2022

Leadership Strategies Used for Virtual Team Success

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This is to certify that the doctoral study by

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has been found to be complete and satisfactory in all respects,
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Walden University
2022

Abstract

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by

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MS, University of Liverpool, 2022

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

April 2022

Abstract

Virtual teams are an emerging trend that provides organizations with a strong competitive

advantage; however, some virtual team leaders lack the strategies and skills to mitigate

team failure. Virtual team leaders are concerned with team failure because business

leaders leading virtual teams experience up to an 80% failure rate. Grounded in

transformational leadership theory, the purpose of this qualitative single case study was

to explore strategies virtual team leaders use to prevent virtual team failure. The

participants were five virtual team leaders from an online learning college in the

Bahamas with more than 5 years of experience. Data were gathered from semistructured

interviews and company documents. The data were analyzed using the van Kamm

method, and three themes emerged: (a) create a model for communication and

collaboration, (b) improve on leadership competencies and skills, and (c) create a model

for strategic planning for virtual environments. A key recommendation from this study is

that leaders should engage virtual team members with effective communication. The

implications for positive social change include the potential for leaders to create

employment opportunities that give back to communities and help decrease

unemployment rates by providing engaging jobs for virtual team members.

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Dedication

I dedicate my work to my family and work colleagues who have been by my side and supported this journey. Your support and words of encouragement have helped me to continue at times when I felt like giving up. To Clinton, your words of inspiration and your prayers helped to strengthen me to achieve my goal. To Savion and Haley, my kids, you have always been my biggest cheerleaders and I know that you are both proud of your mother. Thank you for your understanding, patience, and support, during the days I could not spend quality time because of the hours needed to pursue my doctoral journey.

To my colleagues, I appreciate all of you. To my lovely students, you have been my inspiration. I dedicate this degree to you and hope that I can further be an inspiration to all of you that hard work pays off. To my siblings, I appreciate all of you and thank you for your encouraging words. To my dear mother, although you may not be well physically, you have always been my biggest support and believed in me.

Finally, to my Almighty God; thank you for setting my path and giving me the strength and endurance to continue. Lord, you are my life and hope in whom I trust; all glory belongs to you. As I move on to the next chapter in my life, I look forward to what lies ahead!

Acknowledgments

Special thanks and appreciation to my chair, Dr. Meridith Wentz, for her support
and guidance throughout my doctoral journey. Dr. Wentz, you have played an integral
part in helping me to achieve this goal. I wish to thank my committee members, including
Dr. Ron Black and Dr. Judy Blando, for all of the helpful feedback that you have
provided. A special thank you to my husband, family members, colleagues and the
participants for their encouragement and support. Most important, I thank the Almighty
God for keeping me throughout this journey.

Table of Contents

List of Tables

List of Figures

Section 1: Foundation of the Study

Organizational leaders strive to gain competitive advantage in growing globalized markets, and they strive to create a culture of innovation and creativity (Davidekova & Hvorecký, 2017). Virtual team formulation has become a solution for many organizational leaders seeking to expand their operations in various markets while gaining a broader talented, skilled, and diverse workforce. Virtual businesses emerged as a catalyst to globalization providing a platform for traditional organizations to expand products and services on a larger scale. The emergence of virtual businesses created opportunities for a wider plethora and diverse workforce by creating virtual teams to manage operations remotely from various geographical regions (Alsharo et al., 2017). Virtual team leaders need to be equipped with the necessary skills to manage virtual teams. Effective leadership skills are pivotal to creating a culture adaptable to change and diversity (Homan et al., 2020).

The objective of this qualitative single case study was to explore the strategies and skills that virtual team leaders use to prevent virtual team failure. Leadership strategies were explored for a better understanding of the behavior of leaders in their working environment. The results from this study may provide useful information for virtual team leaders to help improve corporate culture, employee response to change, and the communication barriers that can cause virtual team failure.

Background of the Problem

Virtual teams emerged during the 1980s as organizational leaders sought more innovative means to become more competitively advantaged (Simpson, 2017). Since

then, research shows that more than 20–30 million Americans work remotely at least once a week (Hamersly & Land, 2015). There will be an upward shift and gravitation more toward skilled virtual team members when compared to traditional workers (Jones et al., 2016). Despite the increase in the number of virtual teams, studies show that business leaders leading virtual teams experience up to an 80% failure rate (Hamersly & Land, 2015). According to Galli (2021), communication and lack of leadership skills were some of the reasons virtual teams fail. Virtual team success depends on how well virtual team leaders can influence and motivate team members to adapt to a rapidly changing environment (Faupel & Süß, 2019). Virtual team leaders must find ways to keep virtual team members engaged as the nature of virtual business differs from the traditional face-to-face business model (Sung et al., 2015).

As virtual teams continue to increase, virtual team leaders formulate new strategies to create more productive and efficient virtual teams (Ford et al., 2017). One strategy is to improve communication, which may involve ensuring the organizational goal and vision are articulated carefully. Virtual leader strategies may also include regular collaborations and feedback from virtual team members to discuss or highlight any possible threats or barriers that team members experienced (Choi & Cho, 2019).

Another strategy virtual team leaders have adopted is employing virtual leaders with necessary skills, such as a transformational leadership trait (Aga et al., 2016). According to Kotter (2017), leaders with transformational leadership skillsets are more successful in leading change within organizations. Le and Lei (2018) posited that a

transformational leader must also lead by example to create a level of trust and influence over team members.

Problem Statement

Virtual teams that failed because of a lack of communication, cohesion, trust, and relationship-building are increasing management challenges (Tan et al., 2019). More than 25% of Americans are employed virtually and 15% of U.S. workers have days when they only work at home (U.S. Bureau of Labor Statistics, 2019). The general business problem is that a high rate of virtual team failure leads to low job satisfaction for members of virtual teams. The specific business problem is that some virtual team leaders lack the strategies and skills needed to prevent and reduce failure rates of virtual teams.

Purpose Statement

The purpose of this qualitative single case study was to explore the strategies and skills that virtual team leaders use to prevent and reduce failure rates of virtual teams. The targeted population consisted of five successful virtual team leaders from an online learning college in the Bahamas with more than 5 years of experience. The results of this study may have implications for positive social change by allowing successful organizations to give back to communities by helping to decrease unemployment rates by providing jobs for virtual team members. The results of the study provide information about how virtual team leaders can give satisfaction to team members and create a better working environment.

Nature of the Study

The qualitative method was used for this study. The qualitative method was more appropriate than a quantitative study or mixed method for addressing this study's purpose. Qualitative research is useful for using open-ended questions when conducting interviews. According to Marshall and Rossman (2016), the purpose of a qualitative study is to explore how individuals perform in natural settings. In contrast, researchers use quantitative research to explain a phenomenon and test hypotheses about variables' characteristics or relationships (Merriam & Tisdell, 2015). This study did not include testing a hypothesis about variables' characteristics or relationships; therefore, the quantitative method was not used for this study. A mixed-method study was not selected because a mixed method includes both qualitative and quantitative methods (Johnson, 2015). The mixed method was not appropriate because it includes a quantitative component.

Ethnography qualitative design was considered but not selected for this study because ethnography focuses on culture (Lewis, 2015). In this study, I did not focus on culture but rather on leadership strategies. In contrast, phenomenology is used when researchers seek to describe the personal meanings of lived experiences of participants (Giorgi, 2008). The data collection methods used in this research involved interviews of leaders and team members but did not focus primarily on the personal meanings of the lived experiences of participants. According to Yin (2014), a case study is appropriate when a researcher wants to study a group of people in a bounded environment; in this case, leaders and team members were the group of people that would be explored in a

single organization. Saunders et al. (2015) suggested that a case study is appropriate when researchers cannot influence the behavior of participants. Using a single case study would allow for a more in-depth review of one organization. Therefore, in my study, a single case study design approach was more appropriate than a multiple-case design.

Research Question

What strategies and skills do virtual team leaders use to prevent and reduce virtual team failure?

Interview Questions

1. What strategies do you use to improve the success rates of virtual teams?

2. What were the challenges you faced when implementing the strategies for successfully leading virtual teams?

3. What did you do to overcome those fundamental challenges and obstacles?

4. What strategies do you use to inspire members of virtual teams to work together more effectively?

5. What skills do you use to motivate virtual team members?

6. Based on your experience, what leadership skills are more beneficial for leading virtual teams?

7. What else can you share with me about the strategies and skills you used to improve the success rates of your virtual teams?

Conceptual Framework

The conceptual framework used was Burns' (1978) transformational leadership theory. This theory reflects the premise that leadership is used to help (a) motivate, (b)

inspire, (c) transform people to work collectively as a team, (d) stimulate team members, and (e) influence (Burns, 1978). The transformational leadership conceptual framework was applied to my study because a virtual organization is a complex environment that involves team members from various cultures and backgrounds. Therefore, transformational leadership was best suited because its concepts can facilitate leaders' ability to motivate and drive successful change in complex situations, such as leading in remote locations in which communication can become a barrier.

Aga et al. (2016) found that because of the complex nature of virtual environments, transformational leaders would possess the skills to keep employees motivated in the absence of physical leaders. The qualities of transformational leaders include the ability to lead team members through organizational changes and to adapt to rapidly changing work environments (Deschamps et al., 2016). A transformational leader has the competency to help followers identify strengths and weaknesses so that employees can work at their highest potential. The transformational leadership conceptual framework was applied to my study because a virtual organization is a complex environment that involves team members from various cultures and backgrounds; therefore, transformational leadership is best suited because its concepts can facilitate leaders' ability to motivate and drive successful change in complex situations, such as leading a remote team for which communication can become a barrier.

Operational Definitions

The following are operational definitions of important terms used throughout this study.

Innovation management: The process of managing an organization's implementation of innovation and the procedures used to monitor its progress (Jones et al., 2016).

Transactional leadership: A style of leadership that uses a method of reward for both leaders and team members to promote productivity (Xu & Wang, 2019).

Transformational leadership: A style of leadership that promotes teamwork and helps guide team members through various change processes that may occur within the organization while motivating employees (Faupel & Süß, 2019).

Virtual team leader: A leader responsible for ensuring that team members support the directives of the virtual team and who shares the organization's goals and objectives with virtual team member (Derven, 2016).

Virtual teams: Organizations with team members working remotely from various geographical locations and without a physical location, using technological resources to achieve unified common organizational goals (McCann & Kohntopp, 2019).

Vision statement: A written statement of what an organization hopes to achieve that defines the organization's purpose and future goals (Haines, 2021).

Assumptions, Limitations, and Delimitations

According to Simon and Goes (2018), assumptions are true statements outside the scope of a researcher's control. For this case study, three assumptions were made. The topic relates to leadership strategies for successful virtual teams, so the objective was to determine how leadership strategies, when used effectively, can help mitigate virtual team failure. The first assumption was that Bass's (1990) transformational theory is a

suitable framework for the research based on the idea that the transformational leadership style supports change management within organizations. The second assumption was that participants would be truthful and accurate when responding to the interview questions. The final assumption was that the data gathered from the organization containing leadership strategies would be accurate, concise, and current.

Yin (2014) referred to limitations as any potential weakness to a study and challenges of the study beyond the control of the researcher. Three main limitations of this study were observed. The first limitation was that the data gathered through the interview process would depend on the knowledge of the participants and the credibility of their responses. Another limitation was the short time limit of the interview and time constraints by the participants from work schedules, which caused delays in scheduling interview sessions.

Delimitations refer to boundaries identified by a researcher in the process of collecting data for the research questions and usually are drawn from the limitations of the study and the range of focus (Theofanidis & Fountouki, 2018). The first delimitation was that the study only included five virtual team members from the northern region of the Bahamas; therefore, these views were not generalizable to that particular area of the country. The next delimitation was the geographic region of the Bahamas. Most of the Bahama Islands are separated by water, which eliminated including participants from other surrounding islands. The final delimitation was that the research question was answered by focusing on leadership strategies used for virtual team success. I did not

focus on other strategies related to virtual teams that were not from a leadership perspective.

Significance of the Study

The significance of improving business performance contributes to effective business practices, which in turn provides long-term benefits for stakeholders (Bacq & Eddleston, 2018). The results of this research were documented and are available for future leaders to potentially implement in their business organizations. This qualitative research study may provide several insights for leaders seeking to implement new business models and increase employee performance. This study's findings may be useful for business leaders seeking new strategies to better lead their virtual teams to improve success rates, which may lead to higher profits.

Social change can empower and enable others to benefit communities (Bacq & Eddleston, 2018). Adopting or adapting the study's findings might provide economic benefits that could lead organizations to increase or sustain support for communities. Successful organizations may give back to the community in the form of scholarships or clean-up campaigns in many rural areas as part of their corporate social responsibility, combining commercial activities with social objectives (Grayson & Hodges, 2017).

A Review of the Professional and Academic Literature

Critical analysis and synthesis of the literature are presented in this section. The literature review includes resources from various dissertations, journals, reports, scholarly seminal books, and more than 100 peer-reviewed articles. The literature review emphasizes the role of the virtual leader in establishing virtual strategies and skills

needed to support virtual team success. The general business problem is a high rate of virtual team failure that leads to low job satisfaction for members of virtual teams. The specific business problem is that some virtual team leaders lack the strategies and skills needed to prevent virtual team failure. The gap in the research is the lack of information related to strategies virtual leaders use for successful virtual team management and the skills leaders use to help mitigate virtual team failure.

