

**The influence of ubuntu and transformational leadership  
on employee engagement in virtual teams**

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## **Abstract**

The prevalence of virtual teams in the workplace have increased in recent years, with no clear indication in the literature how to best lead virtual teams, even though virtual teams is not a new phenomenon. Therefore, there is a need in business and in academic literature to gain a better understanding of how to better manage and lead virtual teams.

The objective of the study was to compare transformational and ubuntu leadership head-to-head within a virtual work environment and its influence on employee engagement. A quantitative study was performed, in the form of a questionnaire, to evaluate the three constructs, and the sample consisted out of 109 respondents from various industries, ethnicity, and work experience.

The study found that ubuntu leadership has a significant positive relationship with employee engagement, which was greater than that of transformational leadership. Furthermore, the study found that the sample demographics had no significant influence over the results irrespective of industry and ethnicity.

**Keywords: Ubuntu, transformational leadership, employee engagement, virtual teams**

## **Declaration**

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

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## Chapter 1: Introduction to Research Problem

With the advancement of communication technology, both advantages and disadvantages have been prevalent in virtual teams (Jimenez et al., 2017). Virtual teams can be classified as “groups of geographically or organisationally dispersed co-workers that are assembled using a combination of telecommunications and information technologies to accomplish a variety of critical tasks” (Townsend et al., 1998, p. 17). Even though the existence of virtual teams is not a new phenomenon, the presence of virtual teams has predominantly occurred in the information technology field since the early 1990s (Kozlowski et al., 2021). As a result, the COVID-19 pandemic plunged the world into uncertainty when traditional office-based workers were exposed to hybrid or remote working situations across industries and fields of work (Robinson, 2022). This has resulted in an accelerated paradigm shift in working within various organisations. What is clear from various surveys completed, is that workers became complacent with the new way of working and are now reluctant to return back to the pre-COVID-19 work arrangements (Robinson, 2022).

Three recent surveys conducted by Owl Labs, Ergotron and Gallup, respectively, evaluated employees' sentiment to return to work as before the COVID-19 pandemic. Owl Labs reported in their State of Remote Work 2021 Report that 69% of employees surveyed, worked remotely during the COVID-19 pandemic, of which 60% returned to work to some degree (Labs, n.d.). However, what is evident from the survey was that most employees that participated in the survey, preferred a hybrid or remote working arrangement. Employees who completed the surveys of Ergotron and Gallup shared a similar sentiment, indicating that a remote working environment is here to stay (Robinson, 2022; Saad & Wigert, 2021). It is, therefore, in the interest of businesses to investigate how to best engage and lead office-based teams traditionally working in a virtual work environment.

Leadership plays a crucial role in setting the direction, guiding, and developing individual followers in any team. Even though the leadership of conventional teams has been extensively researched, less is known about managing virtual teams (Gardner et al., 2020). What is known within the context of virtual teams, is numerous nuances or complexities, making the management of virtual teams more challenging than conventional teams. Jimenez et al. (2017) describe one of the critical challenges of a virtual or remote working environment: a lack of face-to-face communication. Unlike traditional face-to-face communication, virtual communication lacks non-verbal cues

compared to traditional face-to-face communication. Therefore, a considerable amount of information is lost in the communication process, which plays a crucial role in forming impressions of individuals (Croes et al., 2019).

Furthermore, Croes et al. cited that copresence “influences the transmission of nonverbal immediacy behaviours, such as touch, body orientation, and body lean, that create physiological closeness between people in initial interactions” (Croes et al., 2019, p1212). Thus, one can deduce that non-verbal cues are essential in bringing warmth and cohesion into the relationships between individuals within a team. Kozlowski et al. (2021) highlighted challenges that arise when working within virtual teams, including the impact of cultural diversity, task complexity and team stability.

From the complexities mentioned in leading virtual teams, it is evident that a different approach may be necessary. The author, therefore, wants to put transformational and ubuntu leadership in a horse race to compare the effectiveness of the two theories in influencing employee engagement in virtual teams.

What is evident from the literature is that there is no consensus on the best way to manage virtual teams. Gibbs et al. (2017) highlighted that two schools of thought had been investigated. Firstly, strong leadership, such as transformational leadership, is necessary to manage virtual teams. However, research conducted by Eisenberg et al., contradicted some of the findings of Gibbs et al. Eisenberg et al. (2019) found that the greater the team’s geographical dispersion, the lower the effectiveness of transformational leadership in mediating team communication and performance. The two contradicting findings beg the question of the effectiveness of transformational leadership in affecting employee engagement in virtual teams.

The second school of thought is that emergent leadership theories such as shared leadership, provide a positive outcome where no formal leadership structures are in place, and team members enact with one another. The one caveat of the emergent leadership theories research was the environment in which it was evaluated. All the studies referenced by Gibbs et al. have been evaluated within a laboratory environment and with student groups. (Gibbs et al., 2017). Thus, a gap remains in understanding how emergent leadership theories perform in field conditions and whether novel leadership theories such as ubuntu leadership are related to a positive outcome in virtual teams.

Ubuntu leadership has been described to be of resemblance to servant leadership (Meylahn & Musiyambiri, 2017). Meylan and Musiyambiri stated that “both ubuntu and



servant leadership models emphasise the involvement of the community in decision-making, execution of duties, and both models embody democracy and power sharing” (Meylahn & Musiyambiri, 2017, p. 3). The author believes that the fundamentals of ubuntu are well suited to address the critical challenges faced in virtual teams. The five principles of ubuntu relate to humanity, people orientation, interdependence, and a closer affinity to individuals within a team (Eyong, 2019). Interdependence refers to the fact that success is defined at a team level and that no individual is greater than the team. Building on interdependence, the people-orientation of ubuntu pivots around the active appreciation of team members in a team and their cultural history. Thirdly, closer affinity in terms of ubuntu acknowledges the interconnectedness of individuals in an environment. In terms of virtual teams, the author is of the view that principles of closer affinity will have a beneficial effect on social relationships within a team. Lastly, a core aspect of ubuntu is the embodiment of humanity. Humanity reflects respect for one another and altruism, effectively focussing on leadership as a service to others. (Eyong, 2019).

Based on the essence of ubuntu, the author believes that ubuntu leadership will not only have a positive effect on teams, but more so on virtual teams.

Neo-charismatic theories such as transformational leadership theory have dominated leadership research for over forty years (Siangchokyoo et al., 2020). Transformational leadership theory is mature and extensively researched (Gardner et al., 2020). A transformational leader has four dimensions: idealised influence, inspirational motivation, intellectualised stimulation, and Individualised consideration (Siangchokyoo et al., 2020). The four dimensions rely heavily on leaders’ ability to interact with their followers and nonverbal communication cues. Furthermore, transformational leadership is underpinned by follower transformation from one state to another.

The impact of leadership on employee engagement was systematically reviewed by Carasco-Saul et al. Carasco-saul et al. (2015) found that a positive relationship exists between various leadership styles and employee engagement. Furthermore, Li et al. (2021) conducted a meta-analysis of 209 independent cross-sectional studies. Their findings were in line with Carasco et al. that various leadership styles, including servant leadership, positively correlate to follower engagement. Employee engagement has been described as a good measure of employee performance (Carter et al., 2018). Therefore, employee engagement is a valuable measurement tool to determine the outcome of the influence of a leadership style on an employee.

## Chapter 2: Literature Review

### 2.1 Introduction

The field of leadership has been extensively researched over the last 30 years, summarised by three reviews done by various authors (Gardner et al., 2020). Even though scholars focused on transformational leadership to a great extent, various scholars focused on emergent theories, such as the contextual influence of leadership, servant leadership and complexity leadership (Gardner et al., 2020). Of all the well-established theories, neo-charismatic leadership theory has taken centre stage in the last decade, with transformational leadership theory being the most prominent (Gardner, et al., 2020). Furthermore, the majority of research has been conducted in various sample populations that mimics a face-to-face team setting.

The objective of the literature review is to determine the current understanding of the impact of ubuntu and transformational leadership as a leadership theory and its relevance as a leadership theory within a virtual team environment.

### 2.2 Leading virtual teams

Leading virtual teams is not a new phenomenon, but has been accelerated in the last two years through the emergence of the COVID-19 pandemic (Feitosa & Salas, 2021). Furthermore, when evaluating virtual teams, the virtuality of a team is said to occur on a continuum based on the degree of remote working, dependent on the dependence on computer mediated communication, spatial orientation, and geographic dispersion (Kozlowski et al., 2021). Therefore, authors such as (Eisenberg et al., 2019; Ford et al., 2017; Kozlowski et al., 2021; Mutha & Srivastava, 2021a, 2021b) have argued that a number of nuances increase the complexity of managing virtual teams. Literature currently contains no clear answer regarding the best leadership style to manage virtual teams (Liao, 2017).

Leaders of virtual teams need to be aware of the challenges that exist when managing virtual teams. These challenges are dependent on the dependence on computer-mediated communication, geographic dispersion and spatial dispersion (Charlier et al., 2016; Liao, 2017).

Technology reliance and media richness affect a leader or followers' ability to interpret non-verbal signals evident during communication (Kozlowski et al., 2021). It is evident that as a team progresses in virtuality, technological reliance increases and the media richness of communication increases. Croes et al. (2019) further substantiated the effect of virtuality on media richness when they asserted that face-to-face communication is still superior to the current technology available. The caveat of computer mediated communication tools is the loss of non-verbal cues that are present in face-to-face communication and leads to the development of miscommunication and conflict. Therefore, leaders of virtual teams need to adapt to managing conflict at an early stage (Maduka et al., 2018). To resolve conflict within a virtual team setting, leaders need an appropriate leadership style, one where the leader leads with trust and respect. A lack of respect and authority for a leader will lead to a breakdown in communication and have a detrimental effect on the leader's ability to foster cohesion and communication on an individual and team level.

Geographic dispersion involves two areas which include both temporal and configurational dispersion (Charlier et al., 2016; Kozlowski et al., 2021). Temporal dispersion describes the spatial dispersion of the team, which may hinder real-time communication. Configurational dispersion, on the other hand, reflects any degree of isolation or imbalance in the distribution of team members across sublocations. This may hinder the development of relationships between individuals equally. Dependent on the employed leadership style, temporal and spatial distance can have a significant effect on how followers perceive their leader, as it brings forth complexity in time differences, cultural differences as well as dealing with task complexity.

Cultural diversity in virtual teams as national boundaries is frequently crossed, especially in multinational teams. Kramer et al. (2017) examined the multidimensionality of culture and virtual teams. Based on Kramer et al.'s work, one needs to be cognisant of the cultural mosaic of the team, and because of their differences, they might react differently to different virtual tools (Kramer et al., 2017). One approach in teams in their infancy is to be aware of the importance of synchronicity as an antecedent of a virtual team. Synchronicity ensures short-term performance, especially in the early stages of team development, when roles and responsibilities are assigned to individuals (Brown et al., 2020).

A number of leader competencies are essential to a leader's success, irrespective of the leadership style employed (Maduka et al., 2018). The leader competencies include a leader's ability to gain trust, a leader's ability to build team orientation and integration, and a leader's ability to ensure effective communication, awareness, as well as reliability. Trust

is non-negotiable in a virtual team, primarily in the formation phase of a team, and to ensure that a team reaches its optimal performance (Maduka et al., 2018). Initial trust building in a virtual team is often in the form of instant and temporary trust, and therefore vulnerable (Sedrine et al., 2021). Therefore, a leader plays a crucial role in building temporary trust whilst the team develops altruistic, performance and affective trust.

Building team orientation and integration is valuable in a virtual working environment (Maduka et al., 2018). Team orientation and integration refer to a leader's ability to develop a self-managing, coherent working unit. Team orientation and integration originates from social identity theory, which posits that a leader of "situational cues or personal agenda, or both, cause people to "try out" different categories or prototypes to make sense of the social field in ways that also evaluate self-relativity favourably. Only then does self-categorisation occur in the sense of depersonalised self-conception, cognition and behaviour" (Hogg, 2008, p. 188) Based on Hogg, a virtual team leader needs to employ the right tactics to ensure team coherence, and a shared vision for the team is ingrained to create the "glue" that bonds the team.

A leader's awareness and reliability are key core competencies when leading a virtual team. Awareness refers to the leader's ability to sense the group dynamics, social dynamics, and interactions (Maduka et al., 2018). Thus, when a leader is aware and cognisant of the environment that a follower works in, it would allow the leader to make sound decisions and judgements for the business and the follower. Furthermore, it will contribute to the reliability of a leader in the eye of the follower.

