

**LEADERSHIP EFFECTIVENESS IN A VIRTUAL
ENVIRONMENT IN A INFORMATION TECHNOLOGY
DEPARTMENT AT
A SOUTH AFRICAN BANK**

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Declaraction

I, Kim Chikwata (2016079077), declare that the thesis that I herewith submit for the Master's Degree in Business Administration at the University of the Free State, is my independent work, and that I have not previously submitted it for a qualification at another institution of higher education.

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Kim Chikwata

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Dedication and acknowledgements

I dedicate my dissertation work to my father, Patrick Chikwata. Even though you might not be with us anymore, I still hold your memory in my heart every day. Thank you for always pushing me to be the best person I can be and being such a big inspiration. Your memory will always live on. Hope I have made you proud through this achievement.

I wish to express my sincere gratitude to the following people;

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To my niece and nephews (Neriah, Nathaniel and Shiloh), I hope, that through this achievement, I am able to be a great example to you, of what you can achieve when you are dedicated and focussed.

The most important thanks is to, Jesus Christ, for all he has done for me through this journey. He has never failed me and I know he will still guide me along my journey. Philippians 4:13 "I can do all things through Christ who strengthens me"

Abstract

COVID-19 has led to organizations operating their business in a different way to what they were used to. Employees went from being office bound, to working from home, so that organizations were able to continue operating. This led to organizations being faced with challenges when working in a virtual environment. The problem that managers in the IT (information technology) department at a South African bank faced was that, if they did not lead their teams effectively whilst working in a virtual environment, it could lead to a decrease in employee satisfaction and performance.

This research identified leadership tools to assist leaders in achieving leadership effectiveness in a virtual environment at the IT department at a South African bank. The researcher identified leadership tools a leader can use to achieve leadership effectiveness in a virtual environment. The researcher used the quantitative method to conduct the research. Online surveys were used to gather data from the IT department of a South African bank. The researcher then used means, graphs, correlations and box plots to analyse and interpret the collected data. The respondents responded positively to most of the questions posed to them. The researcher was able to conclude that sufficient communication was taking place between the leaders and employees of the IT department. Employees believed that they were able to trust their leaders and that their leaders supported them in achieving their goals. The data revealed that the leaders were displaying certain behaviours representing leadership styles identified by the researcher from literature. The researcher found that the employees believed that the leader did not always bring a sense of order to their work. The research also indicated that, when employees experience conflict, the leaders do not always assist in resolving it.

The researcher made recommendations that the IT department can apply to improve its leadership effectiveness. Implementing these recommendations will assist the IT department to achieve their objectives and achieve leadership effectiveness in a virtual environment

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CHAPTER 1: INTRODUCTION

1.1 INTRODUCTION

The COVID-19 pandemic has been a reminder that large-scale, unpredictable events bring changes that have consequences for organizations. With lockdown measures enforced in South Africa to control the spread of the virus, organizations had to adapt and move many of their departments to online platforms, to keep the organizations functioning. All the changes that were caused by the pandemic had a direct impact on how teams at banks are managed and led. This study did an in-depth investigation into the problem an IT (information technology) department faced at a South African bank (Bank), and what the literature reveals about leadership effectiveness in a virtual environment. A research method was selected to analyse the problem at the Bank and insight was obtained into the data the researcher collected from online surveys completed by IT department staff of the Bank. This chapter focusses on giving insight into the Bank and the IT department, and the problem they faced. The researcher will also discuss the research objectives of the study.

1.2 BACKGROUND

This Bank was formed in 2001 by entrepreneurs, and loans money to low-income South Africans who were being ignored by other banks (Bank, 2021). The Bank loans money to customers who lack collateral, such as a home, to secure loans. This bank was listed on the JSE on 18 February 2002. Since then, it has grown to serving 14.7 million active banking customers. The Bank has 854 bank branches across South Africa. This Bank offers just one transactional account, nevertheless, even wealthy people flock to bank with the Bank. The Bank continues to add 200 000 customers to their customer base every month.

For the banking group to remain a strong competitor in the South African banking industry, it needs to constantly grow and consider innovative ways to improve how it structures its

products and services for its customers. This Bank has ensured that it grows its IT department to enable it to develop innovative products and services, as it is on a journey to become one of the leading banks in South Africa.

Wisoyonge (2020) reports that, in early March 2020 South Africa reported its first COVID-19 case – a man in his late thirties who had returned from a holiday trip a few days earlier. After 927 COVID-19 cases had been reported, the National COVID-19 Command Council advised the president of South Africa, Cyril Ramaphosa, to institute a lockdown of 21 days for the whole country. This meant that South Africans were required to remain at home from 27 March to 6 April 2021. People were only allowed to go outside their homes to obtain food, medicine, fuel and other essential services. The Bank fell under the essential services group, and the impact of COVID led to the Bank to giving employees who were able to perform their functions from home, laptops. This enabled them to work from home and the company to comply with the required COVID regulations. This meant that managers could not see their employees in person, but would have to lead their teams using virtual tools in order to connect.

Bui (2020) explains that, when a team is dispersed geographically, they are referred to as a virtual team. Bui (2020) defines a virtual team as a group of beings taking responsibility for their own interdependent tasks, which they have to perform while being responsible for the same outcome, while being in different locations. Thus, virtual teams have to use electronic means as their main communication channel, which are made possible by technological tools for collaboration.

At the Bank, Skype and Microsoft Teams were used as the two primary means of collaboration. At the office, the team saw their managers every day and could just walk to their desks to communicate or request assistance or guidance. A leader could physically observe what their team members were busy with. When leading a team virtually, the team does not have any physical contact. Therefore, a leader must be creative about the way they lead their teams. This means that a leader could face challenges when leading a team virtually if they do not change the way they lead their

teams. Bui (2020) found that teams tended to struggle with their team communication when working virtually, which can affect the team's cohesion and performance output. Communication in a virtual team is different to what it is in a traditional team, and a leader must adopt certain leadership tools to manage their team communication. If they do not do so, it will affect the team's ability to achieve their team objectives. A team's innovation could be impacted when working virtually. Virtual teams could experience a downward trend in their innovation and output when they are not being lead effectively. This can cause the team to fail to meet their team objectives and it may affect their performance ratings (Bui, 2020).

1.3 PROBLEM STATEMENT

The managers at the IT department of the Bank would face problems if they did not lead their teams effectively in a virtual environment. If the problem was not addressed, it could cause employee morale to decline. Employee satisfaction could decrease, and this could lead to demotivated employees. Bui (2020) states that, if leaders are not leading their teams effectively in a virtual environment, then it could lead to a decrease in the creativity, innovation, and performances of virtual employees, and could cause projects to be inefficient. This will mean that the organization will fall short of meeting its strategic objectives, and the funds spent on projects could be lost because the projects are inefficient.

1.3.1 Research questions

- i) What does the literature reveal about leadership effectiveness in a virtual environment?
- ii) Which leadership behaviours have an influence on employee performance in a virtual environment at the IT department at a Bank?
- iii) What leadership tools are available to achieve leadership effectiveness in a virtual environment at the IT department at a Bank?

1.4 PRIMARY AND SECONDARY OBJECTIVES

1.4.1 Primary objective

The primary objective of this research was to identify leadership tools that could be used to achieve leadership effectiveness in a virtual environment at the IT department at a Bank.

1.4.2 Secondary objectives

- i) To contextualise a virtual environment in the banking industry;
- ii) To provide an overview of leadership effectiveness in a virtual environment; and
- iii) To analyse leadership effectiveness in a virtual environment at the IT department at a Bank.

1.5 RESEARCH METHODOLOGY

1.5.1 Research Design

A research design is defined as a plan for a study that provides the overall framework for the collection of data (Hair et al., 2019). One of the methods a researcher can use to conduct research, is through the deductive approach. The deductive approach involves the researcher studying research that has been completed by others, then commencing with data collection, and conducting data analysis (Hair et al., 2019). The deductive approach was used to conduct this research.

Quantitative analysis was used to determine the results of the research. Hair et al. (2019) explain that quantitative research refers to measurements using numbers to directly represent the characteristics of something. By using a quantitative analysis approach, the researcher can provide a summary of information on many characteristics. One of the tools a researcher can use to collect quantitative data is an online survey, which the researcher used to collect data via an online platform called Google Forms.

1.5.2 Sampling strategy

The researcher used a census sampling approach, which involves a researcher collecting data from all the members of a population under investigation (Hair et al., 2019).

The researcher identified the specific department that had a total of 150 employees. The 150 permanent employees were the employees that formed the population of this research. The researcher set inclusion and exclusion criteria for the 150 employees identified. The population identified for this research was relatively small.

1.5.3 Data collection method

Quantitative data collection involves the gathering of numerical data using structured questionnaires (Hair et al., 2019). Hair et al. (2019) state that, when collecting information from a population of more than 50 people, a survey is the best way to collect the data effectively. Online surveys can be structured on an online platform that enables researchers to design their questionnaires. The researcher used the Google Forms application to set up the online survey. The researcher emailed a link to the online survey, with the informed consent form attached, to the respondents. The respondents required 60 minutes to complete the survey. The respondents were able to complete the survey during their lunch hour or after working hours. The respondents had the ability to close the online survey and complete the outstanding questions at a later stage. The respondents had three weeks to complete the survey. The researcher could monitor the progress of the respondents through a progress report available on Google Forms.

1.5.4 Ethical considerations

The researcher ensured that research was conducted in an ethical way, and kept the following ethical considerations in mind.

1.5.4.1 *Obtaining permission*

The researcher submitted a written to the university first, and obtained written permission from the university to conduct the study. The researcher submitted written requests to the human resources business department and the head of the IT department. The researcher obtained written permission from the Bank to conduct the research.

1.5.4.2 *Informed consent*

The researcher ensured that all potential participants were informed of the research process. The informed consent forms were sent out to the respondents as an attachment to the online survey. The researcher requested the respondents to first read and first indicate their response to the informed consent, before continuing to the survey.

1.5.4.3 *Voluntary consent*

The respondents had the right to voluntarily agree to participate in the research. None of the respondents were, at any stage, forced to participate in the research. The researcher sent the link to the online survey to the respondents, and, once received, the respondents had the right to either respond or to decide against responding.

1.5.4.4 *Anonymity and confidentiality*

The researcher ensured that the anonymity of the respondents was maintained. The respondents were able to complete the online survey anonymously. The researcher handled the survey confidentially. The online survey did not require the respondents to provide any personal information, such as their first names or surnames. The researcher anonymized the document to ensure that the organization is protected.

1.5.4.5 *Avoiding harm*

Respondents should be able to participate in research without any harm coming to them. The respondents could participate in this research without facing the risk of any harm.

1.6 DEMARCATION OF STUDY

The study topic is leadership effectiveness in a virtual environment at the IT department at a Bank. All the permanently employed employees working in the IT department at the Bank were approached to participate in the study. The field of study is organizational behaviour.

1.7 CHAPTER LAYOUT

Chapter 2: Literature review

Chapter 3: Research methodology

Chapter 4: Data analysis and interpretation

Chapter 5: Conclusion and recommendations

1.8 CONCLUSION

Leadership is generally recognised as the foundation of every company, and a critical source of strategic advantage. The objective of this research was to analyse leadership effectiveness in a virtual environment at the IT department of a Bank. Teams at a bank work in a virtual environment and no longer in the traditional environment. This new way of working is accompanied by challenges, as virtual team leaders have to adjust to leading their teams virtually. In Chapter 2, the researcher will give insight into what the literature reveals about leadership effectiveness in a virtual environment, and what tools are available to leaders to become effective in a virtual environment.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

The Bank commenced with virtual working shortly after the pandemic started in South Africa in March 2020. As the Bank did not know when the pandemic would end, it was important to ensure that it had the necessary tools and literature available to ensure that employees were managed effectively while they worked virtually. Without an understanding of the literature or having the needed tools, it would mean that the Bank would not be able to perform optimally. This chapter will focus on the theory relating to the topic of this study, which will provide a clear understanding of what leadership effectiveness and a virtual environment involves, and what challenges are experienced in a virtual environment. Leadership tools that leaders can use to effectively manage their teams and achieve leadership effectiveness will be discussed. In order to explore the theory, it is important to understand the definitions clearly.

2.2 DEFINITIONS AND CLARIFYING CONCEPTS

Lazenby (2016) defines *leadership* as influencing people in a team by serving as an inspiration to them, and also achieving goals that were set by the organization, and directing team leaders' actions towards the organizational goals to be achieved. DuBrin (2013) reports that, when a leader can achieve an outcome, such as employee satisfaction, quality in the workplace and productivity, then that leader is effective. When a person has confidence in another person's motives and in their intentions, and they can see that the person is being sincere, then there is trust (DuBrin, 2013).

The word *communication* is an indispensable element of any social factors, especially in distance working (Bui, 2020).

A *virtual team* is a geographical team that is dispersed (Bui, 2020).

Leadership style refers to the manner in which people are directed and motivated by a leader to achieve organizational goals (Khajeh, 2018).

Transformational leadership occurs when a leader can move the organization to the future, recognize environmental needs and facilitate change (Korejan & Shahbazi, 2016).

Authentic leadership occurs when a leader knows who they are and what they believe, when they display transparency and consistency in their values, ethical reasoning and actions, and are respected widely for their integrity (Wulffers, 2017).

2.3 VIRTUAL TEAMS

Arredal et al. (2021) explain that, when a group of individuals who forms part of one team are working from different locations though they are still working together on one initiative while communicating through online platforms, they form a virtual team. Thus, virtual teams work from different physical locations using collaborative information and communication technologies (Arredal et al., 2021). According to Anoye and Kouamé (2018), working in a virtual environment has led to organizational change.

Anoye and Kouamé (2018) are of the opinion that having virtual teams allows an organization to be more flexible. Today, teams are still able to work together with geographically dispersed members, while it would have been impossible in the past (Anoye & Kouamé, 2018). These days there are advanced technologies that allow virtual team members to be linked to each other constantly (Anoye & Kouamé, 2018). Virtual teams, unlike traditional teams, are dispersed in terms of their locations and are able to work across national, cultural, and temporal boundaries. These changes come with their own challenges, as will be explained. The banking industry is one of the industries that is also working virtually now.

2.4 VIRTUAL TEAMS IN THE BANKING INDUSTRY

According to Wade (2019), teams are an integral part of the banking industry. Gong and Janssen (2015) state that banking leaders are now using virtual teams around the world to conclude trades through web collaboration tools. There is a great need in the banking industry for processes to be completed accurately and quickly (Wade, 2019). For this to occur, banking employees must be able to interact with each other and operate efficiently and effectively. Banks provide employees with immediate access to data that is up to date, and this contributes to employees being motivated (Basu, 2016). When there is teamwork amongst team members, with a leader who is leading from the front, the team can work together to achieve goals and objectives. Wade (2019) is of the opinion that banking managers can improve the motivation level of their teams by meeting or exceeding the expectations of their employees. Working virtually has several positive outcomes, though it can also come with challenges.

2.5 CHALLENGES EXPERIENCED IN LEADING A VIRTUAL TEAM

Anoye and Kouamé (2018) explain that virtual teams are more well-known now, and leaders must be aware that there are challenges involved in working virtually and leading a team effectively. The first challenge that a virtual team faces relates to communication. Bui (2020) shares that, when working digitally, a person can become so focussed on the task that they forget that there are colleagues they should communicate with.

Morrison-Smit and Ruiz (2020) state that, when people work remotely, body language has no impact in communication. In the absence of body language to observe or facial expressions to see, a barrier is created to understanding others, and the ability to establish trust is blocked. These aspects of communication are minimal or completely absent in virtual environments, especially in the absence of video capabilities (Morrison-Smit & Ruiz, 2020). Compared to face-to-face teams, virtual teams encounter problems such as decreased social interaction, impaired communication and challenges with

emotional expression (Bhat et al., 2017). Effective communication is essential if a team is to function optimally.

Anoye and Kouamé (2018) emphasize that, when working virtually, team members must be clear in their communication. When corresponding online, and in the absence of other communication cues, people can be perceived as sounding rude and very cold (Anoye & Kouamé, 2018). The personality type of a specific group member could dictate how well they communicate in the virtual environment, because an extravert might struggle with the isolation of electronic communication, while a more introverted person often thrives in it (Anoye & Kouamé, 2018).