Virtual team leaders and virtual team members have many resources and literature. In this review of the literature, I highlight the perspective of the virtual team members with leadership positions. In addition, I address leadership theories with emphasis on the characteristics, traits, and behavior of leaders needed to manage virtual teams. I also address some of the pitfalls and shortcomings of virtual leaders, three leadership theories, and how the theories are applied in an organizational context. The theories outlined include transformational leadership, transactional leadership, and change management theory.

The content and organization in the introductory part of the literature includes the literature search strategy, followed by the conceptual framework with an analysis of the supporting and contrasting theories, including (a) transformational leadership, (b) transactional leadership, and (c) change management theory. This is followed by the rationale for choosing my conceptual framework. The next main topics include a synthesis of literature about potential themes and phenomena identified in the purpose statement. The four major topics include: (a) virtual teams, (b) leadership styles, (c) reasons for leadership team failure, and (d) reasons for leadership team success.

Literature Search Strategy

One goal of the literature search strategy was to analyze similar and previous research related to the topic. Ninety-five percent of the resources were peer reviewed and published from 2017 to 2021. In Table 1, the literature review source statistics are provided and categorized as (a) number of sources cited, (b) the number of peer-reviewed sources, (c) number of sources published within 5 years of my graduation date of July 2022, and (d) percent of the reflected totals. The remaining resources published before 2017 helped to support the research topic from other relevant studies. The terms used in the search were *virtual teams* and *virtual team leaders*. Other terms used in the database search included *virtual workers, project teams, transformational leadership, transactional leadership, change management theory, virtual team engagement*, and *virtual management*. The initial primary search term *virtual team leaders* yielded 18,805 peer-reviewed scholarly articles in ProQuest Dissertations and Theses Global. The broad search of *virtual teams* yielded 30,061 peer-reviewed scholarly articles from ProQuest and EBSCOhost. The narrowed search to the specific primary words reduced the number of peer-reviewed articles significantly. The literature research process was significant to the process of effective research for this study.

Table 1

Summary of Literature Review Sources

	Total sources	Peer-reviewed sources	Sources published 2017–2021
Sources	171	155	78
Percent	100	91	42

Application to the Applied Business Problem

The objective of this qualitative single case study was to explore the strategies that virtual leaders use to create virtual team success. The conceptual framework for this qualitative study was transformational leadership. In this section, I discuss three leadership theories: transformational leadership, transactional leadership, and change management theory. Although the three theories share similarities on the concepts of leadership influence on the behavior of team members, some contrasting views exist within each framework.

Transformational and transactional leadership models are useful to influence organizational culture. Virtual teams thrive more successfully with transformative leaders when trying to build a corporate culture (Mburu, 2017). The transformational leader helps with employee engagement by providing the needed guidance and inspiration toward organizational change (Mozammel & Haan, 2016). In a virtual community in which there is ambiguity, transformational leaders are ideal to provide support for employees to encourage employee morale and engagement (Schuckert et al., 2018). A transformational leader can highlight positive employee traits that can be used to help build a more

cohesive team (Foster, 2021). Virtual teams have increased rapidly in the global context and as such require the right type of transformational leader to help manage the change process (Mozammel & Haan, 2016).

Transactional leadership has positive benefits for team member management (Saeed & Mughal, 2019). Some challenges virtual team leaders face are that team members lack productivity and efficiency in work performances (Lee, 2021). Transactional leadership theory is based on reward systems to motivate employees to perform based on the assumption that team members are not self-motivated (Saeed & Mughal, 2019). Saeed and Mughal found that team members need to be monitored to perform certain tasks. In a virtual environment, team members work remotely and need to be self-motivated. In contrast to transactional theory, transformational leaders motivate employees to work toward the shared vision of the organization, rather than for personal interest.

Change management theory has similar concepts to transformational theory because change management involves theories that organizational leaders have used to help in the strategic planning and advancement of an organization. The field has a focus on important areas, such as the role of leadership in facilitating change and the barriers or resistance to change. According to Prasad and Prasad (2000), resistance to change may be characterized as either formal or informal. Formal resistance refers to abrupt change, whereas informal resistance refers to routine resistance among team members who put up constant barriers to daily routines. Prasad and Prasad suggested that effective change in organizations would involve the pivotal roles of transformational style leaders.

Transformational Leadership Theory

Burns (1978) introduced the concept of transforming leadership. Other researchers explored the framework further, including Bass (1990), who changed *transforming* to *transformational*. The concept of leadership was distinctively classified into two categories—namely, transformational and transactional—based on Burns's (1978) model. Laissez-faire leadership was another model less commonly used. Both Burns and Bass formulated their theory on leadership models, but both agreed the leadership process may be classified into two models. Transformational leadership is defined as a leadership style that promotes teamwork and helps guide team members through various change processes that may occur within the organization while motivating employees (Faupel & Süß, 2019).

According to Lim (2018), virtual leaders fail because of a lack of appropriate leadership style. Lim found that transformational leadership is a far more superior style of leadership conducive for technology-based firms and virtual teams. Aga et al. (2016) shared similar views and postulated that transformational leadership improves employee engagement and empowerment. Mysirlaki and Paraskeva (2020) researched transformational leadership style as it applies to global virtual teams. Mysirlaki and Paraskeva suggested that transformational leadership is important to enhancing employees' productivity and satisfaction in the work environment. Transformative leaders help facilitate sustainable growth structures during rapid global growth and change (Astuty & Udin, 2020). Employees sometimes need the skilled ability of a leader to motivate them toward higher performance and productivity (Deschamps et al., 2016).

Northouse (2016) also indicated that employee turnover occurs because of a lack of employee motivation, and transformational leadership styles applied by virtual leaders may help to achieve more sustainable results by increasing team productivity.

Transformational Leaders and Social Change

Transformational leaders focus on more sustainable means of organizational success that incorporate the social, environmental, economic well-being of the organization (Suifan et al., 2018). The transformational leader may create a culture of change that consequently creates change agents positively affecting the work environment (Foster, 2021). These strategies may also require transformative leadership action to move the organizational culture toward being socially responsible. This may involve implementing decisions to incorporate means and ways of addressing social issues, such as unemployment, environmental pollution, and education.

Virtual teams can help to infuse positive social change through a mentorship program in education by creating forums that teach online learning or promoting a paperless work environment. Team members would have to align themselves with the decisions of positive social change, and the role of the transformative leader would require, for example, more intense collaborations, video conferencing calls that seek not only to speak to team members but allow the team members to pool suggestions and feedback. Transformational leaders can use the advantage of diversity within virtual teams to help make social responsibility a more achievable task. This would also require a model for social innovation (Van der Have & Rubalcaba, 2016). Kuntz et al. (2019)

argued that a transactional style of leadership is more appropriate for virtual

environments because of the dynamic structure and evolving environment.

Transactional Leadership Theory

Transactional leadership is a style of leadership that uses a method of reward for

both team leaders and members to promote productivity (Xu & Wang, 2019).

Transactional leadership also plays an integral part in shaping organizational culture by

providing structure to process management, while supervising employees' behaviors

through punishment or reward systems (Saeed & Mughal, 2019). Virtual teams can be so

widely dispersed that having a structured form of management is essential to maintain

consistency, productivity, and efficiency (Krumm et al., 2016). Transactional leadership

provides a process management system and team guidance because organizations require

a structured system of leaders to facilitate large teams, various departments, and job

designs. Employees who do not understand the job design become disengaged (Sung et

al., 2015). Transactional leadership can formulate a team of supervisors and project

managers to help micromanage groups and lead them toward the organizational goals and

share the responsibility of building organizational culture (Hyde, 2017).

To promote a culture of accountability, a reward or punishment for the

performance of the team member should be considered. According to Xu and Wang

(2019), transactional leadership uses a method of reward for both leaders and team

members to promote productivity. Transactional leadership would help provide a system

of checks and balances to ensure work is done on time and accurately, which would help

eliminate the challenges of employee ambiguity in roles and performances because they would be measurable and accountable (Saeed & Mughal, 2019).

Change Management Theory

Change management theory is an approach that focuses on organizational transition or transformation. The theory involves a transition to new strategies, goals, processes, and technologies. Three elements of the change management process involve helping team members adapt to organizational change and team leader control during the process (Alsharo et al., 2017). Change management theory can help organizations formulate better sustainable goals guided toward improving organizational expenditures and resources, which leads to a state of competitive advantage (Alsharo et al., 2017). Virtual teams compete with other team members of organizations; therefore, the need for change in strategy is inevitable.

Change Management Success

A change management initiative is successful when team members are motivated with a certain level of trust from the leader to offer suggestions and feel a sense of freedom to be innovative and creative within the organization (Trautrims et al., 2016). Innovation and creativity are criteria for successful change management (Castellano et al., 2017). According to Hechanova et al. (2018), team members are more productive when the goals and visions are articulated to them. In addition, team members also perform better under conditions of change if they can provide feedback and are involved with the discussions of the company's new initiatives (Lockwood, 2015).

Change Model Theories

Kotter's eight-step change model theory includes (a) sense of urgency, (b) creating a guiding coalition, (c) developing a vision and strategy, (d) communicating the change vision, (e) empowering broad-based action, (f) generating short-term wins, (g) consolidating gains to produce more change, and (h) anchoring change in the organizational culture. Lewin's change model involves three main steps: (a) unfreezing, (b) changing, and (c) refreezing (Levasseur, 2001). The unfreezing stage involves undoing old ways of thinking and old habits, moving toward engaging in the new habits, followed by the solidifying process.

Future Trends in Change Management

The future directions of change management should address specific areas for further research that would prove beneficial including (a) improvements in communication, (b) research and development of technology, and (c) training and development. Training should begin from the tertiary level of education which all contribute to the sustainable development of firms (Maes & Weldy, 2018). Future trends would involve undoing old ways of thinking.

The success of change management in future trends involves improvement in communication. Organizational leaders will have to construct strategies that will ensure that the vision and goals of any project are properly received and understood by team members. The change management field will also have new perspectives as new research and development of technology evolve. Leaders of firms are constantly searching for innovative ideas and platforms to introduce in organizations to current and potential

virtual team members (e.g., technology that can improve product and service delivery). Technology will change the quality of communication (Jones et al., 2016).

Training from the tertiary level of education is also a strategy to consider moving forward in the change management field (Trautrims et al., 2016). In many cases, organizational leaders are left to introduce change and implement new initiatives without virtual team members the knowledge and the proper foundational training to thrive. Trautrims et al. examined the use and effects of global virtual teams as a tool in the global virtual team logistics and supply chain management classroom to prepare students in a simulation environment for the demands of their future careers in the profession. Trautrims et al. found that students who participated in the exercise developed the management skills necessary for supply chain management in virtual logistics.

Ethical and social change management must also be a major part of the sustainable plan for future directions (Kennett-Hensel & Payne, 2018). Awareness of resistance to change may help leaders to improve their innovative strategies and organizations may potentially gain economic benefits (Prasad & Prasad, 2000). Prasad and Prasad indicated that social change management may help leadership to reduce low employee morale and resistance.

The trend emerging provides sufficient evidence that between the next 3 to 5 years, traditional face-to-face business operations will be replaced by a more skilled, virtual team workforce (Jones et al., 2016). The change management field will be impacted as leaders will seek to create a culture developed to adapt to change. To manage this type of change effectively, organizational leaders may need to employ new strategies

to ensure a sustainable future. Leaders may need to start re-vamping strategies to align to the change management models available but also reach further into cultivating change agents (Lee, 2016). Particular industries or technologies will be affected by the discussion on change management strategies for virtual team success. Leaders in the computer software industry can capitalize on the rise of virtual team operations. Technology including video conferencing and Microsoft applications will facilitate faster and more effective forms of communications for the increase in remote team workers. Computer technology industry leaders can formulate strategic plans to create and design software to fit the needs of team members as well as have trained technicians available to assist in the installation, training, and servicing of technical systems (Jones et al., 2016).

Resistance to Change

Although change management strategies are integral to the success of virtual teams, resistance to change impedes organizational growth and development. Miller (2019) researched employee resistance to disruptive technological change in higher education. Educational employees are not resistant to technology-based change and can move forward and become excited even when frustrated. Educational managers should develop commitment and a project-based focus to reduce the additional expenditure of time and effort, and continued experience and personal development can enable technology use and reduce resistance.

Starnes (2016) researched organizational change, and the influence of trust in leadership, frequency of change, and history of change on virtual faculty resistance to change in higher education. Starnes determined how three dependent variables (trust in

leadership, frequency of change, and history of change) impact a dependent variable (virtual faculty resistance to change). Starnes found that trust in leadership regarding integrity and ability along with gender were significantly associated with resistance to change. Frequency and history of change did not have a significant relationship with resistance to change. Some of the barriers to change that has been noted in virtual team failures are lack of communication, lack of leadership skills, and ethical and social change.

Rationale for Conceptual Framework

The transformational leadership, transactional leadership, and change management theories provided the foundation and framework so the study could be explored with a better understanding. The frameworks defined the requirements for leadership so practical and proven for successful team management is possible. The frameworks also provided an understanding of how virtual team leaders struggle with the challenges of change and virtual team productivity. Team leaders positively influenced team members' performance and the ability to mitigate some of the challenges that cause virtual team failure, when transformational, transactional, and change management theories were applied. Transformational leadership was the chosen framework among the three models because it provided a more sustainable approach to organizational change (Suifan et al., 2018). The transformational model concept occurred when team leaders motivated team members to become more productive while focusing on the vision of the organization (Faupel & Süß, 2019).