When it comes to which leadership style is best suited to lead virtual teams, no clear winner has emerged in the literature (Gibbs et al., 2017; Liao, 2017). What is known from various research in mental models, multi-level models and trust building, is that managing virtual teams require a more conscious effort from the leader, when compared to that of face to face teams (Charlier et al., 2016; Ford et al., 2017; Gibbs et al., 2017; Gross, 2018; Liao, 2017). Furthermore, there is a need for research in functional organisational teams instead of project teams and student samples (Gibbs et al., 2017). Gibbs et al. (2017) found that of the research conducted in the last 15 years, 60% of the sample types represented organisations, but only 12.5% of the team types represented functional teams, which limits the potential applicability of the research in a general business environment.

## 2.3 Ubuntu

### 2.3.1 Origin of ubuntu

Ubuntu is a philosophy of humanism engrained within the African culture. Ubuntu can be defined by its etymology into two constructs, "ubu" and "ntu". 'Ubu' originates from the Xhosa language, which translates into 'something in' or 'being', and 'ntu' meaning 'human' (Muller et al., 2019). It is evident from etymology, that one of the core aspects of ubuntu is the role of relationships, especially an individual's relationship with others. The latter is described by Isi Xhosa aphorism '*Umntu ngumntu ngabanye abantu*'. *Umntu ngumntu ngabanye abantu*' which translates into "human being is a human through other humans". It is further described by Mbiti's iconic statement "I am because we are, since we are therefore, I am" (Mbiti, 1969, p. 215). A distinction needs to be made between the difference of ubuntu and that of the western worldviews. What stands out is that all expressions of ubuntu is relational in comparison to individualistic western views. Furthermore, it must be noted that in terms of ubuntu character, through which it attains, ideals are dialogical (Mangena, 2016). The dialogical belief is noticeable in the way in which Africans greet one another, taking in consideration the influence of the presence and the past on their existence: "When greeting an individual, the Shona say: Makadini? (Meaning, how are you?). The prefix "maka"- is always in the plural form to denote the value placed on the group as opposed to the value placed on the individual" (Mangena, 2016, p. 69).

### 2.3.2 Ubuntu as a philosophy of leadership

Most leadership philosophies incline to be conceptualised from the leader's viewpoint; nonetheless, current predominant leadership theories acknowledge the importance of relationships with followers. The literature of ubuntu as a leadership theory is sparse. A literature review in Google Scholar revealed only 13 studies have been published in scientific journals in the last 27 years where ubuntu is evaluated as a leadership construct. Of the 13 articles, only three studies evaluated ubuntu as a leadership theory within a business context (Muller et al., 2019). Therefore, there is a great need for further research into ubuntu as a leadership theory.

At the core of ubuntu, is the relationship between individuals and communities (Ewuoso & Hall, 2019). Ubuntu advocates the humanness of human life; therefore, no individual is more important than the collective. Even though ubuntu leadership is at an emergent state as a philosophy, it does provide a different view to that of predominant leadership theories, which may have a value in virtual teams, because of its polarity of the nidus, which is the core of the philosophy. Comparing the origin of ubuntu to other leadership theories, the first difference is that most current leadership theories are based on a Eurocentric perspective, whereas ubuntu has an Afrocentric perspective. The second benefit of ubuntu, is that the principles of ubuntu value cultural perspectives (van der Westhuizen & Hewitt, 2021). Therefore, the Ubuntu Afrocentric view of leadership, may have a positive outcome in times of uncertainty, as virtuality has no boundaries. Due to the lack of boundaries in virtual teams, multi-cultural dynamics come at play, which the principles of ubuntu may be well suited to navigate.

Ubuntu fosters cohesiveness through collectivism and respecting social values (Poovan et al., 2006). By respecting the social values and the cultures of individuals, a leader is able to build trust, which is an essential part of an effective team (Ford et al., 2017). Effective teams are further enhanced when individuals trust each other enough to acknowledge each team member's strength and weakness. Through the ubuntu principle of interdependence, or survival, team resilience and effectiveness are promoted by putting the team first instead of the individual. Knowing each team member's abilities, knowledge and skills, a team leader and the team members are able to leverage the collective abilities of the team (Poovan et al., 2006).

The principles of ubuntu can provide various competitive advantages to a business (Mangaliso, 2001). The first is that the intrinsic reciprocal nature of ubuntu may intrinsically motivate individuals as they are valued by the organisation. The second is in the way in which decisions are made. The decision-making process described through ubuntu is circular in nature (Mangaliso, 2001). The circular decision-making process ensures that all parties are involved, and that buy-in from followers is ensured. Through the insurance of buy-in, diverse views are collected, which promotes problem solving, which ultimately promotes effectiveness (Elia et al., 2019). Thirdly, language and effective communication play an important role in in business. Within African culture, children are socialised to listen to the context and nuances of language in a conversation (Mangaliso, 2001). The latter may provide a competitive advantage in organisations where interdepartmental silos have been eliminated. Therefore, effective communication and respect for cultural differences

intrenched in ubuntu fosters socialisation in the workplace, which is of value when a leader's objective is to reduce tension and social distance between employees. Furthermore, within the context of virtuality, inclusivity in decision-making may promote a leader's ability to provide clarity in goal setting and communication, which are essential competencies of a virtual leader (Maduka et al., 2018).

According to Ncube (2010), theoretical framework of ubuntu as a transformative leadership philosophy, draws valuable antecedents of social identity theory in which the leader models the way for followers to create leader legitimacy, which is especially of importance in building trust in virtual teams (Ford et al., 2017). As a role model, the leader portrays their commitment to followers through values such as compassion, dignity, empathy, and respect for other human beings (Malunga, 2009), thereby acting as the prototype for the group's so-called 'rules of engagement within the team. Furthermore, the leadership model reflects the interconnectedness and interdependency of people within ubuntu philosophy (Ncube, 2010). Trust, built through actions of reciprocity and fostering collaboration acts as a linchpin, promoting congruence within a virtual team.

As mentioned earlier, collectivism and solidarity (Ncube, 2010) are entrenched in the African philosophy of ubuntu. From an organisational view, collectivism and solidarity promote teamwork, as the greater goal of the team or organisation is greater than the individuals' goals, thereby minimising inter-team competition. Virtual teams by definition involve geographic dispersion, and therefore, team members can feel disjointed from the organisation (Ford et al., 2017). The feeling of distance can be mitigated through sound communication and through the involvement of followers by the leader. The latter was substantiated by (Setlhodi, 2019) through the practising of collaboration (*letsema*), which is "about taking action, ..., and align energies to get work done" (p. 135). Ubuntu's principles of interdependency and empowerment further posits collaboration and togetherness, thereby, theoretically giving virtual followers the feeling of perceived organisational support and improving organisational commitment behaviour (Ncube, 2010). Ncube's theoretical framework provides a valuable theoretical argument for ubuntu leadership as a possible contender to promote the effective management of virtual teams. However, it needs to be tested in field conditions to assess the framework's actual value.

Eyong (2019) and Muller et al. (2019) evaluation of ubuntu in the public and private sector provides mixed results of the effectiveness of ubuntu as a leadership theory in face-to-face teams. Eyong (2019) illustrated how deviant traits have been masked under the auspice of ubuntu leadership. Thus one of the key challenges, especially within an African

context is to enlighten followers of the true essence of ubuntu is within a modern business environment.

According to Eyong (2019), the investigation of the five themes revealed a degree of harmony and contradictions to the principles of ubuntu. Eyong's work revealed that the ideals of humanity, honesty and people orientation are not applied in a consistent, uniform manner. Furthermore, Eyong calls for further research into the humanistic principles of ubuntu in which leadership not only takes into consideration the sociable working environment, but also focuses on improved output (Eyong, 2019).

Muller et al. (2019) investigated the impact of servant and ubuntu leadership on employee engagement. Muller et al. identified five themes that closely resemble Eyong (2019). Muller et al.'s investigation revealed that some, but not all of the ubuntu themes, positively affected engagement and employee performance. Employee engagement and the ubuntu leadership dimension "spirit of solidarity" are significantly positively correlated (Muller et al., 2019). It must be noted that the scope of the research was limited to only individuals in the Eastern Cape and that a wider audience and business sector may build on the work done by Muller et al. Muller et al. further recommended that the research instrument should be improved and validated.

Eyong and Muller et al. described four key constructs of ubuntu that form the leadership theory's core. The four themes are interdependence, closer affinity, people-orientation and humanity (Eyong, 2019).

Interdependence refers to a leader's acknowledgement that the importance of the team is greater than the individual. Therefore, the follower is just as important as the leader. Muller et al. referred to interdependence as 'survival', which originates from the time of African tribalism where individuals depended on one another to survive. Fostering relationships within a virtual team environment is crucial to ensure unity and trust within the team, and by doing so, the leader role models the desired behaviour within the team is closer affinity. Closer affinity or 'spirit of solidarity' refers to how "an individual finds identity in others in the community and the organisation" (Muller et al., 2019, p. 26). It links to clear two-way communication between the leader and follower to promote a team spirit. A key challenge in virtual teams is for leaders to build good relationships and rapport with followers (Eisenberg et al., 2019). Therefore, by creating clear two-way communication through the theme of the spirit of solidarity, one may improve a leader's rapport with his followers. Furthermore, people orientation within the context of ubuntu refers to leader's ability to act



empathetically to the challenges faced by followers (Muller et al., 2019). Furthermore, Eyong described people orientations as the acknowledgement of the value of the individuals within a leader's team, thereby fostering relationships. Within the context of virtual teams, the people orientation of ubuntu leadership provides value through fostering interpersonal relationships between followers. Humanity within context of ubuntu leadership refers to the altruistic nature of a leader in service to his followers (Eyong, 2019). Poovan et al. (2006) referred to humanity as respect and dignity. Poovan et al. (2006) stated that ubuntu's "cardinal social values in the collective fingers theory since it is only through respecting others and affording them with dignity that one gains trust of others" (p. 20).

## 2.4. Transformational leadership

Transformational leadership represents the cornerstone of leadership research in the last 40 years (Siangchokyoo et al., 2020). Bass's contribution to the literature shaped transformational leadership through his seminal work, clarifying the four constructs of transformational leadership (Seltzer & Bass, 1990). Bass stated that transformational leadership "occurs when leaders broaden and elevate the interest of employees,...., generate awareness and acceptance of the mission and purpose,[and]...look beyond own self-interest for the good of the group" (Seltzer & Bass, 1990, p. 21). Hence, transformational leadership embodies a form of altruism in which the leader puts his followers first, thereby influencing the transformation of the followers to best drive the desired outcome.

Avolio, Waldman and Yammarino's (1991) early work described the critical attributes of transformational leaders, which included a strong sense of self-development and the development of others. Transformational leadership theory has four critical constructs described as the four I's in literature (Avolio et al., 1991).

The first attribute is individualised consideration. Individualised consideration describes a leader's ability to pay attention to the individual's needs and have empathy with their concerns (Avolio et al., 1991). A leader shows empathy and affirmation to an individual's needs, elevating the employee to achieve their optimum possibilities.

The second attribute is intellectual stimulation. Intellectual stimulation refers to a leader's ability to guide followers to look at old problems with 'new eyes' and see them differently,

moving away from arguing challenges using opinions to pivoting to rational thought and evidence (Avolio et al., 1991).

The third attribute is inspirational motivation. Inspirational motivation refers to a leader's ability to integrate individualised consideration and intellectual stimulation. In doing so, increasing the leader's likeability (Avolio et al., 1991). The last construct refers to idealised influence. Idealised influence refers to a leader's ability to personify the ideal employee based on the company culture, showing mutual respect and building trust, thereby creating referent power and influence over followers (Avolio et al., 1991) This allows a transformational leader to convince their followers that the desired state is possible. Hence, idealised influence is seen as a culmination of the first three attributes.

Transformational leadership has been shown to have numerous positive outcomes in face-to-face teams. These include autonomous motivation (Bono & Judge, 2003), organisational citizenship behaviour, creative behaviour (Tse & Chiu, 2014) and organisational commitment (Sungu et al., 2019). Thus, transformational leadership is well proven to motivate and guide employees, but its effectiveness in virtual teams is variable.

Various studies have been published to determine if transformational leadership is the all-encompassing leadership theory. Purvanova & Bono (2009) found that transformational leadership behaviours were strongly linked in virtual teams; however, they found that leaders changed their behaviours across team types. Consequently, it raises questions surrounding individual leaders' differences in reacting to communication media. Even though Purvanova & Bono showed that transformational leadership shows promise in virtual teams, the work of Eisenberg et al. showed different results. Eisenberg et al. (2019) revealed an indirect relationship between team dispersion and transformational leadership. Thereby, as team dispersion increased, team communication and performance decreased. The latter could be explained by the lack of opportunity to interact face to face, required for the leader to build rapport when using the transformational leadership theory (Cortellazzo et al., 2019).

