

**Essential virtues for responsible leader behaviour: A virtue-based  
approach to responsible leader behaviour**

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A research project submitted to the Gordon Institute of Business Science, University of Pretoria, in partial fulfilment of the requirements for the degree of Master of Business Administration.

1st December 2020

## **ABSTRACT**

Despite the dearth of literature on virtues as essential for responsible leader behaviour, there remains a lack of consensus around which are 'the' virtues most closely associated with responsible leader behaviour. To address this, the current study focuses on a specific set of six cardinal virtues with the aim of identifying which are 'the' virtues most essential for responsible leader behaviour. A mono-method quantitative methodology was applied, and 139 participants responded to the survey questionnaire.

A correlation analysis was used to test the hypothesis in order to understand which virtues were positively associated with responsible leader behaviour. A linear regression analysis was employed to explore predictability. Results indicated that the virtues of prudence and temperance were positively associated with responsible leader behaviour thus identifying the "Top Two" virtues essential for responsible leader behaviour.

The study makes a theoretical contribution to the burgeoning literature on responsible leadership by supporting a virtue-based approach to cultivating responsible leader behaviour. At the practical level, the study contributes to the development of a leader's capacity to do good and avoid harm as essential for promoting positive organizational outcomes.

**Keywords:** Virtue, responsible leader behaviour, virtue ethics.

## **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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1<sup>st</sup> December 2020

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# **CHAPTER 1: THE RESEARCH PROBLEM**

## **1.1 INTRODUCTION**

Chapter one provides the background, research objectives, research problem, and the research questions associated with the study. This chapter includes the contributions of the study, the importance and benefits of the research, and the research scope. The final part of the chapter concludes with a description of the structure for the study.

## **1.2 BACKGROUND**

Corporate executives are increasingly required to act responsibly and respond to diverse stakeholder groups in a corporate world characterized by a crisis of responsible leadership (Ghosal, 2005; Waldman & Galvin, 2008; Newstead, Dawkins, Macklin, & Martin, 2019; Voegtlin, Frisch, Walther, & Schwab, 2019; Waldman, Siegel & Stahl, 2020). Take the collapse of Steinhoff (Steinhoff International Holdings N.V.), after its Chief Executive Officer (CEO), Marcus Jooste, admitted to making 'big mistakes' when the company's external auditors refused to sign off its 2017 financial statements (Rossouw & Syan, 2019). The corporate scandals at VW and Enron provide further evidence of the irresponsible behaviour by corporate executives that have plunged companies into organizational malaise (Newstead et al., 2019).

These instances of management misconduct suggest that senior executives may be acting more irresponsibly than ever before leading to lower levels of trust in corporate management (Stahl & Sully de Luque, 2014). According to the 2019 Edelman Trust Barometer, 75% of consumers said they would not buy from unethical companies suggesting that issues of trust and responsible leadership are important for corporate success. The 2019 survey revealed a deficit of trust and credibility in global management, especially at the level of CEOs (Edelman, 2019). To restore trust and credibility, leaders are increasingly expected to demonstrate responsible leader behaviour (Waldman et al., 2020).

Irresponsible behaviour, ethical breaches, corporate scandals and moral corruption by

individuals with considerable power and influence illustrates the importance of understanding what informs and shapes responsible leader behaviour (Maak & Pless, 2006; Stahl & Sully de Luque, 2014; Newstead et al., 2019).

Responsible leadership and what constitutes responsible leader behaviour is a hot and relevant topic that has emerged as a critical domain in management science (Pless & Maak, 2011; Stahl & Sully de Luque, 2014; Voegtlin et al., 2019). The focus of responsible leadership has largely been on stakeholder considerations inside and outside the organization and this stakeholder-centricity has distinguished responsible leader behaviour from other types of leader behaviour (Antunes & Franco, 2016).

There is a substantial body of knowledge in support of the notion that virtue informs responsible leader behaviour (Cameron, Quinn, & Dutton, 2003; Cameron, 2011; Antunes & Franco, 2016). Virtues are a predictor of responsible leader behaviour and divergent lists of virtues are commonly associated with responsible leader behaviour (Cameron, 2011; Antunes & Franco, 2016).

Responsibility is often highlighted as an essential virtue that informs responsible leader behaviour and most often is synonymous with accountability (Cameron & Caza, 2005; Cameron, 2011). Maak and Pless (2006) agree that accountability is synonymous with responsibility and that responsibility is an essential virtue that informs responsible leader behaviour. However, they include other virtues such as humility, trust and respect as equally important to informing and shaping responsible leader behaviour (Maak & Pless, 2006).

The literature suggests that there is a lack of a consensus around which are 'the' virtues most closely associated with responsible leader behaviour and this constitutes a gap in the literature at the intersection of virtue ethics and responsible leadership (Newstead et al., 2019). The current study focuses on a specific set of six cardinal virtues derived from the literature on virtue ethics that are pertinent to responsible leader behaviour (Wang & Hackett, 2015). This helps to narrow the focus of the current study with the aim of identifying which are 'the' virtues most essential for responsible leader behaviour.

The practical benefits of identifying the most essential virtues to cultivate responsible leader

behaviour relate to enhanced career development programmes that encompass virtue awareness and development, improved organizational performance, greater employee satisfaction, and enhanced employee engagement (Cameron, 2011; Pless & Maak, 2011; Voegtlin, 2011; Hackett & Wang, 2012; Doh & Quigley, 2014).

Identifying which virtues are more essential than others may allow leaders to role model responsible leader behaviour thereby contributing to a better organizational climate (Cameron, Bright, & Caza, 2004; Antunes & Franco, 2016). The study will further contribute to the existing body of knowledge on a virtue-based perspective to responsible leadership.

### **1.3 RESEARCH PROBLEM AND OBJECTIVES**

The need to develop responsible leader behaviour in organizations for positive organizational outcomes necessitates the need to conduct this study. There is an increasing emphasis on responsible leader behaviour on the part of executives who face mounting public scrutiny and a critical trust gap (Maak & Pless, 2009). Executives who exercise responsible leader behaviour may help to strengthen the bonds between the organization and society (Pless, Maak & Waldman, 2012).

The business rationale is based on the problems of irresponsible and unethical behaviour and the pressures of responsible leadership placed on senior executives in the corporate world of today. This points to a growing need to investigate different approaches to responsible leader behaviour. Senior executives would do well to understand what informs and shapes responsible leader behaviour. Studies have revealed how responsible leader behaviour contributes to positive organizational performance, employees' job satisfaction, commitment, and leader effectiveness (Voegtlin, 2011; Doh & Quigley, 2014; Voegtlin et al., 2019).

The theoretical need is based on the importance of developing an understanding and consensus of which virtues are most important in cultivating responsible leader behaviour. Some virtues may be more essential than others for responsible leader behaviour. For example, how essential is the virtue of courage as compared to the virtue of humanity in shaping responsible leader behaviour?

Against this background, the current study was designed to answer the overarching research question: Which virtues have a positive association with responsible leader behaviour? To achieve the goal of answering the research question, the objectives of the research were to investigate the following:

- The associations between discreet cardinal virtues and responsible leader behaviour.
- If there is a positive association between discreet cardinal virtues and responsible leader behaviour.
- If there is a negative or no association between discreet cardinal virtues and responsible leader behaviour.

By investigating and developing a better understanding of these associations, the study aimed to enhance positive organizational outcomes and contribute to virtue awareness and development programmes for responsible leader behaviour in organizations. The study further aimed to make a contribution to the existing body of knowledge on a virtue-based perspective to responsible leadership.

#### **1.4 CONTRIBUTION OF THE STUDY**

This study aims to make a practical contribution to the modelling of virtues development for leaders to do good and avoid harm as essential for promoting positive organizational outcomes (Voegtlin, 2011; Voegtlin et al., 2019). At the practical level, the study aims to make a contribution towards the enhancement of career development programmes that encompass virtue awareness and development.

The study aims to make a theoretical contribution to the burgeoning literature on responsible leadership by supporting a virtue-based approach to cultivating responsible leader behaviour. The theoretical contribution is based on the importance of developing an understanding and consensus of which virtues are most important in cultivating responsible leader behaviour.

Based on a comparative analysis of Aristotelian virtue ethics literature, Hackett and Wang (2012) proposed six cardinal virtues as the core of all other virtues. These six virtues are

prudence, truthfulness, humanity, temperance, justice and courage (Hackett & Wang, 2012). The current study focuses on these six cardinal virtues as pertinent to responsible leader behaviour with the aim of developing a consensus around the most essential virtues.

In doing so, the study contributes to the literature on responsible leadership by reducing the heterogenous set of cardinal virtues into a smaller set of essential virtues pertinent to responsible leadership. This will perhaps guide further research into the different aspects of each virtue and their relationship to responsible leader behaviour.

## **1.5 RESEARCH SCOPE**

The lists of essential virtues in the leadership research literature are endless (Newstead et al., 2019). The literature points to the 24 essential virtues by Peterson and Seligman (2004) and the more than 60 essential virtues by Hackett and Wang (2012). However, the current study was limited to understanding the associations between the six cardinal virtues anchored in Aristotelian virtue ethics and the phenomenon of responsible leader behaviour.

The study employed a mono-method quantitative methodology and used established metrics to measure the six cardinal virtues and responsible leader behaviour. The participants of the study were selected from two organizations, that being Airports Company South Africa (ACSA) and the South African Forestry Company (SAFCOL), as they were more accessible to the researcher. The study was therefore limited to participants within this context.

## **1.6 STRUCTURE OF THE STUDY**

The structure of the study was set out as follows:

- Chapter one highlighted the research objectives, research problem, and the research questions associated with the study. The chapter further highlighted the constructs of virtue and responsible leader behaviour in investigating the phenomenon of what informs and shapes responsible leader behaviour.
- Chapter two provides a literature review on the constructs of virtue and responsible

leader behaviour and a discussion on each of the cardinal virtues. The chapter further contains a review of Aristotelian virtue ethics as the theoretical lens in the context of which the study is applied.

- Chapter three defines the precise purpose of the research and outlines the hypotheses to be tested. The hypotheses are anchored in the research objectives and literature review.
- Chapter four explains and defends the choice of methodology and the research design of the study.
- Chapter five presents the results obtained from the correlation and linear regression analysis.
- Chapter six discusses the results within the context of the literature review (chapter two) and in relation to chapters one, three, four and five.
- Chapter seven presents the conclusions, the contributions of the study, limitations, and recommendations for future research.

## **1.7 CONCLUSION TO THE INTRODUCTION**

Chapter one provided the background, research objectives, research problem, and the research questions associated with the study. The chapter further highlighted the scope of the research, the contributions of the study, and the overall structure of the study. The next chapter provides a literature review of the key constructs of virtue and responsible leader behaviour, and the theory of Aristotelian virtue ethics that underpins the study.