Virtual Teams

In this section, I present a closer analysis of virtual teams and their global evolution. Virtual team formation, challenges, and benefits were also addressed. A virtual team is a group of people working together remotely with a common purpose (Han & Beyerlein, 2016). The purpose of the virtual team is to coordinate work assignments and projects for the organization with the use of technology (Krumm et al., 2016). Virtual teams have increased significantly as more organizations have evolved toward the trend of virtual businesses to increase competitive advantage (Alsharo et al., 2017).

Virtual Team Formation

Virtual teams emerged as early as the 1980s where companies formulated teams and regarded the members as self-managing (Simpson, 2017). The concept of self-managing teams began to grow, and by the late 1990s more organizational leaders were capturing the concept of using teams to help with projects that reduced time and provided faster results. Virtual team members share a common vision to achieve the objectives and goals of the virtual team. Virtual team leaders have also emerged with the increasing rate of new virtual teams globally (Alsharo et al., 2017). Team leaders were faced with the challenges of managing virtual teams and have adapted to new strategies that made the transition from physical interaction to virtual environments a more seamless process. To accomplish this, leadership strategies included a clear plan of collaboration with team members as well as a plan to incorporate the benefits of diversity and innovation in virtual team building (Batarseh et al., 2017). Virtual team leaders must also identify the

benefits related to virtual teams which include competitive advantage, knowledge sharing, and reduction in expense (Alsharo et al., 2017; Helmold, 2021).

Virtual Team Benefits

Virtual teams and virtual management are relevant and important topics because virtual teams help to employ a significant number of unemployed workers each year (Hamersly & Land, 2015). Because we live in an era in which technology is the driving factor behind most businesses, more employees may have the opportunity to develop their technical skills because of virtual enterprises. As businesses strive to protect the environment from harmful pollution such as gas emissions, virtual businesses help by reducing the number of daily commutes by team members as workers can work from the comfort of their own homes, which contributes to stronger family structures where mothers and fathers can spend more time in the home while earning a living. Another benefit of virtual teams is the nature to help reduce organizational costs of operations because of operating from remote locations while attracting a diverse culture of skilled and experienced team members (Zuofa & Ochieng, 2017).

Virtual Team Challenges

Virtual team leaders face challenges associated with cultural differences (Helmold, 2021). The lack of employee engagement is also a major challenge for virtual team leaders (Gallego et al., 2021). The difference in time zones also poses challenges for virtual teams. According to Alsharo et al. (2017), communication is among the leading challenges in virtual teams. Virtual team leader strategies can help to mitigate these

challenges (Han & Beyerlein, 2016). The formation of a mitigation plan would be essential to eliminate the challenges faced within the virtual team (Darban, 2021).

Leadership Styles

Liao (2017) defined leadership as a process whereby an individual has a degree of influence over team members and can facilitate the daily operations within the organization. Many leaders face the challenge of leading globally as they lack the hard and soft skills to lead virtual teams. The competencies needed for effective leadership as well as the various types of leadership styles including transformational leadership style, and laissez-faire is outlined in this section. The discussion regarding managers versus leaders in virtual teams was analyzed.

Transformational Leadership Style

The transformational leadership model was identified as the premier model of leadership theories for change management. Kotter (2007) suggested that leaders with a transformational style of leadership were more successful in leading change when combined with transactional processes. Aga et al. (2016) found that transformational leadership is the main style of leadership associated with change management and suggested that the leaders who displayed the characteristics of transformational leadership among virtual teams were more successful. According to Kotter (2007), transformational leadership was more impactful in virtual teams when compared to traditional or face-to-face teams. The transformational leader must lead by example to create a level of trust and influence over team members (Le & Lei, 2018). Martin (2017) found that leaders who provide mentor-like relationships are more likely to be successful.

The leader's positive influence may lead to flexibility and guarantee performance when there is the facilitation of group interaction, and accomplishment of task objectives (Liao, 2017). Kotter (2007) noted that transformational leadership efforts may fail if certain steps are not followed. Wellman and LePine (2017) noted that laissez-faire leadership can be useful in team performances and is characterized by the leader giving subordinates the freedom to learn and explore with limited supervision. Wong and Giessner (2018) suggested that when a follower's expectations do not line up with leader behavior the follower may evaluate the leader as being laissez-faire.

Laissez-Faire Leadership Style

Breevaart and Zacher (2019) noted that laissez-faire leadership is negatively associated with informal leadership behavior, but not for team members who are highly motivated to lead. In the case of change management, the laissez-faire leadership style is not designed to guide team members through the chain process as in the case of transformational leadership. Some organizational leaders use an autocratic form of leadership to which team members are dictated. Any form of change in the organization would have to comply as the leader instructs without any input or suggestions to the changes being implemented (Fiaz et al., 2017).

Managers Versus Leaders

Hechanova et al. (2018) noted that there is a distinct difference between change managers and change leaders. According to Hechanova et al., change managers take on a transactional leadership role where policy and instructions are to facilitate change. However, change leaders are transformational and help to drive change in the

organization through motivation. Hechanova et al. suggested that the attributes of the two roles are different, yet complementary. Nonetheless, the change management field involves leadership being able to influence virtual team members to become change agents and innovative. Hoch and Dulebohn (2017) concluded that structural supports and shared leadership, but not hierarchical leadership, had a positive association with team performance. Virtual team members work in environments that are not traditional but constantly changing. Leaders must have the mindset to help develop, influence, instruct, and motivate team members to help in their success and members would require more than management, including the appropriate leadership style (Darban, 2021).

Reasons for Virtual Team Failure

More organizational leaders employ virtual teams to help provide market solutions for a rapidly growing and changing global environment (Serrat, 2017). Virtual teams fail at high rates (Maduka et al., 2018). Over 20-30 million Americans work remotely at least once a week, and up to 80% of business leaders fail in virtual projects (Hamersly & Land, 2015). Four major factors relating to virtual team failure were lack of communication, trust, leadership competencies, and skill, and lack of strategic planning (Hamersly & Land, 2015).

Lack of Strategy

Many times, organizations fail because they do not have a sustainable strategic plan that predicts rapid growth or have measures to maintain consistency during the organization's transitional phases (Ford et al., 2017). Virtual team leaders must plan and formulate strategic plans. McKinsey suggested six important areas to organizational

strategic planning include structure, skills, style, staff, strategy, and shared values (Cordell & Thompson, 2019). Another issue related to virtual team success is that often leaders have a plan but fail in the implementation of the strategy (Graham & Daniel, 2021). Innovation efforts must move beyond the physical written document of the "know what to do's" but rather move toward a strategy of the "how to do's" (Ford et al., 2017).

Lack of Communication

According to research, lack of communication is a leading cause of virtual team failure (Alsharo et al., 2017). Alsharo et al. found that effective communication is crucial for the success of virtual teams and is regarded as one of the six noted competencies needed for effective virtual leadership. Most leader's discussions are from remote locations, and few face-to-face interactions between the virtual leaders and employees, pose a challenge for leaders to communicate with employees effectively. Virtual team members require consistent communication about the vision and objectives of the organization (Lockwood, 2015). A virtual environment is unlike a traditional face-to-face organization, it requires constant updating and communication of important updates of what the organizational leaders' goals are.

Because of cultural differences, delayed responses, different time zones, and misinterpretation of messages, challenges in communication occur. Leaders have more successful communication with frequent interactions and convergence of information (Hammersly & Land, 2015). Team leaders also allow open collaboration among employees to encourage employee engagement, as open collaboration prohibited the development of negative performance (Swartz et al., 2019).

Lack of communication on the organization's vision may also impede virtual team success (Warrick, 2017). Virtual team members must have a clear vision statement of the objectives of the organization. This requires effective communication relating to the specific job designs and descriptions required by each team player (Haines, 2021). To ensure that team members align themselves with organizational culture, important concepts must also be included in the vision statement. The vision statement would act as a springboard to chart the way for employee behavior (Warrick, 2017). The leaders must ensure that each team member's role is understood and the necessary resources to ensure the work is done. According to the research, employee ambiguity and job complexity can lead to unproductive results and impede the creativity of workers (Sung et al., 2015). Team members with a sound knowledge of job purpose and expectations are more likely to produce better results and adapt to the organizational culture is presented in further studies.

Lack of Trust

Ford et al. (2017) researched trust in virtual teams and suggested that trust is an issue that leads to virtual team failure. The researchers also outlined that in most cases in which team members are not able to meet face-to-face, trust becomes a concern. The results of the research outlined that effective managerial training with the necessary skills to build trust among team members was necessary. Ford et al. suggested that forging trustworthy relationships are important to virtual team management. Ford et al. indicated individual trust and team cohesion share a reciprocal impact on each other, suggesting

that effective coordination in virtual teams can create a positive feedback loop with trust and cohesion, improving project performance.

Ford et al. (2017) presented a single case study that explored strategies for establishing trust within virtual teams. Ford et al. noted that a reason for the failure of virtual teams was the lack of strategy development among leadership within organizations coupled with trust is lacking among team members toward their leaders. The author gathered six participants from the corporate banking industry for the case study. Ford et al. revealed that reliable technology, effective communication, teamwork and participation, and respect for people and culture play all play an integral role in building trust among team members. Schaubroeck and Yu (2017) suggested that frequent contact builds trust among team members and leaders and is crucial to creating quality performance among virtual team members.

Lack of Competencies

Researchers have identified some core competencies fundamental to successful leadership, including (a) communication skills, (b) interpersonal skills, and (c) technological skills (Maduka et al., 2018). Gotsis and Grimani (2016) identified diversity as an important competency. Leaders must therefore be equipped with the necessary competencies, skills, and strategies to lead in this complex environment while formulating policies to gain a competitive advantage and increase business profits (Graham & Daniel, 2021). The first step would be to establish authority by defining the role of the leader. Team members must first understand the leadership style and as such, the leader must set the tone by acting as a personal model to the culture. This may

involve setting a tone of sound ethical behavior and corporate social responsivity (Maduka et al., 2018).

Reasons for Virtual Team Success

In this section, the various reasons for virtual team success were outlined. There has been an increase in research based on strategies for building effective and successful virtual teams (Ford et al., 2017). More organizations are establishing virtual teams and finding new strategies to maintain virtual team success. Researchers have identified five factors that contribute to virtual team success including effective communication, building trust, team engagement, building organizational culture, and innovation (Glikson & Erez, 2020).

Effective Communication

Effective communication is pivotal in the success of virtual teams, while research also confirms that this area is also the most challenging (Lee, 2021). The challenge is two-fold. First, virtual team members have to adapt to a new way of communicating without the physical presence of the leader. Alternatively, leaders have to adapt to new ways of articulating the vision to virtual team members and provide the necessary guidance and leadership without physical presence. Taylor (2018) presented multiple case studies on the strategies that project managers use for strengthening communications within project teams. Taylor suggested that communication planning, management, and ethics were the underlying factors that help to strengthen communication.

Tate et al. (2019) presented research regarding the correlation between virtual communication and employee engagement. The purpose of the research was to examine

if a significant correlation exists between employee engagement and the perceived quality of virtual management communication. Tate et al. indicated that the quantity of time a manager spent communicating with virtual employees and the virtual employees' perceived quality of communication, positively affected employee engagement. Tate et al. also found that managers who communicated more frequently and had a higher perceived quality of communication were more likely to have engaged employees.

Building Trust

Building trust is one way to encourage communication that produces effective results on both ends for virtual team leaders and virtual team members. Iriqat and Khalaf (2018) presented research on building and maintaining trust in virtual teams as a competitive strategy. The purpose of the research 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. Iriqat and Khalaf indicated organizations built on trust are more likely to have a stronger competitive edge because of the productivity and efficiency of team members.

Alsharo et al. (2017) suggested that leadership trust enables employees to share knowledge openly and when leaders effectively communicate the roles of team members the entire team benefits. Similar studies were conducted by Choi and Cho (2019), who presented research on the mechanism of trust affecting collaboration in virtual teams. Some of the components identified in the study were ability, benevolence, integrity, and goal congruence. Choi and Cho indicated that coordination and cooperation enhance knowledge sharing and that trust is critical to determine all aspects of collaboration. Hoch

and Dulebohn (2017) researched global virtual team performance and the effect of coordination effectiveness, trust, and team cohesion. The purpose of the study was to determine the exact role trust and team cohesion play in the relationship between coordination effectiveness and team performance of global virtual teams.

Lockwood (2015) suggested that interdependence in teams creates a level of trust and better performance when virtual leaders can perceive task interdependence as a positive means of building communication and higher output (Lockwood, 2015). Klaic et al. (2020) supported this notion and found that leadership and teamwork could not exist without each other. Carlson et al. (2013) proposed both cohesion and openness will be related to team effectiveness for virtual teams.

Building Organizational Culture

Global organizations are growing rapidly and require the understanding of knowing how to build new corporate cultures in a changing environment. Building a new corporate culture for virtual businesses can be even more challenging for several reasons. Leaders of virtual teams are faced with the challenge of managing multicultural teams who all share different moral ethics, communication skills, work habits, and cultural differences apart from being in different time zones (Liao, 2017). The leader must have a structured plan to help bridge the virtual team into one dynamic team community that shares the general organizational cultures, values, and vision. To ensure that team members align themselves with organizational culture, important concepts must be included in the vision statement. The vision statement would act as a springboard to chart the way for employee behavior.