Wong and Berntzen's work provide evidence that virtuality has an impact on the quality of communication when employing transformational leadership in a virtual environment. Wong & Berntzen (2019) evaluated the mediating effect of electronic dependence and task interdependence on transformational leadership's ability to influence the quality of leader-member exchange (LMX). Wong and Berntzen diverged from the theme evident in the work of Gross and Purvanova & Bono. Wong and Berntzen's work showed that an

increase in electronic dependence and task interdependence related negatively to transformational leadership. According to Wong and Berntzen, "a high quality LMX relationship typically includes characteristics such as high levels of mutual trust, and support, as well high degrees of reciprocity in that both parties contribute resources valued by the other party" (Wong & Berntzen, 2019, p. 382). Therefore, a reduction in the quality of the LMX relationship may indicate a lack of efficacy of a leadership style within a virtual context.

From a theoretical perspective, Gross's theoretical model proposes that a leadership style must be effective in influencing four virtual team effective dimensions: relationships, task, absorptive capacity, and innovativeness. Theoretically, the model posits that transformational leadership will promote the relationship dimension using individualised consideration and inspirational motivation (Gross, 2018). However, Gross did acknowledge that the scope of the study is parochial concerning a virtual environment. Most of the assumptions and attributes of transformational leadership are based on evidence from studies done in face-to-face teams. Gross acknowledged that further model testing is necessary to ascertain if the theoretical assumptions are valid in virtual teams.

Transformational leadership in face-to-face teams have a vast body of knowledge that have been built up over the last three decades (Gardner, et al., 2020). Transformational leadership has been shown to improve a leader's ability to motivate teams to buy into a shared vision, using inspirational motivation and individualised influence of followers (Siangchokyoo et al., 2020). This in return has a positive impact on employee's perceived organisational support, which is shown to have a positive impact on employee engagement (Bernarto et al., 2020).

## 2.5 Ubuntu versus transformational leadership

Ubuntu and transformational leadership represent two polar views in terms of the modus operandi of the leader's leading teams. The objective of a transformational leader is to "transform" the followers to "buy-in" to the vision of the leader to fulfil the objective of the leader. Thereby, the drive behind transformational leadership is that of individualism and self-interest (Siangchokyoo et al., 2020). Ubuntu leadership, in comparison to transformational leadership, focuses on the fostering of relationships through

acknowledging the humanism in people. Furthermore, ubuntu leadership focusses on collectivism and the improvement of the team (Poovan et al., 2006).

In terms of virtual teams, ubuntu and transformational leadership represents a continuum of leadership theory and is therefore well suited to test what style of leadership is best suited to virtual teams.

## 2.6 Leadership and employee engagement

The relationship between employee engagement and leadership has been an area of investigation for quite some time and there is a significant body of literature to support it. Employee engagement refers to the work-related engagement of employees. Various synonyms have been used to describe employee engagement in the literature and includes “job engagement”, “work engagement”, and “organisation engagement” (Motyka, 2018). According to Motyka, the majority of authors define *employee engagement* as “a positive, fulfilling, work-related state of mind that is characterised by vigour (e.g., being highly energetic), dedication (e.g., being highly involved in work), and absorption (e.g., being highly concentrated at work)” (Motyka, 2018, p. 233).

Various outcomes have been established with engagement such as organisational performance, individual wellbeing, and task performance (Bailey et al., 2017). The role of leadership is a key antecedent to the positive outcomes that have been identified. The role of a leader is crucial in ensuring engaged followers, therefore, the leadership of a firm and the type of leadership employed is essential, based on the environment in which a leader operates (Mendes & Stander, 2011).

To influence employee engagement, a leader needs to ensure that various touchpoints are addressed to safeguard the leader’s ability to modulate a follower’s vigour, absorption, and dedication. Saks (2019) showed that perceived organisational support (POS) and skills variety had a significant positive relationship to job engagement. POS describes a positive emotional feeling, based on the support from their colleagues and line manager. Thus, a leader has a direct role to play in how an employee perceives organisational support and influence their emotional state. By changing a follower’s emotional state, a leader has the ability to promote deep acting, which in return partially moderates POS, job

satisfaction and ultimately has a positive effect on the emotional intelligence of followers (Wen et al., 2019).

Reviewing the influence of job characteristics and their influence on engagement, Piccolo and Colquitt's work revealed valuable insights into various job characteristics which a leader can influence. Variety, identity, significance, autonomy, and feedback are the five key constructs influencing job characteristics (Ford et al., 2017; Piccolo & A, 2006; Saks, 2019). Saks (2019) reiterated that skills variety has a significant influence on employee engagements. A review of skills variety shows various areas where a leader can have an impact, thereby, influencing employee engagement. With the correct leadership style, a leader is able to identify employees that are not challenged to the degree that they wish. By doing so, the leader can influence the employees' scope of work allowing the employee to remain engaged and stimulated in the workplace (Khalid et al., 2021). Transformational leadership is promising to be impactful in influencing job embeddedness through job characteristics, but the work of Khalid et al. was conducted with a normal face to face team. The question therefore still arises – would this be the case in a virtual team?

Leadership has a direct influence on the identity and significance of employees in a firm, based on how the leader develops the culture in the team and how the leader mediates inter-team and intra-team dynamics. These dynamics are of great importance in virtual teams (Cortellazzo et al., 2019; Kozlowski et al., 2021). Sound evidence exist to support transformational leadership, but a lack of evidence is available to support ubuntu leadership (Buil et al., 2019). However, theoretically, ubuntu has the characteristics to support identity and significance within job characteristics.

Autonomy gives employees the opportunity to shape the way in which they do their work, whilst ensuring a desired outcome. Thus, a lack of autonomy has a negative impact on engagement levels by having a negative influence on vigour dedication and vigour (Zhang et al., 2017). Leaders have a direct influence on the perceived autonomy of followers based on how the leader manages their followers on a day-to-day basis, and leadership tactics need to address the environmental conditions in which a leader finds himself. Transformational leadership have shown a lot of promise as a sound leadership theory, having a positive impact on job autonomy and supportive management (Pattnaik & Sahoo, 2021).

The body of evidence of the influencer of various leadership theories on engagement in virtual teams is sparse, however studies are emerging (Mutha & Srivastava, 2021b).

Mutha & Srivastava (2021b) found a positive relationship between transformational leadership and employee engagement in virtual teams. However, the question remains if transformational leadership is the best, and whether another leadership style is more suited in virtual teams.

## 2.7 Summary

The literature reviewed the academic information currently addressing the topic of ubuntu and transformational leadership with reference to virtual teams. What is evident is that various nuances exist in virtual teams (Maduka et al., 2018). Both ubuntu and transformational leadership show promise as a leadership construct, which can effectively manage engagement in virtual teams. The question therefore arises – is the one better than the other in virtual teams?

Currently transformational leadership does show promise, but emergent theories such as ubuntu may be the proverbial dark horse that trumps transformational leadership off its throne.

## Chapter 3: Research Hypotheses

The focus of the study is to determine which of the two leadership theories (ubuntu & transformational leadership) has the greatest influence on engagement in teams working virtually. A literature review on virtual team leadership illustrates that no silver bullet has been found regarding the leadership style best suited to lead virtual teams (Dulebohn & Hoch, 2017; Gibbs et al., 2017). However, transformational leadership has shown mixed results based on its efficacy as a leadership style of virtual teams (Eisenberg et al., 2019; Mutha & Srivastava, 2021b).

Little scholarly research exists on ubuntu as a leadership construct, however, the constructs of ubuntu provides theoretical substantiation, based on the fact that humanism and relations form the core of the philosophy of ubuntu (Ncube, 2010). Furthermore, from a theoretical perspective, ubuntu “ticks the boxes” as described by Maduka et al. (2018).

Based on the building evidence for transformational leadership in virtual teams and the theoretical constructs of ubuntu, the researcher tested the following hypothesis:

***Hypothesis 1 (H1): Ubuntu leadership leads to greater employee engagement in virtual teams than transformational leadership.***

## Chapter 4: Research Methodology

### 4.1 Choice of methodology

The study aims to evaluate and compare the influence of ubuntu and transformational leadership on employee engagement in virtual teams. Therefore, the philosophy to be followed is that of the positivism paradigm. Rahi (2017) defines *positivism* as the attainment of knowledge through observation and experiments. Therefore, based on the hypotheses, the study's objective is to test the hypotheses, remain independent of the process, and collect primary data.

The researcher will approach the theory through deduction. The approach was decided upon because the proposed study was built on a sound theoretical foundation, with sound measures of the effect of the constructs tested.

The proposed methodological choice for the study is a mono-quantitative method. Furthermore, the researcher used a validated questionnaire to evaluate followers' perceptions of their leader on ubuntu and transformational leadership. Questions relating to the section measuring employee engagement was amended to ensure clarity. The study was cross-sectional due to the time constraints associated with an MBA research project.

The study was in a form an electronic questionnaire, that was completed by participants. The questionnaire will evaluate various constructs by measuring participants' responses to a series of statements.

### 4.2 Population, sample method, and sample size

A well-defined population is crucial to ensure that the correct sample is collected to do justice to the study. With the persistence of remote working (Saad & Wigert, 2021), the target population for the study are individuals working in the private sector that form part of a virtual working team. Furthermore, the target population will focus on fields within the business that, prior to COVID-19, worked in a traditional office environment. Therefore,



individuals in the field of information technology and research and development were excluded from the study.

Being cognisant of the continuum of virtuality in the work environment, the researcher defined a virtual worker as an individual who interacts with their line manager and team members non-face-to-face for at least 60 per cent of their daily interactions, while working for a firm in the private sector. The study made use of non-probability purposive sampling to ensure a high probability of interacting with the target population. Purposive sampling is "non-probability sampling in which the units to be observed, are selected based on the researcher's judgement" (Babbie, 2020, p. 193). The researcher used his network within the private sector to engage with a range of industries, as well as permission from his own company where he works. The respondents were approached on various platforms, including LinkedIn, WhatsApp groups and through direct correspondence via email. The objective was to collect 200 responses, however only 150 responses were collected of which 109 responses met the requirements. 35 of the responses did not meet the definition of a virtual work environment and four responses were from individuals working in the information technology industry. Even though the final sample was below the proposed sample size, reliable results were obtained.

### 4.3 Unit of analysis

Unit of analysis refers to "what and who[m] are being studied" (Babbie, 2020, p. 539). The objective of the study was to compare ubuntu and transformational leadership on employee engagement in virtual teams. Therefore, the unit of analysis is individuals reporting to a line manager working within virtual teams.

### 4.4 Measurement instrument

An electronic survey was used as the measuring instrument for the study. The literature was reviewed for validated surveys in reputable journals. Muller et al. (2019) validated a questionnaire which evaluates the effect of ubuntu leadership on engagement. The Cronbach's alpha values were above 0.90 for all questions measuring ubuntu leadership and engagement, respectively (Muller et al., 2019). Furthermore, the researcher will use

(Carless et al., 2000) short measure of transformational leadership, which has a Cronbach's alpha value of 0.93. The coefficient alpha or Cronbach's alpha is one of the most common methods used to determine the reliability of a scale used (Dunn et al., 2014). The reliability of the questionnaire was repeated after the responses were collected. All three Cronbach's alpha coefficients were above 0.85.

The survey consisted out of four sections. In the first section, the respondents were introduced to the research topic and a consent declaration, stipulating that the respondent's anonymity is protected by not collecting any data that could be used to identify the respondent (Appendix 1). Furthermore, the respondents were introduced to the study's definition of a virtual worker and the respondent had to select whether he or she conformed with the definition.

Section 2 evaluated the demographics of the sample which consisted out of seven questions. Demographic data was collected to determine if the respondents reflected the South African demographics in terms of race. Furthermore, demographic data was collected to determine if there was any explanation for the results based on demographics. The third section measured the participants' perception of ubuntu leadership and transformational leadership, based on the questionnaires developed by Muller et al. and Carless et al., respectively. Data was collected from the participants in the form of 27 questions which were randomly mixed in the survey form (Appendix 2). The questions were randomly mixed to limit any potential bias by the participants toward either ubuntu or transformational leadership. The third section will also include questions to evaluate transformational leadership as it is published in Carless et al. (2000) and is therefore not proprietary. The fourth section measured the respondent's level of engagement using Muller et al.'s (2019) questionnaire which consisted out of 15 questions. Even though none of the measurement instruments were proprietary, permission was obtained from Muller et al. to use his questionnaire.

The questionnaire allowed the collection of both categorical and numerical data. Categorical data, nominal data, was collected demographic section, whereas numeric, interval data, from the leadership and engagement section of the questionnaire. The form of the data determined the type of statistics performed in the study.

## 4.5 Measures

A 7-point Likert scale will be used to evaluate the strength of association of participants to the statements within the questionnaire. The Likert scale for both leadership and level of engagement consisted out of 1: "Strongly Disagree", 2: "Disagree", 3: "Somewhat Disagree", 4: "Neither Agree nor Disagree", 5: "Somewhat Agree", 6: "Agree", 7: "Strongly Agree". A 7-point Likert scale has been shown to have benefits such as a more accurate evaluation of a respondent's responses than a 5-point Likert scale (Finstad, 2010).