If communication is reduced, it is more difficult to establish *trust* between members of a virtual team. Bhat et al. (2017) explain that trust is a sensitive matter when teams are working virtually; virtual work can lead to a decline in trust. A lack of trust in virtual teams breeds a lack of cooperation between and buy-in by team members (Meixner, 2018). Meixner (2018) shares that, when trust is lacking, then there is an inability to believe what a colleague says or does. Alward and Phelps (2019) found that team members struggled to adapt to changes in teams, and tended to not perform at their best when they did not trust their line managers. A virtual leader who is not trusted by their team members affects the team's efficiency and can damage the integrity of the team and cause the outlook of their work to become negative (Alward & Phelps, 2019). When a virtual employee does not trust their leader or their organization, they tend to not display a formidable level of organizational citizenship (Alward & Phelps, 2019). When there is no trust between the line manager and the team members, they will struggle to maintain good working relationships, therefore, the leader will face challenges when managing personnel.

The third challenge that a leader may face relates to *managing teams*. When working at the office, it is easier to manage the team, because the manager can walk around and effectively manage personnel face to face, however, when the team is working virtually, it becomes much more challenging to manage the capabilities of the team and their job performance (Bui, 2020). This impacts the leader's ability to lead the team effectively.

2.6 LEADERSHIP EFFECTIVENESS

Leadership refers to the power that one person has to influence or change the values, beliefs, behaviour and attitudes of another person (Hao & Yazdanifard, 2015). Effectiveness is defined as the aftereffects of the objectives that have been achieved (Zakia et al., 2020). Louw et al. (2017) emphasize that, for an organization to grow and for to it be able to survive, it needs to have effective leadership. In the past, there was a certain way of managing a business that is no longer relevant in this new day and age. Leadership effectiveness is vital for managing a business effectively (Hao & Yazdanifard, 2015). Effective leaders can optimize both their task-related and relational orientations (Kayworth & Leidner, 2002). Employees have the ability to perform their roles more efficiently and achieve their objectives if their leaders are using the skills of effective leadership (Hao & Yazdanifard, 2015).

2.7 CONCEPT OF LEADERSHIP IN A VIRTUAL ENVIRONMENT

Mehtab et al. (2017) are of the view that, in a virtual environment, a leader is unable to control the team members' activity as they would in a traditional working environment. A virtual leader must be creative in making observations, to ensure that their team members meet their expectations while working virtually (Mehtab et al., 2017). Virtual leaders should never assume that their team members are always ready to start a virtual meeting. When there is an electronic silence, a leader must assume that it is acquiescence, and not necessarily inattention (Mehtab et al., 2017). Mehtab et al. (2017) propose that a virtual leader has three basic roles:

- i) A leader plays the role of liaison between their team members, and brings clarity and understanding.
- i) A leader is a direction setter, and guides team members in the right direction, so that team members can achieve the team's goals.
- ii) A leader performs the role of coordinator, who knows what the team needs to further their development and address their differences.

A virtual leader should aim to perform their roles, from inception, so that there is coherence and integration amongst the individual members of the team (Mehtab et al., 2017). By doing so, the leader assists the team to achieve their targeted goals. To achieve these goals, there will need to be a team discussion during which the team leader and team members agree on the goals (Mehtab et al., 2017). According to Kayworth and Leidner (2002), a leader plays the following roles in a virtual environment:

- Director – As a director, a leader must make the team members' roles clear and give them clear direction.
- Coordinator – As a coordinator, a leader must anticipate when a problem will arise and be able to avoid any crisis that may arise. A leader must also bring a sense of order to a team members' work.

Kayworth and Leidner (2002), furthermore, share that a virtual leader must be able to establish role clarity among the team members, and exercise their authority by following through on their responsibilities. Role clarity can be ensured by clearly communicating a team member's roles and responsibilities. Kayworth and Leidner (2002) are of the opinion that, through communication, an effective virtual leader is able to provide team members with a clear and detailed 'picture' of the tasks they need to complete. This will enable team members to know exactly what is expected of them. According to Kayworth and Leidner (2002), this approach creates structure in the team. Doing so also creates a bond between the team members and with the team's mission.

However, it does not mean that a virtual team will not encounter problems. Virtual leaders must be involved in problem-solving. Team members will not always be able to translate the team's vision into actionable steps to be executed daily to achieve the vision (Mehtab et al., 2017). This inability can be overcome with the assistance of the leader. Virtual leaders are responsible for motivating team members, ensuring the right norms are established and developing internal communication (Mehtab et al., 2017). Virtual leaders' time will be occupied by mentoring their team members, enforcing the working standards and ensuring that team members are rewarded for good performance (Mehtab et al.,

2017). This can be challenging without being physically present, but it can be achieved. A leader can realise their leadership in a virtual environment by developing the correct competencies.

2.8 LEADERSHIP COMPETENCIES AN EFFECTIVE LEADER NEEDS IN A VIRTUAL ENVIRONMENT

Bui (2020) argues that a leader can develop competencies and obtain the ability to become a leader who is admired, because leaders are made, rather than born. When a leader steps out and truly wants to lead their team members, then true leadership competencies will be required from the leader. Fisher and Fisher (2011) list seven competencies that can be used to evaluate a leader's effectiveness. The seven competencies are leader, result catalyst, facilitator, barrier buster, business analyser, coach and living example. A leader must be able to prepare themselves to apply these competencies and to develop a leadership style that will work for them in managing their teams effectively (Bui, 2020). Bui (2020) notes that there are competencies that are needed for both a traditional working environment and a virtual working environment, though there are differences too. Figure 2.1 indicates the competencies that are needed for a leader to be effective in a virtual team.

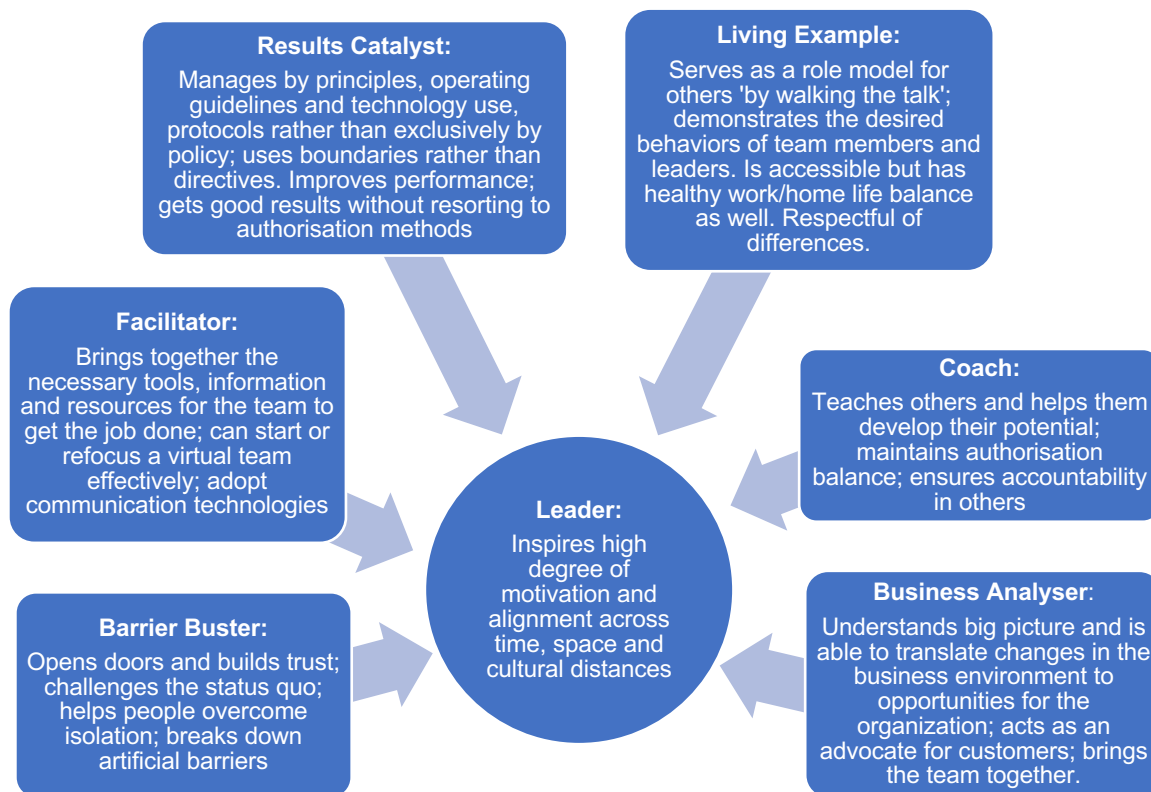


Figure 2.1: The seven core competencies of an effective team leader

Source: Fisher and Fisher (2011)

Bui (2020) explains that, even though all seven competencies indicated in Figure 2.1 are important for a leader to have, a virtual leader needs the competencies of barrier buster, coach, facilitator and result catalyst, in particular, for leading a team in a virtual environment. A leader requires barrier buster capabilities if they want to achieve the same success they did when leading their team in a face-to-face environment. Bui (2020) states that a leader will face challenges, such as team members who fail to get along, employees failing to comply with policies, and employees who do not trust their managers, and if these challenges are not handled effectively by the leader, they can create barriers that are unseen to the eye but which can stop the team from growing. A leader must be so close to their team that they are able to find out or notice immediately when something is amiss in the team (Fisher & Fisher, 2011). Competencies that assist with this awareness

are negotiation and relationship competencies. In some cases, being a barrier buster requires the virtual leader to find the middle ground and be flexible for the project, so that the project remains on track to completion, and to ensure all the team players are on the same journey (Fisher & Fisher, 2011). A virtual leader has an important role in helping their team members overcome the disconnect between business and the team, so that the team members can start building trust and feeling a sense of belonging (Bui, 2020). Once trust has been established, the leader will be able to be a coach to the team.

Fisher and Fisher (2011) define a coach as someone who teaches and helps team members develop their potential, while maintaining their authorisation balance and ensuring that there is accountability by others. Bui (2020) shares that, in leading a team virtually, a leader has to be creative about the way they communicate with their team, and this is where coaching comes in handy. A great deal of coaching is required when a team is working in a virtual environment (Fisher & Fisher, 2011). A leader has to recognize the differences in their team, consider the potential of the team, and create opportunities for the team members, to assist them to develop their potential and embrace their strengths, and thereafter address their weaknesses (Bui, 2020). This leads to the competency, of being a facilitator.

Fisher and Fisher (2011) define a facilitator as a competency that combines resources, operational tools and the information that guides the leader in getting the job done. Facilitators have the ability of refocussing a virtual team effectively and are able to adapt and use communication technologies. A leader has the responsibility of being a facilitator and ensuring that the team members are sufficiently equipped, so that they can complete all the work that has been assigned to them (Bui, 2020). In a virtual environment, technology does not always work as it should, and disconnection errors can be experienced. The leader must be clear on processes that should be followed when team members are experiencing challenges with their technology. A leader must prepare the team members on what should be done when these challenges are being experienced, so that team members are prepared for it (Bui, 2020). Therefore, before a leader can become a result catalyst, they need to be effective at being a facilitator.

Fisher and Fisher (2011) explain that a result catalyst manages a team by principles, guidelines, and technology use protocols, instead of exclusively by policy; they are able to get good results without having to resort to authoritarian methods. Bui (2020) shares that, when a team is able to achieve success, then it is evident that the virtual team leader is managing the team effectively. A true leader in a virtual environment uses more facilitative techniques with their team members. This will result in employees feeling respected, and believing that they are able to achieve their work objectives more efficiently.

For these competencies to be effective, the leader has to communicate effectively. Effective communication goes hand in hand with effective leadership. If communication is not conducted effectively, it creates frustration and confusion. Bui (2020) describes communication as the mutual exchange of information between two or more parties; it includes explanations, opinions, and views. Powers (2018) shares that a leader must approach dialogue with an open-minded attitude, which will guide employees to learn from errors that they make. An effective virtual leader must be a skilful listener (Powers, 2018). Powers explains, furthermore, connecting the team to the values set by an organization can only be achieved if members communicate effectively with each other. Kayworth and Leidner (2002) recommend that communication takes place regularly.

2.9 LEADERSHIP STYLES

A leader can display the competencies mentioned above through adopting one of several leadership styles.

2.9.1 Transformational leadership style

Khajeh (2018) explains that a transformational leadership style is focussed on the development of followers, while still taking their needs into account. When an organization has leaders who apply a transformational leadership style, it means they are developing the value system, competencies and motivation levels of employees. Transformational leadership connects leaders and employees with each other. A transformational leader

can encourage their employees to look beyond their own interests (Korejan & Shabazi, 2016).

Korejan and Shabazi (2016) found that, today, changes are happening so fast that it is not always possible to be fully prepared for these changes, which leaders are required to cope with. Organizations need transformational leaders (Korejan & Shabazi, 2016). Khalil (2016) explains that employees, when they are led by a transformational leader, are encouraged to take on risk and ownership of their results. This leadership style enables employees to harness the creative environment and be more creative (Khalil, 2016). Transformational leaders value creative and innovative work and offer employees the support they need, so that an employee's creativity and innovation is affected positively. A transformational leader encourages employees' creativity by providing a vision that motivates employees to perform creatively (Shafi et al., 2020). A transformational leader is able to motivate employees to not just do what their employment contract requires, but to go the extra mile (Korejan & Shabazi, 2016). This type of leader can act as a mentor to their employees, and they are able to be role models for their employees (Korejan & Shabazi, 2016).

To accomplish these goals, a transformational leader must possess certain characteristics. Korejan and Shabazi (2016) list the following characteristics that a leader must possess:

- Transformational leaders are rooted in the personal beliefs and the values of leaders.
- Transformational leaders are inspired from their hearts and minds, and it shows.
- Transformational leaders are inspired through justice, fairness, honesty and honour.
- Transformational leaders take note of their employees, to motivate them to establish trust and commitment.
- Transformational leaders care about their employees, and know what their needs are and how to assist them.

When a team member is lead by a transformational leader, they will feel motivated and excited about what lies ahead for the team. Yukl and Gardner (2020) say that a transformational leader can motivate and transform their subordinates; they will be encouraged to do more and perform better in their roles.

2.9.2 Authentic leadership style

The authentic leadership style is another leadership style that can be used in a virtual environment. There are various views and perspectives on what authenticity is. Authenticity relates to making sure your actions and who you are, are aligned (Wulffers, 2017). Authenticity requires looking inward and then allowing your internal values to lead you, and not being focussed solely on the situation (Wulffers, 2017). Understanding authenticity sets the foundation for understanding authentic leadership.

Authentic leadership is an emerging theory of leadership that has been receiving attention since 2005 (Wulffers, 2017). Authentic leadership involves a call to higher standards of character and integrity in leadership, and public accountability in leadership (Wulffers, 2017). Wulffers (2017) determines that authentic leadership is divided into intrapersonal (self-leadership) processes and the effect of that on self, others and outcomes. This development process commences with a leadership programme, which starts the process of authentic development in oneself (Wulffers, 2017). A leader is able to receive feedback from their followers, which enables them to determine their journey towards an authentic leadership organizational culture (Wulffers, 2017). There are three major sub-processes of leadership authenticity (Wulffers, 2017):

- i) Clarity that a leader has about themselves, which developed them into the leader they are;
- ii) Being committed to regulating themselves through ensuring that there is harmony between who they are and why they are leaders; and
- iii) Leader behaviours that are the expression of their internal beings observed by others.

Authentic leadership requires leaders to be genuine, self-aware and transparent in all their actions, which will cultivate loyalty and trust between leaders and employees.

2.9.3 Servant leadership style

The third leadership style that a virtual leader could apply in a virtual environment is a servant leadership style. When you are able to do things for others, first, before you do something for yourself, then you are a servant leader. When a leader starts developing a feeling of being a servant, that is when they become a servant leader (Blanchard & Broadwell, 2018). A servant leader is able to make sure others are taken care of and provided for first, or even better than themselves (Blanchard & Broadwell, 2018).