To build a successful organizational culture, a leader must also understand the role of leadership as well as the dynamics that contribute to healthy work culture. The process begins with knowing the role of the leader, how to engage employees, how to build a cohesive structure, and respond to change within organizations and the global environment (Liang et al., 2017). As virtual teams are highly multi-cultural, it would make sense to start with Kurt Lewin's change model founded in 1947 that involves three steps: unfreezing, changing, and refreezing (Hussain et al., 2018). This may include video conferencing calls to identify where the organization is being globally competitive and determine what strategies are needed for advancement (Large, 2021). The second stage would be training, action toward the new changes. Performance management teams would be deployed to ensure the new behaviors are being maintained. Finally, there would be a process to measure performance.

Organizational culture is what sets the tone for employees to follow in a path toward the success of a company (Liang et al., 2017). Leaders must understand the importance of setting the right culture conducive for employees' best performance to set the wanted tone (Kirkman et al., 2016). For example, the leader may want to incorporate a culture that can make an impact on social change within the community and the organization. As organizations evolve globally, a rising concern for the need to infuse social change into the organizational culture occurs (Stephan et al., 2016). Corporate social responsibility has become a competitive advantage as well as part of organizations' sustainable strategies (Schaubroeck & Yu, 2017). Organizational leaders must also shift

the organization to a culture of learning and molding virtual team members into change

agents that share the same basic values (Lee, 2016).

According to Gotsis and Grimani (2016), to bring about effective change or

change in the culture of the organization, these steps have to happen: (a) construct an

inclusive culture, (b) create change agents, and (c) deploy an effective process

management system. The premise of the theory presented by Gotsis and Grimani was that

team members with transformational leaders who incorporate a diversity management

system are more successful in building a more cohesive organizational culture. The

research also showed that diversity management would promote employee engagement

because it would address the issues of employee detachment and feelings of reluctance

when breaking the glass ceiling for their advancements (Basu, 2016). Kim and Toh

(2019) found that employees who do not feel a part of the corporate culture will

disengage with the organization because of negative stressors. Using a framework that

addresses the issues of a diverse team would help to resolve employee disengagement.

Macdonald et al. (2019) suggested that the essence of leadership is to delegate and

create agents of change. Hyde (2017) suggested that organizations with change agents

from lower power positions that help to run with the vision and influence the

organizational shell can lead to more successful outcomes. Eaidgah et al. (2018)

suggested that performance management is important in the consistency and performance

within organizations. Performance management would be incorporated as a part of a

strategic plan to keep order, reliability, and structure. Virtual teams can become chaotic

because of the various dynamics of language barriers, cultural beliefs, and lack of

physical interaction. The process management would be implemented to provide policy and guidance and help to reduce the ambiguity that can lead to employee disengagement (Pan et al., 2017).

Virtual teams are dynamic and widely diverse, requiring a cultural diversity skillset (Dulebohn & Hoch, 2017) to foster closer teams. Creating an inclusive culture will help to build trust among team members (Alsharo et al., 2017). Virtual teams are comprised of persons who may be professional, but they are usually strangers and would not have a personal relationship with the leaders or fellow team members. A model or framework to be incorporated that can build trust is important. Glikson and Erez (2020) found that building a culture of trust creates a good foundation for leaders to have a healthy organizational culture that fosters learning and collaboration. Alsharo et al. (2017) shared similar theories and suggested that knowledge sharing in virtual teams, promotes trust and more collaborations among workers and produces a more effective workforce.

Ford et al. (2017) explored the best strategies that may improve leadership challenges within a virtual team. Ford et al. found that there were three principal themes that virtual leaders may use to enhance team performances. First, leaders must focus on results-based metrics to measure how best their efforts are positively impacting organizational growth. Second, communicating and collaborating are important to virtual team success. Third, leaders should invest in building the organizational culture into a model designed for growth and success. Kim and Toh (2019) suggested that followers may not adapt to change in a corporate culture if the culture is bureaucratic and

embedded in routine and further indicated that this makes it difficult for the transformational leader to infuse change in the organization. Kim and Toh reported that when e-leaders applied identified strategies, team performance improved, reducing project failure. Aga et al. (2016) showed similar results when strategies were combined, including communication, organizational building, and effect-focused metrics which may reduce project failure.

Virtual Team Engagement

Northouse (2016) indicated that employee engagement is higher when leaders are focused on building global change agents. Research has shown that employee engagement requires a strategic plan when leading virtual teams and that building a corporate culture requires that the team know and understand the vision statement of the organization (Lockwood, 2015). Employee engagement also requires building an effective communication system that builds trust, a collaboration of ideas, and leader-follower dialogue (Fachrunnisa et al., 2018). A communication system will also help to bridge the gap of team engagement, by removing the barriers of ethical differences and cultural diversity (Hoch & Dulebohn, 2017). These strategies can result in successful employee engagement in which notable changes in employees' attitudes toward job performance and a notable change for adaption to organizational culture.

Gelston et al. (2018) conducted quantitative research about virtual leadership within complex organizational environments. The primary purpose of the study is to analyze how virtual managers functioned from the employee's perspective. Gelston et al. conducted a case study among 15 highly educated scientists to determine how they

responded to virtual leadership motivation. Gelston et al. found that highlytrained subjects were self-motivated. Newman et al. (2019) conducted similar research on virtual worker perceptions of retention in the financial industry. Newman et al. found that leadership improvements, such as communication strategies, can positively impact productivity. Newman et al. outlined that keeping employees engaged can help with employee retention.

Team Engagement and Job Satisfaction

Employee engagement involves a combination of attachment to the job, agreeableness, emotional stability, openness to experience, achievement orientation, and self-efficacy (Shuck et al., 2017). Boon and Biron (2016) suggested that leaders may expect better success and company performance by matching employees to the right job fit and when employees have close working relationships with other team members. Laurent and Leicht (2019) presented similar research regarding team member and employer job-fit selection strategies. The researchers intended to determine the best strategies leaders would need when hiring the right fit for cross-function project teams. Laurent and Leicht combined management personnel as well as team members as participants for the study. Lauent and Leicht suggested that personality traits, diversity, skills, and experience were factors of team selection strategies.

Chen (2018) determined the effects of organizational leadership activities in virtual environments. Chen found certain management activities had a positive influence on employee engagement by using intrinsic motivation as a managerial tactic to create a satisfying work environment and a competitive advantage in recruiting, retaining, and

rewarding employees. Baldé et al. (2018) also identified three strategic areas that management can use to positively impact employee engagement, including autonomy, alignment, care for work, and development. Perkins found that when employees are motivated and psychologically balanced, performance outcomes are higher. Garmendia et al. (2020) found satisfied employees are more productive and efficient when management offers choices and rewards for employee behavior. Popli and Rizvi (2017) proposed that management's ability to cultivate an engaged workforce would relate to low attrition, high productivity, and organizational reputation.

Mohite and Kulkarni (2019) studied factors that affect job satisfaction and work outcomes among virtual workers and the research was grounded on the conceptual framework by Bandura's self-efficacy and Maslow's hierarchy of needs. Mohite and Kulkarni's data were derived from participants who were virtual workers and examined their lived experiences. Data techniques included open questionnaires. Mohite and Kulkarni found that primary factors such as trust, respect, a balance between work and personal life, training, and technical support are all factors that support employee satisfaction. Riyanto et al. (2021) shared similar views and indicated that employee motivation is the main factor of employee productivity.

Innovation

The research topic concerning strategies used for virtual team success has become more relevant because the global environment has taken an upward shift toward an increase in fast-changing markets and technologies (Day & Schoemaker, 2016). Innovation correlates with the discussion on virtual team advancement because

technology is the driving force behind the virtual business. As such, organizational leaders must provide a map that bridges the gap between what the organization can offer and how to achieve it using a carefully constructed innovative strategy.

Innovation management in virtual teams presents endless opportunities for organizations to advance toward a place of sustainability (Jones et al., 2016). Virtual team leaders must identify innovative strategies to enhance communication and an effective management system (Metz et al., 2016). Innovation management is a significant part of the sustainability of virtual teams as the industry is supported by information technology. Virtual team leaders must have the capability to recognize the strength and weaknesses of the organizational resources and implement a plan that can bring them to the forefront of the industry such as identified in transformational leadership (Sattayaraksa & Boon-itt, 2016). According to Wei et al. (2018), innovation also meant setting the stage for others to push beyond boundaries.

Innovation management means that virtual team leaders would know how best to deploy the skills and resources of the organization to bring forth profits and increase, while at the same time, motivating a virtual team body of persons who may lack motivation, and feel a sense of isolation to perform, which can affect work productivity (Jones et al., 2016). Virtual team management challenges may also be in the search for suitable team members who can work in isolation and non-traditional working environments. Other challenges in the field of innovation include lack of financial resources, skills, human resources, proper management, and lack of innovation culture within organizations (Thornhill-Miller & Dupont, 2016). Virtual team leaders must also

incorporate innovation strategies they applied to achieve a culture of innovation

(Batarseh et al., 2017). Transformational leaders seek to create innovative cultures by

creating change agents among virtual teams.

Gaps in Innovation

While innovation continues to be a topic of discussion among business leaders the

subject is still filled with gaps and current dilemmas. Among the current issues, some

primary factors were more significant than others. One issue in the field of innovation is

the lack of understanding of what innovation truly is and how to implement it (Day &

Schoemaker, 2016). For organizations, that may understand the meaning and importance

of innovation, other common issues include a lack of management on how to create a

culture of innovation within organizations. According to Bataresh et al., (2017) there are

benefits of diversity and innovation in virtual team building.

Business leaders are faced with challenges in the management of virtual

businesses and virtual teams. One issue is that virtual teams are not the traditional face-

to-face businesses where team members can physically interact with a virtual team.

Leaders must find innovative strategies to keep the business sustainable. Some of the

innovative strategies must include a plan for virtual team communication, change

management strategies, and implementation of new globally competitive products and

services. The virtual team business model must adopt a new framework of innovation to

remain successful in years to come. Virtual team leaders must implement technology-

driven communication to maintain a closer working relationship with virtual team

members.

Christensen et al. (2016) researched virtual business model innovation. Christensen et al. found that business models are designed to remain how they were created. Because many business models are generic and not made for change, they may not always be conducive to a rapidly changing environment whereby creating stagnancy in the innovative efforts for organizations. The business model should be framed for changes based on the strategic direction of the organization, or in a response to the external environment (Day & Schoemaker, 2016).

The theory on the transformative business model is relevant to the sustainable innovation in business compared to the business model innovation (Kavadias et al., 2016). The transformative business model allows flexibility to the business model and is made to be adaptable and responsive to real-time situations in the business environment. Transformative models are designed for unpredictable work environments which applies to the research topic about virtual team success.

Potential for Further Research in Innovation

The research topic, leadership strategies used for virtual team success, has potential for further research that can help to maximize the stakeholders of this industry potential even further. Issues and challenges that may be addressed for further research may include, how to deal with urgent issues in real-time when working with virtual teams. Sometimes, there can be a lapse in time because the virtual teams are not a face-to-face model, but rather technology allows two-way communication and the exchange of data. Technical issues occur that may slow down the progress of learning or communication and provide an opportunity for innovative research to provide answers to

best address these gaps. Further research can help to improve the standard and quality of virtual teams working for remote learning institutions.

The beneficial factors add to social benefits such as the increase in employment and an increase in businesses that may provide scholarships for potential online students. As a global change agent, the future directions of innovation management must be sustainably driven and capable of adapting to changing environments (Metz et al., 2016). The specific areas that should be a focus for further research include ways to improve communication barriers. For organizations to build a sustainable future using virtual teams, new innovative measures must be implemented to help virtual team members deliver quality performance (Jones et al., 2016). Further research regarding ways to use innovation for expansion (Lynch & Jin, 2016) is important in virtual businesses.

Gaps in the Literature

Although the discussion of virtual teams has become more popular in research, the necessary strategies that leaders must use to ensure the success of virtual teams have gaps (Dulebohn, 2015). A lack of knowledge concerning how to identify virtual team leaders who can lead virtual teams successfully and strategies to keep virtual team members engaged exists (Dulebohn, 2015). Issues identified in the literature concerning virtual team failure were lack of communication and trust.

According to Liao (2017), virtual leaders face the challenge of managing globally dispersed multicultural teams that share different moral ethics, communication skills, work habits, and cultural differences apart from being in different time zones. There is a gap in research regarding leadership characteristics and bridging the gap between cultural

diversity in team members. The skills and competencies needed to manage virtual teams differ from traditional organizations with face-to-face interaction with team members. Further research will be needed to determine what leadership processes are more effective to affect virtual teams positively.

Virtual team performances can be linked to the characteristics and behaviors of virtual team leaders. Further studies are needed to determine the effect that leadership models such as transformational, transactional, or change management theories have on the success and development of virtual team members. The study was conducted to address these gaps and explore how leadership strategies were used to improve virtual team outcomes, through various leadership models and behaviors.

Transition

Section 1 included a background of the problem, the problem statement, the purpose statement, nature of the study, research and interview questions, conceptual framework, operational definitions, limitations, assumptions, delimitation, and significance of the study. Section 1 also included a review of the literature analyzing the relationship of the study to previous research and findings. This section included some of the reasons why virtual teams fail including communication, trust, and lack of competencies and skills. The reasons for virtual team success including effective communication, team member trust, virtual team engagement, diversity, and innovation were highlighted in Section 1. The theories discussed were transformational leadership, transactional leadership, and change management theories.

