up questions where necessary to enabled me to reach data saturation.

I analyzed all data, synthesized and send the interpretations to participants via email for member checking. Participants confirmed the interpretations to represent their thoughts and send the data back through email. Most of the participants believed that focusing only on task performance without interpersonal relationship would not increase trust because participants believed that you have to know somebody beyond the professional level to engage in an interpersonal relationship. This view supports the

conceptual framework underpinning this study that as cognition-based trust increases, affect-based trust develops and continue to a sustained level where team members become free to share information regardless of boundaries (Webber, 2008). The majority of the participants were enthusiastic about the topic and felt that the study findings may help organizational leaders in the hiring and training process for virtual team leaders and members.

Summary and Study Conclusions

The results of the research described and extracted the perceptions of virtual team leaders regarding strategies virtual team leaders of one particular organization use to build and maintain trust among virtual team members to improve performance. The findings from the study could help organizational leaders and virtual team leaders recognize strategies to employ in building and maintaining trust among virtual team members. The data collection process included a series of semistructured, open-ended interview questions and assessment of company documents to triangulate and validate themes across multiple data sources. The in-depth inquiry and the cross-assessment of multiple data sources offered findings that serve as an additional source of information about the strategies virtual team leaders use to build and maintain trust among virtual team members to enhance team performance.

Two thematic categories emerged with different themes in each category. Building on the conceptual framework underpinning this study (cognition-based trust and affect-based trust theories), the research findings reveal that virtual team leaders place

huge importance on the value of trust in virtual teams. The findings from participants' responses revealed that despite the challenges, organizational leaders, and virtual team leaders can improve virtual team performance and increase productivity when they implement the identified strategies. The study findings highlight several strategies that virtual team leaders use to build and maintain trust among virtual team members to improve performance, (a) business leaders should make trust a core organizational value, (b) hire and train relevant talents, (c) strategic organizing and planning, (d) effective communication, (e) Invest in ICT, (f) set clear and attainable goals and giving room to clarify expectations, (g) increase job performance relevance, (h) operate flexible leadership skills, (i) cultural awareness and respect for individuality (j) encourage strengths and help team members overcome weaknesses, (k) recognition and reward for good performance, and (l) building interpersonal relationship. Virtual team leaders need to create opportunities for team members to get to know one another's work-related skills and personal interests.

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Appendix A: Interview Protocol Guide for the Virtual Team Leaders

Introduction Information of the interviewer

Date

Name

Purpose of the study

Confidentiality

 Duration of interview

How I will conduct the interview

Type of Questions

Permission to record audio interview

Opportunity for questions

Signature of informed consent

Background of Participants

Position

Years of Experience

Location

Interview Questions

Closing Key Components

Additional Comments: What else would you like to share regarding trust in virtual

teams?

Next Steps: I will be analyzing the data and will send you a copy for your review and update to avoid misinterpretation or misunderstanding of data.

Thank the participant: I thanked participants for their time.

Follow-up Questions: I contacted the participants for a permission to ask follow-up questions if there is any area that need further discussion to help me conduct an in-depth study and reach data saturation.

Appendix B: Interview Questions for the Virtual Team Leaders

1.   As a team leader, how often has the team worked together under your

       leadership?

2.   How often do you see your team members face to face?

3.   How do you communicate with your team members?

4.   What are your experiences using ICT?

5.   How would you describe your experiences leading virtual team members?

I provided participants with Sarker, Ahuja, Sarker, and Kirkeby's (2011) definition of

trust, which is the following: Trust is when members of a team or group are susceptible to

the action of other individuals with the belief that those individuals will perform an

assigned task that is critical to the group success. I then asked them the following

questions:

6.   What is your perception of trust in your organization?

7.   As a team leader, how can virtual team members build initial trusting

       relationship to enable them work together?

8.   Using your experience, can you explain instances that team members'

       exhibit trust issues?

9.   From your perspective on trust, what could prevent virtual team members

       from trusting each other?

10.   What actions do you think increase trust among your team members?

11.   How has your company supported trust building among virtual team members?

12.   Please, explain how each of the following factors affect trust in your virtual teams:

- Advanced technology,

- Cultural differences,

- Geographical disparity,

- Different time zone,

- Communication.

13.   As a leader, what strategies do you think you can employ to help team members build trust?

14.   In your opinion, how can you help team members sustain trust throughout their period of working together?

15.   What else would you like to share regarding trust in virtual teams?

Appendix C: Copy of Signed Informed Consent for Participants

You are invited to take part in a research study of exploring the strategies team leaders use to develop and maintain trust in virtual multinational teams to help improve job performance. The researcher is inviting (a) virtual team leaders who work for the same organization, (b) team leaders must have worked for the organization for at least 1 year, (c) team leaders must have a minimum of 1 year experience in leading virtual teams, (d) team leaders are leading, or have led, geographically dispersed team members and are fluent in English to be in the study. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part. This study is being conducted by a researcher named Elizabeth Owonikoko, who is a doctoral student at Walden University.