### 4.5.1 Dependent variable

The dependable variable in the study is employee engagement. Employee engagement has been directly correlated to employee performance (Bailey et al., 2017); therefore, testing the relationship of the independent variables to the dependant will provide valuable insight.

### 4.5.2 Independent variable

Based on the hypotheses, the independent variables are ubuntu and transformational leadership respectively.

## 4.6 Data gathering process

An electronic survey will be used to collect data for analysis. Data gathering was administered using Google Forms. Google Forms is an easy-to-use platform, providing flexibility through its online user interface in creating the questionnaire. Furthermore, Google Forms allowed for the secure storage of the data for a period not less than ten years.

A pilot phase was conducted on the survey, and will be run prior to starting the primary survey. The pilot survey was conducted on 30 August 2022 to test the questionnaire, to get feedback from the 10 selected participants. The feedback received from 9 out of the 10 participants was positive. One comment stated that the survey was easy to complete and the required time to complete the survey was conservative. One of the participants

picked up two semantic errors within the introduction, which was corrected. The survey was advertised on LinkedIn, various WhatsApp groups and through direct emails or WhatsApps to prospective respondents. One reminder was sent to each participant. The latter platforms were decided on, based on the researcher's network, as well as to ensure a wide participation from various industries. Two of the WhatsApp groups had individuals that met the entry criteria in various industries ranging from agriculture to financial services. It was the researcher's objective to widen the scope of industries to increase the potential applicability of the results. One of the key challenges was a low response rate. The low response rate prompted the researcher to send out a reminder on most of the platforms. Only one reminder was sent out to prevent the researcher from being a nuisance, which could potentially lead to complaints. Data was collected for a period of five and a half weeks, which was concluded on 12 October 2022.

#### 4.7 Analysis approach

Leadership research shares a common objective of understanding the leader and follower interaction (Bernerth et al., 2018). All non-virtual working respondents and respondents which did not conform to the minimum requirements, were removed from the dataset. The validity and reliability of the measuring tool was determined after this, to ensure data robustness. Validity refers to the measuring instrument's ability to measure what it intended to measure, whereas reliability refers to the measurement instrument's ability to provide consistent results (Taherdoost, 2016).

Validity was measured using correlation analysis and a factor analysis at a construct level. The benefit of a correlation analysis was that the analysis provides insights into the criterion concurrent and postdictive validity (Taherdoost, 2016). Criterion related validity is "the degree of correspondence between a test measure and one or more external referents" (Drost, 2011, p. 118). A correlation analysis was conducted by creating a total score for each of the constructs. A bivariate Pearson correlation was calculated for each subset question in relation to the total score. A significant correlation indicates that the criterion validity was met for the specific test score (Taherdoost, 2016).

A factor analysis was conducted to measure the convergent validity of the measuring tools (Taherdoost, 2016) at a construct level. A component analysis was selected because it provided the researcher with the ability to summarise the variance in the least number of

factors (Hair et al., 2018). Two outputs were used to interpret the component analysis. The first was the Kaiser-Meyer-Olkin measure of sampling accuracy (KMO). KMO measures the suitability of the respondent's data. A KMO value of 0.5 and above is considered acceptable for a factor analysis (Williams et al., 2010). The second output used to analyse the component analysis, was the Bartlett's test for sphericity. The Bartlett's test measures significance in the correlation matrix and therefore should have a p-value of less than 0.05. The Bartlett's test for sphericity therefore indicates that there is no zero correlations within the correlation matrix (Hair et al., 2018). Thus, by completing the KMO and Bartlett's test for sphericity, allowed the researcher to substantiate the validity of the measuring tool.

The reliability of the measuring tool was determined by using the Cronbach's alpha. The objective of testing the reliability was to ensure that the measuring tool is internally consistent (Taherdoost, 2016). Even though there is no discreet rule regarding an internal consistency, some authors recommend a minimum Cronbach's alpha value of at least 0.7 (Hair et al., 2018; Taherdoost, 2016). The Cronbach's alpha was calculated for each construct to determine each construct's measuring tool's reliability.

After the validity and reliability of the measuring tool was determined, descriptive statistics were conducted on the demographic data. The descriptive statistics involved evaluating the mean and standard deviation, as well as the evaluation of the frequency of responses.

The objective of the study was to compare the influence of ubuntu and transformational leadership on employee engagement. A regression analysis was decided upon to determine the relationship between the variates. An aggregate value for each participant was created by taking the average of each construct's responses from each respondent per construct. The aggregate score represented each respondent score for transformational leadership, ubuntu leadership and their level of engagement.

Four assumptions were confirmed about the variables in a regression analysis (Williams et al., 2010). The four assumptions were that there is a linear relationship between the dependent and independent variables, homoscedasticity, normality of the error term and independence of predicted values (Hair et al., 2018).

Normality was assessed by using a normality plot and Kolmogorov-Smirnov test for normality. A normality plot provided a visual representation of each construct, whereas the Kolmogorov-Smirnov test determined the "goodness of normal fit of the distribution" (Cleff, 2019). The combination of the two tests provides a sound view of the data selected,

and a Kolmogorov-Smirnov value with a p-value greater than 0.05 indicated a normal distribution (Cleff, 2019). An evaluation of normality of transformational leadership, ubuntu leadership and the level of engagement, revealed that the data violated the assumption. The data was transformed using a “log10 transformation” to remedy the situation (Hair et al., 2018). The log10 transformation resulted in the creation of “Log10\_Transformational\_Leadership”, “Log10\_Ubuntu\_Leadership” and “Log10\_level\_of\_Engagement” variables. All three variables conformed to the assumption of normality.

The presence of heteroskedasticity was evaluated using a partial regression plot. A partial regression plot allows for the visualisation of the residuals to determine whether there is any pattern to the residuals, indicating heteroscedasticity (Hair et al., 2018). None of the residual plots of the variates had any patterns, thereby confirming the assumption of homoscedasticity.

A bivariate Pearson’s correlation was used to determine the association between the dependent and independent variables. A Pearson’s correlation coefficient measures the strength of the relationship between two variables (Cleff, 2019). Furthermore, the p-value will indicate the significance of the relationship between the two variables. The linear association between the dependent and independent variables were confirmed using the pearson correlation, which was significant.

Independence of the error term was evaluated by testing the Durbin-Watson  $d$  statistic. The Durbin-Watson statistic measures autocorrelation and a Durbin-Watson  $d$  statistic between 1.5 and 2.5 indicates a lack of autocorrelation (Ho, 2013). Based on the Dublin-Watson  $d$  statistic result of 1.752, an assumption of independence of the error term was made.

Significance for all statistics was measured at the 95% confidence level. Therefore, the level of significance, alpha, denotes the “probability of the ‘tails’ of a sampling distribution” (Wenger, 2020, p.219). The level of significance was used to determine if the null of alternative hypothesis needs to be accepted.

## 4.8 Quality controls

Quality was maintained by using validated questionnaires from literature with Cronbach's alpha levels above 0.7 (Carless et al., 2000; Muller et al., 2019). Furthermore, reliability was repeated based on the responses to the survey.

Validity of the measuring tool was confirmed by evaluating the questionnaires by conducting a correlation analysis and a factor analysis.

Data integrity is ensured through a voluntary consent agreement. The participants could opt out at any time.

Anonymity was ensured by not collecting any personal identifying information from the participants, limiting potential bias when answering the survey.

Virtuality was defined to ensure that all participants are aligned on what virtuality entails in lieu of the study. Virtuality was the only compulsory question in the study.

The leadership theories' questionnaire questions were randomly mixed into one section to prevent any potential bias towards a specific leadership theory.

## 4.9 Limitations

Various limitations have been identified. The first limitation is the use of non-probability sampling. Purposive sampling may lead to the data not being normally distributed around the mean.

Selection bias is another limitation of purposive sampling (Rivera, 2019). This may impact the results. Furthermore, the results only reflect the specific sample and may not reflect the population.

The data will be collected through a voluntary electronic survey. Therefore, the risk is that the researcher will not collect sufficient responses within the specified time frame.

The study tested the relationship between the dependent and independent variables, the predictability of the model is dependent on both the variance explained by the variable through a multiple linear regression. Sample size can lead to a degree of overestimation of R (Jeon, 2015).

## Chapter 5: Results

### 5.1 Introduction

Chapter 5 presents the key findings obtained from the data collected from the survey as stipulated in Chapter 3. The findings are aligned to the survey questions as seen in the appendix. The survey was distributed to a wide range of participants from different backgrounds, with the commonality of working in a virtual environment.

### 5.2 Description of sample

The sample consisted out of individuals working in a virtual environment, reporting to a line manager. Respondents in the information technology and research and development field was excluded as discussed in Chapter 4. Of the original 150 respondents, 109 respondents met all the criteria.

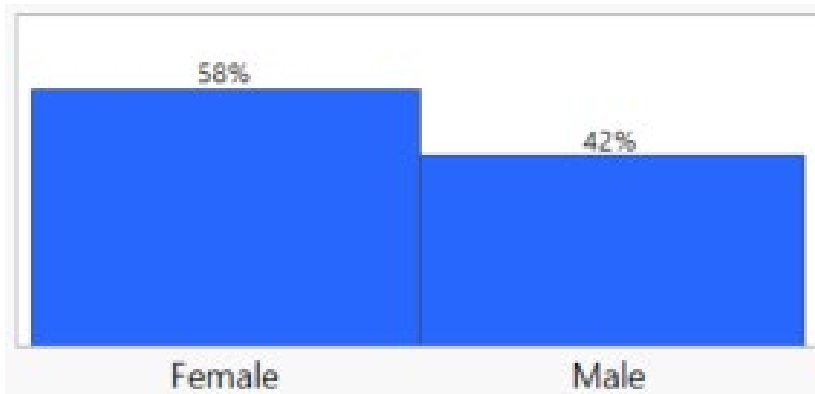


Figure 1: Respondents' gender distribution

Whilst the gender representation is not representative of the national population, it is close to the gender statistics of approximately 51% female (*About SA*, 2021). Figure 2 shows the response's age distribution with the majority of the respondents between the age of 30 and 49 years.



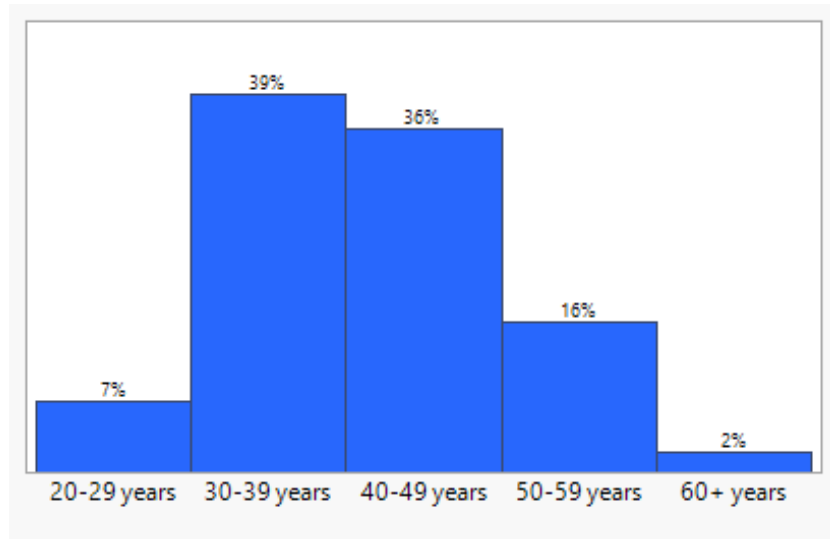


Figure 2: Respondents' age distribution

Figure 3 illustrates that 53% of the respondents to the survey was white and 35% was black, Bias may have been introduced by the sampling method described in Chapter 4, which was influenced by the researchers' network. Furthermore, the results show that transformation in the workplace still has a long way to go as the ethnicity demographics does not reflect that of the country.