Irawanto et al. (2020) found that servant leadership stimulates caring about people and engages employees in decision-making. When employees feel that their leaders care about them, they become more inclined to attitudes and behaviours that give support to the organization (Irawanto et al., 2020). If a leader works to improve the team's work output and develop team members to perform better in their roles, then the leader is leading them through servant leadership (Irawanto et al., 2020). A leader who serves must have the intention and desire to lead their followers and develop others to follow (Irawanto et al., 2020). Servant leaders serve without seeking anything in return (Irawanto et al., 2020). Servant leaders wish to provide their followers the best opportunities (Irawanto et al., 2020). Blanchard and Broadwell (2018) share that a servant leader should have the following skills:

- **Listening:** When team members speak, a servant leader listens to what the team is sharing with the leader. The leader will then process this information and ponder on it before responding or acting on what the team members have shared.
- **Empathy:** Empathising involves a servant leader showing understanding of the team members' situation, that they accept the team members.

- Healing: When a servant leader sees that a team member is hurting or broken, they will see how they can assist by providing healing for that team member.
- Awareness: Having self-awareness and awareness in general strengthens a leader. Servant leaders take note when team members are not themselves or if there is something untoward happening in the team – not only the bad, but also when there are good things happening in the team.
- Persuasion: A servant leader does not use their power as a leader to get team members to do what is needed, but rather applies their persuasion skills.
- Foresight: A servant leader can see when there is danger ahead for their employees. A servant leader will be able to use their knowledge from past experiences to assist with occurrences in future.
- Stewardship: Stewardship means the leader can be trusted with something that belongs to another person. A steward is someone who will work to create a better environment for those around them, and make sure employees' needs are met.
- Commitment to growth: A servant leader works to develop each of their staff members. A servant leader will do everything in their power to nurture the personal and professional growth of employees and colleagues.
- Building community: A servant leader can build a community amongst people who work in businesses and other institutions.

By displaying these characteristics, a leader can become a true example of a great servant leader. Adopting the above leadership styles can change the way leaders lead in a virtual environment. In this way, leaders will be able to experience the advantages that accompany working virtually.

2.10 ADVANTAGES OF WORKING IN A VIRTUAL ENVIRONMENT

Before the COVID-19 pandemic, meetings were held in boardrooms and whole-day workshops were done with the leader recording the ideas emerging from the discussions on a board (Mehtab et al., 2017). In a virtual environment, a leader can communicate via synchronous or asynchronous collaboration, if the interaction is not bound by time and place (Mehtab et al., 2017). A virtual leader uses asynchronous methods for idea generation and evaluation (Mehtab et al., 2017). Mehtab et al. (2017) states that, with an asynchronous facility, a team member has the ability to choose and select the idea they want to contribute to. This gives flexibility to the team if members have diverse backgrounds and have different paces and rhythms of idea generation and understanding each other's ideas. These facilities also allow a team leader to monitor the team's progress.

In a traditional environment, a conventional leader can observe employees physically, and a virtual leader is able to do the same through monitoring what is not bounded by space (Mehtab et al., 2017). Virtual leaders use asynchronous and synchronous patterns of communication to determine member participation, and can easily determine which members require more support for further involvement (Mehtab et al., 2017). Asynchronous communication involves electronic documents and knowledge repositories, whereas synchronous communication refers to virtual meetings and messages (Mehtab et al., 2017). This type of communication allows a team leader to manage their team's performance more effectively.

Virtual team leaders use communication technology to train and coach team members (Mehtab et al., 2017). Leaders can track the knowledge repository regularly to monitor the team members' participation, and send emails to members who are not participating in team activities (Mehtab et al., 2017). A repository date log will keep the leader informed of how much and how often the team members access the repository (Mehtab et al., 2017). A leader can be assisted in a virtual environment by a facilitator who keeps track of the usage and reports to the leader if a problem arises.

2.11 IMPORTANT TASKS FOR AN EFFECTIVE VIRTUAL LEADER

To assist a virtual leader to achieve effectiveness, several tasks can be performed. Mehtab et al. (2017) provides a list of tasks that will assist a leader to achieve effectiveness in a virtual environment.

- Virtual leaders must train their employees on how to participate with each team member. Virtual leaders must never just assume that best practices that worked in a traditional work environment will automatically also work in a virtual environment.
- Virtual leaders must overcome the coordination barriers that characterise working in a virtual environment. Only when a team member feels they can trust another team member and their team leader, will they all work towards one vision to achieve the team's goals and objectives.
- Virtual leaders must establish rules regarding when and how they should interact in the team, so that there is no confusion amongst the team members.
- Virtual leaders must agree on which tools can be used to communicate. This should, however, not be set in stone, due to new needs that may arise and impact the tool being used.
- Virtual leaders must ensure that employees are recognized and rewarded for satisfactory performance; doing this will make employees feel valued and appreciated.
- Virtual leaders should establish a role and task matrix that is placed in a visible location and that is available for the whole team to access at any time. Annexure G provides an example of a matrix a virtual leader can use to assist team members with their daily tasks. Developing and using this kind of matrix will assist team members to understand the team dynamic, and will create role clarity within the team.

- Virtual leaders should improve the team's experience by ensuring that all team members have the opportunity to gain experience, contribute and grow. This will lead to team members feeling that they are equally important.

These leadership tasks can assist a leader to leading a virtual team more effectively. The leader will only be able to know how successful they are if they ensure their progress in becoming more effective can be measured.

2.12 MEASURING LEADERSHIP EFFECTIVENESS

Hussein et al. (2017) advise that there are a variety of ways to measure leader effectiveness, and some are quite unique. Subordinates can evaluate their leader based on the leader's effectiveness as a 1) leader, 2) barrier buster, 3) facilitator, 4) results catalyst, 5) living example, 6) coach, and 7) business analyser (Fisher & Fisher, 2011). Another measurement will be based on the characteristics displayed by the leader. This will indicate which leadership styles, whether transformational leadership, servant leadership and/or authentic leadership, the leader displays. Using these measurements will assist in gaining a clear indication of the leadership effectiveness of the leader.

2.13 CONCLUSION

The researcher referred to the literature in relation to leadership tools that could give a leader the needed guidance to become more effective in a virtual environment. Working in a virtual environment does come with its share of challenges, though there are advantages to working in a virtual environment too. By implementing the right leadership tools, a leader can influence their team members to become inspired and motivated to achieve their goals and objectives more effectively. Employees will know exactly what is expected of them and they will be able to creatively perform their tasks to achieve the team vision. Even if they are no longer working face to face, teams can still be effective.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 INTRODUCTION

The focus of this study was analysing leadership effectiveness in a virtual environment at the IT department of a Bank. Research methodology is the science of understanding how research is performed methodically. The researcher will, in this chapter, highlight the specific procedures or techniques that were used during this research to identify, select, process, and analyse leadership effectiveness at the IT department at a Bank.

Research methodology comprises five stages. The first stage in research methodology is the research design, where the researcher indicates which research design method was used to obtain the data. The second stage of research methodology is the sampling strategy, where the researcher details the population and what the sample size is. The third stage of research methodology is data collection. During this stage the researcher shares what data collection tool was used to gather the data. The fourth stage of research methodology is the data analysis stage, where the researcher details the techniques that were used to analyse the obtained data. The last stage of the research methodology involves ethical considerations, where the researcher details what principles were applied during the research.

3.2 RESEARCH DESIGN

Research design refers to the step-by-step approach the researcher applied to conduct a study of a scientific nature (Bhasin, 2019). The approach the researcher used to conduct the research was the deductive approach. Hair et al. (2019) state that, when using a deductive approach, the researcher will first analyse the literature relating to the research topic, and then put the literature in practice.

There are numerous techniques and methods that a researcher could use to conduct research and ensure that it is handled in an efficient way. One of the ways is through quantitative research design. Quantitative research involves numbers, descriptive

statistics, figures and illustrations to show results of the study (Moghaddam & Moballeghi, 2008). Quantitative research strives to be objective and is appropriate when there is a possibility of collecting quantifiable measures of variables and inferences from samples of a population (Queirós et al., 2017). Cant and Van Heerden (2017) state that, when structured and quantifiable responses are required, then quantitative research is used.

In quantitative research, the collected data is mostly quantifiable. Statistics helps to summarize the data, and to describe patterns, relationships, and connections (Hackett, 2019). Statistics can be descriptive or inferential. Descriptive means the data summarises a given data set so that patterns emerge from the data (Hackett, 2019). Inferential allows the researcher to identify statistically significant differences between groups and reach conclusion about the data set (Hackett, 2019).

There are advantages and disadvantages of using the quantitative research method to perform research. The advantages of quantitative research methods are that,

- Data analysis is less time consuming (Rahman, 2016);
- Subjects are not influenced by the observations of the experiments (Queirós et al., 2017);
- Much information and different domains can be explored (Queirós et al., 2017);
- The degree of association and different domains can be explored (Queirós et al., 2017); and
- No manipulation of behaviour is required (Queirós et al., 2017).

The disadvantages of quantitative analysis are that,

- It is almost impossible for the variables to be controlled (Queirós et al., 2017);
- The conditions that arise during the study are difficult to replicate (Queirós et al., 2017);
- There are ethical problems that can come up during the study (Queirós et al., 2017);

- There are certain tools, specifically hardware and/or software, that may be needed for the study (Queirós et al., 2017); and
- The answers and their quality as provided by the respondents play a vital role in the reliability of the data (Queirós et al., 2017).

Epistemology refers to how knowledge is gathered, and from which sources (Bell et al., 2018). Therefore, in research terms, the researcher's view of the world and knowledge strongly influence the interpretation of data and the philosophical standpoint that should be made clear from the beginning.

This research made use of a quantitative research method and collected data with an online survey. Using an online survey enabled the researcher to develop clear and predefined questions to obtain information on "how much" and "how many". The respondents were able to give clear responses, which enabled the researcher to develop a clear view regarding the results (Hackett, 2019).

3.3 SAMPLING STRATEGY

Making a selection for a representative group from a population that is being studied, is called a sampling process. Hair et al. (2019) state that, when knowledgeable individuals are gathered to provide information about a specific topic, it is called collecting information. Hair et al. (2019) refer to these individuals as a population. A population is, thus, the total of all the elements that share a common set of characteristics. A census is undertaken once a researcher has identified a population and plans to involve all the members that form part of that specific population in their research (Hair et al., 2019).

The IT department of the Bank had 150 permanent employees. The researcher sent the survey to the 150 permanent employees; therefore, the population size was 150. The population chosen for this research is relatively small, and therefore, the researcher used the whole population. The sample was selected on the basis of their type of employment status, that is, being permanently employed. All the permanent employees were included in the sample. The employment status and job title were part of the inclusion criteria.

Contract workers were excluded from the sample. Management was also excluded from the sample selection. The study did not include any vulnerable participants. Contract workers, management and vulnerable participants made up the exclusion criteria.

The researcher chose this specific IT department because the employees in this IT department had not returned to work in the office since the COVID-19 lockdown started. In contrast, most of the Bank departments have returned to work in the office.

3.4 DATA COLLECTION METHOD

One of the main ways a researcher achieves the objectives of a study is through data collection. A researcher will receive the answers to the questions posed by the research when information is gathered and measured in a systematic way (Northern Illinois University, 2005).

By using a survey, a researcher is able to obtain the data directly from the respondents (Queirós et al., 2017). A survey approach uses direct or indirect questioning of respondents (Cant & Van Heerden, 2017). The respondents were presented with a list of questions (Queirós et al., 2017). There are benefits to collecting data by means of a survey (Queirós et al., 2017). The benefits are that,

- It does not take long to set up a survey;
- The costs associated with setting up a survey are low;
- The researcher can analyse the data that were collected with statistical tools;
- A large number of audiences can be reached; and
- The researcher's subjectivity has no impact on the survey.

Queirós et al. (2017) list the following disadvantages of using a survey as a data collection tool:

- The structure is rigid;
- The respondents' responses are limited, thus, the researcher has no access to the emotions or behaviour of the respondents; and
- The answers and the way the survey is structured can influence the data.

The online survey approach was used. Bell et al. (2018) explain that online surveys are surveys that are sent to respondents via an online platform. Using the survey approach allowed for structured questions and response categories. Surveys were sent to the IT departments' permanent employees via email, with an informed consent form as an attachment and the online survey link in the body of the mail. The respondents clicked on the Microsoft Forms link to access the survey only after they had given informed consent. The researcher used a Likert scale approach, and the respondents were able to choose one of five possible responses to the series of statements (Chandel et al., 2015).

The researcher requested permanent employees of the IT department to participate in the research during a monthly team meeting where all the respondents were present. Once the respondents had received the online survey, they had an opportunity to indicate if they wished to participate, or not. The researcher indicated in the email that the online survey would take 60 minutes to complete. The participants had three weeks to complete the online survey. The researcher monitored the respondents' progress via a report available on the Google Forms app. The participants were able to complete the surveys during their lunch hours or after working hours.

In 2002, Kayworth and Leidner had performed research on leadership effectiveness in global virtual teams. To assess virtual team leadership effectiveness, 13 virtual teams with their respective leaders were created at three different universities, and quantitative and qualitative analysis was done (Kayworth & Leidner, 2002). In their research, they collected data with a survey that was administered upon the completion of the project. Kayworth and Leidner (2002) report that, in spite of certain limitations that were experienced during the research, they were able to make valuable findings. Some of the

limitations they faced during their study was that their data were gathered from a very limited sample, and respondents representing only certain cultures were included.

During this research, the researcher used the survey applied in the research by Kayworth and Leidner in 2002. The researcher omitted the open-ended questions, because this study only used a quantitative research method. The survey comprised a variety of questions regarding leadership effectiveness, communication, leader roles, team effectiveness, and extent of communication technology being used, for which the respondents rated their virtual team leader's performance. The respondents were asked a total of 37 questions. The survey was constructed in America and was originally completed by respondents who were located at different universities in three different countries. The respondents completed the survey online. The validity and reliability of the survey was tested by Kayworth and Leidner.

For this study, the researcher used the survey developed by Kayworth and Leidner (2002), though the researcher used only the quantitative questions and did not use the qualitative questions. The questions and the context of the survey applied to the study being performed; therefore, the survey did not need to be adjusted. The participants of this study were able to complete this survey online and were, therefore, not negatively impacted in any way.

3.5 DATA ANALYSIS

Data analysis is the process of collecting, modelling, and analysing data, which will allow a researcher to extract insights that support decision-making. Univariate analysis is the analysis of one variable at a time (Bell et al., 2018). One way of doing univariate analysis is through diagrams. Bell et al. (2018) explain that diagrams in the form of pie charts or bar charts can be used to display quantitative data, because they enable the researcher to interpret and understand the data. Once all the data had been collated, the researcher shared the results with a senior lecturer in the mathematical statistics and actuarial science department. This lecturer assisted the researcher to analyse the data. The

researcher also supplied the statistician with an Excel spreadsheet, on which the researcher indicated which questions in the survey related to the research questions indicated in Section 1.3.1.

The researcher used pie charts and bar charts to present, interpret and analyse the data gathered from the online survey. When using questionnaires or surveys, different variables are elicited. The researcher used a Likert scale that allowed the researcher to generate an ordinal variable. Ordinal variables have categories that will allow the researcher to rank responses in order of magnitude, though it does not mean that the categories are equal (Bell et al., 2018). Bell et al. (2018) define ordinal variables as variables that have more than one category, and they state that the variables can be ordered or ranked. Once the researcher had collected all the data, the researcher analysed the data to identify and note the responses to the different questions in the survey. Once this had been done, the researcher populated the outcomes into a Excel spreadsheet, so that the charts could be created.

Analysis was performed through box plots. Lewandowski and Bolt (2010) explains that a box plot, also known as a schematic plot or box-and-whiskers plot, is a method for interpreting and summarising tabled data. A box plot can be used to visualise the patterns that have been identified, that would otherwise be hidden in the data set. A number of properties are useful in exploratory data analysis techniques, namely, that they can emphasize the visual displays that can highlight the landmarks of the data; secondly, the statistical measures that are resistant to the data values that could impact the analysis, and lastly, there can be presumptions of the data.

The third data analysis method used is calculation of averages. According to Cao (2021), the mean is a statistical tool that is often used in research to show the concentrative trend of a group of data. The mean is shown through an average score. The average score is calculated by adding all the scores and dividing it by the number of responses.