## CHAPTER 2: LITERATURE REVIEW

### 2.1 INTRODUCTION

Business leaders are increasingly accountable to a multitude of stakeholders for the decisions they make and how those decisions may impact their organizations, communities and societies (Pless et al., 2012; Voegtlin et al., 2019; Waldman et al., 2020). Many business executives have been motivated by the corporate credo of ‘doing well by doing good’ while some have displayed deeply undesirable moral failings as illustrated by the examples provided in chapter one. The irresponsible behaviours and ethical blunders of business leaders necessitates the need for understanding the factors that influence responsible leader behaviour.

There is a substantial body of knowledge to support the notion that virtues inform responsible leader behaviour (Cameron et al., 2003; Cameron, 2011; Antunes & Franco, 2016). However, there is a lack of consensus about which are ‘the’ virtues most essential for responsible leader behaviour (Newstead et al., 2019). In light of the lack of consensus around which are ‘the’ virtues essential for responsible leader behaviour, this review focuses on the theory of Aristotelian virtue ethics to understand how virtues inform and shape the phenomenon of responsible leader behaviour.

Virtue ethics has been widely applied in predicting and explaining responsible leader behaviour (Cameron et al., 2003; Cameron, 2011; Antunes & Franco, 2016). The premise of virtue ethics is that character is the foundation of business ethics and virtuous character shapes behaviour (Crane & Matten, 2006). This literature review therefore focuses on Aristotelian virtue ethics as the theoretical lens underpinning the current study.

To advance a virtue-based approach to responsible leader behaviour requires defining the meaning of “virtue” and a clear conceptualization of responsible leader behaviour. The review therefore focuses on defining and distinguishing the term “virtue” from other similar constructs as well as a discussion on the construct of responsible leader behaviour. The gap in the literature requires a discussion on the various and conflicting lists of essential virtues. The

focus of the current study was not on a complete set of virtues in the leadership literature. Instead, the review focused on a discussion around a smaller, more coherent set of virtues grounded in Aristotelian virtue ethics and relevant to responsible leader behaviour. This smaller, virtue ethics grounded, and more coherent list of virtues is defined as the cardinal virtues (Hackett & Wang, 2012).

The review begins with an overview of Aristotelian virtue ethics as the theoretical lens in the context of which the study is applied. The next section discusses the construct of virtue and the cardinal virtues of courage, humanity, prudence, temperance, truthfulness and justice. This is followed by a discussion on the construct of responsible leader behaviour. This then leads to the restatement of our research problem and hypotheses as generated from the literature on virtue ethics and responsible leadership. The final section concludes by summarizing the literature reviewed in the chapter.

## **2.2 THEORY: ARISTOTELIAN VIRTUE ETHICS**

The theory that guides this research is Aristotle's virtue ethics. Over the last two decades, virtue ethics has featured prominently in the leadership research literature (Wang & Hackett, 2015; Newstead et al., 2019). Aristotelian virtue-based ethics has previously been implicated in studies on ethical leadership, spiritual leadership, charismatic leadership, and transformational leadership (Hackett & Wang, 2012). Only recently has virtue ethics featured prominently in the literature on responsible leadership (Cameron, 2011; Antunes & Franco, 2016). The theory of Aristotelian virtue ethics helps to understand how virtues can inform and shape the phenomenon of responsible leader behaviour (Cameron, 2011; Antunes & Franco, 2016).

Aristotelian virtue ethics looks to habits, actions, character, lifestyles, and the notion of 'a good life' (Crane & Matten, 2016). "Virtue ethics is a system of ethical thought which considers the development and nurture of moral character as the best way to affect moral behaviour and a moral society" (Palanski & Yammarino, 2009, p. 176). It takes a more holistic view by looking at satisfying the needs and interests of all stakeholders as opposed to a narrow focus on economic success as the key indicator of happiness and 'a good life' (Crane & Matten, 2016).



The concept of virtue is at the core of Aristotelian virtue ethics and “virtue lies in the difference between doing something and doing something well” (Arjoon, 2000, p. 162). Ethics in the context of “doing something well” is understood as a liberating force allowing the pursuit of excellence in the display of virtue (Arjoon, 2000). Virtues are learnable and teachable and this constitutes an important dimension of Aristotelian virtue ethics (Aristotle, 350 B.C.E./1962). According to Aristotle, we develop virtues through habit and practice and this is cultivated over time through our interactions with society and its members (Aristotle, 350 B.C.E./1962).

Aristotle was one of the original proponents of virtue ethics and argued that ‘a good life’ was made up of happiness in the broader sense, and virtuous character was the key to happiness (Aristotle, 350 B.C.E./1962; Crane & Matten, 2016). For Aristotle, human nature was communal and relational, and the ultimate best was meaningful happiness or *eudaemonic* well-being (Aristotle, 350 B.C.E./1962). To live a happy life, Aristotle argued that an individual must live in a great society, a great *polis*, and therefore the well-being of the individual is inextricably linked to the well-being of society (Aristotle, 350 B.C.E./1962).

According to Newstead et al. (2018), an Aristotelian virtue ethics perspective may offer a remedy to the moral failings of business leaders and help to create meaningful connections between business leaders, their organizations, and society. They assert that adopting a virtue ethics perspective may develop a deeper understanding of “goodness” and “excellence” and the pursuit of *eudaemonia* (Newstead et al., 2018).

The absence of clear rules to guide interactions with society is a limitation of the theory of Aristotelian virtue ethics (Arjoon, 2008). Another drawback is how to determine a clear code of conduct from relevant communities. According to Crane and Matten (2016), this has implications for translating traits into actions.

## **2.3 DEFINING VIRTUE**

Based on the literature, there is a lack of consensus on the conceptualization of virtue (Luthans & Youseff, 2008; Newstead et al., 2018). In their review of the literature on virtue ethics, Hackett and Wang (2012) identified 22 different conceptual definitions of virtue.

Numerous scholars make reference to the Greek roots of the term “virtue” as encapsulated in the Greek word *arete* or excellence (Newstead et al., 2018). Virtue is often conceptualized as excellence, as right or good, as social betterment, and as making a positive impact (Newstead et al., 2018). Some define virtue as a personal quality (Moberg, 1999; Arjoon, 2000). Others define virtue as a pattern of behaviours (Cameron, 2003). However, Hackett and Wang (2012) found that 12 of the definitions conceptualized virtue as a single attribute representing a character trait or disposition. While discourse about what truly constitutes the definition of virtue exists (Newstead et al., 2018), this is outside the purview of the current study.

Aristotelian virtue ethics provides a deep and rich understanding of virtue (Newstead et al., 2018). According to Aristotle, virtue implies a set of qualities to perform a task well and virtue is concerned with passions (the setting or situation) and actions (responses to the situation) (Arjoon, 2000). Aristotle concluded that in all passions and actions there are two extremes and the intermediate or moderation, referred to as virtue. For Aristotle, every virtue had two extremes or vices: a deficit and an excess. For example, the deficit of the virtue of courage can be represented by the vice of cowardice and the excess of courage as the vice of foolhardiness (Arjoon, 2008).

Aristotle distinguishes between two types of virtues: moral virtues (justice, fortitude and temperance) acquired through practice, and intellectual virtues (wisdom and science as the most prominent) acquired through learning (Aristotle, 350 B.C.E./1962). According to Newstead et al. (2019), virtue is both moral and technical and can be learnt as a practical skill in the same way that we learn to play the piano. Virtue is a single attribute representing a character trait or disposition that can be acquired by habit or practice (Arjoon, 2008). According to Aristotelian virtue ethics, virtue is expressed by voluntary actions, acquired by repetitive practice and described by specific situations (Hackett & Wang, 2012).

## **2.4 DISTINGUISHING VIRTUE FROM SIMILAR CONSTRUCTS**

The importance of virtue has primarily been driven at the individual level. However, virtues have also been explored as a macro-level construct such as “organizational virtuousness” (Cameron et al., 2004; Cameron, 2011). According to Gotsis and Grimani (2015), there is no

single or unitary application for the constructs of virtue and virtuousness.

The current study defines virtue as a single attribute representing a character trait or disposition. Virtuousness, on the other hand, is defined as the aggregate or combination of virtues (Cameron, 2011; Antunes & Franco, 2016). According to Cameron (2011), responsible leadership is characterized by a combination of virtues and not a single virtue. Antunes and Franco (2016) converge with Cameron (2011) and conclude that the combination of virtues constitutes responsible leadership which they further equate with virtuous leadership. However, there is a lack of consensus as to which virtues constitute the most essential that make up the aggregate of virtues described by the authors (Newstead et al., 2019).

The term virtuousness differs from ethics in that it is not situational but rather universal, and possesses a positive bias as opposed to a negative bias of avoiding harm and obeying the rules (Cameron, 2011). The predominant emphasis in the leadership literature is on the negative bias of ethics as avoiding harm or ensuring compliance (Brown & Trevino, 2006).

The concept of 'virtue' is central to the literature on positive organizational inquiry (POI) which involves the socially systematic study of experiences and traits in organizations (Alzola, 2012; Newstead et al., 2018). However, the lack of conceptual clarity in defining virtue is evident in the field of POI (Newstead et al., 2018). To address the lack of clarity and conceptual confusion, Newstead et al. (2018), propose a deep ontology that understands virtue within the theoretical lens of Aristotelian virtue ethics (Newstead et al., 2018).

POI and Aristotelian virtue ethics are distinct yet interrelated fields, and define virtue in alternative and divergent ways (Newstead et al., 2018). POI defines virtue primarily as qualities of character while Aristotelian virtue ethics offers a deeper understanding of virtues as character traits developed in actions, habits, character and lifestyle, deeply embedded in the communal and relational nature of human beings (Newstead et al., 2018). According to Newstead et al. (2018), Aristotelian virtue ethics provides depth, clarity and richness to understanding the concept of virtue and therefore addresses the problems associated with the conceptual confusion and lack of clarity.

Further to distinguishing virtue from virtuousness, Newstead et al. (2018) argue that virtue is often conflated and confused with other similar constructs, and they provide key distinctions between virtue and these similar constructs. For example, they argue that virtues are often confused with similar constructs such as values which are more aspirational and based on cultural factors (Newstead et al., 2018). In yet another example, they assert that virtues are often compared to corporate social responsibility which is distinct from the concept of virtue in the sense that it represents an organization's obligations to society and is therefore operationalized at the organizational level (Newstead et al., 2018).

Virtues on the other hand originates at the individual level (Newstead et al., 2018). In distinguishing virtue from the construct of organizational citizenship behaviour (OCB), Newstead et al. (2018) argue that OCB is not anchored in any moral philosophy and the focus is on the good of the organization. In contrast, virtue is deeply rooted in moral philosophy and the focus is on the good of society (Newstead et al., 2018).

Newstead et al. (2018) highlight four key features of the term virtue as espoused by Aristotelian virtue ethics. First, virtue is the essence of human character and is therefore linked to the concept of character (Aristotle, 350 B.C.E./1962; Newstead et al., 2018). Second, virtues can be learnt and acquired through practice (Aristotle, 350 B.C.E./1962; Newstead et al., 2018). Third, communities cannot survive and thrive without virtue (Newstead et al., 2018). The fourth and last dimension relates to the inherent goodness of virtue and the notion of virtue being a good in itself (Newstead et al., 2018).