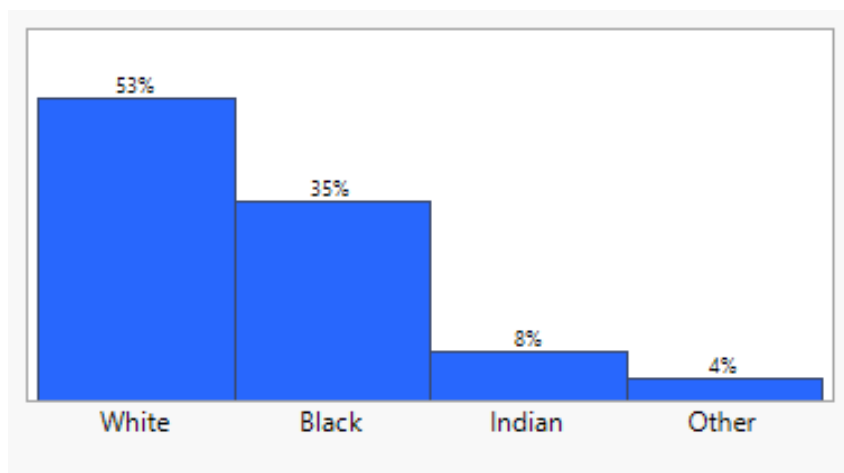


Figure 3: Respondents' ethnicity distribution

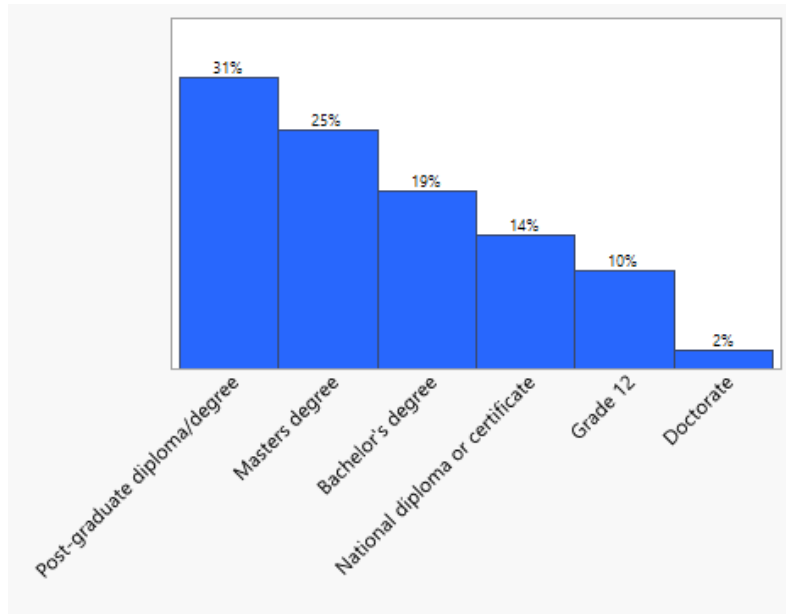


Figure 4: Respondents' level of education

Figure 4 illustrates the respondents' level of education. Most of the respondents' highest qualification was a post-graduate qualification. The results may be biased based on the sampling method for the study. The participants represented a wide range of qualifications, from matric (10% of respondents) to two respondents who had a doctorate degree.

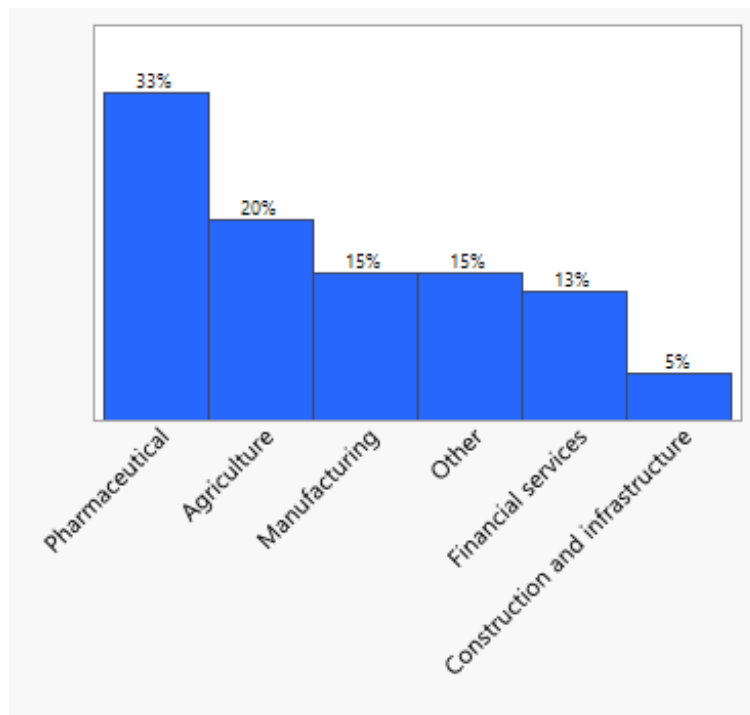


Figure 5: Respondents' current industry of employment

## 5.3 Reliability and validity of the data

### 5.3.1 Validity

To determine the validity of the measuring instrument for transformational and ubuntu leadership, as well as the respondent's level of engagement, a correlation analysis was conducted as explained in Chapter 4. The correlation analysis showed significance for all three constructs, when correlating the individual questions with the construct total for each question. Following the correlation analysis, a factor analysis was conducted. The results from the factor analysis's correlation matrix's correlation values, had a correlation value at least one correlation value above 0.3, as seen in the correlation matrix tables (Table 2 to 4). The Kaiser-Meyer-Olkin measure of sampling adequacy and Bartlett's test of sphericity was tested and illustrated in Table 1. All three constructs had a significant Bartlett's test for sphericity and the KMO values was over 0.5, validating the measurement instrument used to measure the three constructs. Therefore, the assumption was made that the measuring instrument provided valid data.

Table 1: Tests for measuring instrument validity

		<b>KMO and Bartlett's Test</b>		
		<b>Transformational leadership</b>	<b>Ubuntu leadership</b>	<b>Level of engagement</b>
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.904	0.927	0.843
Bartlett's Test of Sphericity	Approx. Chi-Square	516.869	1903.169	892.051
	df	21	190	105
	p-value.	<0.001	<0.001	<0.001

Table 2: Correlation matrix transformational leadership

Correlation Matrix - Transformational Leadership							
	1	2	3	4	5	6	7
1 My_leader_communicates_a_clear_and_positive_vision_of_the_organization.	1.000						
2 My_leader_treats_staff_as_individuals,_supports_and_encourages_them_to_contribute_to_the_achievement_of_the_organizations_mission.	0.531	1.000					
3 My_leader_gives_encouragement_and_recognition_to_staff.	0.441	0.716	1.000				
4 My_leader_fosters_trust,_involvement_and_cooperation_among_employees.	0.652	0.768	0.637	1.000			
5 My_leader_encourages_thinking_about_problems_in_new_ways.	0.396	0.565	0.423	0.587	1.000		
6 My_leader_is_clear_about_his/her_values_and_practises_them.	0.531	0.730	0.650	0.640	0.489	1.000	
7 My_leader_instills_pride_and_respect_in_others_and_inspires_them_to_excellence.	0.622	0.782	0.678	0.771	0.663	0.744	1.000

Table 3: Correlation matrix ubuntu

Correlation Matrix - Ubuntu																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1 My_leader_encourages_our_unit_to_collectively_achieve_our_goals.	1.000																			
2 My_leader_goes_out_of_his/her_way_to_be_helpful_towards_employees.	0.644	1.000																		
3 My_leader_holds_me_in_high_regard.	0.596	0.628	1.000																	
4 My_leader_expects_me_to_assist_fellow_employees_during_times_of_crises.	0.360	0.302	0.269	1.000																
5 My_leader_fosters_an_atmosphere_of_togetherness_at_work.	0.711	0.755	0.507	0.329	1.000															
6 My_leader_treats_employees_older_than_himself/herself_with_respect.	0.355	0.554	0.596	0.269	0.439	1.000														
7 My_leader_shows_a_brotherly/sisterly_concern_for_employees_needs.	0.591	0.715	0.503	0.308	0.670	0.503	1.000													
8 My_leader_is_considerate_of_my_personal_values.	0.607	0.732	0.554	0.263	0.575	0.519	0.779	1.000												
9 My_leader_sees_personal_hardship_of_employees_as_an_opportunity_to_serve_them.	0.529	0.711	0.547	0.258	0.606	0.537	0.739	0.716	1.000											
10 My_leader_treats_employees_as_one_would_members_of_ones_own_family.	0.483	0.711	0.501	0.208	0.638	0.539	0.713	0.656	0.819	1.000										
11 My_leader_is_sensitive_to_employees_personal_problems.	0.541	0.680	0.568	0.250	0.560	0.544	0.773	0.714	0.750	0.694	1.000									
12 My_leader_distributes_resources_in_a_manner_that_enables_the_unit_to_continue_with_carry_out_its_work.	0.536	0.684	0.448	0.243	0.553	0.504	0.497	0.587	0.576	0.587	0.563	1.000								
13 My_leader_exercises_authority_in_a_humane_manner.	0.584	0.732	0.565	0.202	0.625	0.557	0.681	0.716	0.660	0.671	0.632	0.656	1.000							
14 My_leader_listens_intently_when_employees_share_painful_experiences.	0.685	0.652	0.604	0.322	0.587	0.522	0.689	0.707	0.693	0.682	0.698	0.596	0.716	1.000						
15 My_leader_Shows_human_kindness_to_employees_by_treating_them_as_equals.	0.514	0.729	0.555	0.196	0.689	0.561	0.727	0.667	0.700	0.739	0.704	0.612	0.812	0.740	1.000					
16 My_leader_is_prepared_to_make_personal_sacrifices_in_order_to_achieve_the_goals_of_our_unit/department.	0.406	0.558	0.386	0.311	0.568	0.450	0.600	0.529	0.571	0.603	0.456	0.554	0.623	0.490	0.625	1.000				
17 My_leader_empathises_deeply_when_employees_feel_pain.	0.472	0.710	0.477	0.347	0.561	0.496	0.809	0.716	0.724	0.710	0.774	0.561	0.643	0.713	0.744	0.637	1.000			
18 My_leader_makes_decisions_based_on_the_consensus_of_the_unit.	0.541	0.660	0.385	0.351	0.618	0.461	0.577	0.575	0.566	0.635	0.499	0.706	0.674	0.533	0.635	0.562	0.608	1.000		
19 My_leader_has_deep_concern_for_employees_in_times_of_difficulty.	0.587	0.718	0.543	0.263	0.670	0.555	0.792	0.739	0.723	0.703	0.732	0.650	0.725	0.782	0.747	0.613	0.858	0.632	1.000	
20 My_leader_sees_himself/_herself_as_one_of_us_in_the_workplace.	0.555	0.774	0.512	0.112	0.702	0.591	0.655	0.653	0.657	0.765	0.548	0.649	0.764	0.670	0.800	0.571	0.647	0.717	0.714	1.000

Table 4: Correlation Matrix level of engagement

Correlation Matrix - Level of Engagement															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1 Time seems to pass quickly when I am at work.	1.000														
2 I feel strong and dynamic when I am at work.	0.734	1.000													
3 My job inspires me.	0.522	0.719	1.000												
4 I find it difficult to detach myself from the work I do.	0.402	0.356	0.354	1.000											
5 I am able to work for sustained periods of time.	0.368	0.367	0.418	0.333	1.000										
6 I am not afraid to be myself at work.	0.360	0.498	0.269	0.025	0.320	1.000									
7 I am enthusiastic about what I'm doing when I am at work.	0.550	0.656	0.654	0.211	0.279	0.357	1.000								
8 I keep trying to succeed, even in times of difficulty.	0.401	0.457	0.360	0.163	0.194	0.365	0.591	1.000							
9 I find my tasks challenging in a positive way.	0.470	0.667	0.650	0.270	0.501	0.402	0.644	0.538	1.000						
10 I deal assertively with work problems.	0.239	0.348	0.197	0.149	0.297	0.242	0.384	0.567	0.503	1.000					
11 My job is meaningful to me.	0.480	0.651	0.673	0.170	0.384	0.245	0.709	0.457	0.640	0.259	1.000				
12 I confidently handle the physical demands of my job.	0.283	0.308	0.223	0.181	0.235	0.237	0.289	0.376	0.366	0.589	0.250	1.000			
13 I am brave enough to express my opinions about work-related matters.	0.226	0.415	0.255	0.065	0.078	0.534	0.303	0.494	0.338	0.500	0.243	0.531	1.000		
14 I feel happy when working intensely.	0.219	0.410	0.452	0.317	0.357	0.203	0.322	0.366	0.466	0.379	0.409	0.481	0.420	1.000	
15 I consider my job activities to be valuable.	0.454	0.544	0.499	0.089	0.273	0.299	0.686	0.645	0.656	0.384	0.687	0.288	0.350	0.298	1.000

### 5.3.2 Reliability

The reliability of the measuring tools was determined using Cronbach's alpha, to measure the internal consistency of the measuring tools for transformational & ubuntu leadership and the level of engagement specifically. All of the measuring instruments have a Cronbach's alpha above 0.7 (Table 5), therefore, providing sufficient internal consistency to ensure reliability of the instruments.

Table 5: Test for measuring instrument reliability

Reliability Statistics		
	Cronbach's Alpha	N of Items
Transformational leadership	0.920	7
Ubuntu leadership	0.967	20
Level of engagement	0.897	15

## 5.4 Data transformation

Data transformation was necessary because the data violated the assumption of normality when comparing the dependent variable, level of engagement, to that of the two independent variables, transformational and ubuntu leadership. The results from the Kolmogorov-Smirnov and Shapiro-Wilk statistics illustrate that the significance level of log10 transformed data is higher than 0.05 (Table 6) and, therefore, displays normality of the error term distribution (Hair, Black, Babin, & Anderson, 2019).