Section 2 includes the purpose statement, the role of the researcher, participants, research method, and design. This section also includes an analysis of the population and sampling. I highlighted ethical research to show how important this component is for the credibility and integrity of the data. Data collection instruments, data collection techniques, data organization techniques, and data analysis are also addressed. This section closes with a transition statement and introduces Section 3. Section 3 includes an analysis and discussion of findings concerning the themes, professional practice and tie the findings to the conceptual framework. The research results are presented analytically, and conclusions are based on the findings. In this section, I also outline the implications for social change and provides suggestions for actions and future research opportunities. Section 3 contains a statement of reflection by the researcher on the DBA journey and commented on any biases that were encountered.

Section 2: The Project

This section includes details related to the research method and design and the rationale and justification for this choice. The topics covered in Section 2 include strategies for accessing participants and eligibility, research methods, research design, population, and sampling. In this section, I address the trustworthiness and the approach to ethical research, data collection instruments, data collection techniques, data organization techniques, data analysis, reliability, and validity. Semistructured interviews with virtual team leaders were conducted to gather data in this study. The details from that data collection and the methods used are analyzed in this section.

Purpose Statement

The purpose of this qualitative single case study was to explore the strategies and skills that virtual team leaders use to prevent and reduce failure rates of virtual teams. The targeted population consisted of five virtual team leaders from an online learning college in the Bahamas, with more than 5 years of experience. The results of this study may have implications for positive social change by allowing successful organizations to give back to communities by helping to decrease unemployment rates by providing jobs for virtual team members. The results of the study provide information about how virtual team leaders can give satisfaction to team members and create a better working environment.

Role of the Researcher

The role of the researcher in the data collection process involved thematizing, designing, interviewing, analyzing, verifying, and reporting (Denzin et al., 2017). The role of the researcher in qualitative research is to collect data from participants regarding their experiences while safeguarding the integrity of the participants. In this study, I also acted as the interviewer and ensured that the ethical measures were communicated to participants. Consistent with qualitative research, the collected data were organized, analyzed, and interpreted to provide a clearer understanding of the experiences expressed by the participants (Ravitch & Carl, 2020).

A researcher must also have a clear understanding of their interpretation of philosophies, beliefs, and perceptions concerning the study (Merriam & Tisdell, 2015). My background experience as a virtual worker for the past 6 years helped to forge a greater interpretation of the study. As the primary researcher for the study, I avoided personal bias and personal perception to prevent interference with the validity of the results. I mitigated bias by refraining from applying personal views and avoided bias by ensuring that the participants reviewed a summary of the data to ensure the information was accurately documented. I used empathetic listening skills to ensure a connection with what participants were relating and to avoid any possible bias because there were further interactions between participants and me in various stages of the study. According to Clark and Vealé (2018), a researcher's role is participatory.

I also mitigated bias and avoided viewing data from a personal perspective as personal bias can influence the study's outcome (Clark & Vealé, 2018). To mitigate

possible bias, the participants were requested to review the data to ensure the summaries were accurate. Methodological triangulation was used to increase the validity of the study (Fusch & Ness, 2015). The data were peer-reviewed by qualified professionals in the industry who assisted in identifying any gaps in the data I may not have identified.

I conducted this qualitative research based on ethical standards and Walden University Institutional Review Board (IRB) guidelines. According to Ellis-Barton (2016), a researcher's role is to manage the research process without bias and to follow ethical guidelines. In qualitative research, ethical considerations include anonymity, confidentiality, and informed consent (Ellis-Barton, 2016). According to *The Belmont Report* (1979), respect for people, beneficence, and justice are ethical values inherent in good research. Considering that the participants were leaders in their organization, and to gain credible and accurate information from the participants, the importance of ethical standards was communicated to help gain the trust and engagement of the participants. Walden's IRB guidelines were followed accordingly. I had an established working relationship with the participants to build trust through initial communication via emails and telephone calls.

Patton (2015) described a researcher's interview protocol as an instrument of inquiry. The interview protocol is also a tool that helps mitigate the challenges of bias in qualitative research (Benia et al., 2015). The interview protocol in this qualitative case study helped to provide triangulation and consistency to support the validity and reliability of the study. The interviews were structured with open-ended questions designed for participants to provide more expansive responses. The interviews were also

designed to allow for follow-up questions to help support member checking. According to Patton (2015), an interview protocol supports consistency in the data collection process.

Participants

The participants in this study consisted of five virtual team leaders from an online learning college in the Bahamas, with more than 5 years of experience each. The eligibility criteria for participants included the level of the participant's position in the organization, the length of time worked in the organization, and the role of the participant in the organization. Participants were managers with a minimum of 5 years' experience. The participants were in various locations and selection criteria were also based on those who had functioned in their role for a minimum of 1 year and had served in the capacity of a virtual leader for at least 5 years in the organization. Persons with virtual leadership roles of (a) president, (b) project manager, (c) project trainer, (d) technical support leader, and (e) general manager (see Figure 1) were selected during the participant selection process. According to Yin (2014), to ensure participant validity, there must be a demonstration of knowledge and experience by participants to help support interview validity. The virtual organization selected was a college located in the central region of the Bahamas that operated both face-to-face and virtually, and the participants worked from various locations.

The strategies I used for gaining access to participants were through a direct approach by gaining permission from the president of the institution to interview the virtual team members. The contact information for the organization was listed on the

institution's website. Permission was sought by emailing the president (see Appendix B) of the institution and explaining the intent and purpose of the research with follow-up emails and telephone conversations to gain contact information of designated participants relevant for the study. An email was sent to potential participants, introducing myself, explaining the purpose of the study, and asking if they would like to participate (see Appendix A). Once access was gained, the informed consent form was used to help establish a relationship with participants and begin discussing details of the interview protocol. See Figure 1 for a description of the selected virtual team leader participants.

Figure 1

Virtual Team Leader Chart
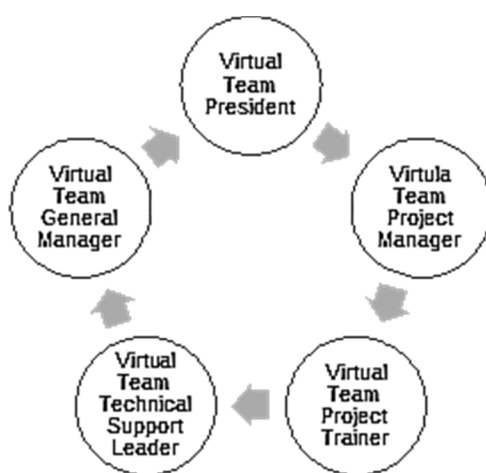
Research Method and Design

In this qualitative research study, a single study case study was used to explore the strategies virtual leaders use to prevent and reduce virtual team failure. Single case studies are based on specialty units and are becoming increasingly popular (Hyett et al.,

2014). Thomas (2011) found that case studies are an analysis of various systems studied using several different methods.

Research Method

A qualitative research method was more appropriate than a quantitative study or mixed method. Researchers using qualitative research can ask open-ended questions when conducting interviews. According to Marshall and Rossman (2016), the purpose of a qualitative study is to examine how individuals perform in natural settings. Qualitative methodology is used by researchers who seek to explore a phenomenon (Yin, 2014). Leadership behavior was explored for a better understanding of the strategies to reduce and prevent virtual team failure. One reason for selecting a qualitative method was that it allows for a deductive approach of reasoning (Hyde, 2017) as well as the opportunity to hear the personal and professional experiences from virtual team leaders who richly contribute to the study by answering the research questions posed.

Researchers use quantitative research to explain a phenomenon and test hypotheses (Saunders et al., 2015). In this study, I did not test a hypothesis or seek to explain a phenomenon. The quantitative method was not used for this study. A mixed-method approach was not selected because mixed methods include both qualitative and quantitative (Johnson, 2015). This study was based on the qualitative method as it enabled me to conclude the lived experiences of the participants. The mixed method was not appropriate because it includes a quantitative component. A closed-ended questionnaire is more appropriate for quantitative research methods. This research did not

involve testing hypotheses that relate to quantitative studies (Marshall & Rossman, 2016).

Research Design

According to Yin (2014), a case study is best when a researcher wants to study a group of people. In this case, leaders were the group of people examined. A single case study allowed for a more in-depth review of one organization and was more appropriate for this study. Saunders et al. (2015) suggested that a case study is appropriate when researchers cannot influence the behavior of participants. Ethnography was considered, but not selected for this study. Researchers use ethnography to seek to understand the culture of an organization (Lewis, 2015). The data collection methods used in this research involved interviews with the leaders and document review; the focus was not the culture of the organization.

Saturation may not occur in the same way for every study but may be achieved using various methods. For example, a qualitative single case study researcher may achieve data saturation by using the interview process. A semistructured, open-ended interview is an effective way to attain more extensive data than survey instruments (Yin, 2014). Semistructured, open-ended interviews, along with company documents, were used to achieve data saturation. The data collection process continued until the same themes were repeated and no new information was introduced. According to Fusch and Ness (2015), interviews are one method a study's results can reach data saturation. The interview questions were structured to ask participants the same questions to ensure data saturation occurred.

Population and Sampling

Defining the Population

The chosen population for this research were leaders of virtual teams. The sample included members within an organization located in the central region of the Bahamas. In this single case study, purposeful sampling was used for recruiting potential participants for this study. Nine people were contacted before arriving at the final sample of five participants who met the criteria. The sample consisted of five virtual team leaders from an online learning college in the Bahamas, with more than 5 years of experience. The participants were in various locations and the criteria for participant selection was based on who had functioned in their role for a minimum of 1 year and served in the capacity of a virtual leader for at least 5 years in the organization. Interviews were conducted virtually using the Zoom platform. The participants had the freedom to select a place of their choice to participate in the interview. All participants chose to interview in the privacy of their homes.

Sampling

According to Patton (2002), purposeful sampling is a process of identifying and selecting potential samples when there are limited resources. Purposeful sampling is an effective method of targeting a particular sample size (Yin, 2014). Purposeful convenience sampling refers to the availability of participants during the right opportunity (Bryman, 2015). Other strategies may be used to recruit potential participants, including snowballing. Bryman referred to snowballing as the strategy used to recruit more participants through networking. For this single case study, the purposeful

sampling method was adequate to produce the targeted number of participants. Snowball

sampling was not a fit for this research study because snowballing involves participants

recruiting other participants in the study in cases where the recruiting of participants may

be challenging. The participant selection for this study followed certain eligibility criteria

to support the validity of the subject. Participants were selected by me as the researcher,

so a snowball sample would not have been appropriate.

Data Saturation and Sampling

The participant sample size used was five virtual team leaders; this selected

number has the best opportunity to reach data saturation. According to Fusch and Ness

(2015), smaller studies achieve data saturation more quickly than larger studies. In

qualitative studies, smaller sample sizes with rich data are reflective of quality data and

are more effective than larger sample sizes without quality content (Fusch & Ness, 2015).

<p align="center">**Ethical Research**</p>

Ethical research is a primary responsibility of every researcher and a process that

helps to safeguard the participants involved in the research (Yip et al., 2016). Ethical

research practices may be facilitated using a written agreement between the researcher

and the participants, with clear stipulations of what is morally acceptable during the

research process by the parties involved and according to the principles of *The Belmont

Report* (Miracle, 2016). Yip et al. identified components that constitute standard ethical

practices, including informed consent and confidentiality.

Receiving consent was a step-by-step process. First, I obtained approval from

Walden University's IRB with the approval number 01-12-22-0983930 before

conducting the interview process. Once the approval was received, participants were provided with an informed consent form via email followed by a participant's response stating "I consent" via email. Consent means that the participants were informed and had sufficient information to make a conformed consent in the decision to participate (Baines et al., 2013). The procedures for withdrawing were explained at the beginning of the interview. Participants were advised that a decision to withdraw at any time would be respected even if the participant decided to join the study initially. Participants may have submitted an email to the researcher stating the decision to withdraw or inform the researcher during the interview. None of the participants withdrew from the interview.

An incentive was offered to help encourage the full cooperation of participants which was a copy of the recommended actions to help improve strategies in a virtual team to avoid potential conflict of interests (Nosek et al., 2016). The participants were also ensured that details were not ambiguous, but rather, clear, and concise for participants to grasp and agree upon. The participants were provided with the opportunity to ask questions and were aware of all that the research entailed. The data was stored and both the electronic and hard copies will be maintained for 5 years after which the data will be destroyed. Hard copy documents will be destroyed by shredding and electronic files will be erased and deleted to protect the individuals and the organization's confidentiality.

Researchers must maintain the confidentiality of the participants and the data collected from the research (Annink, 2017). Coding helps to ensure confidentiality and research participants' privacy (Petrova et al., 2014). The names of the participants in this

study were protected by using pseudonyms to protect the identity of individuals. The pseudonyms representing the five virtual team leaders for this study were L1, L2, L3, L4, and L5.

Data Collection Instruments

I was the primary instrument for this single case study. The researcher is regarded as the primary data collection instrument in qualitative research (Fusch & Ness, 2015; Marshall & Rossman, 2016). Two data collection methods were used in this study. First, semistructured interviews with open-ended questions were conducted with the participant's response recorded. The semistructured interview comprised of seven open-ended questions (see Appendix C) which addressed the overarching research question. A digital method of transcribing was used to transcribe the participant's response to the questions. Second, I used company archival documents such as the organization's strategic development plan, performance appraisals of virtual team members, as well as performance indicators. The data from participants along with the documents forged a better interpretation of past results and the relationship compared to the current data was systematically combined. According to Cardno (2018), document analysis is a qualitative research method.