Background Information:

The purpose of this qualitative, exploratory, single case study is to explore the strategies team leaders use to develop and maintain trust in virtual multinational teams to help improve job performance. The qualitative research involves collecting non-experiments or hypothesis but uses interviews to collect facts and reveal deeper processes in individuals, teams, and organizations, and to understand how those processes develop over time. Qualitative researchers use data in the form of sentences to convey thoughts, views, insights, or experiences of individual participants. In addition, using a single case study means the study will not be on an entire organization, but will focus on a particular issue, and the units for the proposed study will be the selected virtual teams.

Procedures:

If you agree to be in this study, you will be asked to:

- Provide your position at work, years of experience, and location.

- Participate in an audio recording semistructured, open-ended electronic interview via Skype or telephone.

- Take part in an interview that will last between 30-60 minutes.

- Participate in a follow-up interview if the researcher needs more data for at least 10-15 minutes

- Participate in member checking for at least 20-30 minutes to see if the synthesized data represent the correct answers for the accuracy of data interpretation and validity.

Here are some sample questions:

1.   As a team leader, how often has the team worked together under your leadership?

2.   How often do you see your team members face to face?

3.   How do you communicate with your team members?

4.   What are your experiences using information communication technology (ICT)?

5.   What is your perception of trust in your organization?

Voluntary Nature of the Study:

This study is voluntary. Everyone will respect your decision of whether or not you choose to be in the study. No one at Accenture or Walden will treat you differently if you

decide not to be in the study. If you decide to join the study now, you can still change your mind later. You may stop at any time.

Risks and Benefits of Being in the Study:

Being in this type of study involves some risk of the minor discomforts that can be encountered in daily life, such as fatigue, stress, or becoming upset. In addition, there is minimal risks because some participants may feel there is economic/professional risk involved by providing data on work-related issues. Being in this study would not pose a risk to your safety or well-being.

Potential benefits include: All participants will receive a 1-3 page summary of the study result. The study might contribute to the understanding of better strategies virtual team leaders could use to build and maintain trust among team members to help improve performance and productivity. The study might also contribute to helping minimize geographical and cultural differences in virtual teams.

Payment:

There is no payment, gift, or reimbursement for participants.

Privacy:

Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in the study reports. In the In the event that criminal activities are disclosed, I will take the necessary steps to report to the appropriate authority, and that would limit the

confidentiality clause in the consent form. Data will be kept secure by locking all hard copies and thumb drives in a cabinet that I alone have access to, and in a password protected the laptop. Data will be kept for at least five years, as required by the university.

Contacts and Questions:

You may ask any questions you have now. Or if you have questions later, you may contact the researcher. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you (for US based participants) and (for participants outside the US). Walden University's approval number for this study is **07-07-15-0423388** and it expires on **July 6, 2016.**

Please print or save this consent form for your records.

Statement of Consent:

I have read the above information, and I feel I understand the study well enough to make a decision about my involvement. By replying to this email with the words, "I consent," I understand that I am agreeing to the terms described above.

Printed Name of Participant ███████████

Date of consent █████████

Appendix D: Letter of Cooperation from the Research Partner

10th June, 2015

Elizabeth Owonikoko

Dear Elizabeth,

LETTER OF COOPERATION FROM THE RESEARCH PARTNER

Based on my review of your research proposal, ████████ grants permission for you to conduct the study entitled Building and Maintaining Trust in Virtual teams as a Competitive Strategy within the ████████ virtual teams. As part of this study, I authorized you to collect data from virtual team leaders via electronic interview, conduct follow-up interviews, and member checking electronically. Individual participation will be voluntary and at their own discretion.

We understand that our organization's responsibilities include allowing about 10 virtual team leaders and members who must have worked for the organization for at least one year, and have been involved in geographically dispersed team and proficient in English language to participate voluntarily in a 30-60 minutes recorded interview. Our virtual team will release relevant data that will help answer the research question.

In view of any changes, ████████ reserves the right to withdraw from the study at any time.

████████ understands that the data collected will remain entirely confidential and may not be provided to anyone outside of the student's supervising faculty/staff without permission from the Walden University IRB and ████████

Yours Sincerely,
For ████████

████████████

Appendix E: Letter of Invitation to Participate in a Research Study

From: Elizabeth Owonikoko

May 20, 2015.

Dear Sir/Ma,

Letter of Invitation to Participate in a Research Study

I am a student at Walden University, and I am conducting research on Building and Maintaining Trust in Virtual Teams as a Competitive Strategy. The purpose of this study is to explore the strategies team leaders use to develop and maintain trust in virtual multinational teams to help improve job performance and productivity.

You are invited to participate in a 30-60 minutes recorded semi-structured open-ended electronic interview either via Skype or telephone. The criteria for participation are: (a) virtual team leaders who work for the same organization, (b) team leaders must have worked for the organization for at least 1 year, (c) team leaders must have a minimum of 1 year experience in leading virtual teams, (d) team leaders are leading, or have led, geographically dispersed team members, and are proficient in English.

Upon acceptance, you will receive an Informed Consent Form with Walden University IRB approval number that will explain terms such as confidentiality of personal information and organizational information, and voluntary participation and withdrawal without penalty.

I will greatly appreciate your cooperation. You can contact me if you need further

information via and ████████████████████ or

████████████████████

Thank you for your cooperation.

Sincerely,

Elizabeth Owonikoko