One of the last methods the researcher used to analyse the research is Pearson correlation (Nettleton, 2014). Pearson correlation determines how strong the relationship is between two variables, and their association with each other (Nettleton, 2014). The Pearson method assigns a value between -1 to 1, where 0 is no correlation, 1 is a total positive correlation and -1 is total negative correlation (Nettleton, 2014). Any result above 0 indicates that a significant and positive relationship exists between two variables (Nettleton, 2014). Thus, when the value for one of the two variables increase, then the second variable will also increase. When the value of the correlation is negative, it means the value for the first variable increases while the second variable decreases. The researcher linked variables from the questionnaire to investigate the impact they have on one another. Doing so enabled the researcher to determine the relationships between leadership effectiveness and the use of leadership tools, leadership effectiveness and the communication tools being used in a virtual environment.

The statistician supplied the researcher with a detailed report on the data gathered through the online virtual survey for the above data analysis methods. The researcher reviewed the detailed report and only highlighted the significant data as part of the data analysis. This data will be reported on in Chapter 4.

3.6 ETHICAL CONSIDERATIONS

Ethics is the discipline that is concerned with what is the right or wrong way of doing things (Singer, 2019). Research ethics is of vital importance because doing ethical research,

- Encourages collaborative values;
- Ensures researchers take responsibility for their actions; and
- Maintains research integrity and trustworthiness.

The following ethical considerations were adhered to in this study.

3.6.1 Obtaining permission

One of the ethical considerations that researchers frequently neglect is obtaining written permission from the business to undertake the research (Greener, 2008). Written permission was firstly obtained from the University of the Free state to conduct the study. Written permission was obtained from the Bank once the research topic had been finalised. Written permission was obtained from the head of the IT department and the human resources business partner.

3.6.2 Obtaining informed consent

Informed consent refers to all parties involved knowing exactly what the benefits and risks are of the study they will participate in (Smith, 2003). Informed consent means that all the participants are fully informed about the research process. Arifin (2018) suggests that respondents should be able to give their consent to participate in the research freely after receiving detailed information on what will be expected of them. Arifin further explains that the participants must be competent to give their consent. Participation in the survey via the online platform was voluntary for employees of the IT department. The researcher attached the informed consent form to email that contained the survey. The participants had to agree or disagree to the informed consent. Only participants who agreed to the informed consent completed the online survey.

3.6.3 Voluntary consent

Manti and Licari (2018) define voluntary consent as a subject's voluntarily confirmation of willingness to participate in research. The researcher must inform the participants about the research and make sure that they fully understand the information (Arifin, 2018). The participants must be able to decide on their own if they want to participate in the research or not (Arifin, 2018). Participants must be made aware that they may withdraw their participation at any stage during the research (Arifin, 2018). All respondents had the

ability to freely decide if they wanted to form part of the research, and were not forced to form part of the research. Thus, once they received the online survey, they were able to decide if they want to participate or not.

3.6.4 Anonymity and confidentiality

Greener (2008) cautions that a researcher should always ensure respondents' confidentiality and anonymity during the research process by ensuring that the survey is used only as part of the research, and identifying information of respondents are obscured, thus, ensuring anonymity. Confidentiality means information that can be linked to a specific person is not available and cannot be accessed by a third party (Arifin, 2018).

The survey data was handled confidentially. All participants were able to respond to the survey anonymously. When they logged in to the survey on the online platform, the respondents were not required to enter their names, so they remained anonymous. The researcher had the responsibility of ensuring that all the respondents' information was preserved and was not revealed during the data collection, data analysis and the reporting of the findings of the research. Furthermore, to protect the organization where the research was conducted, this research document was anonymized.

3.6.5 Avoidance of harm

Harm does not only refer to physical harm, but also psychological harm. Harm could refer to negative effects on self-esteem, stress, harm to someone's career prospects, now or in the future. Harm to any respondents who take part in research is not acceptable (Bell et al., 2018). No harm came to those who participated in the survey (Arifin, 2018).

3.6.6 Conflict of interest

Bell et al. (2018) refer to the potential to influence the manner in which research is defined and the method the results are presented by the affiliations, such as funding, that the researcher may have. When there is a source that wants the results for a specific purpose,

it could lead to ethical implications. There was conflict of interest for the researcher, in the sense that the Bank requested to use the data from the survey to analyse the leadership effectiveness of the IT department. This means that the researcher had to ensure that the confidentiality of the participants is held at all times when sharing the data with the Bank.

3.6.7 Risk–benefit ratio

The risk–benefit ratio refers to the magnitude of the benefit and the harms related to a research project. The researcher informed the participants of the risk that the leaders of the IT department could require access to the results of the study. The participants were also informed of the benefits the study could have, namely that,

- Leaders would utilise the results of the study to improve leadership effectiveness; and
- Leaders would know what the areas of improvement are to achieve leadership effectiveness.

No respondents were harmed or faced any undue risk during this research.

3.7 CONCLUSION

By following the research methodology stages set out above, the researcher was guided in collating the correct data and to do an informed analysis of leadership effectiveness. The researcher used a quantitative research method and ensured that the respondents were aware that they were able to be excused from the research at any time. The collection of the data was done through an online survey that allowed the respondents to remain anonymous. This method also enabled the researcher to transform the data into graphs. The respondents were able to indicate if they agreed or disagreed to participate in the survey, thereby ensuring voluntary participation.

CHAPTER 4: DATA ANALYSIS AND INTERPRETATION

4.1 INTRODUCTION

The data were collected through an online survey, and the researcher was able to extract the useful information that is buried within the data for analysis and interpretation. Data analysis is the process of performing certain calculations and evaluations on the data that had been collected (Bell et al., 2018). Therefore, analysis of data involves organizing data in a proper way (Bell et al., 2018). This chapter will give clarity about the data that the researcher analysed from the online surveys that had been completed by respondents. The data that were collected relates to the issue of leadership effectiveness in a virtual environment. The researcher will present the data as graphs, correlations and box plots.

4.2 RESPONSE RATE

To collect the data, the researcher sent out a total number of 150 surveys to all the permanent employees of the IT department at the Bank. The response rate is the number of employees who agreed to be part of the research (Figure 4.1).

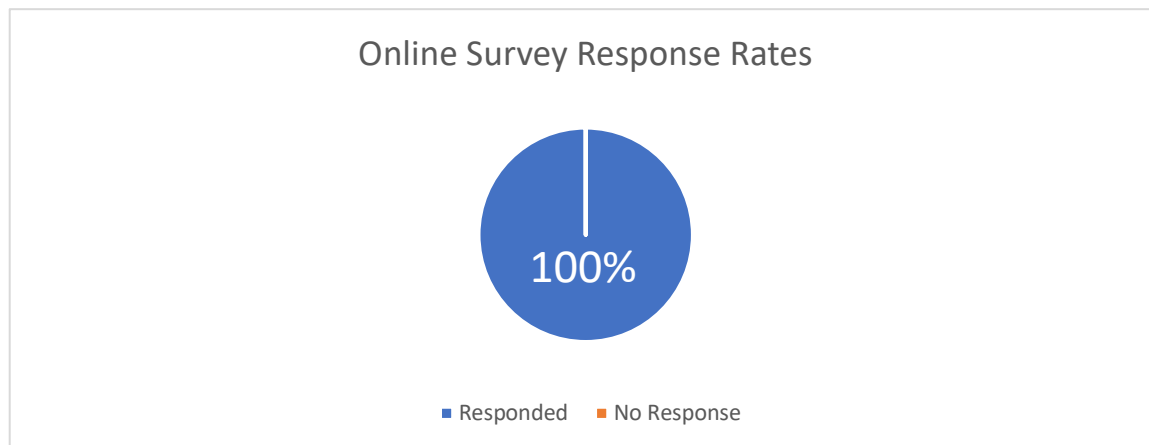


Figure 4.1: Online survey response rate

A total number of 150 online surveys were distributed for this research. All the online surveys were completed by the respondents. The researcher attended all the team

meetings to request employees to participate in the survey and regularly sent reminders for employees to complete the survey. All the data were analysed based on the research objectives and research questions provided in Chapter 1. Figure 4.1 shows that 100% of the participants responded and that there were no respondents who did not participate in the survey.

4.3 ANALYSIS OF BIOGRAPHICAL DATA

In the online survey, the respondents were presented with a list of questions that related to biographical data. The respondents' responses formed the basis of the analysis and the interpretation of the data.

4.3.1 Years employed at the organization

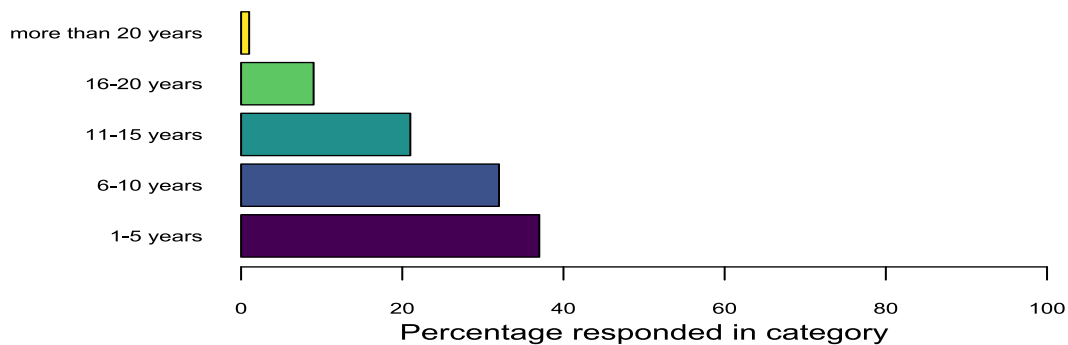


Figure 4.2: How long have you been with the company?

Most of the permanent employees of the IT department were fairly new employees of the Bank, because 69% of the employees had been with the Bank for 10 years or less, and of that 69%, 37% of employees had been with the Bank 5 years or less. Figure 4.2 shows that 1% of employees had been with the company for more than 20 years, and 9% of employees had been with the company for 16 to 20 years. Figure 4.2 also indicates that 21% of the employees had been with the company for 11 to 15 years.

The data in Figure 4.2 does not mean that the employees had worked in the IT department for all the years they had been employed by the Bank. More than 50% of the employees had been working for the Bank for no more than 10 years.

4.3.2 Age

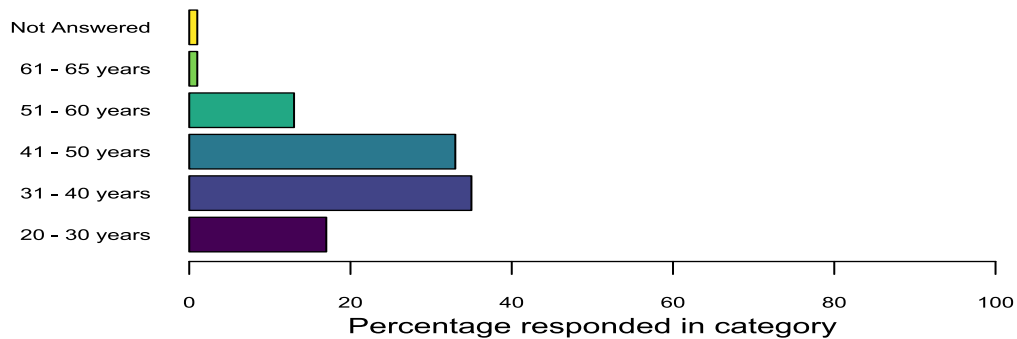


Figure 4.3: What is your age?

A couple of respondents (1%) of respondents did not answer this question in the online survey. Only 1% of the respondents were aged 61 to 65 years, and 13% were aged 51 to 60 years. Figure 4.3 indicates that 17% of the respondents were aged 20 to 30 years, 35% were aged 31 to 40 years, and 33% of the respondents reported being between the ages of 41 and 50 years. This indicates that employees between the ages of 31 and 50 years form the core of the IT department.

4.4 ANALYSIS AND INTERPRETATION OF DATA ON LEADERSHIP EFFECTIVENESS IN A VIRTUAL ENVIRONMENT AT THE IT DEPARTMENT OF A SOUTH AFRICAN BANK

In the online survey, the researcher posed questions about leadership effectiveness in the IT department of a particular South African Bank. The responses allowed the researcher to do analysis and interpretation.

Table 4.1: Numerical summary per question

Question	Mean	Description
1	2.060	How long have you been with the Company?
2	2.450	What is your Age?
3	3.197	In terms of the overall quantity of communication between yourself and your VTL(current line manager), how would you rate this in terms of quantity?
4	3.209	When you have required important information about the virtual team project, your VTL (current line manager) has communicated this information?
5	3.387	In terms of the regularity of communication with your VTL(current line manager), how would you rate this?
6	3.378	In terms of the quality of the communication between you and your VTL(current line manager), how would you rate this
7	3.514	When there are important changes/news concerning the project, your VTL(current line manager) communicated these changes
8	3.720	When you had important questions about the project, your VTL(current line manager) responded:
9	3.707	I feel very confident about the skills of my VTL(current line manager)
10	3.633	My VTL(current line manager) had much knowledge about the team projects
11	3.633	My VTL(current line manager) has specialized capabilities that helped increase our performance
12	3.693	My VTL(current line manager) showed a great deal of integrity
13	3.591	I could rely on my VTL(current line manager)
14	3.653	Overall, my VTL(current line manager) was very trustworthy
15	3.624	My VTL(current line manager) was usually considerate of my opinions and ideas
16	3.758	My VTL(current line manager) was friendly
17	3.648	I have confidence in my VTL(current line manager)

Question	Mean	Description
18	3.671	My VTL(current line manager) was usually considerate of my feelings
19	3.667	To what extent were you satisfied with - Your sense of belonging to the virtual team
20	2.693	To what extent were the following means of communication employed on projects: EMAIL
21	4.287	To what extent were the following means of communication employed on projects: Web collaboration tools
22	3.913	I knew what my responsibilities were on this virtual team
23	3.893	I knew what was expected of me on this virtual team
24	3.860	I felt I had sufficient time to fulfil my responsibilities on this virtual team
25	3.667	He/She exerted influence in the virtual team
26	3.587	He/She ensured that I met short-term stated goals
27	3.544	He/She ensured that I met long-term stated goals
28	3.503	He/She clarified my priorities and directions
29	3.376	He/She anticipated work flow problems and avoided crisis
30	3.221	He/She brought a sense of order into my work
31	3.193	He/She surfaced key differences among team members and then worked to participatively solve them
32	3.507	He/She encouraged participative decision making
33	3.633	He/She showed empathy and concern in dealing with me
34	3.627	He/She treated me in a sensitive caring way
35	3.607	My virtual team project leaders (current line manager) performance was:
36	3.567	My virtual team project leader's(current line manager) performance as a role model was
37	3.540	My assessment of my project leader's (current line manager) managerial success is:

The question, “To what extent were the following means of communication employed on projects: Web collaboration tools?” (Question 21) has the highest mean, namely 4.287. The question that has the lowest mean is the question, “To what extent were the following means of communication employed on projects: EMAIL” (Question 20) (see Table 4.1). Question 20 has a mean of 2.693. Figure 4.5 also indicates that at least 50% of respondents selected Option 2 in response to Question 20. This means that, when they work in a virtual environment, the employees of the IT department use web collaboration tools to communicate about the project, rather than using email as a method. This was confirmed by the data analysis illustrated by a bar graph in Figure 4.4 and box plot in Figure 4.5.