Table 6: Test for normality

Tests of Normality						
	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Transformational leadership	0.148	109	0.000	0.898	109	0.000
Log10_Transformational_Leadership	0.079	109	0.090	0.984	109	0.220
Ubuntu leadership	0.140	109	0.000	0.920	109	0.000
Log10_Ubuntu_Leadership	0.058	109	0.200*	0.981	109	0.129
Level of engagement	0.079	109	0.094	0.936	109	0.000
Log10_Level_of_Engagement	0.074	109	0.186	0.983	109	0.165

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

## 5.5 Hypothesis results: *Ubuntu leadership leads to greater employee engagement in virtual teams than transformational leadership*

The purpose of the following results was to determine what relationship exists between independent variables (transformational and ubuntu leadership) and the level of engagement of the respondents. The purpose was furthermore, to test whether ubuntu leadership leads to a significantly greater employee engagement.

## 5.5.1 Descriptive statistics

### 5.5.1.1 Ubuntu leadership

The mean ( $\bar{X}$ ) response of ubuntu leadership was 5.53, with a standard deviation (s) of 1.12. Furthermore, Figure 6 illustrates that the distribution of the responses is negatively skewed and that three outlier responses were evident at the lower end of the scale. The results indicate that the majority of the respondents favourably scored ubuntu leadership.

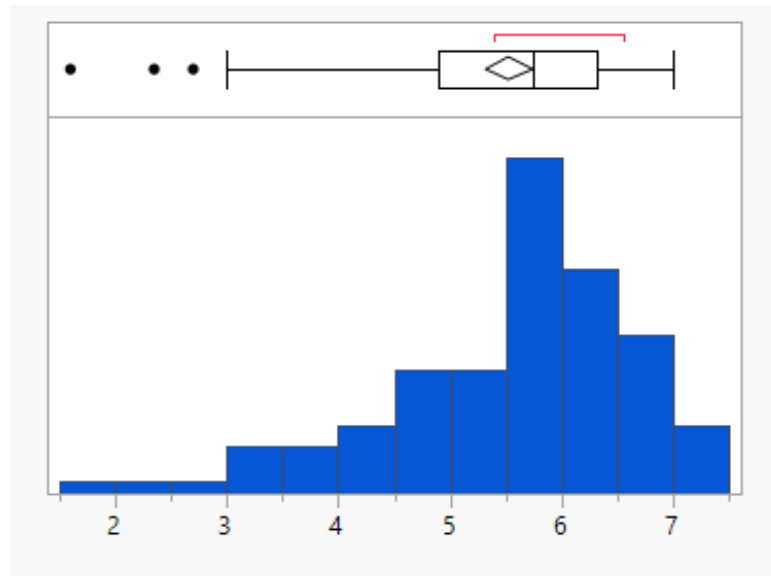


Figure 6: Ubuntu leadership response distribution

### 5.5.1.2 Transformational leadership

The mean ( $\bar{X}$ ) response of transformational leadership was 5.29, with a standard deviation (s) of 0.98. Furthermore, Figure 7 illustrates that the distribution of the responses is negatively skewed, however, the spread of the responses is lower when compared to ubuntu leadership.

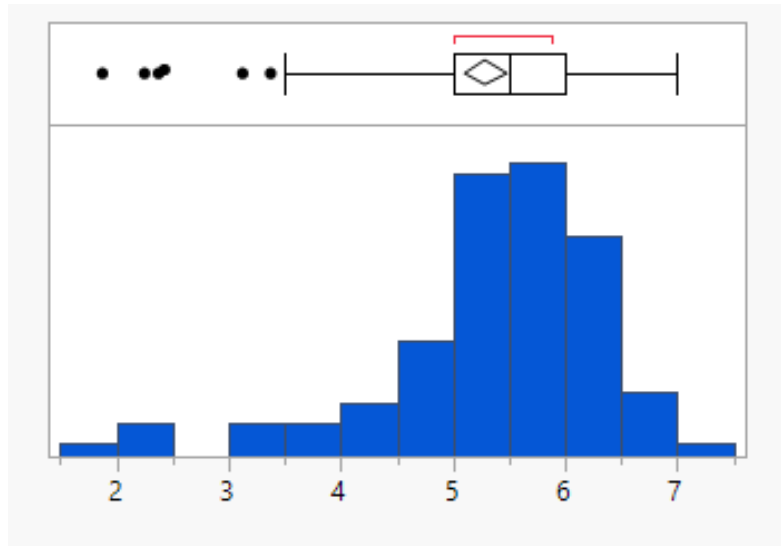


Figure 7: Transformational leadership response distribution

#### 5.5.1.3 Level of engagement

The mean ( $\bar{X}$ ) response of level of engagement was 5.79, with a standard deviation (s) of 0.78. Furthermore, Figure 8 illustrates that the distribution of the responses is negatively skewed to the higher end of the scale where respondents rated their level of engagement high. Due to the nature of the survey, one is unable to differentiate the respondents' results between transformational and ubuntu leadership, as respondents evaluated all three constructs at the same time.

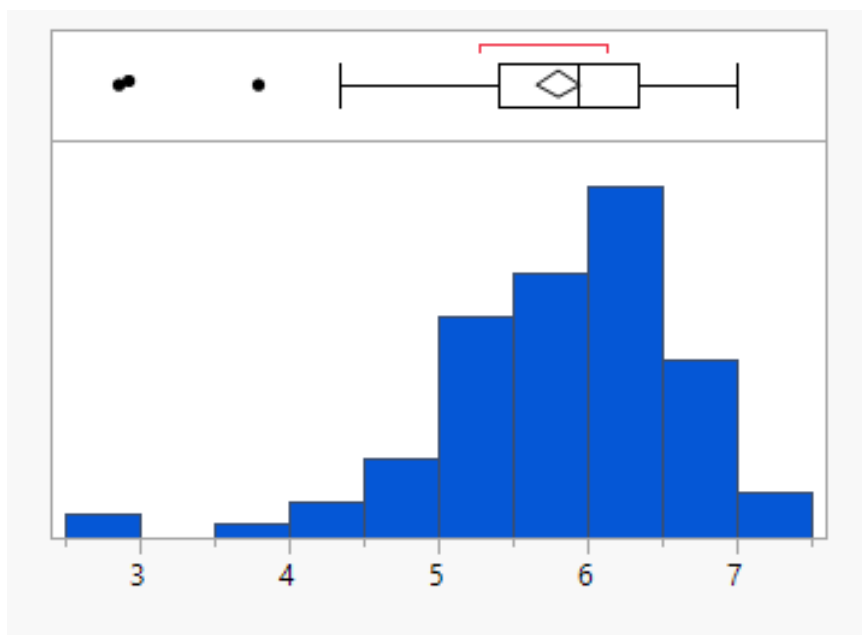


Figure 8: Level of engagement



### 5.5.2.1 Results

To determine the relationship between the two independent variables (transformational and ubuntu leadership) and the dependent variable (level of engagement), a multiple linear regression was performed. The multiple linear regression was performed using the log10 transformations of the dependant and independent variables.

The Pearson’s correlation showed a positive correlation for ubuntu (0.634) and transformational leadership (0.567) respectively to the level of engagement of the employees. Both correlations are significant with a p-value of 0.00.

Table 7: Hierarchical multiple linear regression – control industry

Model Summary <sup>c</sup>									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change
						F Change	df1	df2	
1	0.125 <sup>a</sup>	0.016	0.006	0.15166	0.016	1.678	1	106	0.198
2	0.638 <sup>b</sup>	0.407	0.390	0.11886	0.391	34.289	2	104	0.000

a. Predictors: (Constant), Current\_Industry\_Recode

b. Predictors: (Constant), Current\_Industry\_Recode, Log10\_Transformational\_Leadership, Log10\_Ubuntu\_Leadership

c. Dependent Variable: Log10\_Level\_of\_Engagement

Due to the overrepresentation of the agricultural and pharmaceutical industry to the respondent sample, a hierarchical multiple linear regression (HMLR) was performed. To allow for the analysis, the industry data was recoded from categorical string data to numerical nominal data, which allowed for the creation of the HMLR. The model summary (Table 7) illustrates the R<sup>2</sup> change attributed to industry (model 1) of the respondents is 0.016. Therefore, 1.6% of the variance in the regression model can be explained by the industry in which the respondents work. Model 1 has a F-change of 0.198. Therefore, it is concluded that Model 1 is not of statistical significance. Model 2 illustrates that 40.7% (R<sup>2</sup> 0.407) of the variance in the model is attributed to all three predictor variables, which was of significance.

Based on the results of the HMLR, a multiple linear regression (MLR) was conducted to evaluate the relationship the between ubuntu and transformational leadership and the level of engagement of the respondents. Table 8 illustrates the model summary of the MLR. The independent variables explained 40.5% of the variance in the model, which is positively correlated.

Table 8: Model summary of the multiple linear regression

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.636 <sup>a</sup>	0.405	0.394	0.11793

a. Predictors: (Constant), Log10\_Ubuntu\_Leadership, Log10\_Transformational\_Leadership

b. Dependent Variable: Log10\_Level\_of\_Engagement

Table 9: Coefficients of the multiple linear regression

Coefficients <sup>a</sup>							
Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	0.121	0.036		3.372	0.001		
Log10_Transformational_Leadership	0.109	0.147	0.104	0.739	0.462	0.281	3.554
Log10_Ubuntu_Leadership	0.431	0.112	0.545	3.861	0.000	0.281	3.554

a. Dependent Variable: Log10\_Level\_of\_Engagement

The beta ( $\beta$ ) coefficient of a MLR equation is an important determinant which can be used to understand the influence and importance of the various independent variables (Hair, Black, Babin, & Anderson, 2019). This is because the coefficients represent a standardised value of comparison, irrespective of the independent variable. The standardised beta ( $\beta$ ) coefficients for transformational (0.104) and ubuntu (0.545) leadership indicate that the influence of ubuntu leadership on the level of engagement is greater than that of transformational leadership. Furthermore, the beta ( $\beta$ ) of ubuntu leadership is of significance, based on the p-value of 0.00.

### 5.5.2.2 Test for significance of the model

The null hypothesis for the model is that all coefficients are equal to zero and thus that none of the independent variables have a significant relationship with the dependent variable. To test the hypothesis, an ANOVA was conducted (Table 10). The regression had a F value of 36.05 and a p-value of <0.001, which resulted in the rejection of the null hypothesis.

Table 10: ANOVA of the multiple linear regression.

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.003	2	0.501	36.052	<,001 <sup>b</sup>
	Residual	1.474	106	0.014		
	Total	2.477	108			

a. Dependent Variable: Log10\_Level\_of\_Engagement

b. Predictors: (Constant), Log10\_Ubuntu\_Leadership, Log10\_Transformational\_Leadership

### 5.6 Post-hoc analysis

A post-hoc analysis was conducted to understand the demographics had any influence on the results obtained from the study. An ANOVA was conducted to determine whether there was any significant difference between different ethnic groups and their perception of transformational and ubuntu leadership (Figures 9 and 10). No significant difference was found in the perception of different ethnic groups for transformational leadership, but Indian participants did perceive ubuntu significantly lower than other ethnicities. "Other" represented 4 respondents and was therefore excluded due to the small sample size.