Hackett and Wang (2012) converge with the conceptual underpinnings of virtue as espoused by Aristotelian virtue ethics and define virtue as “a character trait that a leader acquires and maintains primarily through learning and continuous practice and is expressed through voluntary actions undertaken in context relevant situations” (p. 874). Cameron (2011) diverges from this conceptualization in suggesting that virtues cannot be equated with character traits alone as character extremes can sometimes be interpreted as weaknesses.

This study is in agreement with the Aristotelian conceptualization of virtue as a single attribute representing a character trait or disposition. In this paper, we adopt the conceptualization of virtue as a discreet construct capturing the communal and relational nature of human beings

as espoused by Aristotle (350 B.C.E./1962). This study therefore defines virtue as “a character trait that a leader acquires and maintains primarily through learning and continuous practice and is expressed through voluntary actions undertaken in context relevant situations” (Hackett & Wang, 2012, p. 874). This definition incorporates the essential dimensions of virtue including learnability and context as relevant to the current study.

## **2.5 THE CARDINAL VIRTUES**

There are numerous and conflicting lists of virtues in the leadership literature (Newstead et al., 2019). For example, the literature points to the 24 essential virtues by Peterson and Seligman (2004) and the more than 60 essential virtues by Hackett and Wang (2012). In the seminal text of “The Nicomachean Ethics”, Aristotle identified a list of virtues essential to being an “excellent” leader (Aristotle, 350 B.C.E./1962). “Aristotle discussed 15 virtues, including: courage, temperance, justice, generosity, magnificence, magnanimity, mildness, truthfulness, wit, friendliness, prone to shame, proper indignation, prudence, wisdom and one pertaining to small honour” (Hackett & Wang, 2012, p. 870).

Hackett and Wang (2012) argue that the 15 Aristotelian virtues converge to some degree with the virtues espoused by traditional Chinese literature based on Confucian ethics. The four seminal texts of Confucian ethics expound upon more than 50 virtues including overlaps with some of the Aristotelian cardinal virtues (Hackett & Wang, 2012). For example, the Confucian cardinal virtue of “Ren” (humanity) overlaps with the Aristotelian virtue of friendliness (Hackett & Wang, 2012).

In light of the above-mentioned overlaps, Hackett and Wang (2012) conclude on a list of six virtues which they consider as cardinal in the sense that they inform all other virtues. These six virtues are prudence, humanity, temperance, justice, truthfulness and courage (Hackett & Wang, 2012). They assert that these six cardinal virtues are relevant to the leadership literatures and could be useful to guide leadership research (Hackett & Wang, 2012).

Peterson and Seligman (2004) asserted that the cardinal virtues of courage, prudence, temperance, justice, and humanity could be applied in different cultural contexts. In addition, Walker, Haiyan and Shuangye (2007) concluded that the cardinal virtue of truthfulness could

be studied in different cultural contexts. For this reason, the six cardinal virtues are considered applicable to the context of the current study.

The six cardinal virtues have been applied to varying degrees in the leadership research literature on moral leader behaviour (Sison, 2003), ethical leader behaviour (De Hoogh & Den Hartog, 2008), servant leadership (Greenleaf, 2002; Sarayrah, 2004), charismatic leadership (Sankar, 2003), transformational leadership (Zhang & Ng, 2009), spiritual leadership (Fairholm & Fairholm, 2009), and visionary leadership (Kouzes & Posner, 2002).

The literature further describes some conceptual overlap between these different types of leadership and responsible leadership (Waldman & Balven, 2015). For example, there exists a degree of conceptual overlap between responsible leadership and transformational leadership (Bass & Avolio, 1997), ethical leadership (Brown, Trevino & Henderson, 2008), and servant leadership (Liden, Wayne, Zhao & Henderson, 2008). For the reasons mentioned, the six cardinal virtues are assumed as pertinent for responsible leader behaviour as a construct in the field of responsible leadership that is distinct yet related to other leadership approaches.

The six cardinal virtues constitute the focus of this study. The literature review reveals that all six cardinal virtues are anchored in the theory of Aristotelian virtue ethics with some sharing significant overlaps with Confucian virtues. The current study defines each cardinal virtue from an Aristotelian virtue ethics perspective.

Truthfulness is defined as a character trait reflecting a leader's inclination to tell the truth and keep their promises (Wang & Hackett, 2015). Temperance is defined as a character trait of being able to control emotional reactions and desires for instant gratification (Sison, 2003; Wang & Hackett, 2015). Prudence is about making the right decisions based on right reasoning in every circumstance (Wang & Hackett, 2015). Courage is defined as a character trait of taking action and doing what is right without fear (Wang & Hackett, 2015). Humanity is defined as a character trait of expressing care for others, including showing concern for other's misfortunes (Wang & Hackett, 2015). The sixth cardinal virtue of justice is defined as a character trait that underlies respecting the rights of others and fair treatment in accordance with uniform standards (Sison, 2003). The six cardinal virtues have common characteristics

such that they are all dispositions, cross-culturally universal, interrelated, and contribute to both ethical and effective leadership (Wang & Hackett, 2015).

The next section involves a discussion on each of the six cardinal virtues.

### **2.5.1 Prudence**

The cardinal virtue of prudence is frequently defined as knowing when and how to apply honesty (Riggio, Zhu, Reina, & Maroosis, 2010). The example used by Aristotle is that of a young man who has to decide whether to be honest or lie in order to prevent pain and suffering (Aristotle, 350 B.C.E./1962). It might be prudent to lie when faced by a murderer out to harm you or others (Riggio et al., 2010).

Arjoon (2000) defines prudence as good judgment and right reasoning. The definition of prudence by Sison (2003) converges with the definition posited by Arjoon (2000) and defines prudence as a character trait of exercising good judgement and right reasoning. In contemporary literature, Wang and Hackett (2015) define prudence as a character trait or disposition “that enables leaders to make the right judgements and choose the right means to achieve the right goals” (p. 325). The current study agrees with this definition of prudence as posited by Wang and Hackett (2015).

In the literature on Aristotelian virtue ethics, prudence is described as the most essential of all virtues and the number one of all cardinal virtues (Aristotle, 350 B.C.E./1962; Piper, 1966). This view is shared by Riggio et al. (2010) who asserted that it is necessary to possess the virtue of prudence before developing any of the other cardinal virtues. This view is further supported by Naughton, Alfred and Brady (1996) who concluded that a prudent person understands the complexities of the situation and is able to do well and do good at the same time.

### **2.5.2 Courage**

Arjoon (2000) defines courage as the power to act in the face of fear. However, some things such as death and earning a bad reputation were considered examples of things that should

be feared (Aristotle, 350 B.C.E./1962). For Aristotle, to act with the virtue of courage was to persevere against all adversities, even in the face of death (Aristotle, 350 B.C.E./1962). However, doing what is right even when faced with death was only considered courageous if for a noble cause (Riggio et al., 2010). If the act was for selfish or other reasons apart from being for a noble cause, it was considered daring and not courageous (Riggio et al., 2010).

Riggio et al. (2010) emphasize that courage only exists in the prudent individual who is able to assess the context and make right judgements based on right reasoning. This emphasis by Riggio et al. (2010) converges with the view of prudence as the most essential of all virtues and the number one of all cardinal virtues (Aristotle, 350 B.C.E./1962; Piper, 1966).

“The Aristotelian virtue of *courage* overlaps with the Confucian virtue of “Yong” (courage)” (Wang & Hackett, 2015, p. 325). Some scholars define courage as “the conviction to do what one believes is the right thing despite the risk of unpleasant consequences” (Messick, 2006, p. 106). Wang and Hackett (2015) define courage as a character trait of taking action and doing what is right without fear. The current study agrees with the definition of courage as a character trait of taking action and doing what is right without fear (Wang & Hackett, 2015).

### **2.5.3 Truthfulness**

The Aristotelian virtue of truthfulness is defined as a character trait that underlies telling the truth, keeping promises, and openness to sharing information when confronted by concerns of others (Wang & Hackett, 2015). A leader is said to possess the virtue of truthfulness by taking personal responsibility (Taylor, 2006) and honouring promises (Palanski & Yammarino, 2007). The current study agrees with the definition of truthfulness as a character trait that underlies telling the truth, keeping promises, and taking personal responsibility (Wang & Hackett, 2015; Taylor, 2006; Palanski & Yammarino, 2007).

### **2.5.4 Temperance**

According to Arjoon (2000), the Aristotelian virtue of temperance relates to enjoying things in moderation. For Riggio et al. (2010), temperance is the ability to act in moderation and avoid self-indulgence. Aristotle emphasized that self – indulgence entailed having too much



pleasure but that pleasure was fine as long as it was pursued in moderation (Aristotle, 350 B.C.E./1962).

McManaman (2006) goes beyond the idea of moderation in defining the virtue of temperance. According to McManaman (2006), a temperate leader is a humble leader who is aware of their own deficiencies. At the other extreme are intemperate leaders who may be excessively preoccupied with themselves, too materialistic, and prone to acting with a false sense of humility for purposes of seeking negative attention (McManaman, 2006).

Leaders demonstrate temperance by pursuing long-term goals ahead of short-term gains, careful planning and budgeting, and not overindulging in hedonistic behaviours (Wang & Hackett, 2015). According to Wang and Hackett (2015), the Confucian cardinal virtue of “Zhongyong” (moderation) overlaps with the Aristotelian virtue of temperance and informs other virtues such as continence and modesty. Since the virtue of temperance informs other virtues and other virtues such as modesty are closely aligned to it, Wang and Hackett (2015) conclude that the Aristotelian virtue of temperance is a cardinal virtue. The current study concludes that the virtue of temperance is considered cardinal in this sense.

Sison (2003) define the Aristotelian virtue of temperance as a character trait of being able to control emotional reactions of pain and pleasure. Wang and Hackett (2015) agree with Sison (2003) and define the cardinal virtue of temperance as a character trait to be able to control emotional reactions and desires including the avoidance of indulging in self-gratification.

The current study agrees with the definition of temperance as a character trait to be able to control emotional reactions and desires including the avoidance of indulging in self-gratification (Sison, 2003; Wang & Hackett, 2015).

### **2.5.5 Humanity**

According to Hackett and Wang (2012), the Confucian cardinal virtue of “Ren” (humanity) overlaps with the Aristotelian virtue of friendliness. Wang and Hackett (2015) conclude that the virtue of humanity informs other virtues such as kindness. Since humanity informs other virtues and other virtues such as kindness are closely aligned to it, Wang and Hackett (2015)

conclude that the virtue of humanity is a cardinal virtue. The current study concludes that the virtue of humanity is considered cardinal in this sense.

The cardinal virtue of humanity is defined as a character trait or disposition that underlies the show of care and concern for others (Wang & Hackett, 2015). The current study agrees with this definition of humanity as expressing care for others, including showing concern for other's misfortunes (Wang & Hackett, 2015).