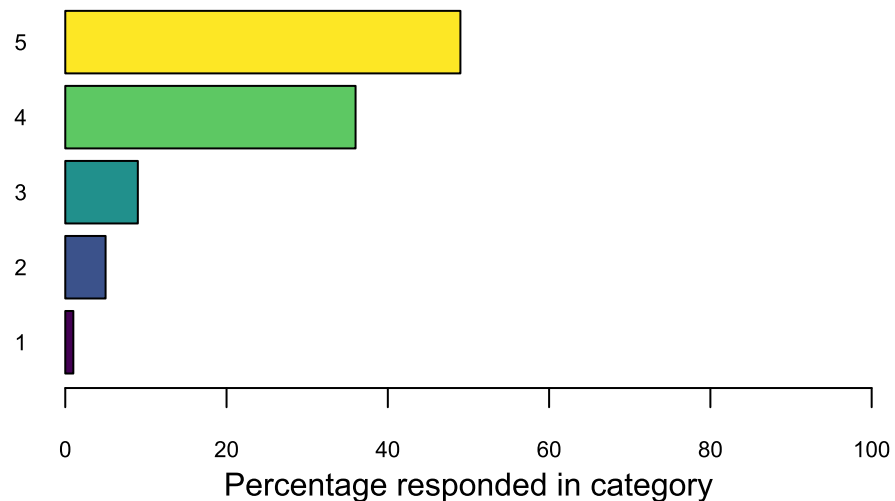


Figure 4.4: Question 21: To what extent were the following means of communication employed on projects: Web collaboration tools?

In total 49% of respondents reported that they used web collaboration tools as a means of communication on projects; only 10% respondents said that they never used web collaboration tools to communicate on projects (Figure 4.4). This shows that, whilst working in a virtual environment, the team used web collaboration tools mostly to communicate regarding the projects they were working on. In Section 2.3, the literature

revealed that, in a virtual environment, advanced technologies (Microsoft Teams and Skype, as mentioned in Chapter 1) assist employees to be linked to each other and to communicate. Employees are able to maintain the quality and quantity of their communication at a high level due to the web collaboration tools available to them. This indicates that the employees are used to using the web collaboration tools.

The question with the second highest mean is, “I knew what my responsibilities were on this virtual team” (Question 22). The mean is 3.913, as indicated in Table 4.1. This indicates that most of the employees of the IT department were clear on what they needed to do while working in the virtual team. In Section 2.7, the literature reported that roles and responsibilities have to be made clear by the manager through communication; doing so provides role clarity for employees. In the box plot analysis, Figure 4.5, it can be seen that at least 50% of the respondents selected a 4 in response to Question 22. This shows that most of the respondents believed that they knew what their responsibilities were in the virtual team (Question 22). This also demonstrates that the leader clearly communicated what the responsibilities were for the different team members. This enables team members to be enabled to do their work, as indicated in Section 2.7 by Kayworth and Leidner.

The question with the third highest mean is “I knew what was expected of me on this virtual team” (Question 23), as indicated in Table 4.1. In Section 2.7, it was reported that Kayworth and Leidner recommend that a virtual leader provides employees with a clear, detailed picture of the tasks they have to complete. This enables team members to be clear on what exactly is expected from them. For Question 23, “Employees know what is expected from them in the virtual team”, more than 50% responded with a 4, as indicated in Figure 4.5. This is an indication that the communication from the leader was clear and gave them the clarity they needed to know exactly what they needed to do.

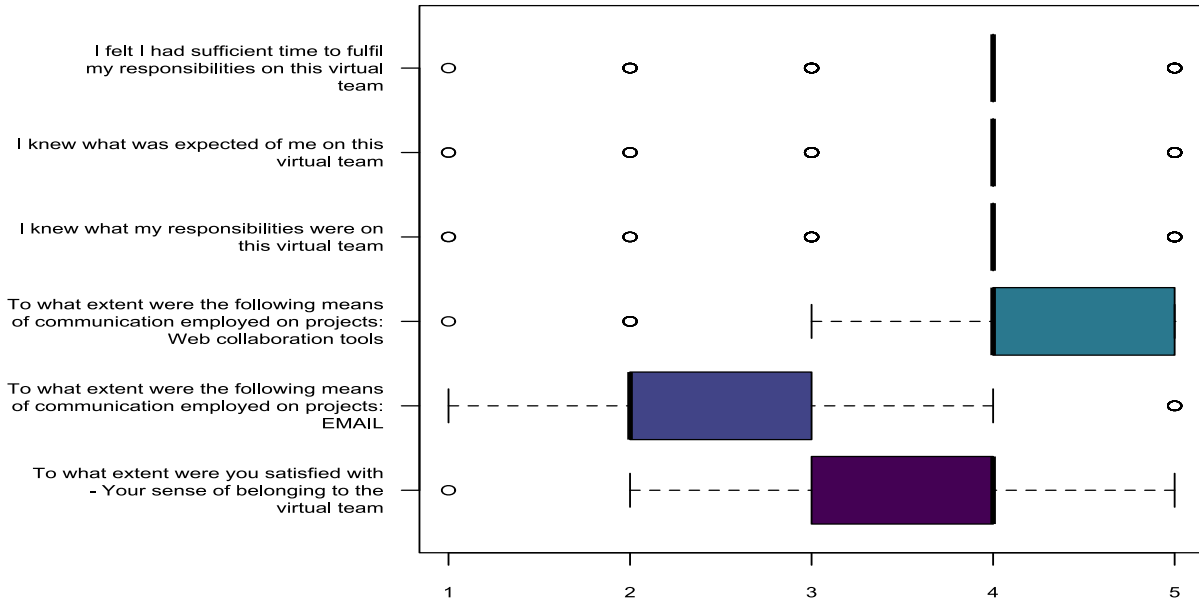


Figure 4.5: Box plot analysis

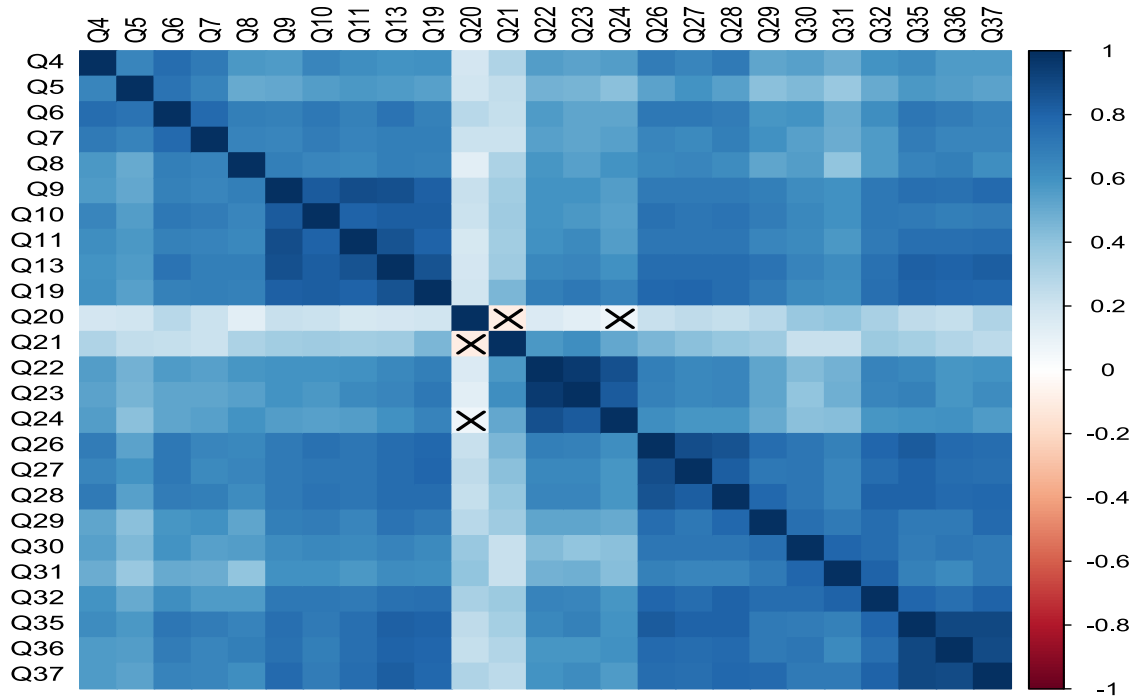


Figure 4.6: First set of correlation coefficient between questions asked of respondents

Figure 4.6 illustrates the strength of the relationship between the responses to questions that were posed to the respondents. It was explained in Section 3.5 that a value between -1 and 1 is assigned to indicate the strength of the correlation. The closer the value is to 1, the stronger the relationship – this is indicated by the different shades of blue: the darker the blue, the stronger the correlation. When the result is closer to -1, then there is a negative correlation. For this research, there was no correlation that was closer to -1 (which would have been indicated by a red colour).

The respondents were asked what the “quality of the communication with their manager” was (Question 6). Figure 4.6 shows that Question 6 had a high 0.7 correlation with Question 26. Question 26 asked whether the manager ensured that employees met their short-term goals. This confirms what the literature revealed, namely that a leader must assist in ensuring that employees achieve their goals. One way of assisting employees is through communication that gives clear direction and guidance. Through clear communication, the leader assists employees and provides clarity about their roles, so that they are able to achieve their goals.

Question 6 also had a relatively high correlation of 0.6 with Question 28. Question 28 asked respondents if their managers clarified their priorities and direction. The literature reported in Section 2.7 recommends that managers communicate with employees to give them clear direction about the completion of their work. The data indicates that, through the clear communication between the employees and leaders, employees receive the directions needed to be able to achieve their objectives. Employees require clear direction, so that they can successfully achieve their short and long-term objectives.

The literature indicates that a leader should play a key role in the relationship between staff members, to create an environment that is conducive for the employees to learn and grow. However, Figure 4.7 (Question 31) indicates that 25% of respondents believed that the manager did not work to resolve differences among team members. Figure 4.7 (Question 31) shows that only 38% of respondents were of the opinion that the manager surfaced key differences and worked to resolve them, while 31% did not feel strongly in

response to this question. Employees want the differences between them to be addressed, so that the work environment is healthy. When differences are not addressed, it can hinder employees' performance, which can lead to employees failing to achieve their goals and objectives. As a facilitator (Section 2.8), a leader should facilitate the communication between team members to address the differences being experienced.

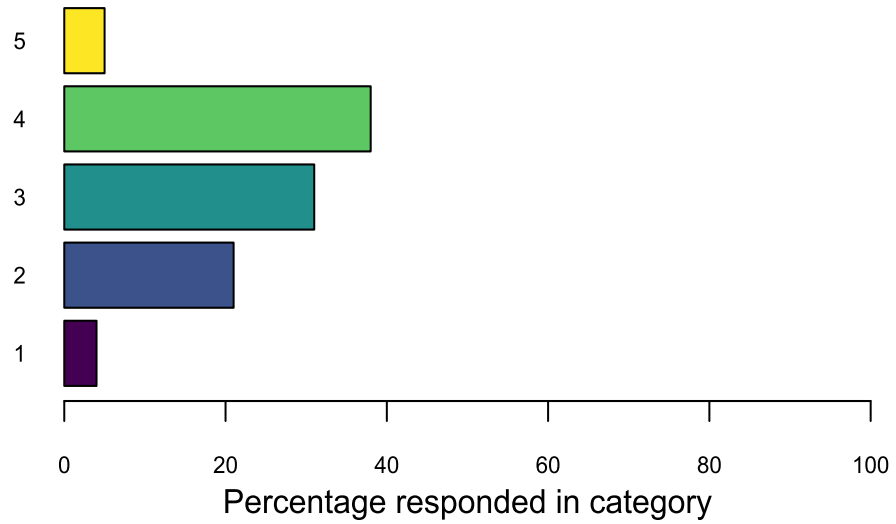


Figure 4.7: Question: 31 He/She surfaced key differences among team members and then worked to participatively solve them

Question 14 asked the respondents to rate the overall trustworthiness of their virtual team leader. Trustworthiness contributes to an environment of trust and belonging by the team. Trust is an important aspect in a virtual environment, as discussed in Chapter 2. Considering Figure 4.8, there was a high percentage of employees that felt that their virtual team leader is very trustworthy. However, the data also shows that more than a third of the employees do not feel as strongly about the team leaders trustworthiness. This shows that trustworthiness is a potential area of development for the virtual team leader.

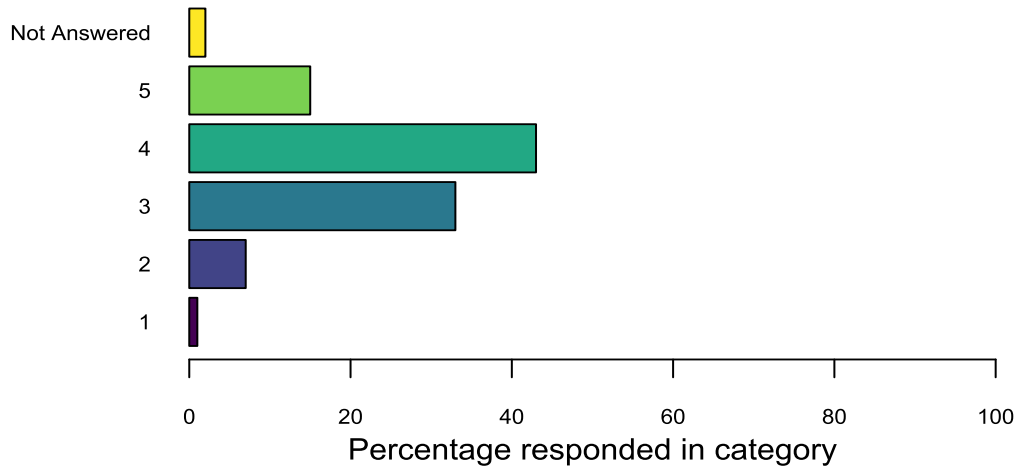


Figure 4.8: Question 14: Overall, my VTL was very trustworthy

In response to a question if their manager anticipated workflow problems and avoided crises (Question 29), 34% of the respondents did not express a strong response. In total 16% of respondents chose a negative response to the Question 29, as shown in Figure 4.9. The literature shared in Section 2.7 indicates that a manager must be able to assist with problem-solving in the team, to ensure that the team is more efficient. The literature also reveals that a servant leader must be able to foresee an outcome of a specific situation (Section 2.11). By addressing the problem at an early stage, team members can work in an environment where members are able to work together. This will also lead to improved teamwork and teams achieving goals and objectives.

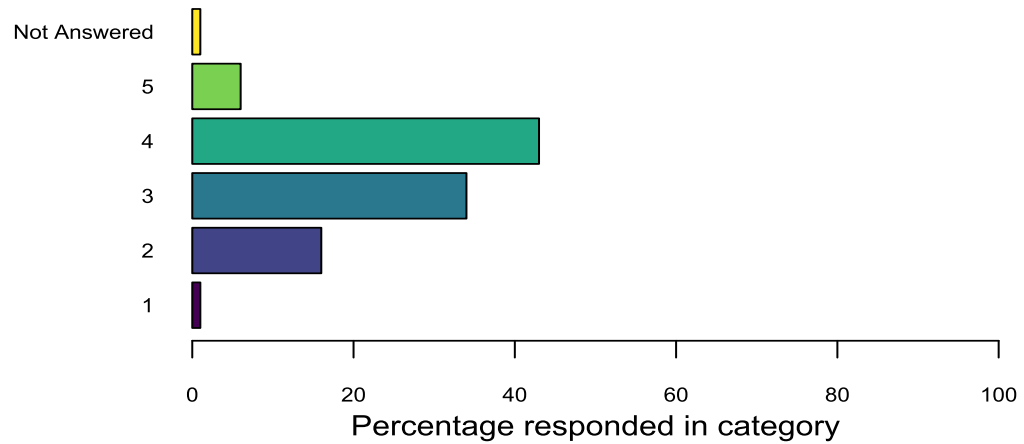


Figure 4.9: Question 29: He/She anticipated workflow problems and avoided crises

Respondents were asked if the manager brought a sense of order to their work. The responses have a mean of 3.221, as indicated in Table 4.1. According to Figure 4.10 (Question 30), 33% did not feel strongly that their manager brought order to their work, while 24% of the respondents said the manager did not bring order to their work. As a facilitator, as indicated in Section 2.8, a manager must assist to bring focus and structure to their team members' work. By bringing order to employees' work, employees will be assisted to achieve their short and long-term goals. The managers in the IT department need to focus on bringing a greater sense of order to the employees' work.