The interview protocol (see Appendix C) was used to support the ethical process. Software to assist with the transcribing process of the interview included Nvivo 12 transcribing software. According to Fusch and Ness (2015), follow-up questions help to ensure data saturation. Follow-up questions along with the interview protocol to ensure that the responses from the participants are exhausted were used.

Methodological triangulation and member checking to ensure validity and reliability of the data were used in this study (Houghton et al., 2017). Member checking by making provisions for participants to review, verify, and confirm the accuracy of a summary of the data interpretation was achieved, as suggested by Harvey (2015). Member checking was conducted by a follow-up interview. The participants received an email requesting a follow-up interview for reviewing the interpretation of the data collected during the interview process. The data collected during the interview were summarized for the participants to review.

Data Collection Technique

For this case study, the data were collected by conducting an interview protocol to gain the knowledge needed to explore the research question. Other techniques included a recording of the interview, member checking, and document review of the organization's strategic plan which was found on the company's website. Data collection is a process of gathering information (Yin, 2014). Various data collection techniques may be used for effective research; the researcher had a responsibility to ensure that the data collection techniques were valid and credible by using multiple sources (Yin, 2014). The company's strategic plan outlined the main goals and objectives of the organization for the next 3 years. There was a description of the key performance indicators and the desired outcomes and expectations of the organization. The strategic plan also outlined the company's core values. The objective of data analysis is to increase the understanding of the research question by categorizing data to produce evidence-based findings (Yin, 2014). The information obtained from the strategic plan applies to the data analysis in

that it helped to provide a better understanding of the research question: "What strategies and skills do virtual team leaders use to prevent virtual team failure?"

An interview protocol was used to answer the research question: What strategies and skills do virtual team leaders use to prevent and reduce virtual team failure? (see Appendix C). To ensure a smooth data collection process, a mutually agreed date and time with participants to conduct the interview was arranged. Before the interview process, documents were reviewed including signed consent forms received via email and a copy of the organization's strategic plan which was accessed from the company's website. Other documents that were reviewed included performance appraisal and performance indicator documents.

I started the process by contacting the president of the organization by email (see Appendix B) and requesting permission to interview participants from the organization. Based on that permission, I received a list of names containing nine possible candidates for the study. Participant criteria were managers with a minimum of 5 years' experience and based on whom had functioned in their role for a minimum of 1 year and had served in the capacity of a virtual leader for at least 5 years in the organization. Three of the possible candidates on the list confirmed that they had not served in a virtual environment and one confirmed that they were still in leadership training. Based on the specified criteria, the remaining five participants all met the criteria for the study and were therefore selected. An email was sent to five participants within the organization (see Appendix A). The participants received the consent form via email and submitted the signed consent form via email one week before the scheduled virtual interview. The

interview process was conducted virtually to avoid any physical contact because of the global pandemic.

The data collection process consisted of five interviews. Each interview was recorded using the recording feature on the Zoom platform. Zoom was the selected choice over Skype because Zoom has a recording feature that alerts members that the meeting is being recorded. The interviews were conducted over 2 weeks. An incentive was offered to help encourage the full cooperation of participants which was a copy of the recommended actions to help improve strategies in virtual teams to avoid any potential conflict of interests.

Two types of data collection techniques, interviews, and document review, were used. The document review was a copy of the organization's strategic plan which was accessed via the company's website. The strategic plan was a useful resource as it outlined the leaders' goals and objectives and the desired outcomes expected by team members. Performance appraisal and performance indicator documents were also reviewed. Zoom recordings were used for the interviews so that the data could be transferred electronically that was collected during the interview process and to further interpret the information gathered during the process. Researchers have used Zoom as a useful tool to store data and gather information while practicing social distancing and to reduce the spread of COVID-19 (Santhosh et al., 2021). According to Rosenthal (2016), it is helpful for researchers to apply information technology in qualitative research for data storage. The advantage of using Zoom as a recording device during an interview was that information was captured faster and more efficiently while including audio and video

(Szentesi et al., 2021. The Zoom recording feature was also used as a point of reference for information gathered from participants. The advantage of using this technique is that sessions can be automatically recorded and timed as well as participants' focus can be managed, and nonverbal cues may be more easily observed. The use of Google requires a Wi-Fi connection and disruptions may occur. During the research process, there were no disruptions. The internet connection was stable with each interview process. The interview questions were asked to each participant and each one answered consistently. The participants were informed that the interview would be recorded and they all agreed. After the final interview, the recordings were accessed and played back and the audio was clear.

Third, phone calls were used to conduct the interviews for member checking to ensure what was articulated during the initial meetings was accurate and transcribed, and interpreted correctly. During the phone calls, each participant was thanked once again for participating in the study. The participants were then asked to confirm if they had all received the email containing the summary of the transcribed notes from the audio recordings from the interview and to verify that the information was accurate. Each participant confirmed by phone that the information was accurate. One of the main advantages of phone calls was that the process was quick and precise and did not require the use of a Wi-Fi connection and physical contact.

After IRB approval, a pilot study was not conducted. A pilot study, though helpful in examining the effectiveness of research methods before the actual study, is most useful for a larger scope of study such as in quantitative research (Doody & Doody, 2015). It

may sometimes be used to develop hypotheses (Bäckryd et al., 2015). There was no testing for hypotheses in my research study. Researchers also use pilot studies for determining the feasibility and any adverse events that may occur before the study and in some cases the pilot study may help to improve and develop the research questions (Yin, 2014). My research questions were carefully examined by my committee members and based on the feedback from their review found that the interview questions adequately addressed the overarching research question.

Member checking was conducted after the final audio recording of the interviews. The process began by reviewing and transcribing the recordings and then contacting the participants to review an interpretation of the audio recordings to check for accuracy. Member checking furthered improved the reliability and credibility of the research. Participants had the opportunity to review the interpretation of the data from the interview to confirm accuracy.

Triangulation was used to integrate multiple sources in the research study such as member checking, semistructured interviews, and document review. Triangulation was useful in establishing validity and reliability in the study (Yin, 2014). Participants were asked to provide any documents relevant to their comments and there was also a search conducted on the organization's website to identify other relevant documents. The types of documents that were searched for on the organization's website included the organization's stakeholder survey and strategic plan, and the organization's monthly report updates to review virtual team performances.

Data Organization Technique

Properly organized data ensures an effective system of tracking and helps to improve a researcher's ability to retrieve and analyze data (Basurto & Speer, 2012). The information was clear and accurately transcribed using NVivo 12 software. Each participant was properly labeled and organized by letters of reference, including L1, L2, L3, L4, and L5. I saved the information electronically via MS Word documents after being transcribed and then imported into NVivo for qualitative analysis. Microsoft is an effective tool for qualitative data storage (Wijayanto et al., 2021). The electronic and hard copies of the data were stored and are being maintained for 5 years before being destroyed. Hard copy documents were destroyed by shredding and electronic files were erased and deleted.

Data Analysis

Data saturation, in qualitative studies, ensures the validity of the study and it also indicates that no new information, themes, or coding are obtained (Fusch & Ness, 2015). Data saturation is achieved when the information obtained can be replicated (O'Reilly & Parker, 2012; Saunders et al., 2017). The sample size was five participants. The adequate sample size for qualitative study may range from 5 to 25 participants (Saunders et al., 2015). Green and Thorogood (2018) indicated that little new information is generated after interviewing 20 people. Participants were selected who have been in their role for a minimum of 1 year and have also served in the capacity of a virtual leader for at least 5 years in the organization.

Along with data saturation, a qualitative case study should also involve methodological triangulation to help demonstrate the validity of the study as data triangulation ensures data saturation (Keutel et al., 2014). In qualitative research, data triangulation is the process of using multiple methods of data sources to develop an understanding of phenomena (Fusch et al., 2018). Using multiple methods is an effective measure for ensuring increased validity and confirming the findings of the study (Bekhet & Zauszniewski, 2012). Organization documents were also reviewed to ensure methodological triangulation.

According to Yin (2014), data analysis is a systematic approach to aligning the research question, data collection instruments, and data analysis techniques. The objective of data analysis is to increase the understanding of the research question by categorizing data to produce evidence-based findings (Yin, 2014). Data analysis also involves document review which comprises systematically collecting data such as documentation followed by analyzing, interpreting, and organizing the data. The sequence of data analysis for this study included interviewing, transcribing, followed by analysis. The Van Kamm method of data analysis was used for this research to explore the research question on what strategies leaders use for virtual team success. The Van Kamm method is a data analysis plan that was developed by Moustakas (1994) and was designed to provide qualitative researchers with an understanding of participants' lived experiences without any alterations. The method included seven steps (a) listing and grouping, (b) reduction and elimination, (c) clustering and thematizing, (d) validation, (e)

individual textual description, (f) individual structural description, and (g) textural-structural description (Moustakas, 1994).

Methodological triangulation is commonly used in case studies to enhance validity and the interpretation of conclusions (Bekhet & Zauszniewski, 2012). Methodological triangulation involves using more than one method to gather data, such as interviews, observations, questionnaires, and documents (Denzin, 2012). Jick (1979) posited that methodological triangulation refers to obtaining multiple types of data in research and using comparisons of the data to help validate conclusions. The data collection was conducted solely by the researcher. All ethical considerations were in place to protect the information gathered from the participants and to protect the confidentiality of organizational documents. The Van Kamm method of data analysis was applied to help me establish common themes (Moustakas, 1994).

According to Moustakas (1994), there are seven steps in analyzing qualitative data, including (a) listing relevant participant information, (b) reducing and eliminating data to determine invariant elements, (c) grouping and thematizing the invariant elements, (d) checking themes against the data, (e) creating individual textual descriptions, (f) creating individual structural descriptions, and (g) creating composite structural-textural descriptions. This list applies to my research in that once the interview process was completed, the Van Kaam method was used to help identify common themes by using the transcribed audio recordings. Qualitative analysis software was used to assist with the analysis of unstructured text or audio which was gathered from the interview process.

NVivo 12 was the qualitative data management software selected. I used the software to analyze, organize, and code the research data. The data analysis process was conducted according to the steps listed in the Van Kaam method. The transcriptions were first analyzed individually and coded with each participant's name using the NVivo software and then analyzed to identify invariant elements. The invariant elements were highlighted and noted as keywords or phrases that were constant or consistent throughout the interview and among participants. The next step involved grouping those keywords to form themes and then applying those themes individually to each participant to determine the number of responses from each participant. Three themes emerged from the data analysis that was used in the study's findings.

The NVivo software was selected because it assisted to form themes and automatic transcription whereby allowing the researcher to provide consistency and transparency with the data (Sotiriadou et al., 2014). Compared to other software such as Atlas.ti, automatic transcription, and file sharing were not available. The qualitative data analysis software also enabled more flexible and valid qualitative research (Maher et al., 2018).

Member checking was applied to ensure that the participants' interview transcripts were interpreted accurately (Harvey, 2015). Member checking was achieved by first identifying themes based on reviewing the data, then comparing it to the findings to identify similarities and differences, and then sharing a summary of the findings with the participants. The transcriptions were imported into the NVivo software and reviewed to identify common themes followed by coding the themes into the NVivo software. The

strategic plan document, performance appraisal documents and performance indicators were used to provide additional supporting evidence for the themes. The leader uses a carefully constructed strategic plan to formulate the long- and short-term goals of the organization. Without a proper model for strategic planning, leaders won't be equipped with the necessary blueprint to lead virtual team members effectively (Kazmi et al., 2016). After identifying themes, I compared those with the main findings from my literature review and Bass' (1990) transformational leadership model to identify where my findings support the existing literature and where they may have provided different results than the existing literature.

Reliability and Validity

Reliability and validity are discussed in this section and the methods for assuring that the results of the study have criteria such as credibility, transferability, dependability, and confirmability. Such criteria helped to judge the soundness of the qualitative judging the soundness of qualitative research (Lincoln & Guba, 1986). Reliability refers to the researcher's ability to replicate or to produce consistent results of the study (Marshall & Rossman, 2016). Validity refers to the consistency and trustworthiness of the study using the appropriate tools, processes, and data to answer the research question (Marshall & Rossman, 2016). Lincoln and Guba demonstrated how reliability and validity were replaced with the concept of "trustworthiness." I used various qualitative methods to help establish reliability and validity such as member checking and methodological triangulation.

Reliability

Qualitative research must be transparent and credible and should avoid researcher bias (Marshall & Rossman, 2016). Noble and Smith (2015) suggested that qualitative research does not display a certain level of rigor and transparency. Research studies must exhibit credibility and provide reliable information to exhibit dependability (Elo et al., 2014). In quantitative research, reliability refers to replicating a process and obtaining similar results (Kihn & Ihantola, 2015). Reliability addresses the concept of dependability and is based on the concept of consistency (Leung, 2015). Dependability was demonstrated through the use of methodological triangulation and data saturation (Simon & Goes, 2018). According to Marshall and Rossman (2016), dependability supports the consistency and stability of the findings over a period. The interview protocol was designed for consistency in the data collection and included a scheduled follow-up with participants to review the information obtained from the audio recordings and as a form of member checking. Methodological triangulation and member checking helped to ensure the credibility and accuracy of the data (Houghton et al., 2017). Methodological triangulation refers to obtaining multiple types of data in a study to compare and validate the conclusions and recommendations (Jick, 1979). Methodological triangulation was used to improve the validity of the study. During the research process, a researcher must be concerned with rigor, and not only apply the criteria of credibility, transferability, dependability, and confirmability as mentioned (Cypress, 2017).