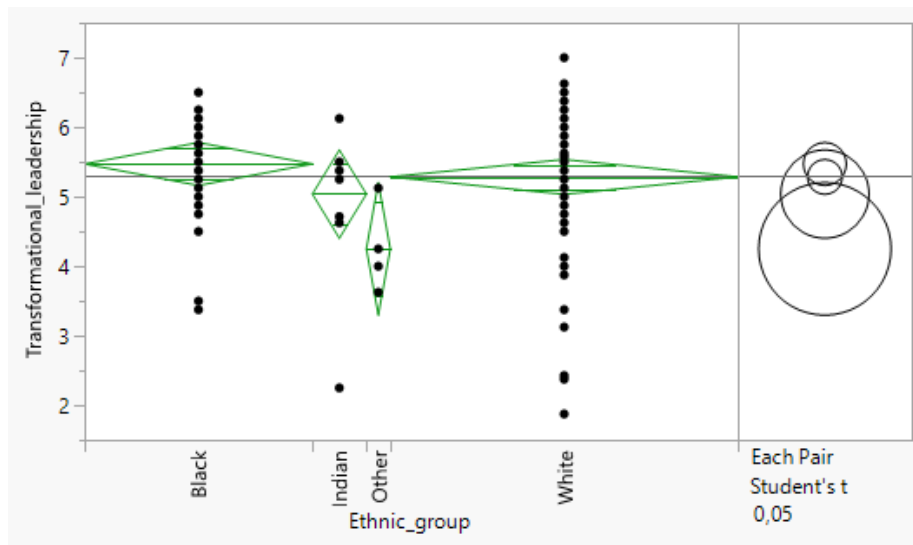


Figure 9: ANOVA Ethnicity and transformational leadership

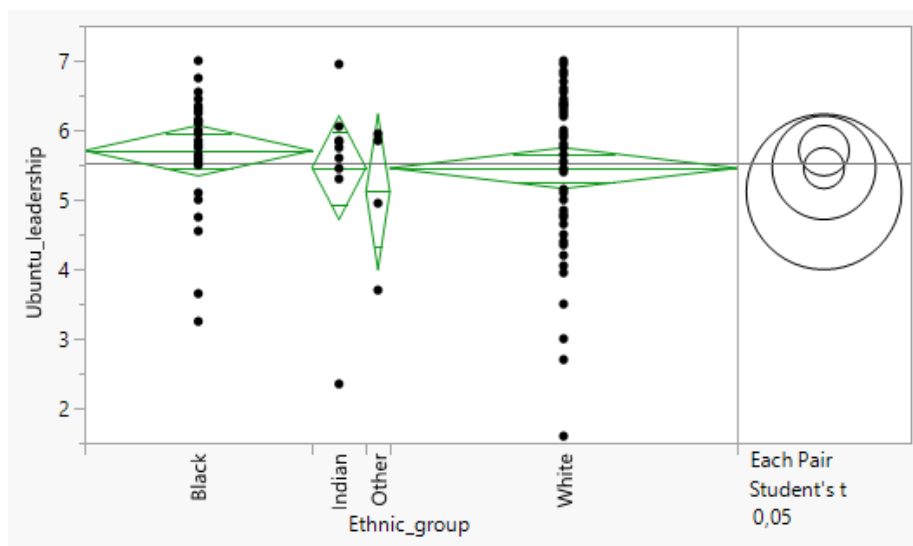


Figure 10: ANOVA Ethnicity and Ubuntu

The pharmaceutical and agricultural industry made up more than 50% of the responses. This may have an impact on the responses. Numerous responses were received from a number of industries, but An ANOVA was conducted to determine whether the responses of the different industries were statistically different. No significance was evident in the level of engagement or the respondents' scoring of transformational or ubuntu leadership (Figure 11).

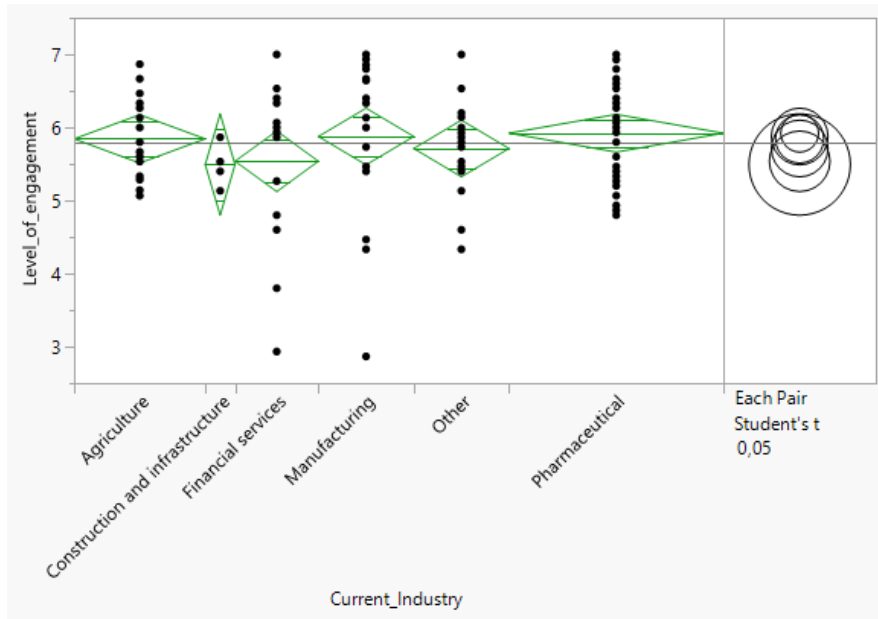


Figure 11: ANOVA current industry and level of engagement

### 5.7 Results summary

The objective of the study was to determine the relationship between transformational & ubuntu leadership and the level of engagement of the employees respectively. The hypothesis was that ubuntu leadership leads to greater employee engagement in virtual teams than transformational leadership. Based on the results discussed, clear evidence exists to support the hypothesis.

### 5.8 Model based on the results

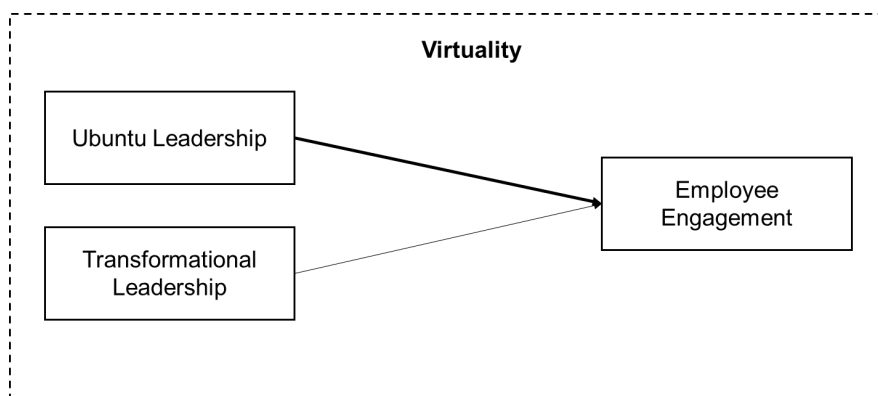


Figure 12: Conceptual model based on the results of the study. (The line thickness represents the strength of the relationship between the variables)

## Chapter 6: Discussion of results

### 6.1 Introduction

The objective of Chapter 6 is to discuss the results obtained in Chapter 5 in relation with Chapter 3, and how the results interact with what is currently evident in the body of literature as discussed in Chapter 2.

#### 6.1.1 Purpose of the study

The purpose of the study was to determine which leadership theory is better suited to promote engagement in virtual teams. For the purpose of the study, a virtual work environment was defined as an individual who engages and communicates 60 per cent or more of their time with their leader and peers through the use of digital technology.

The majority of leadership literature have been based on artificial teams and therefore did not represent functional field conditions in the work environment (Gibbs et al., 2017). Therefore, the objective of the study was to investigate transformational and ubuntu leadership separately and put them head-to-head with each other, and measure their relationship and efficacy in influencing the level of engagement in virtual teams.

#### 6.1.2 Selected study design

The study was designed in the form of an electronic survey which measured three constructs to sets of questions in which the respondent scored their leader based on how much they associate their leader to the statement. A questionnaire was selected because it provided the best way of gaining access to a wide range of audiences, representing different work environments, in different industries within South Africa. By doing so, the study answers the request made by other authors to investigate leadership in virtual environments (Gibbs et al., 2017).

## 6.2 Discussion of results

### 6.2.1 Transformational leadership in virtual teams

The results of the study showed that a non-significant positive relationship ( $\beta = 0.104$ ,  $p = 0.46$ ) exists between transformational leadership and the level of engagement in virtual teams. The results are different to that of previous research involving the transformational leadership and engagement. The result of the study disagreed with that of early work conducted by Purvanova and Bono (2009) who found a stronger relationship within virtual teams. The study's results corroborate with Eisenberg et al. (2019) who found that as team dispersion increases, the efficacy of transformational leadership decreases. Even though the study did not measure team dispersion directly, the study found that virtual teams within the sample only somewhat agreed with transformational leadership ( $\bar{X} = 5.29$ ). Thus, based on the respondents' responses and the study's definition of virtuality, transformational leadership did not perform in virtual teams as expected in non-virtual teams.

Dependent on the virtual communication medium, authors such as Maduka et al. (2018) have highlighted the challenge of loss of non-verbal cues, which play an important role in how an individual interprets the received communication. Therefore, trust in a virtual team is crucial and the role of the leader in building it, more so. Transformational leadership relies heavily on relationship building and the rapport building capabilities of the leader, which may be lacking in the sample, and have led to the results evident in the study. Thus, taking into consideration that 60 per cent or more of the communication between team members within the sample have been digital, the results strengthen Kozlowski et al.'s (2021) view that an increase in technology reliance reduces a leader's ability to interpret communication effectively. This may be due to a loss of charisma through the digital communication media.

To understand the influence of the demographics of the sample, a post-hoc analysis was conducted. The post-hoc analysis revealed that no significant difference in the interpretation of transformational leadership was noted within the sample between individuals working in different industries and from different ethnic groups. Therefore, the results provided insights into virtual team's interpretation of transformational leadership within a normal work environment, which have been lacking in the literature (Gibbs et al., 2017).

### 6.2.2 Ubuntu leadership

Even though the African philosophy of ubuntu has been neglected as a valid leadership theory, ubuntu showed a lot of promise in the results of the study. The study revealed that ubuntu had a significant positive relationship ( $\beta = 0.545$ ,  $p = 0.00$ ) with the level of engagement of participants. Not only does a positive relationship exist, but it is also of statistical significance. With the focal point of ubuntu being humanity (Ewuoso & Hall, 2019), the study illustrates the value of focussing on relationships. Relationship is key to building trust in teams and even more so in virtual teams (Maduka et al., 2018), especially when one takes into consideration the dependency of computer mediated communication in virtual teams, which leads to nuances being lost in communication.

South Africa has a diverse and rich culture, which shapes the way in which individuals perceive their world, therefore, managing cultural nuances is important for a leader in South Africa. Based on the participants' mean score of ubuntu ( $\bar{X} = 5.57$ ), the results provide an argument that ubuntu leadership has the ability to resonate with virtual teams, which may be as a result of not only the importance of relationships within ubuntu leadership, but the value placed within ubuntu for the respect of one's culture which the leader role models (Ncube, 2010). This sets the precedent for the team members on how each member of the team should interact with one another, developing sound and healthy team culture. The result of the study substantiates Muller et al.'s (2019) work in where he found that ubuntu had a positive influence on employee engagement. Based on his work and the results of the study, an argument for ubuntu as practical leadership theory is developing in both virtual and non-virtual teams.

Even though the demographics of the study did not reflect South Africa, the post-hoc analysis revealed that the only significant difference in ethnicity was within the Indian sample of the study. Nevertheless, the results show that in essence South Africans perceived the benefits of ubuntu equally, substantiating the value of ubuntu leadership in South Africa.

### 6.2.3. Transformational leadership vs ubuntu

The objective of the trial was to determine whether ubuntu leadership leads to greater employee engagement, when compared to transformational leadership. The results from



Table 7 showed that ubuntu leadership led to significantly greater employee engagement ( $\beta = 0.545$ ,  $p = 0.00$ ) than transformational leadership. Thus, it can be concluded from the study that for the respective sample, ubuntu leadership was better suited as a leadership style. The results further show that irrespective of your ethnic background, or industry of work, ubuntu as a leadership theory deserves a seat at the table when considering which leadership tactics need to be implemented in an organisation. Taking into consideration that a degree of virtuality is predicted to stay within the formal sector, the potential value of ubuntu becomes greater.

The question arises why ubuntu did so much better than transformational leadership in virtual teams? Based on the work done by van der Westhuizen and Hewitt (2021), which argues the difference between Afrocentric and Eurocentric leadership, one of the key differences between the two global philosophies remain the core of where it places relationships. Thereby, one can posit that with Eurocentric leadership is more process related, instead of people related. In virtual teams the literature shows that maintaining and building relationships is one of the key challenges (Sedrine et al., 2021). The results of the study partially concur to that of Sedrine et al. Sedrine et al. recommend that transformational leadership should be used to improve team efficiency in virtual teams. The study did show that there is a positive relationship between transformational leadership and engagement, which can indirectly be interpreted to team efficiency (Bailey et al., 2017). More importantly, the results showed that ubuntu may be better suited in virtual teams.

In terms of cultural dimensions, ubuntu leadership's approach is based on collectivism where the voice of the team is just as important as that of the individual. This is quite different to that of transformational leadership, which is individualistic in nature. Kramer et al. (2017) proposed that collectivism might lead to a lower reliance on virtual tools, which might be one of the explanations why ubuntu outperformed transformational leadership in the study. Furthermore, it is posited that the acceptance of cultural differences brings forth diversity, which makes the team more robust in dealing with uncertainty.

Managing autonomy and significance is crucial because they are two important antecedent's employee engagement. The results indicate that ubuntu may be better suited in virtual teams in comparison with transformational leadership, based on the MLR ANOVA and the coefficients (Tables 7 and 8). The latter is posited based on the work of Mutha & Srivastava on transformational leadership. Mutha & Srivastava, (2021a) found that there is a significant positive relationship between transformational leadership and

employee engagement. However, this study's results could not find a significant positive relationship. What Mutha and Srivastava's work showed, was that trust was an important mediator between leadership motivation and employee engagement. Thus, it could be assumed that for this specific sample, the leaders were not able to mediate trust as effectively as ubuntu potentially did.