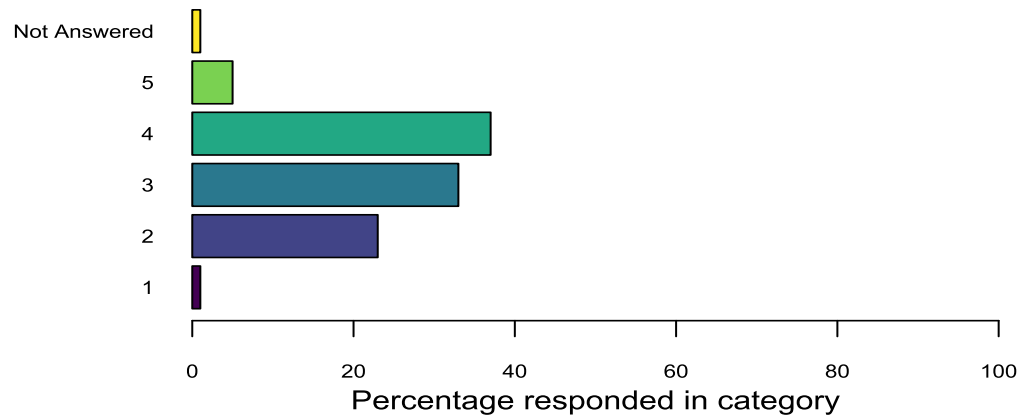


Figure 4.10: Question 30: He/She brought a sense of order into my work

Question 17 (“I have confidence in my VTL (current line manager)”) has a 0.8 correlation with Question 13 (“I could rely on my VTL (current line manager)”), as shown in Figure 4.11. This high correlation indicates that the manager was someone they could rely on, and that was part of the reason why respondents had such a high level of confidence in their manager. Question 17 had a 0.7 correlation with Question 14 (“Overall, my VTL (current line manager) was very trustworthy”). The questions posed to the respondents related to the trust that they had in their manager, and whether the manager was open to their ideas and opinions. The literature reports that authentic leaders cultivate trust between leaders and employees (Section 2.10). When employees experience trust, it leads to the employees feeling supported and then employees will, in turn, support their leaders to achieve team goals and objectives. This trust is needed for the team members to not only achieve their individual objectives. but also to achieve team objectives and goals.

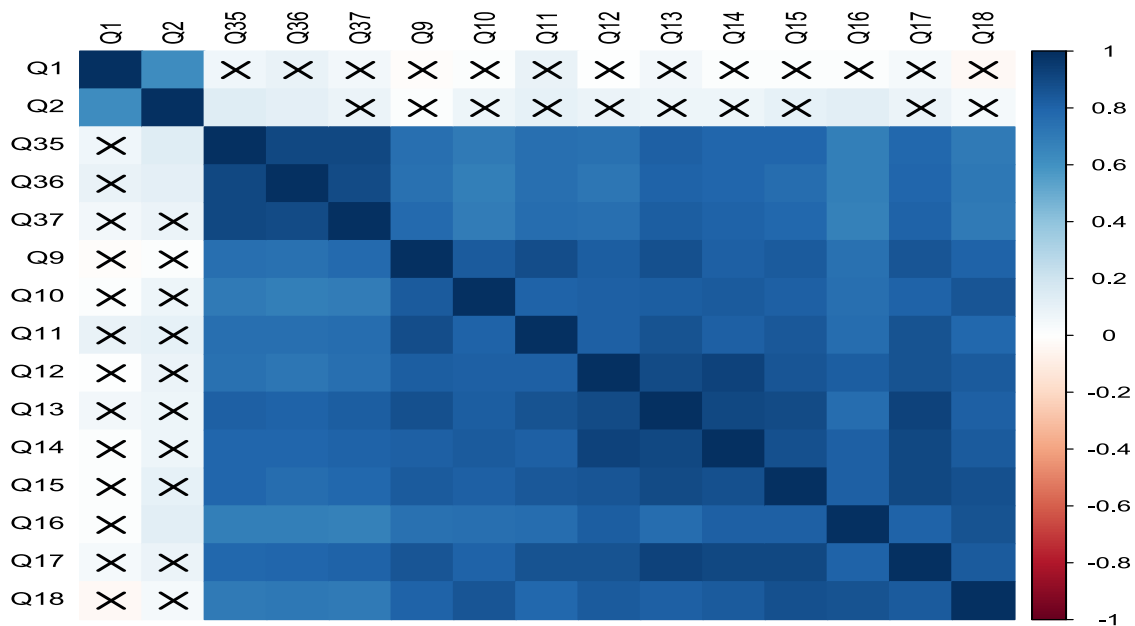


Figure 4.11: Second set of correlation coefficients between questions asked of respondents

The responses were positive due to the trustworthiness between the team members and the leaders. By having trust in their leader, employees have confidence in their leader to guide them through the challenges that they experience when working in a virtual environment. This trust also shows that team members believe their leaders will support them in achieving their goals and objectives.

The researcher asked the respondents questions relating to Research Question 2 (“Which leadership behaviours has an influence on employee performance in a virtual environment at the IT department at a Bank?”). Figure 4.12 indicates that, of the 23 questions relating to Research Question 2, 50% of the respondents responded very positively to 19 (of 23) questions posed to them in this regard. This indicates that the leaders displayed leadership behaviours that influence performance positively in the virtual environment at the IT department of the particular South African bank.

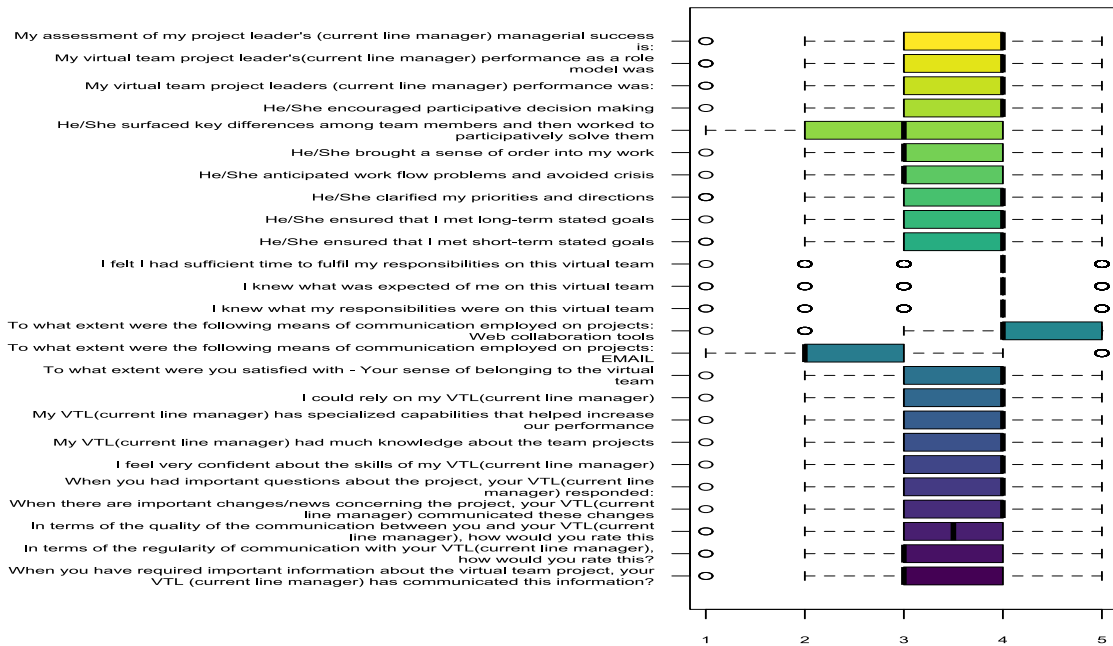


Figure 4.12: Questions in relation to Research Question 2

The respondents were asked questions in relation to Research Question 3 (“What leadership tools are available to achieve leadership effectiveness in a virtual environment at the IT department at a Bank?”). Figure 4.13 indicates that, of the 21 questions posed to the respondents relating to Research Question 3, 50% of the respondents responded very positively to 18 (of the 21) questions posed to them. These questions relate to characteristics of leadership styles that leaders can use for leadership effectiveness. For 18 of these questions, 50% of the respondents responded with a 4.

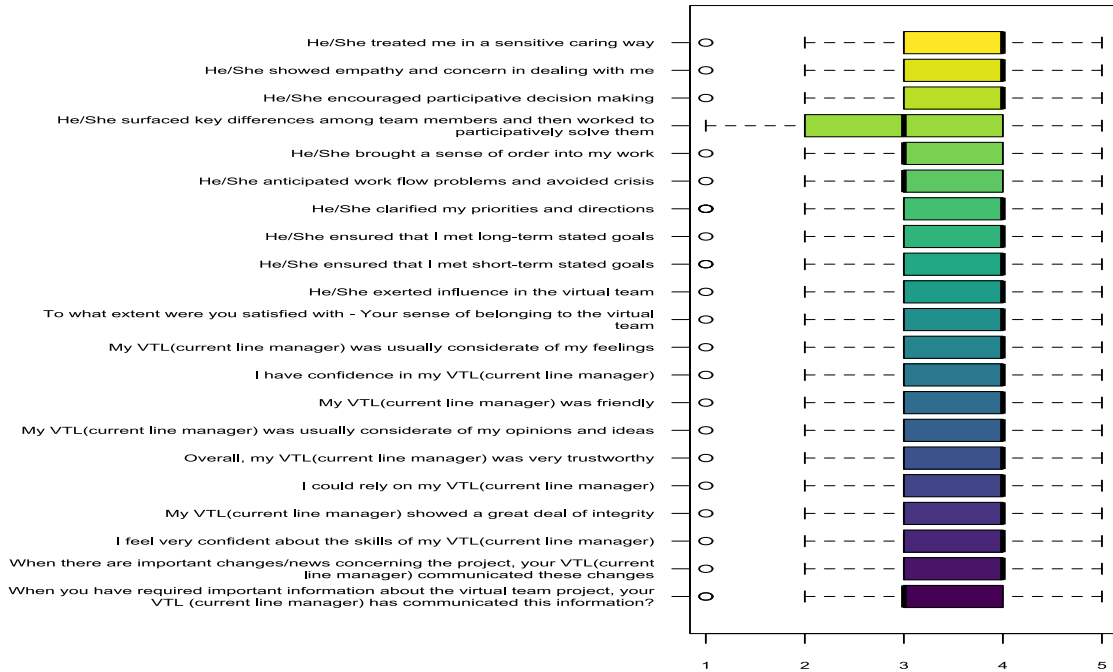


Figure 4.13: Questions in relation to Research Question 3

Both Figures 4.12 and 4.13 highlight potential areas of improvement for the virtual team leaders at the IT department of the particular South African Bank, which were discussed earlier in this chapter.

4.5 CONCLUSION

The data provided in the virtual survey assisted the researcher to do an in-depth analysis of the leadership effectiveness of the IT department at a particular South African bank. Chapter 4 detailed the analysis and interpretation of the data. Respondents responded positively to most of the questions that were posed. Table 4.1 indicates that the highest mean was achieved for the question relating to the web collaboration tool that the employees utilised to communicate about their projects in the virtual environment. It was also indicated that employees no longer use email much as a tool of communicating about their projects. Communication is vital in a virtual environment and the data revealed that the team's quality and quantity of communication was positive. It transpired that employees had high levels of trust and confidence in their leaders.

To be an effective virtual leader, the leader should bring a sense of order to the employees' work. The researcher found that respondents were of the opinion that not much order is brought to their work by their leaders. The researcher also found that the leaders did not always anticipate problems and avoid crises. Lastly, the researcher found that the leaders did not always anticipate workflow problems, or work participatively to resolve them. In Chapter 5, the researcher will present the conclusions and recommendations of this study.

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

In Chapter 1, the researcher provided the background, objectives, and research questions relating to this study. In Chapter 2, the researcher referred to literature relating to the study and, in Chapter 3, the research methodology was shared. An online survey was distributed to respondents as part of the quantitative research method that was employed to collect data required for the data analysis, which was completed in Chapter 4. Chapter 4 provided the researcher with a clear view on what aspects of leadership effectiveness was functioning well and which aspects require improvement in a virtual environment. By focussing on the areas of improvement, the organization will be assisted to achieve their goals and objectives. In this chapter, the researcher will give a summary of the findings of the research that was conducted at the IT department of a particular a South African bank. Recommendations will also be shared, as will recommendations for actions the IT department can take to improve leadership effectiveness.

5.2 CONCLUSIONS

In Chapter 1, the primary objective of this research was stated as to identify leadership tools to achieve leadership effectiveness in a virtual environment at the IT department at a South African bank. In Chapter 2, the researcher discussed leadership styles that leaders can use to be effective in a virtual environment. This research also assisted in identifying behaviours that leaders display that correspond with particular leadership styles and which that need improvement in a virtual environment. The three leadership styles that the researcher indicated that could result in leadership effectiveness in a virtual environment were transformational leadership, servant leadership and authentic leadership. The researcher concluded that these leadership styles do not have to be applied in isolation, but that all three can be used simultaneously.

The first secondary objective was to contextualize a virtual environment in the banking industry. In Chapter 2, the researcher reported that a team could have a good level of employee satisfaction when working virtually in a banking environment. A virtual environment means there are no geographic and time barriers, therefore, employees are able to interact and complete tasks more timeously (Gupta & Pathak, 2019).

The second secondary objective was to provide an overview of leadership effectiveness in a virtual environment. According to Hao and Yazdanifard (2015), when employees have an effective leader they are able to fulfil their roles efficiently and work more effectively towards achieving their goals and objectives. Working virtually comes with its challenges, but if a leader fulfils the basic roles and tasks for an effective virtual leader, as explained by the literature, it will assist leaders on their journey to being effective. A leader will then be able to fully enjoy the advantages of working in a virtual environment.

The third secondary objective was to analyse the leadership effectiveness in a virtual environment at the IT department of a South African bank. In Chapter 4, the results of an online survey that had been completed by the respondents were presented. In total 150 online surveys had been completed by IT department employees. They reported, as indicated by the mean in Table 4.1, that the IT department communicates about their projects mainly via web collaboration tools, and not as much via email.

Table 4.1 (Questions 3 to 8) indicates that communication in the IT department is of good quality and quantity. Figure 4.8 shows that most employees trust their manager, even when working in a virtual environment. Figure 4.10 reveals that managers are not bringing order into all employees' work, and when there are differences between the teams, virtual leaders do not work participatively to resolve the differences for all employees. The data also revealed that workflow problems are not always anticipated by the virtual leaders, and leaders do not always avoid crises, which employees then have to work through.

5.3 RECOMMENDATIONS

The analysed data and interpretation done in Chapter 4 assisted the researcher to gain a clear view of the leadership effectiveness of the IT department at a particular South African bank. The following recommendations are made for the leaders to improve the leadership effectiveness at the IT department of a South African bank.

5.3.1 Maintain existing communication

In Chapter 4 it was clear that the quality and quantity of communication from the leaders at the IT department of a South African bank is sufficient. This contributed to the behaviour from the leaders being experienced as trustworthy by the employees at the IT department. The leaders should now aim to maintain the quality of communication between themselves and the employees, because communication contributes to the leadership effectiveness of the team. Continuing to communicate effectively will minimise communication challenges that the team could encounter in a virtual banking environment. Therefore, leaders must continue to keep employees informed and must continue communicating the latest information regarding their projects. The leaders' communication will ensure that the IT department achieves its goals and objectives.

5.3.2 Bring a sense of order to employees' work

In Chapter 2 (Section 2.7) the researcher shared how a leader is expected to give direction to the team, and should ensure that all their actions have a purpose and correspond with the overall objectives of the team. The research indicated that the leader plays the role of a coordinator for their team. A virtual leader has the role of creating structure and giving employees a clear view of what should be done (Section 2.7). By following these suggested guidelines, employees will feel that there is order in their work and that they work within a structure that is provided by the direction and guidance of their leader. This will not only assist in providing a sense of order, but will also contribute to the leadership effectiveness in the team. The leader can also use the example of the matrix (Section 2.13 and Annexure G) to assist them to bring order to the employees' work.

Leaders can assist employees to develop their own matrix for reference. By reviewing the matrix daily, employees can ensure that they complete their tasks in time. In Section 2.7, the researcher shared that a leader should also play the role of a coordinator and bring order to their team members' work by giving them clear direction and guidance. Therefore, the leader should focus on becoming a coordinator for their teams.