### **2.5.6 Justice**

The virtue of justice is anchored in Aristotelian virtue ethics and is regarded as one of the moral virtues (Aristotle, 350 B.C.E./1962). The Aristotelian virtue of justice is becoming more pronounced in the leadership literature owing to the increasing moral failings and corporate scandals in the last few decades (Bragues, 2006; Wang & Hackett, 2015). When business leaders are accused of falsifying accounts or irregular financial reporting as in the case of the South African company Steinhoff (Rossouw & Syan, 2019), the virtue of justice is highlighted as an issue. Justice is also an issue whenever organizations hire less women or engage in child labour to maximize profits (Bragues, 2006).

Aristotle asserts that a just person is someone who obeys the law and treats others fairly (Aristotle, 350 B.C.E./1962). Aristotle differentiates between general justice (based on unlawfulness) and particular justice (based on fairness) (Aristotle, 350 B.C.E./1962). The focus of Aristotle is on particular justice and he argues that one who seeks to benefit themselves by disproportionately gaining at the expense of others is considered unjust (Riggio et al., 2010).

"The Aristotelian virtue of *justice* overlaps with the Confucian virtue "Yi" (Wang & Hackett, 2015, p. 325). The virtue of justice informs and is aligned to other virtues such as equity and piety (Bragues, 2006). Since the virtue of justice informs other virtues and other virtues such as piety and equity are closely aligned to it, Wang and Hackett (2015) conclude that the virtue of justice is a cardinal virtue. The current study concludes that the virtue of justice is considered cardinal in this sense.

Sison (2003) defines the cardinal virtue of justice as a character trait that underlies respecting the rights of others and fair treatment in an objective manner. In a business sense, this may involve the fair allocation of resources, resolving conflicts in a fair and objective fashion, and treating employees with fairness and equity in the workplace (Wang & Hackett, 2015). The current study agrees with the definition of justice as a character trait that underlies respecting the rights of others and fair treatment in accordance with uniform standards (Sison, 2003).

The next section involves a discussion about the construct of responsible leader behaviour.

## **2.6 WHAT IS RESPONSIBLE LEADER BEHAVIOUR**

There is a general consensus that leaders are expected to demonstrate responsible leader behaviour in order to be effective (Doh & Stumpf, 2005; Maak & Pless, 2006; Waldman & Galvin, 2008; Waldman, Siegel & Stahl, 2020). There is also a general agreement among scholars that responsible leader behaviour can be conceived in multiple ways (Pless, Maak, & Waldman, 2012; Miska, Stahl, & Mendenhall, 2013; Doh & Quigley, 2014; Waldman & Balven, 2015; Maak, Pless, & Voegtlin, 2016). However, there is limited consensus on what informs and shapes responsible leader behaviour leading to the emergence of multiple and divergent views (Maak et al., 2016; Miska & Mendenhall, 2018). Despite the lack of consensus, there is overwhelming evidence that responsible leader behaviour influences the outcomes and sustainability of an organization (Waldman & Galvin, 2008; Stahl & Sully de Luque, 2014).

There is no universally accepted definition for the concept of “responsibility” (Waldman & Galvin, 2008). Some argue that responsibility implies accountability for one’s actions (Waldman & Galvin, 2008). Others argue that responsibility is associated with actions or capabilities based on showing care or concern for others when aiming to achieve objectives or results (Cameron, 2011; Antunes & Franco, 2016). The concept of “responsibility” has multiple bases and depends on the perspective of leaders as well as the perspective of followers (Pless et al., 2012). It can also be directed towards multiple objects both human (employees) and non-human (the natural environment) (Pless et al., 2012).

Waldman and Balven (2015) argue that responsible leader behaviour is more about how

individuals act and less about organizational behaviour. For this reason, they suggest that studies on responsible leader behaviour should focus more on the individual leaders. Stahl and Sully de Luque (2014) argue that 'responsible activities' such as supporting social causes and 'irresponsible activities' such as employment discrimination are the result of a leader's individual choices. They maintain that while executives are constrained by rules, laws and policies, they have the capacity to exercise control over their individual decisions (Stahl & Sully de Luque, 2014).

Stahl and Sully de Luque (2014) agree with Waldman and Balvern (2015) but go further to argue that responsible leader behaviour is both a function of the individual and the context in which the behaviour takes place, and that current research overemphasizes personal characteristics such as character traits. They argue that responsible leader behaviour is contingent upon contextual and situational factors (Stahl & Sully de Luque, 2014). Maak et al. (2016) converge with Stahl and Sully de Luque (2014) by suggesting that responsible leader behaviour is contingent upon other factors such as demographics.

According to Stahl and Sully de Luque (2014), understanding what informs and shapes responsible leader behaviour requires a discussion of individual, contextual and situational factors. They argue that situational strength moderates the relationship between individual factors and responsible leader behaviour (Stahl & Sully de Luque, 2014). For example, the collapse of Enron can be attributed to the moral failings of senior executives and the lack of internal control systems combined with a destructive, greed-driven corporate culture (McLean & Elkind, 2003). Kish-Gephart, Harrison and Trevino (2010) have argued that there is need for greater research that investigates the interplay and effects of individual and contextual factors, including how contextual conditions might moderate individual-level factors.

Waldman and Galvin (2008) provide two alternative and divergent perspectives of what responsible leader behaviour is all about: the limited economic perspective and the broad stakeholder perspective. Miska and Mendenhall (2018) observe a third perspective that represents a converging view between the economic and stakeholder perspectives.

## **The economic perspective**

The economic perspective of what responsible behaviour is all about emphasizes the primacy of the shareholder as the only true stakeholder (Waldman & Galvin, 2008). Proponents of the economic perspective suggest that responsible leader behaviour is about maximizing shareholder value by enhancing profitability while still complying to legal and moral standards (Friedman, 1970; Friedman & Friedman, 2002; Friedman, 2007; Sundaram & Inkpen, 2004; Siegel, 2009; McWilliams & Siegel, 2011). The assertion is that the “social responsibility of business is to increase its profits” (Friedman, 2007, p. 173).

Economic-based responsible leader behaviour considers individuals as self-interested and opportunistic (Waldman & Galvin, 2008). The economic perspective asserts that responsible leader behaviour is about safeguarding shareholder value, is strategic and calculable in nature, and reward systems should be established for ensuring profit maximization and shareholder value (Waldman & Galvin, 2008).

Those who adopt an economic perspective make assumptions that trade-offs need to be made between meeting the needs of shareholders and those of other stakeholders, and that a conflict exists in the simultaneous pursuit of multiple goals that would benefit all stakeholders (Waldman & Balven, 2015). There are various critics of the economic perspective including Schaefer (2008) who asserts that the economic perspective exempts shareholders from focusing on the public good and generating positive social returns to society.

## **The stakeholder perspective**

The stakeholder perspective takes a broader view of what responsible leader behaviour is all about (Waldman & Galvin, 2008). The stakeholder perspective of responsible leader behaviour goes beyond economic interests and asks leaders to make decisions in consideration of different stakeholders in society (Stahl & Sully de Luque, 2014). Stakeholder inclusion and stakeholder networks are viewed through an ethical lens implying that leaders should take responsibility of social, ethical and environmental concerns (Miska, Hilber, & Mayer, 2014).

Maak and Pless (2006) define responsible leader behaviour from a relational and ethical standpoint within the broader stakeholder perspective. According to this view, responsible leader behaviour is grounded in ethical and normative considerations and implies balancing external pressures with leader's internal tensions.

Waldman and Galvin (2008) agree with Maak and Pless (2006) and argue that the stakeholder perspective presents a more viable approach to understanding responsible leader behaviour. Their argument is based on research evidence which suggests that CEO's with strong stakeholder values lead better performing firms and the focus on greater societal concerns may generate more value (Waldman & Galvin, 2008).

Stahl and Sully de Luque (2014) distinguish between responsible leader behaviour that involves doing good and behaviour that involves avoiding harm. "Avoid harm" behaviour includes refraining from decisions and actions that lead to harmful consequences for others such as avoiding employee discrimination and avoiding environmental damage (Stahl & Sully de Luque, 2014). "Do good" behaviour includes decisions and actions that enhance social well-being and/or engagement in philanthropy (Stahl & Sully de Luque, 2014).

Doh and Quigley (2014) go beyond "doing good" and "avoiding harm" to explicate how responsible leader behaviour leverages the stakeholder approach through a psychological pathway and a knowledge-based pathway. They consider a multi-level analysis to explain how these two pathways influence positive organizational outcomes (Doh & Quigley, 2014). In doing so, they provided three examples of leaders at Walmart, Coca-Cola, and DuPont to illustrate their contentions.

Others base responsible leader behaviour on the fair and equitable inclusion of stakeholders (Voegtlin, 2011; Voegtlin, 2012). Waldman and Balven (2015) argue that those who adopt the stakeholder perspective to responsible leader behaviour often neglect the fact that key shareholders may constitute important stakeholders whose needs and expectations need to be met.

## **The converging perspective**

A number of scholars have attempted to reconcile the two alternative and diverging perspectives by suggesting a converging perspective of “doing well by doing good” (Waldman & Galvin, 2008; Waldman & Siegel, 2008; Stahl & Sally de Luque, 2014; Miska & Mendenhall, 2018). The converging perspective of responsible leader behaviour attempts to align social and ethical responsibility with profit maximization (Stahl & Sully de Luque, 2014). According to Waldman and Siegel (2008), the convergence of calculative economic behaviour with ethical behaviour constitutes the key driver of a converging perspective.

The idea that profits can be maximized and new value created by concurrently meeting the needs of stakeholders in society is aligned to the idea of shared value (Porter & Kramer, 2011). The research literature supports the idea of shared value creation by aligning social and ethical performance with economic and financial performance (Stahl & Sully de Luque, 2014).

All three perspectives share two key commonalities. First, leaders possess the discretionary freedoms to make decisions (Carroll & Shabana, 2010). Second, responsible leader behaviour requires compliance to the rules, regulations and moral standards of society (Waldman & Siegel, 2008; Miska & Mendenhall, 2018).

The current study adopts a broad stakeholder perspective to responsible leader behaviour based on the assumption that this type of behaviour requires simultaneous consideration of ethical, economic and social concerns. The study agrees with defining responsible leader behaviour as “intentional actions taken by leaders to benefit the stakeholders of the company and/or actions taken to avoid harmful consequences for stakeholders and the larger society” (Stahl & Sully de Luque, 2014, p. 238). The focus of the current study is on leaders as well as employees in middle and lower management. For this reason, we define the term “leader” in our conception of responsible ‘leader’ behaviour in such a manner so as to reflect leadership throughout an organization (Stahl & Sully de Luque, 2014).

## **Who or what is a stakeholder?**

A visible pattern in the literature is the incorporation of stakeholder considerations in the definition of responsible leader behaviour (Miska et al., 2013; Doh & Quigley, 2014). According to Waldman and Balven (2015), responsible leader behaviour is dependent on the ability to meet stakeholder needs and expectations. In taking a stakeholder perspective, an important question is whether leaders display responsible and irresponsible leader behaviour at the same time (Waldman & Balven, 2015). It may well be that an organization's leaders may exhibit responsible leader behaviour to one stakeholder but irresponsible behaviour to another. As Waldman and Balven (2015) describe, a leader may display responsible leader behaviour by treating all employees with fairness and equality while the same leader may condone suppliers who use child labour.