## Chapter 7: Conclusion and Recommendations

### 7.1 Objective and theoretical contribution

The objective of the study was to determine the relationship between ubuntu leadership and its influence of level of engagement of employees in the virtual workplace. The study seeks to heed the call to contributions to the body of literature regarding the value of transformational and emergent leadership theories such as ubuntu and its value in virtual teams. Furthermore, the study pursues to answer Muller et al.'s (2019) call to test the ubuntu questionnaire developed by himself. Lastly the study wished to test the hypothesis in functional working field teams so that the data obtained, represented daily work conditions.

The study accomplished what it set out to achieve in the following way: The study determined that both transformational and ubuntu leadership had a positive relationship to employee engagement, albeit the fact that that only the ubuntu leadership relationship was of statistical significance. Furthermore, the study showed that ubuntu performed better than transformational leadership within the sample measure. This formed a watershed moment for ubuntu leadership, which has been sitting in the “back row” when it comes to the investigation of leadership theories in a virtual setting. The study showed that an Afrocentric view of leadership has value in modern society, and it is a valid contender as a sound leadership theory in dispersed teams.

The study concluded that Muller et al. (2019) was a valid and reliable measure of ubuntu. Furthermore, the study showed value in using the developed questionnaire in virtual teams from different professional backgrounds and ethnicity.

In essence, the study has initiated the investigation of the validity of ubuntu in virtual environments, based on teams that communicate digitally for more than 60 per cent of their engagements with individuals, forming a sound foundation for future research.

### 7.2 Practical implication for management

Based on the results of the study, the study holds various implications for management. Contrast to most of the Eurocentric leadership theories that are process orientated, ubuntu

leadership is relationship orientated, which requires a pivotal change in how western organisations engage and measure success.

### 7.2.1 Relationships matter

Based on the success of ubuntu leadership in the study, one needs to be cognisant that ubuntu is centred among relationships. In virtual teams, the study provides evidence that a mind shift is required of managers in which relationships come first, ahead of processes. By placing relationships first, the leader develops a servant type leadership with their direct reportees, building and forming the foundation of team trust – trust that both successes and failures would be shared as a collective, for the benefit of the collective. By doing so, the leader ensures that the team is engaged, which has been shown to have a direct correlation to organisational performance.

### 7.2.2 Collectivism versus individualism

Ubuntu leadership results in another paradigm shift from transformational leadership, or any other leadership theory that it is based on collectivism instead of individualism. Therefore, from a practical standpoint, the author recommends that management of virtual teams find a balance between team and individual measurements of success, for both the direct reportees and the line-manager. This will ensure better alignment between individual and company objectives and thereby promoting an engaged team.

### 7.2.3 Culture matters

The importance of culture relates not only to that of the firm, but also to that of the individuals working in the firm. Ubuntu leadership is cognisant of the cultural nuances between individuals, even though a country like South Africa, which is multi-cultural, virtuality has no boundaries. Therefore, it is crucial that a leader has a firm understanding of the various cultural nuances in his team. By doing so, it will have a positive effect on engagement as illustrated through ubuntu leadership.

### 7.3 Limitations of the research

It is crucial that the reader reviews the results and discussion with the various limitations in mind.

The first limitation of the study, is the use of non-probability sampling which resulted in the data not being normal in distribution. Therefore, the researcher was using a log10 transformation, which transformed the data to a more normal distribution. Log10 transformations adds complexity in improving the empirical results and improving their interpretability (Hair et al., 2018).

The next limitation is the sample size of the study, which involved 109 participants. A greater sample size may have provided more robustness to the study.

Even though there was not any significance in the interpretation of the constructs by different demographics in the study, a more representative ethnicity may have been influential. Only 35 per cent of the respondents represented the largest ethnic group within South Africa. Furthermore, even though various industries were represented, most of the respondents worked in the pharmaceutical (35%) and agriculture industry (20%). The latter is due to the sampling method and the network of influence of the researcher. Respondents to the study was highly educated with 57% of the respondents having a post-graduate education, which is not necessarily representative of the normal population.

Another limitation of the study is that the study did not measure temporal and geographical dispersion, which are important constructs of virtuality in the workplace (Liao, 2017). Therefore, virtuality needs to be taken into consideration with the definition of virtuality in the study.

The time dimension of the study is another limitation. The study was cross sectional which only represents a snapshot of various macro and micro nuances in the respondent's work environment, which may affect the outcome of the results. Therefore, caution should be taken when making generalised inferences from the results (Levin, 2006).

## 7.4 Suggestions for future research

Based on the outcome of the study, the following suggestions for further research are made:

### 7.4.1 Incorporating spatial and geographical distribution

One of the limitations of the current study is that there is no discriminative measure of the level of spatial and geographical distribution affecting the respondents. Both spatial and geographical distribution are key attributes of virtual teams (Kozlowski et al., 2021). Therefore, it would be of great value to evaluate both transformational and ubuntu leadership head-to-head, taking into consideration the spatial and geographical distribution of the respondents. By doing so, the work will further evaluate the applicability of ubuntu or transformational leadership in virtual teams.

### 7.4.2 Longitudinal study

A limitation listed of the study is that it is cross-sectional in design, which limits the interpretation and generalisability of the results (Levin, 2006). Therefore, it is recommended to evaluate the effectiveness of ubuntu leadership of a continuum. By doing so, it will build the credibility of the theory as a leadership theory in both virtual and non-virtual teams.

### 7.4.3 Multi-level examination of ubuntu leadership

Liao (2017) posited a multilevel framework of leadership in virtual teams, which provides a multilevel view of virtual team leadership and its influence in team and individual effectiveness. Therefore, the framework will provide an opportunity for the evolution of the effectiveness of ubuntu leadership in virtual teams. Thereby, heeding the call from Liao and building the literature on ubuntu leadership.

## 7.5 Conclusion

Navigating the impact of virtuality in the workplace is becoming a common occurrence, which requires a new toolset to allow leaders and followers to navigate the environment. The purpose of the study was to gain insight into the value of ubuntu as a leadership construct within virtual teams in field conditions. Therefore, ubuntu leadership was compared to transformational leadership which been proven to be successful in various environments.

The objective of the study was completed, and the results of the study illustrated that ubuntu had a significant positive relationship to employee engagement. Even though the study only represented a snapshot in time, ubuntu shows promise to have a positive effect on both leaders and employees in the virtual workplace showing propitiousness and providing validity for future research into ubuntu as a leadership construct, from Africa, for Africa.

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# Appendices

## Appendix 1: Research introduction and consent

You are invited to participate in a study comparing the influence of two leadership theories on employee engagement in both virtual and traditional teams.

This study is being conducted in partial fulfilment of a Master's in Business Administration (MBA) degree at the Gordon Institute of Business Science, University of Pretoria.

This study applies to knowledge workers (knowledge workers are individuals whose principal capital is knowledge), excluding individuals within research & development and in internet communication technology.

The information you provide will be used in quantitative research and will not benefit you directly, but the provided information will provide valuable insight into applying ubuntu and transformational leadership theory within virtual teams.

The survey is anonymous. No one will be able to identify you in the survey, and no one will know if you participated. No emails or IP addresses are collected during the survey. Should the data be published, aggregate only data will be analysed. The researcher, however, cannot guarantee absolute anonymity over the internet.

Your participation in the survey is voluntary. By completing the survey over the provided link, you voluntarily agree to participate. You are free to decline to answer any particular question you do not wish to answer for any reason and terminate at any time.

The Gordon Institute of Business Science Ethics Committee has reviewed and approved the researcher's request to conduct the research project. If you have any questions about the study, please contact the researcher: Louis Boag, at [23140552@mygibs.co.za](mailto:23140552@mygibs.co.za). If you have any questions about your rights in the study, please contact Jennifer Theodoridis, programme manager, at [TheodoridisJ@gibs.co.za](mailto:TheodoridisJ@gibs.co.za) or the research supervisor, Professor Gavin Price, at [PriceG@gibs.co.za](mailto:PriceG@gibs.co.za).

The survey consists out of 50 questions and is expected to take +/- 10 minutes of your time. Thank you for your time and patience!



## Appendix 2: Survey questionnaire

Questions	Likert Scale 1 to 7
<b>Ubuntu Leadership:</b>	
My leader encourages our unit to collectively achieve goals collectively.	
My leader goes out of his/her way to be helpful towards employees.	
My leader holds me in high regard.	
My leader expects me to assist fellow employees during crises.	
My leader fosters an atmosphere of togetherness at work.	
My leader treats employees older than himself/herself with respect.	
My leader shows a brotherly/sisterly concern for employees' needs.	
My leader is considerate of my personal values.	
My leader sees personal hardship of employees as an opportunity to serve them.	
My leader treats employees as one would members of one's own family.	
My leader is sensitive to employees' personal problems.	
My leader distributes resources in a manner that enables the unit to continue with carry out its work.	
My leader exercises authority in a humane manner.	
My leader listens intently when employees' share painful experiences.	
My leader shows human kindness to employees by treating them as equals.	
My leader is prepared to make personal sacrifices in order to achieve the goals of our unit/department.	
My leader empathises deeply when employees feel pain.	
My leader makes decisions based on the consensus of the unit.	
My leader has deep concern for employees in times of difficulty.	
My leader sees himself / herself as one of us in the workplace.	
<b>Transformational leadership:</b>	
My leader communicates a clear and positive vision of the future.	
My leader treats staff as individuals, supports and encourages their development.	
My leader gives encouragement and recognition to staff.	
My leader fosters trust, involvement and cooperation among team members.	
My leader encourages thinking about problems in new ways and questions assumptions.	
My leader is clear about his/her values and practises what he/she preaches.	
My leader instills pride and respect in others and inspires me by being highly competent.	

<b><u>Level of engagement:</u></b>	
Time seems to pass quickly when I am at work.	
I feel strong and dynamic when I am at work.	
My job inspires me.	
I find it difficult to detach myself from the work I do.	
I am able to work for sustained periods of time.	
I'm not afraid to be myself at work.	
I am enthusiastic about what I'm doing when I am at work.	
I keep trying to succeed, even in times of difficulty.	
I find my tasks challenging in a positive way.	
I deal assertively with work problems.	
My job is meaningful to me.	
I confidently handle the physical demands of my job.	
I'm brave enough to express my opinions about work-related matters.	
I feel happy when working intensely.	
I consider my job activities to be valuable.	

<b><u>Demographics:</u></b>	
Do you work in a virtual environment?	Yes
Do you work in a virtual environment?	No
Age	18-19 years
Age	20-29 years
Age	30-39 years
Age	40-49 years
Age	50-59 years
Age	60+ years
Gender	Male
Gender	Female
Gender	Other
Ethnic group	Black
Ethnic group	White
Ethnic group	Coloured
Ethnic group	Indian
Ethnic group	Asian
Ethnic group	Other
Qualification	Grade 12
QUALIFICATION	National Diploma
QUALIFICATION	Bachelor's degree
QUALIFICATION	Post-graduate diploma/degree
QUALIFICATION	Masters degree
QUALIFICATION	Other
Level of employment	Functional worker

Level of employment	Supervisor/ Team leader/ Junior Manager
Level of employment	Middle Management
Level of employment	Senior Management
Level of employment	Professional
Years of total work experience	0-4 years
Years of total work experience	5-9 years
Years of total work experience	10-19 years
Years of total work experience	20+ years
Current Industry	Agriculture
Current Industry	Education
Current Industry	Energy
Current Industry	Financial services
Current Industry	Hospitality
Current Industry	Infrastructure development
Current Industry	Manufacturing
Current Industry	Mining
Current Industry	Pharmaceutical
Current Industry	Retail
Current Industry	Tourism
Current Industry	Other

## Appendix 3: Ethics approval

### **GIBS ETHICAL CLEARANCE APPLICATION FORM 2021/22**

#### **G. APPROVALS FOR/OF THIS APPLICATION**

When the applicant is a student of GIBS, the applicant must please ensure that the supervisor and co-supervisor (where relevant) has signed the form before submission

#### **STUDENT RESEARCHER/APPLICANT:**

29. I affirm that all relevant information has been provided in this form and its attachments and that all statements made are correct.

Student Researcher's Name in capital letters: LOUIS BOAG

Date: 26 Aug 2022

Supervisor Name in capital letters: GAVIN PRICE

Date: 26 Aug 2022

Co-supervisor Name in capital letters:

Date: 26 Aug 2022

**Note:** GIBS shall do everything in its power to protect the personal information supplied herein, in accordance to its company privacy policies as well the Protection of Personal Information Act, 2013. Access to all of the above provided personal information is restricted, only employees who need the information to perform a specific job are granted access to this information.

#### **Decision:**

Approved

#### **REC comments:**

Goodluck

Date: 29 Aug 2022