5.3.3 Work participatively to resolve differences between employees

In Chapter 4 it was indicated that communication within the IT department is effective. Effective communication is needed to resolve differences within teams. Chapter 2 (Section 2.4) shared that, for a team to work as a single unit, they need a leader who is able to unify them. Section 2.8 also indicated that a leader plays the role of liaising between the team members. Powers (2018) shares that a virtual leader should have the ability to be a very skilful listener. The leader must actively work at listening to the feedback and concerns raised by team members and, once they have listened, they should find a way of resolving differences. Listening to employees' concerns will enable the leader to understand their concerns. Once the understanding has been achieved, a leader will be able to show their authentic leadership characteristics (Section 2.10) to assist in resolving differences. In Chapter 2 (Section 2.8), the literature shared that a leader is likely to encounter challenges within the team, but that a leader can overcome this by being a barrier buster. The leader should remain in touch with their team members, so that the leader can identify when something is amiss. In Section 2.8, the research indicated that some barriers can be both seen and unseen. The leader should be alert to this, so that they can address both types.

5.3.4 Conduct leadership styles training sessions

According to Rodriques and Walters (2017), training and development will assist an organization and the employees to attain diverse goals, improve morale, provide a sense of security, and improve employee engagement and overall competencies necessary to enable employees and leaders to perform a particular job. Effective leadership styles are

crucial for the effective functioning of an organization. The Bank should contract professional trainers to train leaders on the important leadership styles shared by this study. The leaders of the IT department are already displaying some of these behaviours. However, adopting more of the good behaviours and characteristics of the leadership styles, as explained in Sections 2.9 to 2.11, will assist leaders to improve their leadership effectiveness in the virtual environment. Effective leaders can also work on strengthening their competencies, as set out in Section 2.8.

5.4 LIMITATIONS OF THE STUDY

When the COVID-19 pandemic started in 2020, and the employees started working remotely, it would have been the ideal time to measure leadership effectiveness, and then to compare those results with the current data results of this study. Doing so would have enabled the researcher to determine if there had been a significant change in the findings over the period of the pandemic. The second limitation faced by the researcher was that the research was done at only one bank in South Africa, and not at all banks in the African context. The third limitation is that the research was only conducted in the IT department, and not across the whole bank.

5.5 CONCLUSION

The objective of this research was to identify leadership tools that could promote leadership effectiveness in a virtual environment at the IT department of the Bank. By completing the study, the researcher was able to achieve the objective of this research and answer the research questions raised in Chapter 1. In Chapter 2, the researcher referred to the literature to discuss the tools that leaders can use to achieve leadership effectiveness in a virtual environment. In Chapter 3, the researcher shared the research methodology that was used to conduct the research. The data analysis that was presented in Chapter 4 assisted the researcher to determine the behaviours being applied by leaders in a virtual environment in the IT department of the Bank. The results of the analysis indicate that there are certain aspects of leadership effectiveness in the IT

department that are positive, though it also highlighted areas that require improvement. In this chapter, the researcher made recommendations of what can be done to improve the leadership effectiveness at the IT department of the Bank further.

References

- Achua, F. & Lussier, N. (2013). *Effective leadership* (5th ed.). Cengage Learning.
- Alward, E. & Phelps, Y. (2019). Leadership traits: Impactful leadership traits of virtual leaders in higher education. *Online Learning*, 23(3): 72-93. <https://doi.org/10.24059/olj.v23i3.2113>
- Anoye, A.B. & Kouamé, J.S. (2018). Leadership challenges in a virtual environment. *International Journal of Scientific and Technology Research*, 7(7): 2277–8616. Retrieved from <https://www.ijstr.org/final-print/july2018/Leadership-Challenges-In-Virtual-Team-Environment.pdf>
- Arifin, A.R.M. (2018). Ethical considerations in qualitative study. *International Journal of Care Scholars*, 1(2). <https://doi.org/10.31436/ijcs.v1i2.82>
- Arredal, A., Axxelson Pihl, J., & Borjesson, A. (2021). *Becoming a virtual team under rapid conditions: Leadership and collaboration through change* (Bachelor thesis). Maladaren University, Sweden.
- Bank. (2021). *About us*. Retrieved August 28, 2021, from: <https://www.capitecbank.co.za/about-us/>
- Basu, R. (2016). Implication of organizational climate and team effectiveness on employee commitment: A study on Indian banks. *ASBM Journal of Management*, 9(1), 1–16.
- Bell, E., & Bryman, A. & Harley B. (2018). *Business research methods* (5th ed.). Oxford University Press.
- Bhasin, H. (2019). *Research design*. Marketing91. Retrieved 20 August 2019 from: <https://www.marketing91.com/research-design/>

Bhat, S. K., & Pande, N. & Ahuja, V. (2017). Virtual team effectiveness: An empirical study using SEM. *Journal of Procedia – Computer Science*, 122: 33–41. <https://doi.org/10.1016/j.procs.2017.11.338>

Blanchard, K. & Broadwell, R. (Eds). (2018). *Servant leadership in action. How can you achieve great relationships and results*. Berrett-Koehler Publishers.

Bui, P.A. (2020). *Leaders in a virtual environment: The roles of leaders in virtual working environment* (Bachelor thesis). Oulu University, Finland.

Cant, M.C. & Van Heerden, C.H. (Eds). (2017). *Marketing management* (4th ed.). Juta and Company.

Cao, W. (2021). Discussion on mean, median, mode and its validity and table number. *Journal of Contemporary Educational Research*, 5(3). <https://doi.org/10.26689/jcer.v5i3>

DuBrin, A.J. (2013). *Principles of leadership* (7th ed.). Cengage Learning.

Fisher, M., & Fisher, K. (2011). *Manager's guide to virtual teams*. McGraw-Hill.

Gong, Y. & Janssen, M. (2015). Demystifying the benefits and risks of lean service innovation: A banking case study. *Journal of Systems and Information Technology*, 17, 364–380. <https://doi.org/10.1108/jsit-03-2015-0019>

Greener, S. (2008). *Business research methods*. Book Boon. Ventus Publishing.

Gupta, S. & Pathak, G. S. (2018). Virtual team experiences in an emerging economy: a qualitative study. *Journal of Organizational Change Management*, 31, 778–794. <https://doi.org/10.1108/JOCM-04-2017-0108>

Hackett, R.A., Belitz, M.W., Gilbert, E.E., Hackett, R.A., & Monfils, A.K. (2019). A data management workflow of biodiversity data from the field of data users. *Applications in Plant Sciences*, 7(12): e11310. <https://doi.org/10.1002/aps3.11310>

Hair, J.F., Page, M., Brunsveld, N., Hair, J.F. & Page, M. (2019). *Essentials of business research methods* (4th ed.). Taylor & Francis.

Hao, M. J. & Yazdanifard, R. (2015). Administration and management: How effective leadership can facilitate change in organizations through improvement and innovation. *Global Journal of Management and Business Research*, 15(9): 2249–4588. Retrieved from https://globaljournals.org/GJMBR_Volume15/1-How-Effective-Leadership.pdf

Hussein, N., Madanchian, M., Noordin, F., & Taherdoost, H. (2017). Leadership effectiveness measurement and its effect on organization outcomes. *Procedia Engineering*, 181: 1043–1048. <https://doi.org/10.1016/j.proeng.2017.02.505>

Irawanto, D.W., Setyaningrum, R.P. & Setiawan, M. (2020). Servant leadership: Servant leadership characteristics, organizational commitment, followers' trust, employees' performance outcomes. *European Research Studies Journal*, 4: 902–911. <https://doi.org/10.35808/ersj/1722>

Joshi, A., Kale, S., Chandel, S., Joshi, A., Kale, S., & Pal, D.K. (2015). Likert scales: Likert scales:explored Explored and explained. *British Journal of Applied Science and Technology*, 7(4): 396-403. <https://doi.org/10.9734/BJAST/2015/14975>

Kayworth, T.R. & Leidner, D.E. (2002). Leadership effectiveness: Leadership effectiveness in global virtual teams. *Journal of Management Information Systems*, 18:7–40. <https://doi.org/10.1080/07421222.2002.11045697>

Khajeh, E.H. (2018). Transformational leadership: Impact of leadership styles on organizational performance. *Journal of Human Resources Management*, 2018. Art. ID 687849. <https://doi.org/10.5171/2018.687849>

Khalil, A. (2016). Linking transformational leadership, creativity, innovation, and innovation-supportive climate. *Journal of Management*, 54(9): 2277–2293. <https://doi.org/10.1108/MD-03-2016-0196>

Korejan, M.M. & Shabazi, H. (2016). An analysis of the transformational leadership theory. *Journal of Fundamental and Applied Sciences*, 8(3): 452. <https://doi.org/10.4314/jfas.v8j3s.192>

Lazenby, J.A.A. (2016). *General management* (2nd ed.). Van Schaik Publishers.

Lewandowski, S.C. & Bolt, S.E. (2010). *Box and whisker plot*. Sage Publications.

Louw, L., Muriithi, M.S. & Radloff, S. (2017). Leadership effectiveness: The relationship between transformational leadership and leadership effectiveness in Kenyan indigenous banks. *Journal of Human Resource Management*, 15: 9–25. <https://doi.org/10.4102/sajhrm.v15io.935>

Manti, S. & Licari, A., & Manti, S. (2018). Informed consent: How to obtain informed consent for research. *Journal of Business Research*, 14(2): 145–152. <https://doi.org/10.1183/20734735.001918>

Mehtab, K., & Rehman, A. Ishfaq, S. & Jamil, R.A., (2017). Virtual leadership: A review paper. *Mediterranean Journal of Social Sciences*, 8(4): 183. <https://doi.org/10.2478/mjss-2018-0089>

Meixner, T.R. (2018). *The role of trust in building effective virtual teams: A mixed methods study in a large public sector organization* (PhD Dissertation). Franklin University, Switzerland

Moghaddam, G.G. & Moballeghi, M. (2008). How do we measure use of scientific journals? A note on research methodologies. *Scientometrics*, 76: 125–133. <https://doi.org/10.1007/s11192-007-1901-y>

Morrison-Smith, S. & Ruiz, J. (2020). Challenges and barriers in virtual teams: A literature review. *SN Applied Sciences*, 2: 1096. <https://doi.org/10.1007/s42452-020-2801-5>

Nettleton, D. (2014). Selection of variables and factor derivation. *Commercial data mining. Processing, analysis and modeling for predictive analytics projects*. Boston: Morgan Kaufmann. <https://doi.org/10.1016/B978-0-12-416602-8.00006-6>

Northern Illinois University (2005). *Data collection*. Responsible Conduct in Data Management. Retrieved August 28, 2021, from https://ori.hhs.gov/education/products/n_illinois_u/datamanagement/dctopic.html

Powers, T. (2018). *Virtual team dummies*. Wiley Publishing.

Queirós, A., Faria, D. & Almeida, F. (2017). Quantitative research method: Strengths and limitations of qualitative and quantitative research methods. *European Journal of Education Studies*, 3(9). <https://doi.org/10.5281/zenodo.887089>

Rahman, S. (2016). Quantitative research method: The advantages and disadvantages of using qualitative and quantitative approached and methods in language “testing and assessment” research. *Journal of Education and Learning*, 6. <https://doi.org/10.5539/jel.v6n1p102>

Rodrigues, J. & Walters, K. (2017). The importance of training and development in employee performance and evaluation. *World Wide Journal of Multidisciplinary Research and Development* 3(10): 206–212.

Sekaran, U. & Bougie, R. (2013). *Research methods for business: A skill-building approach* (6th ed). Chichester: Wiley.

Shafi, M., Zoya, Lei, Z., Song, X. & Sarket, N.I. (2020). The effects of transformational leadership on employee creativity: Moderating role of intrinsic motivation. *Journal of Management*, 25(3): 166–176. <https://doi.org/10.1016/j.apmrv.2019>

Singer, P. (2019). *Ethics philosophy*. Britannica. Retrieved September 3, 2021, from <https://www.britannica.com/topic/ethics-philosophy>

Smith, J.S. (2003). *Qualitative psychology: A practical guide to research methods*. Sage Publications.

Wade, K. (2019). *Communication strategies to motivate virtual team members in the banking industry*. (PhD Dissertation). Walden University, Minnesota.

Wisoyonge, C.S. (2020). South Africa's war on COVID-19. *Think Global Health*, April. Retrieved on August 26, 2021, from: <https://www.thinkglobalhealth.org/article/south-africas-war-COVID-19>

Wulffers, T. (2017). *Leadership effectiveness for individuals and teams*. KR Publishing.

Yukl, G. & Gardner, W.L. (2020). *Leaderships in organizations* (9th ed.). Pearson Education Limited.

Zakia, R., Marsidin, S., Rusdinal, & Gusril. (2020). *Leadership effectiveness: Analysis of leadership effectiveness at university*. *Advances in Social Science, Education and Humanities Research*, 504. Proceedings of the 2nd International Conference Innovation in Education (ICoIE 2020).pp. 315-318. <https://doi.org/10.2991/assehr.k.201209.241>

Annexure A: POPIA consent



RESEARCH STUDY INFORMATION LEAFLET AND CONSENT FORM

DATE

October 2022

TITLE OF THE RESEARCH PROJECT

Leadership Effectiveness in a Virtual Environment in a Information Technology department at a Bank

PRINCIPLE INVESTIGATOR / RESEARCHER(S) NAME(S) AND CONTACT NUMBER(S):

Kim Chikwata

2016079077

0736792129

FACULTY AND DEPARTMENT:

Faculty Economic and Management
Sciences

STUDY LEADER(S) NAME AND CONTACT NUMBER:

Ms. Erika Botha)
072 398 3464

WHAT IS THE AIM / PURPOSE OF THE STUDY?

The purpose of this study is to look at leadership effectiveness in a virtual environment in a IT department at a bank. The primary objective of this research is to identify leadership tools to achieve leadership effectiveness in a virtual environment at the department at a Bank.

WHO IS DOING THE RESEARCH?

I, Kim Chikwata, will be conducting the researcher. I am currently working in the Enterprise Business and Process Analysis department. I am doing this project in order to complete my Masters in Business Administration.

HAS THE STUDY RECEIVED ETHICAL APPROVAL?

This study has received approval from the Research Ethics Committee of UFS. A copy of the approval letter can be obtained from the researcher.

Approval number: UFS-HSD2022/0844/22

WHY ARE YOU INVITED TO TAKE PART IN THIS RESEARCH PROJECT?



The department was chosen because this specific department has been working virtually and then in Hybrid since COVID has started. The participant contact information was obtained from the management team of the department. The approximate number of participants will be 150. All Employees form part of the inclusion criteria.

WHAT IS THE NATURE OF PARTICIPATION IN THIS STUDY?

The researcher will facilitate the research. The researcher will email the participants the online survey link and informed consent form. The informed consent will allow the participants to indicate whether they would like to participate in the survey or not. For those participants who do not agree to the informed consent they would not be required to complete the online survey. The Online survey consists of 48 states. The Participants will be able to indicate their response on a likert scale. The statements relates to the leaders communication, leader behaviour, and leader effectiveness. The participants will have a month to complete the survey. The participants will be able to complete the survey during their lunch time or after working hours. The online survey is anonymous. Participants will not be required to complete their name and surname. The Survey results will be handled confidentially.

CAN THE PARTICIPANT WITHDRAW FROM THE STUDY?

Participation is voluntary and there is no penalty or loss of benefit for non-participation. Being in this study is voluntary, and you are under no obligation to consent to participation. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a written consent form. You are free to withdraw at any time and without giving a reason.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THIS STUDY?

The Leaders of the department will be given leadership tools that can be used in order to achieve leadership effectiveness in a virtual environment. Leaders will be able to effectively lead their teams to achieve team goals and objectives.

WHAT IS THE ANTICIPATED INCONVENIENCE OF TAKING PART IN THIS STUDY?

There are 33 statements on the online survey that can take up to 60 minutes to complete.

WILL WHAT I SAY BE KEPT CONFIDENTIAL?

Your name will not be recorded, anywhere and no one will be able to connect you to the answers you give. Your answers will be given a fictitious code number or a pseudonym, and you will be referred to in this way in the data, any publications, or other research reporting methods such as conference proceedings.



HOW WILL THE INFORMATION BE STORED AND ULTIMATELY DESTROYED?

Hard copies of your answers will be stored by the researcher for a period of five years in a locked cupboard/filing in a folder for future research or academic purposes; electronic information will be stored on a password protected computer. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable. The information will be deleted on the computer after 5 years.