The stakeholder perspective argues that the multiple needs of different stakeholders should be balanced in acts of decision-making (Agle, Donaldson, Freeman, Jensen, Mitchell, & Wood, 2008; Freeman, Wicks, & Parmar, 2004). Importantly for our discussion, defining a stakeholder is based on determining who is affected by the organization and can subsequently affect the organization (Buchholtz & Carroll, 2018).

There are two main themes in the literature as to who or what constitutes a stakeholder: the narrow perspective and the broad perspective (Clifton & Amran, 2011). The narrow perspective focuses on human parties who are most relevant to the survival of an organization and who may have a moral and legitimate claim to the organization (Clifton & Amran, 2011). These may include employees, shareholders, suppliers and customers (Clifton & Amran, 2011).

The broad perspective extends this frame of reference to include both human and non-human parties such as the environment, ecosystems and even future generations. Some broad views of the term "stakeholder" prescribe the possession of certain attributes such as power, urgency or authority, in order for a party to be granted stakeholder status (Mitchell, Agle, & Wood, 1997).



The broad perspective is aligned with Edward Freeman's (1984) conception of the term "stakeholder". In the 25<sup>th</sup> anniversary edition of his seminal work, *Strategic Management: A Stakeholder Approach*, the term "stakeholder" is defined as: "any group or individual who can affect, or is affected by, the achievement of a corporation's purpose. Stakeholders include employees, customers, suppliers, stockholders, banks, environmentalists, government and other groups who can help or hurt the corporation" (Freeman, 2010, p. iii).

The broad view of who or what is a stakeholder is consistent with the social, ethical and economic considerations that underpin responsible leader behaviour. For this reason, the current study agrees with the broad view of who or what is a stakeholder and adopts the definition of the term "stakeholder" as articulated by Edward Freeman (2010).

### **Responsible leader behaviour and other types of leader behaviour**

In a review of the leadership literatures, it was found that responsible leader behaviour converges with other types of leader behaviour. According to Antunes and Franco (2016), the literature reveals five leadership styles that converge with responsible leader behaviour, namely, transformational leader behaviour, servant leader behaviour, authentic leader behaviour, spiritual leader behaviour and emotional leader behaviour.

Transformational leader behaviour incorporates elements of social responsibility, a dimension observed in responsible leader behaviour (Antunes & Franco, 2016). Transformational leader behaviour involves bringing about change through creating awareness, moving people beyond self-interest, building trust and adopting a long-term perspective (DuBrin, 2013). Virtues such as prudence was reported to be an essential virtue for transformational leader behaviour (Tichy & Devanna, 1986). Parry and Proctor-Thomas (2002) concluded that integrity and justice were essential virtues for transformational leader behaviour. Riggio et al. (2010) reported positive associations between the cardinal virtues of temperance, justice, prudence and fortitude with transformational leader behaviour.

The literature revealed an overlap between dimensions of authentic leader behaviour with that of transformational leader behaviour and responsible leader behaviour (Antunes & Franco, 2016). According to Metcalf and Benn (2013), authentic leader behaviour includes a

focus on sustainability and responsibility therefore suggesting a degree of overlap with transformational leader behaviour and responsible leader behaviour. Authentic leader behaviour demonstrates a “deep sense of self” and the drive to “energize” followers (Antunes & Franco, 2016, p. 129).

The focus of servant leader behaviour is on showing care and concern for other people and this emphasis on the responsibility to serve others converges with dimensions of responsible leader behaviour (Antunes & Franco, 2016). Greenleaf (2002) defined servant leader behaviour as possessing certain dispositions which enabled ethical service to others and reported positive associations between the cardinal virtues of truthfulness, justice, prudence and courage with servant leader behaviour. Zauderer (2006) concluded that courage, humility and truthfulness were positively associated with servant leader behaviour.

There are certain dimensions of emotional leader behaviour that overlap with transformational leader behaviour and responsible leader behaviour (Antunes & Franco, 2016). The emphasis on self-awareness and self-management in creating vision amongst followers is essential in characterizing emotional leader behaviour (Humphrey, 2002). Finally, as it relates to spiritual leader behaviour, Antunes and Franco (2016) reveal significant overlaps between spiritual leader behaviour and responsible leader behaviour. According to Fry (2003), spiritual leader behaviour recognises the importance of self-awareness. Sanders, Hopkins and Geroy (2003) reported on positive associations between justice, fortitude, prudence and temperance with spiritual leader behaviour. Parameshwar (2005) concluded that truthfulness, amongst others, was an essential virtue for spiritual leader behaviour.

Responsible leader behaviour diverges from these five types of leader behaviour in the relational management of stakeholders and the processes involved in the mutual influence by both sides of the relationship (Maak & Pless, 2006; Antunes & Franco, 2016). Responsible leader behaviour is distinct from other forms of leader behaviour in that it is stakeholder-centric and based on relational intelligence (Maak & Pless, 2006). Cameron (2011) asserts that responsible leader behaviour is virtuous behaviour and virtues inform and shape the distinct yet interrelated form of responsible leader behaviour.

## **Restating the research problem and hypotheses**

There is widespread consensus that virtue informs and shapes responsible leader behaviour (Cameron et al, 2003; Cameron, 2011; Antunes & Franco, 2016). This particular study focuses on the research problem of the lack of consensus on which are the most essential virtues that inform and shape responsible leader behaviour. The overarching research question is based on investigating which are 'the' virtues most closely associated with responsible leader behaviour. A list of six cardinal virtues have been drawn from the literature on virtue ethics to focus the study on those virtues that are most pertinent to responsible leader behaviour.

In terms of these six cardinal virtues, Riggio et al. (2010) focus on courage, temperance, prudence and justice. Thun and Kelloway (2011) focus on humanity and temperance. Neubert (2015) focuses on courage, justice, temperance and prudence while Owens and Heckman (2012) focus on the virtue of humanity. The alternative and divergent accounts of discreet virtues suggest a lack of consensus on the most essential virtues.

Based on the literature review, hypothesis 1, hypothesized that the virtue of courage is positively associated with responsible leader behaviour. Hypothesis 2, hypothesized that the virtue of temperance is positively associated with responsible leader behaviour. Hypothesis 3, hypothesized that the virtue of prudence is positively associated with responsible leader behaviour. Hypothesis 4, hypothesized that the virtue of justice is positively associated with responsible leader behaviour. Hypothesis 5, hypothesized that the virtue of humanity is positively associated with responsible leader behaviour. Finally, hypothesis 6, hypothesized that the virtue of truthfulness is positively associated with responsible leader behaviour.

By testing which cardinal virtues are positively associated with responsible leader behaviour, the study aims to formulate a list of the most essential virtues that inform and shape responsible leader behaviour.

## **2.7 CONCLUSION**

The literature review focused on Aristotelian virtue ethics as the theoretical lens of the study and included a review of the alternative and divergent conceptualizations of virtue and responsible leader behaviour. For the purposes of the study, virtues (courage, temperance, prudence, justice, humanity and truthfulness) constitute the independent variables and responsible leader behaviour is the dependent variable.

The application of Aristotelian virtue ethics as the theoretical lens provided valuable insights into how virtues may inform and shape responsible leader behaviour. The six virtues of courage, prudence, temperance, humanity, justice and truthfulness have been grounded in Aristotelian virtue ethics (Wang & Hackett, 2015). With the grounding in the literature on Aristotelian virtue ethics, this study seeks to investigate which of the six cardinal virtues are essential for informing and shaping responsible leader behaviour.

## CHAPTER 3: RESEARCH QUESTIONS AND HYPOTHESES

### 3.1 INTRODUCTION

The purpose of the study was consensus – building with the aim of identifying a list of essential virtues commonly associated with responsible leader behaviour. The study was designed to answer the question: Which virtues have a positive association with responsible leader behaviour? Based on chapter two, the study subscribed to the broad, stakeholder perspective of responsible leader behaviour as a relational and ethical phenomenon (Maak & Pless, 2006).

### 3.2 RESEARCH QUESTIONS AND HYPOTHESES

The current study focused on six cardinal virtues (courage, temperance, prudence, justice, humanity, and truthfulness) based on the literature review of chapter two as pertinent to responsible leader behaviour. In doing so, the study sought to contribute to the literature on responsible leadership by reducing the heterogenous set of cardinal virtues into a smaller set of the most essential virtues pertinent to responsible leader behaviour. This will perhaps guide further research into the different aspects of each virtue and their relationship to responsible leader behaviour. A set of six secondary research questions and sub-hypotheses were generated from the literature on virtue ethics and responsible leadership, as per chapter two of the current study:

**Research Question 1 (RQ1):** Is there a positive association between courage and responsible leader behaviour?

**Null hypothesis 1:** There is a negative or no association between courage and responsible leader behaviour.

**Alternate hypothesis 1:** There is a positive association between courage and responsible leader behaviour.

**Research Question 2 (RQ2):** Is there a positive association between temperance and responsible leader behaviour?

**Null hypothesis 2:** There is a negative or no association between temperance and responsible leader behaviour.

**Alternate hypothesis 2:** There is a positive association between temperance and responsible leader behaviour.

**Research Question 3 (RQ3):** Is there a positive association between prudence and responsible leader behaviour?

**Null hypothesis 3:** There is a negative or no association between prudence and responsible leader behaviour.

**Alternate hypothesis 3:** There is a positive association between prudence and responsible leader behaviour.

**Research Question 4 (RQ4):** Is there a positive association between justice and responsible leader behaviour?

**Null hypothesis 4:** There is a negative or no association between justice and responsible leader behaviour.

**Alternate hypothesis 4:** There is a positive association between justice and responsible leader behaviour.

**Research Question 5 (RQ5):** Is there a positive association between humanity and responsible leader behaviour?

**Null hypothesis 5:** There is a negative or no association between humanity and responsible leader behaviour.

**Alternate hypothesis 5:** There is a positive association between humanity and responsible leader behaviour.

**Research Question 6 (RQ6):** Is there a positive association between truthfulness and responsible leader behaviour?

**Null hypothesis 6:** There is a negative or no association between truthfulness and responsible leader behaviour.

**Alternate hypothesis 6:** There is a positive association between truthfulness and responsible leader behaviour.

Chapter two provided a literature review grounding the six cardinal virtues in Aristotelian virtue ethics as the theoretical lens into how these six cardinal virtues may inform and shape responsible leader behaviour.

### **3.3 CONCLUSION**

This chapter sought to anchor the research questions and hypothesis within the literature review conducted in chapter two thereby linking the theory commentary with the specific research to be undertaken. Based on the six cardinal virtues anchored in Aristotelian virtue ethics as described in chapter two, the study was focused on understanding the associations between the cardinal virtues and responsible leader behaviour. The hypotheses were generated and anchored within the literature reviewed in the previous chapter. The next chapter describes the research design and choice of methodology within which the study was conducted.

## **CHAPTER 4: RESEARCH METHODOLOGY**

### **4.1 INTRODUCTION**

This chapter describes the choice of methodology and research design that was used to frame the research and test the hypotheses associated with the current study. The research approach and strategy to collect and analyse the data, sample size and design, statistical tests, measurement instruments, questionnaire pretesting, quality controls and limitations are further detailed in this chapter.