Validity

Validity can be measured in various ways or by verifying if the objectives were achieved by the researcher (Denzin, 2012). Data saturation was established in research through methodological triangulation, by using various methods such as the Van Kamm method to collect data from multiple sources (Denzin, 2012). Validity also ensures that the findings of the research address three components including credibility, transferability, and confirmability.

Credibility

Member checking provided the opportunity for the research to be validated by having the participants review a summary of the interview to confirm and check that the information gathered is accurate (Cho & Trent, 2006). The participants were given a summary of the transcribed notes from the audio recordings from the interview to verify for accuracy by email. Once the interviews were completed, member checking was conducted to ensure that the information was accurately interpreted. Member checking was conducted by contacting the participants from the interview by phone. All of the participants then confirmed that the responses were accurately interpreted.

Transferability

Kihn and Ihantola (2015) described transferability as the degree to which the study may be generalized or transferred to other contexts or settings. The results of the study provided clear and comprehensible evidence that can be easily transferred or applied to other settings (FitzPatrick, 2019). Transferability was established by clearly describing the context of the research and ensuring that the assumptions were clearly

stated. Researchers focus on the results of the study when they consider transferability and how the context may apply in different settings or apply to a broad scope of persons (FitzPatrick, 2019). This research might be applied in different settings through thick descriptions by explaining the specific processes that were used in the research study. For example, detailed information related to the results of the study as well as the data analysis process, interview process, participants' selection criteria, and the interview protocol were provided which may enable other researchers to grasp a better understanding of the results of the research. According to Kornuta and Germaine (2019), a detailed description of the research process and the results of the study will help other researchers to better understand the basis of a research study and provide researchers with information that can be used in other contexts. For transferability to be established, the results of a study must be generalizable (Hadi & José Closs, 2015). The population sample selected in this study was generalizable, consisting of leaders within an online learning community.

Confirmability

Confirmability refers to when the research findings can be confirmed or corroborated by others and when the researchers bring a unique element to the study (Fusch & Ness, 2015). Once member checking was completed by allowing a summary of the draft to be reviewed by the participants, confirmability of the research was established by using methodological triangulation. The document was reviewed to determine and identify themes or codes within the data. The interview protocol and follow-up questions were used to ensure data saturation (Fusch & Ness, 2015). Data saturation was achieved

when there is no new or significant data that can be added to the research and determined

when there are no emerging themes (Fusch & Ness, 2015). According to Bekhet and

Zauszniewski (2012), using more than one type of data helps to increase validity,

conformability, and a more comprehensive understanding of the research findings.

Transition and Summary

A qualitative single case study was selected to explore the strategies and skills

that virtual team leaders use to prevent and reduce virtual team failure. The sample

consisted of five virtual team leaders from an online learning college in the Bahamas,

with more than 5 years of experience. The participants were in various locations and

selection criteria were based on those who have functioned in their role for a minimum of

1 year and have also served in the capacity of a virtual leader for at least 5 years in the

organization. Multiple data collection sources were used to ensure that data are

triangulated and saturated.

Ethical practices in the research were facilitated using a consent form between the

researcher and the participants. The collected data will remain in a locked container for 5

years, after which the contents will be destroyed as a protective measure of

confidentiality to all participants involved. This study included the use of methodological

triangulation, purposeful sampling, transcript review, and member checking, to establish

and demonstrate data saturation, credibility, and accuracy.

In Section 3, a scholarly discussion of how the study applies to professional

practice and implications for positive social change is included. The study findings also

answered the over-arching research question: What strategies and skills do virtual team

leaders use to prevent and reduce virtual team failure? Section 3 also includes a summary

and conclusion along with recommendations for future research and my reflections

during the research study journey.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The objective of this qualitative single case study was to explore the strategies and skills that virtual team leaders use to prevent and reduce virtual team failure. The data were collected from interviews with five virtual team leaders from an online learning college in the Bahamas, with more than 5 years of experience each. The interview protocol, interview recording, member checking, and methodological triangulation allowed for data reliability and validity. The van Kamm method of data analysis was used, and three main themes emerged relating to virtual team failure: (a) create a model for communication and collaboration, (b) improve on leadership competencies and skills, and (c) create a model for strategic planning for virtual environments. The research study was grounded in Bass's (1990) transformational leadership conceptual framework.

Presentation of the Findings

The research question for this study was: What strategies do leaders use for virtual team success? In this study, I collected data through participant interviews, document review, and member checking. The interviews included seven interview questions asked of five virtual leaders from a college in the Bahamas. Each participant was allotted a separate session to ensure confidentiality and privacy during the interview. Data were also gathered from the institution's public documents found on the website. The interview questions were accompanied by member checking. Participants were allowed to review a summary of the document for accuracy. The names of the participants in this study were kept confidential by using pseudonyms to protect their

identities: L1, L2, L3, L4, and L5. NVivo 12 was used to help in analyzing, organizing, and coding the research data. This software is useful in forming themes and providing consistency and transparency with the data (Sotiriadou et al., 2014).

Theme 1: Improvement of Leadership Skills

The first theme was focused on the improvement of leadership skills. The participants stated that improvement in leadership competencies and skills is significant to virtual team success. Maduka et al. (2018) suggested that virtual teams are more productive when virtual leaders possess the necessary competencies, skills, and capabilities to lead virtually. According to Alsharo et al. (2017), virtual team leaders need to be equipped with the necessary skills to manage virtual teams. Galli (2021) shared similar views, indicating that communication and lack of leadership skills are some of the reasons virtual teams fail. The key competencies referenced by the participants were (a) communication, (b) interpersonal skills, (c) trust and confidence, and (d) technology (see Table 2).

Table 2

Participant Responses for Improvement on Leadership Competencies and Skills

Theme: Leadership skills	Frequency in responses (53)	Percentage
Communication	31	100%
Interpersonal skills	14	80%
Trust and confidence	4	60%
Technological	4	60%

The first leadership competency was communication. All the participants (100%) agreed that communication is the most effective competency and leadership strategy

needed for effective teams, followed by interpersonal skills. According to Alsharo et al. (2017), lack of communication is one of the leading causes of virtual team failure. Lee (2021) found that effective communication is pivotal in the success of virtual teams, while research also confirms that this area is most challenging. L2 stated that effective communication "improves team motivation," which may involve ensuring that the organizational goal and vision are carefully articulated. L5 also stated that communication involves leaders ensuring that the goals and objectives are carefully articulated and consistent. According to Haines (2021), virtual team members must have a clear vision statement of the objectives of the organization. L3 stated that effective communication may include regular collaborations and feedback from virtual team members to determine their needs and increase the level of team engagement. This ties in with research conducted by Tate et al. (2019), who also found that managers who communicated more frequently and had a higher perceived quality of communication, were more likely to have engaged employees. Schaubroeck and Yu (2017) also suggested that frequent contact builds trust among team members and leaders and is crucial to creating quality performance among virtual team members.

The second leadership competency was interpersonal skills. The participants all agreed that interpersonal skills were a viable leadership skill. According to Hamersly and Land (2015), leaders might have more successful communication with frequent interactions and convergence of information. L4 indicated that team members become more responsive when they see empathy and concern displayed. L2 agreed and stated that an example is asking team members how they are doing, allowing members to contribute

ideas for the development and growth of the business, and using members' ideas to help empower the team. This display of leadership competency aligns with the transformational leadership theory framework and research conducted by Faupel and Süß (2019). The authors defined transformational leadership as a leadership style that promotes teamwork and helps guide team members through various change processes within the organization while motivating and empowering employees. According to Mozammel and Haan (2016), a transformational leader possesses interpersonal skills and helps with employee engagement by providing the needed guidance and inspiration toward organizational change.

The third leadership competency was trust and confidence. Ford et al. (2017) suggested that forging trustworthy relationships is important to virtual team management. L3 stated that trust is a major factor in team productivity. Most of the participants indicated the importance for them to gain the confidence and trust of their team members to be more productive and become more fully engaged. Some of the participants (60%) agreed that leadership confidence and trust contribute to team effectiveness. The concept of trust aligns with the literature in that leadership trust enables employees to share knowledge openly and when leaders effectively communicate the roles of team members the entire team benefits (Alsharo et al., 2017). Iriqat and Khalaf (2018) shared similar views stating that building trust is one way to encourage communication that produces effective results on both ends for virtual team leaders and virtual team members.

The fourth leadership competency was technological skills. Most of the participants agreed that technological skills were one component of leadership skills. L5

stated that one of the challenges in leading virtual teams is change resistance and technical challenges. Also, a leader with technological skills might be better positioned to help team members when challenges occur. L4 indicated that when leaders equip team members with the right technical options, team members become more productive and are better positioned to communicate more effectively. According to Jones et al. (2016), technology will change the quality of communication.

The improvement on leadership skill theme aligns with the literature on transformational leadership because virtual leaders fail due to a lack of appropriate leadership style (Lim, 2018). Some of the participants conveyed that having the right skill set to lead and instruct virtual team members was a key factor in achieving team performance and employee motivation and engagement. Lim posited that transformational leadership is a far more superior style of leadership conducive for technology-based firms and virtual teams. According to Gotsis and Grimani (2016), team members with transformational leaders who incorporate a diversity management system are more successful in building a more cohesive organizational culture.

Transformational leadership enables leaders to be more driven toward motivating team members to adapt to new and changing environments. According to Kotter (2017), leaders with transformational leadership skill sets were more successful in leading change within organizations. Vroom (1964) found that team members' performance increase when leaders use motivation strategies to keep them engaged, including using effective communication strategies.

Theme 2: Create a Model for Communication and Collaboration

The second theme was focused on creating a model for communication and collaboration. Communication and collaboration were the most frequently mentioned responses from participants as effective strategies for virtual team success. All the participants (100%) confirmed that lack of proper communication results in team ineffectiveness. The performance indicators found within the company documents suggest that team engagement is a major factor in determining leadership success. The participants also agreed that collaborations in the form of group input helps to increase employee engagement and increase employee motivation. The primary types of communication and collaboration identified by the participants were (a) video conferencing, (b) emails, and (c) company cellphones (see Table 3).

Table 3

Participant's Response for Creating a Model for Communication and Collaboration

Theme: Communication and collaboration	Frequency in responses (23)	Percentage
Video conferencing	14	100%
Emails	4	80%
Company cellphone	5	80%

The first type of communication and collaboration identified by participants was video conferencing. All the participants agreed that collaborations were more effective during video conferencing, such as during Zoom meetings. L5 described video conferencing as a way of "adding the physical element to a virtual environment." L1 indicated that virtual team members might be more productive with consistent video conference calls and stated that "after regular Zoom sessions, team members become

more engaged." According to L1, video conferencing meetings allow team members to interact with leaders and allow for open collaboration in real time. All the participants agreed that virtual teams become more productive when they are engaged and have open discussions with virtual team leaders. A review of the company documents indicates that performance appraisals are successfully conducted using video conferencing. According to Jones et al. (2016), technology will change the quality of communication.

The second type of communication and collaboration discussed was email. L1 stated that emails are an effective way to help team members with instructions and directives and provide an effective means of point of reference for team members. L3 agreed that emails are an effective way of sending out mass communications to team members while providing team members the opportunity to respond with feedback.

The third type of communication and collaboration discussed was using company cellphones. Most of the participants stated that the use of cellphones was a fast and convenient way for contacting team members. L3 indicated that team members all use similar mobile apps, such as WhatsApp group chats, as an informal method for sending daily updates to team members. L3 also stated that the WhatsApp mobile app is also used to help motivate and inspire team members by sending inspirational quotes or simply by sending a "have a nice day, team, and keep up the good work" message.

The create a model for communication and collaboration theme aligns with the literature on transformational leadership because it demonstrates how virtual team leaders strive to create an environment for team members to demonstrate their ability to become change agents through effective communication and collaboration. The virtual team

leader participants expressed how creating a model for open communication encourages team creativity and stimulation and engagement. This finding aligns with Phaneuf et al.'s (2016) finding that transformational leaders provide influence for team members and this influence directly improves team performance through intellectual stimulation. Robinson and Boies (2016) found that transformational leaders help encourage team members to think more creatively and use innovation to help solve problems. According to Kotter (2017), the role of the transformative leader requires, for example, more intense collaborations and video conferencing calls that seek not only to speak to team members but allow team members to pool suggestions and feedback. Alsharo et al. (2017) found that leadership strategies must have a clear plan of collaboration with team members.

Theme 3: Create a Model for Strategic Planning for Virtual Environments

The third theme was to create a model for strategic planning. The participants indicated that strategic planning was another strategy for successful virtual team leadership success. The company's strategic plan was reviewed and the document highlighted the company's direction and how the company had planned to use its resources to accomplish the targeted goals and objectives. The strategic plan also included an action plan for team members to follow. All participants confirmed that strategic planning was a significant element in virtual team leadership and that it increased operational efficiency. The participants all conveyed those three main elements of strategic planning included (a) vision (b) goals and objectives, and (c) action plans (see Table 4).

Table 4

Participant's Response for Creating a Model for Strategic Planning for Virtual Environments

Theme: Strategic planning	Frequency in responses (33)	Percentages
Vision	5	100%
Goals and objectives	5	100%
Action items	13	60%

The first element identified for strategic planning was a vision. All the participants agreed that a clearly articulated vision helped to define the direction in which team members should be headed. The participants also all agreed that when team members understand the vision of an organization, there is a closer connection among team members, and they become more energized and motivated. Virtual team members L1, L3, and L5 felt that along with a clearly defined vision and goals, action plans are necessary for the execution of those plans.