WILL I RECEIVE PAYMENT OR ANY INCENTIVES FOR PARTICIPATING IN THIS STUDY?

There will be no payment or reward for participating in this research.

HOW WILL THE PARTICIPANT BE INFORMED OF THE FINDINGS / RESULTS OF THE STUDY?

If you would like to be informed of the final research findings, please contact Kim Chikwata on 0736792129 or email kpchikwata@gmail.com. The findings are accessible for 5 years..

Thank you for taking the time to read this information sheet and for participating in this study.

Annexure B: Survey

Virtual Team Member Survey

Instructions: The intent of this survey is to provide feedback that will be useful in determining ways to improve the effectiveness of virtual teams.

When responding to the following questions, please think about your virtual team leader and those characteristics that have made him/her most effective. In the following questions dealing with your virtual team, the abbreviation VTL will be used for your Virtual Team Leader. Unless otherwise indicated please circle the response that best indicates your opinion. Thank you for taking the time to provide your opinions.

2014079077@ufs48fe.ac.za (not shared) [Switch account](#)

How long have you been with the Company?

- 1-5 years
- 6-10 years
- 11-15 years
- 16-20 years
- more than 20 years

What is your Age?

- 20 - 30 years
- 31 - 40 years
- 41 - 50 years
- 51 - 60 years
- 61 - 65 years

In terms of the overall quantity of communication between yourself and your VTL (current line manager), how would you rate this in terms of quantity?

- 1 Far too little
- 2
- 3 Just Right
- 4
- 5 Far too much

When you have required important information about the virtual team project, your VTL (current line manager) has communicated this information?

- 1 Not at all
- 2 In too little detail
- 3 Just Right
- 4
- 5 In too much detail

In terms of the regularity of communication with your VTL (current line manager), how would you rate this?

- 1 Highly irregular
- 2
- 3 Somewhat regular
- 4
- 5 Very Regular

I could rely on my VTL(current line manager)

1 2 3 4 5
Strongly Disagree Strongly Agree

Overall, my VTL(current line manager) was very trustworthy

1 2 3 4 5
Strongly Disagree Strongly Agree

My VTL(current line manager) was usually considerate of my opinions and ideas

1 2 3 4 5
Strongly Disagree Strongly Agree

My VTL(current line manager) was friendly

1 2 3 4 5
Strongly Disagree Strongly Agree

I have confidence in my VTL(current line manager)

1 2 3 4 5
Strongly Disagree Strongly Agree

My VTL(current line manager) was usually considerate of my feelings

1 2 3 4 5
Strongly Disagree Strongly Agree

To what extent were you satisfied with - Your sense of belonging to the virtual team

1 2 3 4 5
Very Dissatisfied Very Satisfied

To what extent were the following means of communication employed on projects:
EMAIL

1 2 3 4 5
Never To a great extent

In terms of the quality of the communication between you and your VTL(current line manager), how would you rate this

- 1 Not very good
- 2
- 3
- 4
- 5 Extremely good

When there are important changes/news concerning the project, your VTL(current line manager) communicated these changes

- 1 Not at all
- 2
- 3
- 4
- 5 Very Clearly

When you had important questions about the project, your VTL(current line manager) responded:

- 1 Not at all
- 2 Very Late
- 3 Late
- 4 Promptly
- 5 Very Promptly

I feel very confident about the skills of my VTL(current line manager)

- | | | | | | | |
|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|
| | 1 | 2 | 3 | 4 | 5 | |
| Strongly Disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Strongly Agree |

My VTL(current line manager) had much knowledge about the team projects

- | | | | | | | |
|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|
| | 1 | 2 | 3 | 4 | 5 | |
| Strongly Disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Strongly Agree |

My VTL(current line manager) has specialized capabilities that helped increase our performance

- | | | | | | | |
|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|
| | 1 | 2 | 3 | 4 | 5 | |
| Strongly Disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Strongly Agree |

My VTL(current line manager) showed a great deal of integrity

- | | | | | | | |
|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|
| | 1 | 2 | 3 | 4 | 5 | |
| Strongly Disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Strongly Agree |

I could rely on my VTL(current line manager)

1 2 3 4 5
Strongly Disagree Strongly Agree

Overall, my VTL(current line manager) was very trustworthy

1 2 3 4 5
Strongly Disagree Strongly Agree

My VTL(current line manager) was usually considerate of my opinions and ideas

1 2 3 4 5
Strongly Disagree Strongly Agree

My VTL(current line manager) was friendly

1 2 3 4 5
Strongly Disagree Strongly Agree

I have confidence in my VTL(current line manager)

1 2 3 4 5
Strongly Disagree Strongly Agree

My VTL(current line manager) was usually considerate of my feelings

1 2 3 4 5
Strongly Disagree Strongly Agree

To what extent were you satisfied with - Your sense of belonging to the virtual team

1 2 3 4 5
Very Dissatisfied Very Satisfied

To what extent were the following means of communication employed on projects:
EMAIL

1 2 3 4 5
Never To a great extent

To what extent were the following means of communication employed on projects:
Web collaboration tools

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	To a great extent

I knew what my responsibilities were on this virtual team

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

I knew what was expected of me on this virtual team

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

I felt I had sufficient time to fulfil my responsibilities on this virtual team

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

Virtual Team Member Survey

2016079077@ufs4life.ac.za (not shared) [Switch account](#)

To what extent did your VTL(current line manager) exhibit the following characteristics:

He/She exerted influence in the virtual team

	1	2	3	4	5	
Almost Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Almost Always

He/She ensured that I met short-term stated goals

	1	2	3	4	5	
Almost Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Almost Always

He/She ensured that I met long-term stated goals

	1	2	3	4	5	
Almost Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Almost Always

He/She clarified my priorities and directions

	1	2	3	4	5	
Almost Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Almost Always

He/She anticipated work flow problems and avoided crisis

	1	2	3	4	5	
Almost Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Almost Always

He/She brought a sense of order into my work

	1	2	3	4	5	
Almost Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Almost Always

He/She surfaced key differences among team members and then worked to participatively solve them

	1	2	3	4	5	
Almost Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Almost Always

He/She encouraged participative decision making

	1	2	3	4	5	
Almost Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Almost Always

He/She showed empathy and concern in dealing with me

	1	2	3	4	5	
Almost Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Almost Always

He/She treated me in a sensitive caring way

	1	2	3	4	5	
Almost Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Almost Always

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Virtual Team Member Survey

2016079077@ufs4life.ac.za (not shared) [Switch account](#)

We would like to know your general overall assessment of the person as a managerial leader

My virtual team project leaders (current line manager) performance was:

1 2 3 4 5

Poor Excellent

My virtual team project leader's (current line manager) performance as a role model was

1 2 3 4 5

Poor Excellent

My assessment of my project leader's (current line manager) managerial success is:

1 2 3 4 5

Poor Excellent

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Google Forms



Annexure C: Permission to conduct research



REQUEST FOR PERMISSION TO CONDUCT RESEARCH

To Whom It May Concern:

I am doing research and would like to request permission to conduct my research at Capitec Bank IT Department.

August 2022

TITLE OF THE RESEARCH PROJECT

Leadership effectiveness in a virtual environment in the IT department at a Bank

PRINCIPLE INVESTIGATOR / RESEARCHER(S) NAME(S) AND CONTACT NUMBER(S):

Kim Chikwata 2016079077 078 0960 143

FACULTY AND DEPARTMENT:

Faculty Economic and Management
Sciences

STUDYLEADER(S) NAME AND CONTACT NUMBER:

Ms. Erika Botha
C: 072 398 3464

WHAT IS THE AIM / PURPOSE OF THE STUDY

The purpose of this study is to look at leadership effectiveness in a virtual environment in a IT department at a Bank. The primary objective of this research is to identify leadership tools to achieve leadership effectiveness in a virtual environment at the department at a Bank.

WHO IS DOING THE RESEARCH?

I, Kim Chikwata, will be conducting the research. I am currently working in the Business Bank Technology Department. I am doing this project in order to complete my Masters in Business Administration.



WHY ARE YOUR INSTITUTION/ORGANISATION/COMPANY INVITED TO TAKE PART IN THIS RESEARCH PROJECT?

The department was chosen because the employees have been working virtually since COVID has started. The participants contact information was obtained from the management team of the department. The approximate number of participants will be all, available permanent employees.

WHAT IS THE NATURE OF PARTICIPATION IN THIS STUDY?

The researcher will facilitate the research. The researcher will email the participants the online survey link and informed consent form. The informed consent will allow the participants to indicate whether or not they would like to participate in the survey. The participants who do not agree to the informed consent will not be required to complete the online survey. The Online survey consists of 2 biographical statements and 33 statements regarding leadership effectiveness. The Participants will be able to indicate their response on a likert scale. The statements relate to the leader's communication, behaviour and effectiveness. The participants will have a month to complete the survey and will be encouraged to complete the survey during their lunch time or after working hours. The survey will be anonymous and participants will not be required to complete their name and surname. The aim is to receive at least 150 completed surveys. Survey results will be handled confidentially.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THIS STUDY?

The Leaders of the department will be equipped with leadership tools that can assist to achieve leadership effectiveness in a virtual environment. Leaders will be able to effectively lead their teams to achieve team goals and objectives.

WHAT IS THE POTENTIAL RISKS TAKING PART IN THIS STUDY?

The Management team may request access to the results of the survey. This will allow them to see any negative responses received from the participants. However, the results are all anonymous because none of the participants personal information is being collected during the completion of the survey. the study occurs.

WILL THE INFORMATION BE KEPT CONFIDENTIAL?

The Online surveys will be completed anonymously. The participants will not be required to complete their name and surname. The researcher will ensure that the results are handled confidentially at all times. Participation is voluntary and employees will not be forced to participate in the survey. Due to the POPI act the name of the organization will not be named as part of the study.

HOW WILL THE INFORMATION BE STORED AND ULTIMATELY DESTROYED?

Hard copies of the answers will be stored by the researcher for a period of five years in a locked cupboard/filing in a folder for future research or academic purposes; electronic information will be stored on a password protected computer. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable. The information will be deleted on the computer after 5 years.

WILL THERE BE PAYMENT OR ANY INCENTIVES FOR PARTICIPATING IN THIS STUDY?

There will be no payment or reward for participating in this research.

HOW WILL THE INSTITUTION / ORGANISATION / COMPANY BE INFORMED OF THE FINDINGS / RESULTS OF THE STUDY?

Should a need arise to be informed of the final research findings, a request may be sent to: Kim Chikwata on 0780960143 or email kpchikwata@gmail.com. The findings are accessible for 5 years.

Yours sincerely



Kim Chikwata

Subject: Re: Research Request



Wim de Bruyn <WimdeBruyn@capitecbank.co.za>
to Kim Chikwata, Robyn Jansen ▾

Mon, Oct 10, 1:47 PM

You are viewing an attached message. University of the Free State Mail can't verify the authenticity of attached messages.



Hello Kim. Please proceed.

Wim de Bruyn

From: Kim Chikwata <KimChikwata@capitecbank.co.za>
Sent: Monday, October 10, 2022 1:00:40 PM
To: Wim de Bruyn <WimdeBruyn@capitecbank.co.za>
Cc: Robyn Jansen <RobynJansen@capitecbank.co.za>
Subject: RE: Research Request

Annexure D: Ethical clearance



GENERAL/HUMAN RESEARCH ETHICS COMMITTEE (GHREC)

15-Oct-2022

Dear Ms Kim Chikwata

Application Approved

Research Project Title:

**LEADERSHIP EFFECTIVENESS IN A VIRTUAL ENVIRONMENT IN A
INFORMATION TECHNOLOGY DEPARTMENT AT A SOUTH AFRICAN BANK**

Ethical Clearance number:

UFS-HSD2022/0844/22

We are pleased to inform you that your application for ethical clearance has been approved. Your ethical clearance is valid for twelve (12) months from the date of issue. We request that any changes that may take place during the course of your study/research project be submitted to the ethics office to ensure ethical transparency. Furthermore, you are requested to submit the final report of your study/research project to the ethics office. Should you require more time to complete this research, please apply for an extension. Thank you for submitting your proposal for ethical clearance; we wish you the best of luck and success with your research.

Yours sincerely

Dr Adri Du Plessis

Chairperson: General/Human Research Ethics Committee

**Dr Adri
du
Plessis** Digitally signed
by Dr Adri du
Plessis
Date: 2022.10.17
07:59:19 +02'00'

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Annexure E: Language editing certificate

Declaration

16 January 2023

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hettie.human@gmail.com

Postgraduate Diploma Field Study: Leadership effectiveness in a virtual environment in a information technology department at a South African bank

Student: Kim Chikwata

I confirm that I edited the study, checked the references and recommended changes to the text.



MA Language Practice



+264 813 359 120 | hettie.human@gmail.com

Annexure F: Survey questions to research questions

Survey Questions	Research Questions it pertains to			
Interms of the overall quantity of communication between yourself and your VTL(current line manager), how would you rate this in terms of quantity?				
When you have required important information about the virtual team project, your VTL (current line manager) has communicated this information?	2,3			
In terms of the regularity of communication with your VTL(current line manager), how would you rate this?	2			
In terms of the quality of the communication between you and your VTL(current line manager), how would you rate this	2			
When there are important changes/news concerning the project, your VTL(current line manager) communicated these changes	2,3			
When you had important questions about the project, your VTL(current line manager) responded:	2			
I feel very confident about the skills of my VTL(current line manager)	2,3			
My VTL(current line manager) had much knowledge about the team projects	2			
My VTL(current line manager) has specialized capabilities that helped increase our performance	2			
My VTL(current line manager) showed a great deal of integrity	3			
I could rely on my VTL(current line manager)	2,3			
Overall, my VTL(current line manager) was very trustworthy	3			
My VTL(current line manager) was usually considerate of my opinions and ideas	3			
My VTL(current line manager) was friendly	3			
I have confidence in my VTL(current line manager)	3			
My VTL(current line manager) was usually considerate of my feelings	3			
To what extent were you satisfied with - Your sense of belonging to the virtual team	2,3			
To what extent were the following means of communication employed on projects: EMAIL	2			
To what extent were the following means of communication employed on projects: Web collaboration tools	2			
I knew what my responsibilities were on this virtual team	2			
I knew what was expected of me on this virtual team	2			
I felt I had sufficient time to fulfil my responsibilities on this virtual team	2			1 What does th
He/She exerted influence in the virtual team	3			
He/She ensured that I met short-term stated goals	2,3			
He/She ensured that I met long-term stated goals	2,3			2 Which leader environment
He/She clarified my priorities and directions	2,3			
He/She anticipated work flow problems and avoided crisis	2,3			3 What leader: environment
He/She brought a sense of order into my work	2,3			
He/She surfaced key differences among team members and then worked to participatively solve them	2,3			
He/She encouraged participative decision making	2,3			
He/She showed empathy and concern in dealing with me	3			
He/She treated me in a sensitive caring way	3			
My virtual team project leaders (current line manager) performance was:	2			
My virtual team project leader's(current line manager) performance as a role model was	2			
My assessment of my project leader's (current line manager) managerial success is:	2			

Annexure G: Example of matrix

RACI Chart Examples for Lean-Agile

Phase	Task	Product Manager	Business PM	Product Owner	Team Agility Coach	Team	Business SME	User Acceptance Test	Technology Delivery Manager	Application Development Manager	Lean-Agile Coach
Concept	Define the vision statement	A									
Prior to Iteration 0	Define the tangible Return on Investment (ROI) factors	A									
	Define the Business value timeframe	A									
	Complete funding approval	A									
	Define the operating model	A									
	Identify cross impacts	A									
	Define the roll out plan / release schedule	A									
	Identify Business PM	A	I								
	Create Business backlog: Primary MBIs	A	R	R							
Initiation	Project initiation	A	R	R	R	R			R		
	Identify key roles	R	A	R	R	R			R	R	
	Complete the Iteration 0 checklist	R	A	R	R				I		
	Identify risks / issues / dependencies	R	A	R	R	R			R	R	
	Identify all skills necessary and establish roster	R	R	R	A	R			R	R	
	Coordinate project initiation and accounting process	R	A						R		