### **4.2 CHOICE OF METHODOLOGY**

The philosophical underpinning of our study is positivist. Positivism is a research philosophy that employs structured methods in which the observable reality can be obtained from observable data and facts (Saunders & Lewis, 2012; Byrne, 2017). The focus of positivism is on deductive reasoning and quantitative data leading to research that is considered objective and generalisable (Saunders & Lewis, 2012).

The positivist philosophy of the study commenced with the theoretical framework of Aristotelian virtue ethics, singling out the independent variables (courage, prudence, temperance, humanity, truthfulness and justice) and the dependent variable (responsible leader behaviour), and predicting their relationships by framing two sets of hypotheses which are then tested using a quantitative method.

Based on the positivist philosophical underpinnings of the study, the approach to theory development was therefore deductive. There are two different styles of reasoning, deductive and inductive reasoning (Williamson & Johanson, 2018). Inductive reasoning is broadly associated with interpretivist approaches beginning with the specific and concluding with general statements (Williamson & Johanson, 2018). Deductive reasoning is a “top-down” approach that involves testing hypotheses deduced from the existing literature (Williamson & Johanson, 2018).



To test the hypotheses, a deductive approach was appropriate. A deductive approach began with the general and moved to the specific testing the associations between discreet virtues and responsible leader behaviour. According to Shaw (2017), a deductive approach allows positivist researchers to produce constructs that are more refined, accurate and comprehensive.

The research choice is guided by the hypothesis. The research choice adopted for the study was a quantitative mono – method. This involves a single method approach to collect data such as in the form of a questionnaire, and has the advantages of flexibility and assuring confidentiality (Saunders & Lewis, 2012). It was important to assure individual participants that their responses would be confidential and failure to do so may have resulted in responses being heavily skewed. For this reason, a quantitative mono-method in the form of an online questionnaire provided the advantage of assuring confidentiality for honest responses and reducing bias (Muijs, 2004).

The purpose of a research design may be exploratory, descriptive or explanatory (Saunders & Lewis, 2012). Descriptive research design aims to produce “accurate representations of persons, events or situations” (Saunders & Lewis, 2012, p. 116). Explanatory research focuses on providing explanations for relationships or associations between variables (Saunders & Lewis, 2012). The purpose of the research design for the current study was a combination of descriptive and explanatory research design. The study used descriptive data to explain associations between variables and was therefore considered to be descripto-explanatory.

In order to test the hypotheses, a survey strategy was employed involving the collection of primary data from respondents. A survey research strategy involves “the structured collection of data from a sizeable population” (Saunders & Lewis, 2012, p. 120). This is an appropriate strategy for the collection of quantitative data required to address the research problem.

The advantages of employing a survey strategy include flexibility and cost-effectiveness while a disadvantage is that the data will not be as detailed as data collected by other types of research strategies (Saunders & Lewis, 2012).

A cross-sectional research design was conducted with the same set of variables and involved collecting data from participants at only one period in time with a defined starting and end point (Struwig & Stead, 2003). The time horizon of this research was cross-sectional due to time constraints.

Online questionnaires were used as the data collection technique to collect data from individual participants. Questionnaires are an appropriate method for either descriptive research or explanatory research (Saunders & Lewis, 2012). Based on our research design being descripto-explanatory, questionnaires provided a suitable technique for data collection. Online questionnaires are efficient, inexpensive and can be rapidly disseminated (Williamson & Johanson, 2018). For the current study, online questionnaires were constructed through existing literature and based on existing scales of leader virtues and responsible leader behaviour. It was essential for the online questionnaires to focus on the research aims and objectives, and for each question to be specific, free of errors and understandable (Ikart, 2018). For this reason, the questionnaire was pretested to establish any quality issues with the design.

To ensure confidentiality and anonymity, the names and surnames of the individual participants were not required in completing the online questionnaires. Furthermore, no names and surnames of individuals or organizations were reported in the final analysis, only aggregate data was reported, and the data was stored without identifiers.

#### **4.3 POPULATION**

The population was defined as “the complete set of group members” (Saunders & Lewis, 2012, p. 138). The population for the current study was comprised of employees including middle and senior managers within two specific organizations, Airports Company South Africa (ACSA) and the South African Forestry Company (SAFCOL), as they were more accessible to the researcher.

#### **4.4 UNIT OF ANALYSIS**

According to Zikmund, Babin, Carr and Griffin (2009), the level of analysis is the level at which the study is expected to be completed. The unit of analysis for this study was the individual, and assessed through the individual employees including middle and senior managers at ACSA and SAFCOL. The required data was collected from these individuals.

#### **4.5 SAMPLING METHOD AND SIZE**

The sampling frame is a list of all cases in the target population from which a sample may be drawn (Zikmund, Babin, Carr & Griffin, 2009). The sample frame for this study was the list of employees including middle and senior managers at the two organizations, ACSA and SAFCOL. There were an estimated 1 200 employees including middle and senior managers at both ACSA and SAFCOL. A desirable sample size was targeted at including 200 employees from both organizations.

Middle and senior managers at ACSA and SAFCOL, and the employees that make up these direct reports (thereby confirming their follower status), was purposively sampled to ensure that only the relevant individuals were contained in the sample. Purposive sampling is a non-probability technique where the choice of unit is not arbitrarily selected to the extent that the researcher actively selects the sample members that are relevant to the study (Etikan, Musa & Alkassim, 2016).

The choice of individual was not arbitrarily selected. Employees had to fit the criteria of being an employee at ACSA and SAFCOL, and directly reporting to a middle or senior manager thus confirming their follower status. Online questionnaires were only emailed to the selected employees at ACSA and SAFCOL.

#### **4.6 MEASUREMENT INSTRUMENT**

Leader virtues were measured using the Virtuous Leadership Questionnaire (VLQ), an 18-question instrument developed by Wang and Hackett (2015). The VLQ is theoretically grounded in the virtue ethics literature and provides a suitable behaviourally based

assessment of the construct (Wang & Hackett, 2015). An example of a question item that was adopted from the VLQ for the current study included, “My manager speaks up on matters of injustice” (Wang & Hackett, 2015).

Responsible leader behaviour was measured using the Discursive Responsible Leadership Scale developed by Christian Voegtlin (2011). The five-item scale was grounded in the responsible leadership literature (Voegtlin, 2011). For the current study, an example of a question item that was adapted from the discursive responsible leadership scale included, “My manager considers the consequences of decisions for the affected stakeholders” (Voegtlin, 2011). One of the limitations of using the discursive responsible leadership scale would be the assumption that all employees are familiar with the term “stakeholder” (Voegtlin 2011; Voegtlin et al., 2019).

#### **4.7 DATA GATHERING PROCESS**

Internet – based surveys (online surveys) constituted the method of collecting data for this study. Online surveys are an appropriate method for collecting data and are normally distributed using a hyperlink sent via email (Saunders & Lewis, 2012). An email with a hyperlink was sent to each individual based on a list of the sample’s email addresses. The online surveys were made up of closed – ended questions that required respondents to self – complete. The online questionnaire was a Likert scale-based questionnaire (scale 1 to 5) of 23 questions in total, with 18 questions on virtues and 5 questions on responsible leader behaviour.

The advantages of using online surveys included flexibility, respondent anonymity, speed and cost – effectiveness (Evans & Mathur, 2005) while the disadvantages included the restrictiveness of closed ended questions, questions being misunderstood, and the length of the survey itself (Nardi, 2018). All data was gathered and stored on a secure USB device. Rigorous pretesting of the questionnaire was conducted prior to the data gathering process.

#### **4.8 PRE-TESTING**

Pretesting is viewed as an important technique to identify any problem areas in the

questionnaire design (Ikart, 2018). Pretesting the questionnaire is important to ensure clarity of wording, no obvious errors and/or omissions, and the proper sequencing of questions (Ikart, 2018).

The advantages of conducting a rigorous pretest of the questionnaire is that it improves the response rate and increases the likelihood of the study's success (Ikart, 2018). Ikart (2018) argues that there is no consensus on best practices in pretesting questionnaires and there is no perfect questionnaire, only an efficient and effective questionnaire (Ikart, 2018).

Rothgeb, Willis and Forsyth (2007) describe three methods of pretesting. The first is the expert review method which involves professional researchers evaluating the questionnaire to identify any problem areas (Rothgeb et al., 2007). The second is the forms appraisal method which utilizes a questionnaire appraisal involving an external client as a form of checklist to identify any errors in the survey questions (Rothgeb et al., 2007). The third method of cognitive interviewing involves identifying problem areas and probing the specific meaning of terms such as "stakeholder" by sending the questionnaire to respondents similar in profile to the final respondents (Rothgeb et al., 2007).

For the current study, the expert reviews method was assumed given that the current study builds on previous studies and the questions were developed based on existing questionnaires (Voegtlin, 2011; Wang & Hackett, 2015). The existing scales have been extensively tested in the literature on virtue ethics and responsible leadership (Voegtlin, 2011, Wang & Hackett, 2015). For this reason, expert reviews were assumed. For the cognitive interviewing method, the questionnaire was sent to ten individuals from ACSA and SAFCOL who met the sampling criteria. The request was made for respondents to identify any problem areas including any difficulty in understanding specific terms of specific questions. The questionnaire was then revised in line with the feedback received.

#### **4.9 PRE-TESTING FEEDBACK**

The questionnaire was pretested by ten respondents who were similar in profile to the final group of respondents. A combination of respondents from both organizations, ACSA and SAFCOL, were chosen to pre-test the questionnaire. The feedback received was grouped

into three groups, namely design, errors and/omissions, and question wording.

### **I. Design**

Feedback from the pre-testing highlighted the concern of employees understanding of the term “stakeholder”. Respondents recommended that a definition be included on the introductory emails for all employees to have a common understanding of the term. To address the concern, the term “stakeholder” was defined as, “any group or individual who can affect, or is affected by, the achievement of a corporation’s purpose. Stakeholders include employees, customers, suppliers, stockholders, banks, environmentalists, government and other groups who can help or hurt the corporation” (Freeman, 2010, p. iii). The definition of the term “stakeholder” was anchored in the literature review of chapter two and consistent with the definition adopted by the current study. This definition along with examples of stakeholders was provided for in the introductory emails sent to all respondents.

### **II. Errors and/omissions**

There was an omission on question 11 (Q. 11) “My manager leads fundamental change though it may entail personal sacrifice and personal”. This was changed to read, “My manager leads fundamental change though it may entail personal sacrifice and personal risk.” There was no other feedback received related to errors and/or omissions.

### **III. Question wording**

There was a recommendation to consider re-phrasing question (Q. 2) “My manager considers the consequences of decisions for the affected stakeholders”. This was re-phrased to read, “My manager considers the consequences of decisions that affect stakeholders”. The purpose of the re-phrasing was to ensure a clearer and more direct question.

The results from the pre-test were excluded from the final results, as per Ikart (2018).