The second element identified for strategic planning was goals and objectives. This element aligns with McKinsey's areas of importance to strategic planning, particularly shared values (Cordell & Thompson, 2019). All the participants agreed that clearly articulating the goals and objectives of each project produced better results among team members. L5 stated that goals and objectives should also be communicated consistently and not "just at the beginning of a project." L1 stated that clear goals help to keep team members motivated and take the "guessing game out of assignments." All the participants agreed that without clear goals and objectives, team members will be left confused and frustrated which will lead to a reduction in productivity.

The third element identified for strategic planning was creating an action plan. L5 stated that "without an action plan the vision does not come to life." L2 and L4 did not feel as though action plans were as significant but rather knowing the vision and goals will ultimately determine the appropriate course of action. L1 and L3 agreed with participant L5 that the vision comes to life when an action plan is formulated.

The create a model for strategic planning for virtual environments theme aligns with literature on transformational leadership because a strategic leader is known to have the ability to influence organizational change (Maduka et al., 2018). The leader uses a carefully constructed strategic plan to formulate the long- and short-term goals of the organization. Without a proper model for strategic planning, leaders won't be equipped with the necessary blueprint to lead virtual team members effectively (Kazmi et al., 2016). The study aligns with the literature in that Maduka et al. (2018) suggested that there is a connection between transformational leadership and leadership strategy for virtual team success. Transformational leadership style along with the leader's model for strategic planning is regarded as the main driver among other leadership styles that produce a higher level of virtual team success (Christensen et al., 2016). The transformational leadership theory has been confirmed through research to be positively linked to virtual team success (e.g., Maduka et al, 2018; Mysirlaki & Paraskeva, 2020). Transformational leadership is defined as a leadership style that promotes teamwork and helps to guide team members through various change processes that may occur within the organization while motivating employees (Faupel & Süß, 2019).

Applications to Professional Practice

The results of this study will be disseminated in scholarly journals after publishing in ProQuest for future research and for future leaders to implement in their business organizations. This qualitative research study may provide insights for leaders seeking to implement new business models and increase virtual team performance. For example, leaders of virtual teams could develop leadership competencies in communication, interpersonal skills, trust, and technical skills to increase the likelihood of virtual team success. Virtual team leaders could also develop and articulate strategic goals and action plans.

The participants in this study were able to contribute significantly by providing logical reasons for how this study may benefit business practice. According to Hechanova et al. (2018), team members were more productive when the goals and visions are articulated to them. Some participants emphasized that without effective communication of the organization's goals and objectives, virtual team members may become disengaged which may lead to virtual team failure.

Virtual team members fail when there is a lack of trust and team relationships within organizations (Tan et al., 2019). This study is significant to business practice in that some of the participants indicated that leadership trust leads to higher team member engagement and motivation. For the organization, higher engagement and increased motivation may lead to team member productivity and organizational performance. According to Iriqat and Khalaf (2018), trust is one way to encourage communication that

produces effective results on both ends for virtual team leaders and virtual team members.

Another issue related to virtual team success is that often leaders have a plan but fail in the implementation of the strategy (Graham & Daniel, 2021). Based on the views of the participants, without a carefully constructed strategic plan with clear goals and objectives, team members are left without direction. A strategic plan may help leaders in managing organizational growth and transition more consistently and effectively (Ford et al., 2017).

Therefore, virtual team leaders can formulate clear strategic goals for team members inclusive of implementation strategies to improve business performance. Virtual teams operate mainly using technological resources to achieve organizational goals. Therefore, virtual team leaders can improve their technical skills to increase virtual team success. Researchers have identified some core competencies fundamental to successful leadership, including (a) communication skills, (b) interpersonal skills, and (c) technological skills (Maduka et al., 2018). Based on information from the participants, virtual team environments are filled with technological challenges, but having leaders with technological skills helps to improve business practice by minimizing those challenges.

Implications for Social Change

Social change can empower and enable others to benefit communities (Bacq & Eddleston, 2018). The results of this study may positively impact social change by allowing successful organizations to give back to communities by helping to decrease

unemployment rates by providing jobs for virtual team members. Successful virtual teams can also lead to organizational growth which may provide opportunities for virtual team expansion in other countries and the opportunity for a wider class of workers to become employed including the disabled, and those who are unable to commute to work in more traditional work environments. Furthermore, successful virtual teams are an indication of more successful workers who can balance work and provide a stable means of financial support for team members and their families. Studies show that satisfied workers with a healthy home life may positively impact society (Talukder et al., 2018).

Adopting the study's findings might provide economic benefits that could lead organizations to increase or sustain support for communities. For example, economic benefits may come because of significant cost savings for virtual team leaders by reducing business operational costs with the removal of a physical building, which may lead to higher profit retention that can be contributed to helping build stronger communities.

Recommendations for Action

The objective of this qualitative single case study was to explore the strategies virtual leaders use for virtual team success. Based on this research, I have identified key recommendations for action, derived from the themes discussed in this study. The causes of team failure identified in the literature and indicated among the participants were (a) lack of leadership competencies including communication, trust, and technological skills and (b) lack of a clear strategic plan.

The first recommendation, therefore, is to strengthen leadership competencies, particularly in communication, trust, and technology. Virtual team leaders should create various channels of communication and provide consistent communication for team members. Virtual leaders may consider ongoing training workshops for both leaders and team members to strengthen communication within the organization. Participants indicated that video conference meetings, emails, and phones with mobile apps such as the WhatsApp feature, were all effective tools for providing consistent updates for team members. The participants also indicated that team members function more effectively and efficiently when trust is established within the organization and that when there is a lack of physical presence, trust becomes a concern. This aligns with the literature in that effective managerial training with the necessary skills to build trust among team members is necessary (Ford et al., 2017). The participants also shared those technological skills are a key factor for virtual team success. Technological skills enable leaders to aid with team members when working in virtual environments. I recommend that virtual team leaders increase technological skills as a core competency which may help team members to adjust to organizational change also. In addition, technological skills should be a key requirement when hiring virtual team leaders. Leadership training may include knowledge in web-conferencing and various digital platforms.

Another key recommendation is that virtual team leaders construct a strategic plan to ensure that the vision and goals of the organization are properly received and understood by team members to keep them engaged. Research has shown that employee engagement requires a strategic plan when leading virtual teams and that building a

corporate culture requires that the team know and understand the vision statement of the organization (Lockwood, 2015). Virtual teams can become chaotic because of the lack of physical leadership, guidance, and lack of physical interaction. The strategic plan including an action plan would be a helpful resource to provide guidance and direction for team members to help reduce the ambiguity that can lead to employee disengagement and lack of trust (Pan et al., 2017).

This study's findings may be useful for virtual team leaders, team members, and business leaders seeking to transition to virtually managed operations. The findings may also be of interest to leaders seeking new strategies to better lead their virtual teams to improve success rates which may lead to higher profits.

The results of this study will be disseminated in scholarly journals after publishing in ProQuest for future research. In addition, a summary of my study will be shared with the participants in the study and the president of the participating organization. I also plan to share summaries of my study with colleagues in the virtual work profession through sites such as LinkedIn.

Recommendations for Further Research

Current research on virtual team success and leadership skills is limited but is needed to improve the likelihood of virtual team success. According to Yin (2014), limitations may include any potential challenges or weaknesses in the study that is beyond the control of the researcher. The recommendations for further research are based on the limitations identified in this study and the information provided by the participants.

One limitation was that data gathered through the interview process would be dependent on the knowledge of the participants and the credibility of their responses. The participants in this study were virtual team leaders from an online virtual college. I, recommend researchers further explore strategies outside of this industry. There are a vast number of virtual environments in other industries that might be worth exploring to identify other key strategies for virtual team success.

This was a single case study using a qualitative method of study. Future research may also be explored in diverse virtual industries using other research methods and designs such as quantitative analysis or multiple case studies. Further research could include a larger number of participants without time constraints, which was also one of the limitations of this study.

The participants in this study were limited to virtual team leaders, however, future research can also explore and gather information from a more diverse population and sample size including virtual team members and other key stakeholders. A more diversified sample study may provide a more accurate understanding of the challenges faced in virtual teams and may render more diverse results for improved business practice. For example, team members' perspectives on the strategies for virtual team success may be different from the view of virtual team leaders.

Delimitations refer to boundaries identified by the researcher in the process of collecting data for the research questions and usually are drawn from the limitations of the study and the range of focus (Theofanidis & Fountouki, 2018). Future research could also be explored in different geographical areas. The study focus was based on virtual

team leaders within the Bahamas. However, further research for successful leadership strategies might be explored in other regions of the Caribbean where culture varies and provides different outcome results.

Reflections

As I reflect on my DBA journey, I consider the steps and milestones that were achieved along the way including the prospectus and proposal approvals. My initial thoughts as I began this journey were to consider a viable topic for my research; one that solves a business problem. As I pondered on the appropriate topic, I eventually decided that I wanted to explore virtual teams since organizations were becoming more technology-based. Throughout my studies, there were many changes. The world was faced with a global pandemic and many organizations were forced to work remotely due to nationwide lockdowns. As I reflect on this journey, I was able to watch my chosen topic evolve into a live document as I witnessed many organizations adapt to becoming virtual environments. This experience may have positively impacted my perception of the topic, as I became a virtual team member experiencing the very same challenges within my chosen research topic and I wanted to contribute to research strategies that may lead to improved business practices.

During the interview process, I made a conscious decision to refrain from any personal bias or preconceived ideas and values. I accomplished this by following the research questions and allowing all the participants freedom to express their ideas, and opinions without interruption or manipulating the interview process in any way. I am satisfied that the interview process was conducted without any form of bias and that my

perceptions or values remained neutral and had no effect on the participants or the integrity of the research. This was demonstrated by the way participants responded and as I saw consistency in the responses across the interview sessions.

After completing the study, I now have a greater appreciation for the hard work and dedication needed to pursue and complete a Doctoral degree; it is no easy feat. If I had the opportunity to make changes, I would have made a greater attempt to manage my time more wisely so that my doctoral journey could have been accomplished in a shorter period.

Conclusion

Virtual team failure leads to low job satisfaction for members of virtual teams and virtual team leaders lack the strategies and skills needed to prevent and reduce failure rates of virtual teams. The purpose of this qualitative single case study was to explore strategies leaders use for virtual team success. The research was grounded on the transformational leadership conceptual framework, introduced by Bass (1980).

I collected data, using semi-structured online interviews and document review, from five virtual team leaders in the Bahamas from an online College who had worked in leadership positions for 5 years or more. The Van Kamm method of data analysis was used for this research to explore the research question. Three main themes emerged that addressed the overarching research question relating to virtual team failure: (a) create a model for communication and collaboration (b) improve leadership competencies and skills, and (c) create a model for strategic planning for virtual environments.

Virtual team leaders may use the findings of this study to help improve their communication methods among virtual team members and to enhance leadership competencies in technology. The findings of this study may also be helpful to virtual team members and business leaders seeking to transition to virtually managed operations. The study may also be of interest to leaders seeking to enhance their strategic plan to become more action-based plans to lead their virtual teams better.

Virtual team leaders can apply the strategies discussed in the study to help improve team productivity and efficiency in the virtual environment resulting in increased profits. The implications for positive social change include the opportunity to create virtual environments that are more conducive for team job satisfaction, resulting in team members being able to support their families and a reduction in unemployment rates. The themes that emerged from this study might be reviewed and adapted by virtual team leaders to help contribute to professional practice, society, and the environments significantly and to help reduce the number of virtual team failures.

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Appendix A: Emailed Invitation Letter (Participants)

Dear _____,

      As a professional member or leader of a virtual team, you are being asked to participate in a doctoral case study regarding strategies for leading successful virtual teams. The purpose of this case study is to research the strategies leaders use for successful virtual teams. If you agreed to participate in this study, you will be asked to participate in a semi structured interview. However, your participation is entirely voluntary. The duration of the interview should take a maximum of 2 hours.

      Any information provided will be kept confidential.

Thank you for your consideration.

Sincerely,

DaNevia Bethell

Appendix B: Emailed Letter to the President of the Organization

Dear _____,

As President and leader of virtual teams, you are being asked to participate in a doctoral study regarding leading virtual teams.

The purpose of this study is to research the strategies leaders use for successful virtual teams. If you agree to participate in this study, you will be asked to participate in an electronic interview through electronic media that will take no longer than 2 hours to complete, but extra time will be allowed as needed for responding to the interview questions.

You will also be asked to provide me with access to internal (non-public) documents, records, or other data with contact information for potential participants. Your participation in the doctoral study is strictly voluntary. Any information that is provided will be kept confidential.

Thank you for your consideration,

Sincerely,

DaNevia Bethell

Email Address: ██████████████

Appendix C: Interview Protocol

I. Introductions:

a. Names, background, problem and purpose statements

II. Consent Form:

a. Review consent form and signature

b. Answer questions and concerns of participant

c. Provide copy of the consent form to participant

III. Recording

a. Remind participant the interview is recorded as stated in consent form

b. Turn on recording device

IV. Begin Interview:

a. Introduce participant(s) with pseudonym/coded identification

b. State the date and time

c. Begin with question #1

d. Follow up with additional questions.

V. Closing:

a. Review next steps with participant:

i. Transcript review

ii. Member checking

b. Thank the participant for their time and participation in the study

c. Confirm contact details for participant for follow up questions and concerns

VI. End protocol.