## **4.10 ANALYSIS APPROACH**

The data was analysed using the statistics software IBM SPSS version 26. First, a descriptive analysis of the numeric interval data was conducted using SPSS. Second, a correlation analysis and a linear regression analysis was conducted on the numeric interval data using SPSS.

The correlation analysis was used to quantify the associations and measure the strength of the associations between the two numeric variables for each hypothesis, for example the strength of the linear association between courage and responsible leader behaviour (Wegner, 2017). The linear regression analysis was used to explore predictability.

## **4.11 QUALITY CONTROLS**

The current study was quantitative in nature, therefore construct reliability and construct validity was established.

### **4.11.1 Reliability**

Reliability is concerned with consistency and obtaining stable research results that are replicable (Williamson & Johanson, 2018). In order to establish reliability, measures such as Cronbach's alpha were conducted on each construct. Cronbach's alpha is a measure of reliability and provided a suitable application to establish reliability for the current study (Bonett & Wright, 2015).

### **4.11.2 Validity**

Validity is concerned with accuracy and whether the study measures what it is supposed to measure, and if the findings are generalisable (Williamson & Johanson, 2018). The current study assessed validity through construct validity. The measures/questions of previous studies were adopted to ensure validity. In the case of the virtues leadership questionnaire for example, follower employees were asked to rate their direct line managers using established question items adopted or adapted from prior studies (Wang & Hackett, 2015). A

factor analysis was used to validate the constructs before any analysis was performed on the data.

#### **4.12 LIMITATIONS**

The research design employing a quantitative mono-method with a survey strategy had certain limitations. These limitations included a low return rate, the restrictiveness of closed-ended questions, the lack of depth, and the possible gap between what people reported versus what they actually did in practice (Griffis, Goldsby & Cooper, 2003; Nardi, 2018).



## **CHAPTER 5: RESEARCH RESULTS**

### **5.1 INTRODUCTION**

In this chapter, the findings of the study based on the data collected using the SurveyMonkey platform are presented. The first part of the chapter details the response rate of the survey. The constructs were then tested for validity and reliability. The next section presents the descriptive statistics test results. This is then followed by a presentation of the findings based on the hypotheses tests which includes the results of the correlation analysis and the linear regression analysis for each hypothesis. A summary of the research results is presented in the conclusion.

### **5.2 SURVEY RESPONSE RATE**

From the 601 invitations that were sent out by email, there were 153 responses which constituted a survey response rate of 25.5%. These however included some survey questionnaires that were partially completed. The data was collected over a period of four weeks from the 10<sup>th</sup> September 2020 to the 8<sup>th</sup> October 2020 using the SurveyMonkey platform.

Every effort was made during the four-week period to reach the initial target of 200 responses as outlined in chapter four. This included weekly reminders to all employees at the two organizations and having three email collectors activated through the SurveyMonkey platform. In the end, a total of 153 responses were received of which 139 were complete responses and 14 were incomplete responses. There was a completion rate of 91% and the correlation and linear regression analysis only considered complete responses where all questions had been answered.

### **5.3 CONSTRUCT VALIDITY**

A factor analysis was used to validate the constructs. This section includes the results of the factor analysis as well as the results of the Kaiser-Meyer-Olkin Test of Sampling Adequacy

(KMO) and Bartlett's Test of Sphericity.

### 5.3.1 Kaiser-Meyer-Olkin Test of Sampling Adequacy (KMO) and Bartlett's Test of Sphericity results

Bartlett's Test for Sphericity and the Kaiser-Meyer-Olkin Test of Sampling Adequacy (KMO) are commonly used to assess the strength of the associations and factorability of variables (Beavers, Lounsbury, Richards, Huck, Skolits, & Esquivel, 2013). The KMO Test and Bartlett's Test were applied to the current study and the results are presented in Table 1 below.

**Table 1: KMO and Bartlett's Test results**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0,928
Bartlett's Test of Sphericity	Approx. Chi-Square	2969,091
	df	253
	Sig.	0,000

The results presented in Table 1 indicate that the Bartlett's Test for Sphericity is statistically significant at  $p < 0.001$ . The Bartlett's Test therefore provides evidence that linear correlations exist.

The KMO measure is a measure of shared variance in the scale items (Beavers et al., 2013). The KMO measure for the combined items is 0.928 as presented in Table 1. According to the interpretation guidelines for the KMO Test, a value of 0.90 to 1.00 is regarded as 'marvellous' (Beavers et al., 2013).

The outcomes of the Bartlett's Test and KMO Test provide the basis for a factor analysis which was determined as useful with the available data and appropriate for the current study.

### **5.3.2 Factor analysis**

According to Beavers et al. (2013), factor analysis is a group of statistical analysis with the goal of reducing the number of variables to explain and interpret results. There are two common methods of factor analysis, namely confirmatory factor analysis (CFA) and exploratory factor analysis (EFA) (Beavers et al., 2013; Field, 2013). Beavers et al. (2013) argue that sample size provides a guideline to produce a reliable factor analysis. They argue that one should plan for a sample of at least 150 for conducting a reliable confirmatory factor analysis (Beavers et al., 2013).

According to Boomsma and Hoogland (2001), sample size reporting should be ideally  $n=200$  for ideal model fit. Although every effort was made to achieve 200 participants for ideal model fit, the study was only able to achieve a sample size of 139 participants.

According to Beavers et al. (2013), when CFA model fits are unacceptable, an EFA may be conducted. An EFA was therefore conducted and the results are presented in tables 2a and 2b below. Table 2a indicates the table of communalities and table 2b indicates the factor loadings per item.

**Table 2a: Communalities table**

	Initial	Extraction
Q1	0,767	0,648
Q2	0,826	0,820
Q3	0,641	0,595
Q4	0,700	0,731
Q5	0,740	0,743
Q6	0,803	0,678
Q7	0,665	0,522
Q8	0,819	0,778
Q9	0,780	0,696
Q10	0,727	0,649
Q11	0,716	0,601
Q12	0,536	0,432
Q13	0,677	0,604
Q14	0,531	0,400
Q15	0,741	0,670
Q16	0,785	0,715
Q17	0,800	0,697
Q18	0,757	0,716
Q19	0,793	0,708
Q20	0,720	0,611
Q21	0,820	0,705
Q22	0,828	0,715
Q23	0,722	0,671
Extraction Method: Principal Axis Factoring.		

In the table of communalities (Table 2a), we observe the extraction column to understand the proportion of variance for each variable. The extraction values for all question items were above 0.3 which is acceptable.

Table 2b below shows the factor loadings for each of the 23 question items (five each for responsible leader behaviour, and three each for justice, humanity, prudence, temperance, truthfulness and courage).

**Table 2b: Factor loadings associated with each item**

	Factor Loadings
Q1	0,804
Q2	0,905
Q3	0,767
Q4	0,848
Q5	0,860
Q6	0,811
Q7	0,721
Q8	0,882
Q9	0,833
Q10	0,801
Q11	0,775
Q12	0,640
Q13	0,775
Q14	0,628
Q15	0,818
Q16	0,845
Q17	0,833
Q18	0,836
Q19	0,835
Q20	0,780
Q21	0,840
Q22	0,843
Q23	0,810
Extraction Method: Principal Axis Factoring. Rotation Method: Varimax with Kaiser Normalization.	

The results show a high communality and significant factor loadings for each item. The EFA shows the underlying factor structure and the existing associations for each construct. The results of the exploratory factor analysis are satisfactory enough to validate the constructs.

#### **5.4 RELIABILITY RESULTS**

As detailed in chapter four of the study, Cronbach's alpha provides a measure to establish reliability of the constructs by measuring the internal consistency between items on a scale. (Bonett & Wright, 2015). The results indicate that all constructs had an acceptable Cronbach's alpha of above 0.700, thereby confirming the reliability of the measuring instrument (Bonett & Wright, 2015).

### 5.4.1 Cronbach alpha results for responsible leader behaviour

The Cronbach's alpha for the construct of responsible leader behaviour with five items is high at 0.922 (Bonett & Wright, 2015). The reliability statistics presented in Table 3 confirm the reliability of the measuring instrument. As a result, all five questions for responsible leader behaviour were used to test the hypotheses related to the construct.

**Table 3: Responsible leader behaviour reliability statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items					
0,922	0,922	5					
			Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q1			15,80	14,032	0,765	0,706	0,911
Q2			15,63	13,321	0,857	0,782	0,893
Q3			15,92	13,972	0,734	0,578	0,917
Q4			15,94	13,243	0,812	0,674	0,902
Q5			15,99	13,623	0,822	0,709	0,900

### 5.4.2 Cronbach alpha results for the virtue of truthfulness

The Cronbach's alpha for truthfulness was high at 0.877 (Bonett & Wright, 2015). The reliability statistics presented in Table 4 confirm the reliability of the measuring instrument. As a result, all three questions were used to test the hypotheses related to the virtue of truthfulness.

**Table 4: Truthfulness reliability statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items					
0,877	0,881	3					
			Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q6			8,18	3,670	0,821	0,676	0,773
Q7			7,99	4,196	0,738	0,569	0,852
Q8			8,37	3,352	0,749	0,579	0,851

**5.4.3 Cronbach alpha results for the virtue of courage**

The Cronbach's alpha for courage was high at 0.893 (Bonett & Wright, 2015). The reliability statistics presented in Table 5 confirm the reliability of the measuring instrument. As a result, all three questions were used to test the hypotheses related to the virtue of courage.

**Table 5: Courage reliability statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items					
0,893	0,894	3					
			Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q9			7,01	5,993	0,783	0,614	0,857
Q10			7,14	5,191	0,791	0,627	0,848
Q11			7,24	5,385	0,802	0,643	0,836

#### 5.4.4 Cronbach alpha results for the virtue of temperance

The Cronbach's alpha for temperance was acceptable at 0.759 (Bonett & Wright, 2015). The reliability statistics presented in Table 6 confirm the reliability of the measuring instrument. As a result, all three questions were used to test the hypotheses related to the virtue of temperance.

**Table 6: Temperance reliability statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items					
0,759	0,766	3					
			Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q12			7,44	4,292	0,609	0,376	0,659
Q13			6,90	5,555	0,605	0,367	0,680
Q14			7,55	4,612	0,579	0,337	0,691

#### 5.4.5 Cronbach alpha results for the virtue of justice

The Cronbach's alpha for justice was high at 0.895 (Bonett & Wright, 2015). The reliability statistics presented in Table 7 confirm the reliability of the measuring instrument. As a result, all three questions were used to test the hypotheses related to the virtue of justice.



**Table 7: Justice reliability statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items					
0,895	0,895	3					
			Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q15			7,19	5,274	0,775	0,623	0,866
Q16			7,22	4,725	0,844	0,712	0,805
Q17			7,28	5,232	0,764	0,600	0,876

**5.4.6 Cronbach alpha results for the virtue of prudence**

The Cronbach's alpha for prudence was high at 0.880 (Bonett & Wright, 2015). The reliability statistics presented in Table 8 confirm the reliability of the measuring instrument. As a result, all three questions were used to test the hypotheses related to the virtue of prudence.

**Table 8: Prudence reliability statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items					
0,880	0,881	3					
			Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q18			7,51	3,947	0,739	0,562	0,858
Q19			7,53	4,077	0,818	0,670	0,787
Q20			7,60	4,168	0,750	0,586	0,845

**5.4.7 Cronbach alpha results for the virtue of humanity**

The Cronbach's alpha for humanity was high at 0.911 (Bonett & Wright, 2015). The reliability statistics presented in Table 9 confirm the reliability of the measuring instrument. As a result, all three questions were used to test the hypotheses related to the virtue of humanity.

**Table 9: Humanity reliability statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items					
0,911	0,913	3					
			Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q21			7,41	5,012	0,827	0,706	0,867
Q22			7,34	5,559	0,857	0,739	0,849
Q23			7,38	5,180	0,789	0,627	0,900

## 5.5 DESCRIPTIVE STATISTICS RESULTS

### 5.5.1 Responsible leader behaviour scores

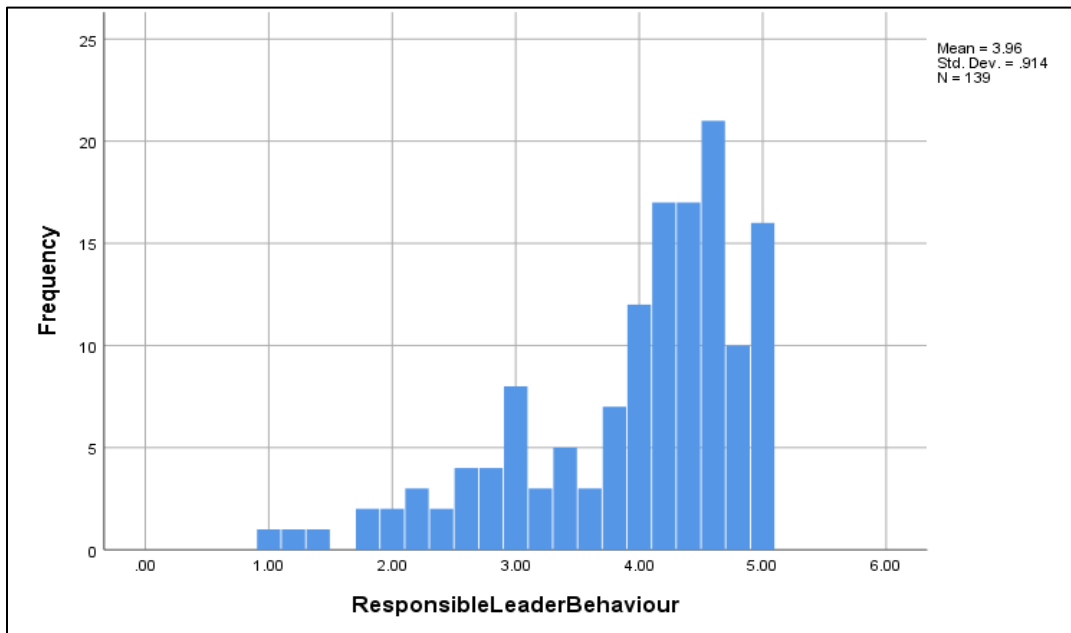
The scores for each of the six question items as well as the overall mean score of responsible leader behaviour are presented in Table 10 below. As detailed in chapter four of the study, a five-point Likert scale was used to quantify the data which ranged from 1 “never” to 5 “always”. Table 10 shows that the overall mean score for the construct of responsible leader behaviour was 3.96 and the standard deviation was 0.91. The overall mean score shows that on average, employees have “fairly often” perceived their manager’s behaviour to be that of responsible leader behaviour.

**Table 10: Descriptive statistics for responsible leader behaviour**

	N	Minimum	Maximum	Mean	Std. Deviation
Q1	139	1	5	4,02	1,02
Q2	139	1	5	4,19	1,04
Q3	139	1	5	3,9	1,06
Q4	139	1	5	3,88	1,09
Q5	139	1	5	3,83	1,03
Responsible Leader Behaviour Score	139	1	5	3,96	0,91
Valid N (listwise)	139				

The histogram represented by Figure 1 below shows that 16 respondents (11,5%) scored their managers with a maximum of 5 “always” and only 3 respondents (2,1%) scored their managers with a 1 “never” for perceived responsible leader behaviour. The overall score with the most responses is around 4.60.

**Figure 1: Responsible leader behaviour histogram**



### 5.5.2 Truthfulness scores

Table 11 below provides the scores for each of the three question items as well as the mean score for truthfulness. The table shows that the overall mean score for truthfulness was 4.09 and the standard deviation was 0.94. This seems to suggest that on average, employees believe their managers “fairly often” possess the character trait that underlies telling the truth, keeping promises, and taking personal responsibility.

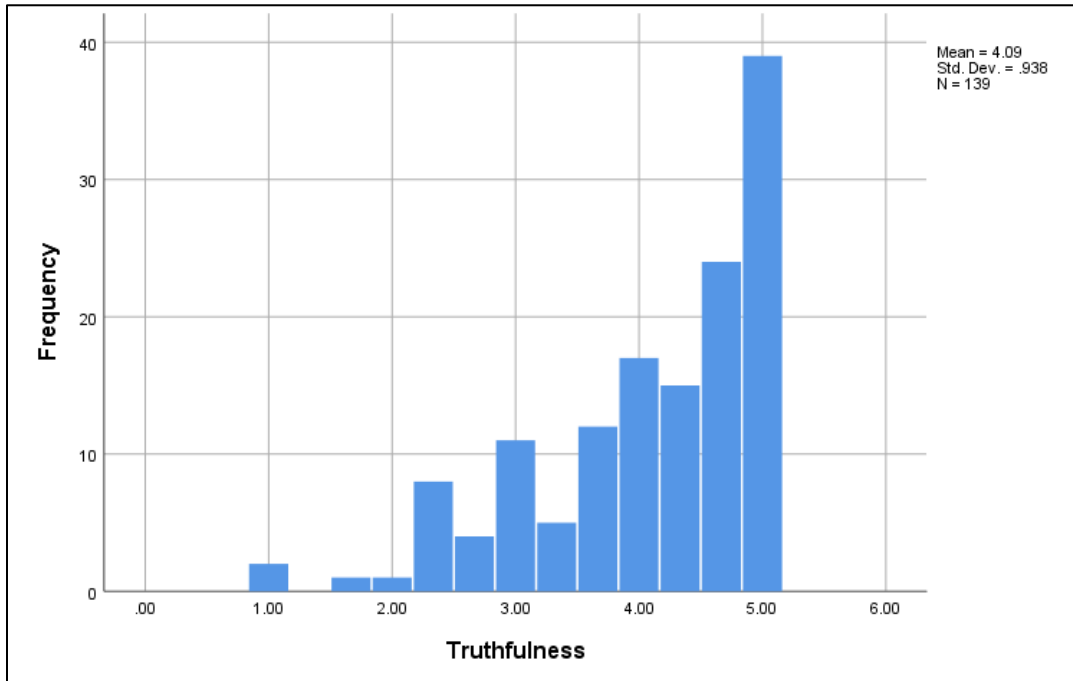
**Table 11: Descriptive statistics for truthfulness**

	N	Minimum	Maximum	Mean	Std. Deviation
Q6	139	1	5	4,09	1,02
Q7	139	1	5	4,28	0,94
Q8	139	1	5	3,90	1,17
Truthfulness Score	139	1,00	5,00	4,09	0,94
Valid N (listwise)	139				

The histogram represented below by Figure 2, shows that only 2 respondents (1,4%) scored

their managers with a minimum of 1 “never” while 39 respondents (28%) scored their managers with a maximum of 5 as “always” possessing the virtue of truthfulness.

**Figure 2: Truthfulness histogram**



### 5.5.3 Courage scores

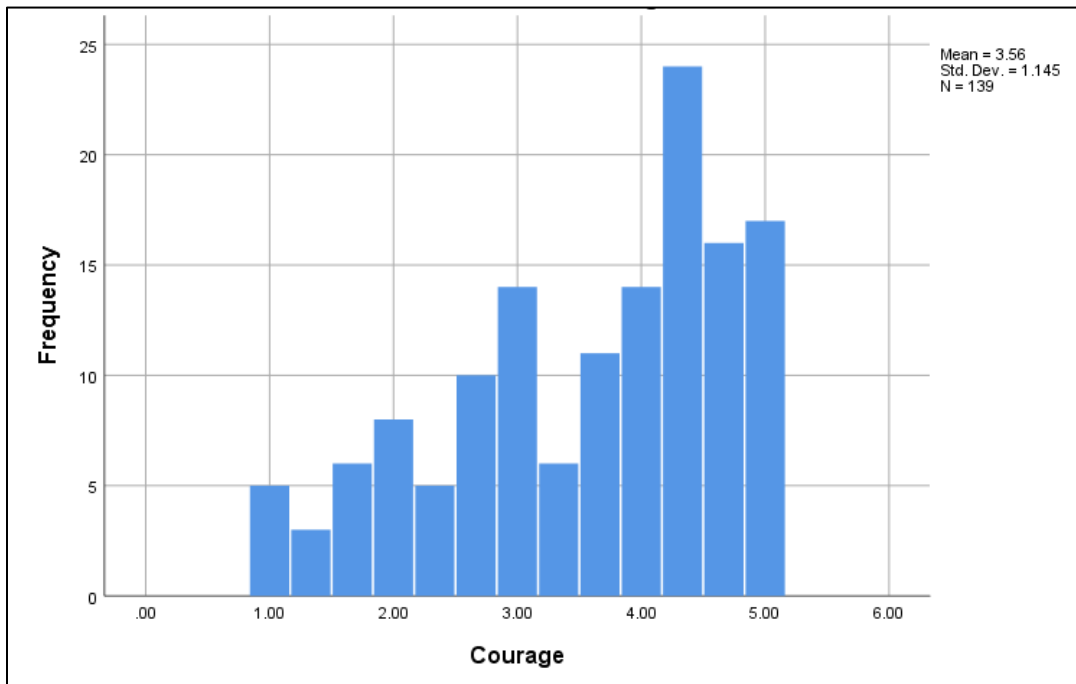
Table 12 below provides the scores for each of the three questions as well as the overall mean score for courage. The overall mean score of 3.56 shows that on average, employees believe their managers “sometimes” or “fairly often” possess the virtue of courage to do what is right without fear, even in the face of personal risk.

**Table 12: Descriptive statistics for courage**

	N	Minimum	Maximum	Mean	Std. Deviation
Q9	139	1	5	3,68	1,16
Q10	139	1	5	3,55	1,34
Q11	139	1	5	3,45	1,28
Courage Score	139	1,00	5,00	3,56	1,14
Valid N (listwise)	139				

The histogram represented below by Figure 3, shows that 8 respondents (5,8%) scored their managers with a minimum of 1 “never” and 17 respondents (12,2%) scored their managers with a maximum of 5 as “always” possessing the virtue of courage. The overall score with the most responses was around 4.33.

**Figure 3: Courage histogram**



### 5.5.4 Temperance scores

Table 13 below provides the scores for each of the three questions as well as the overall

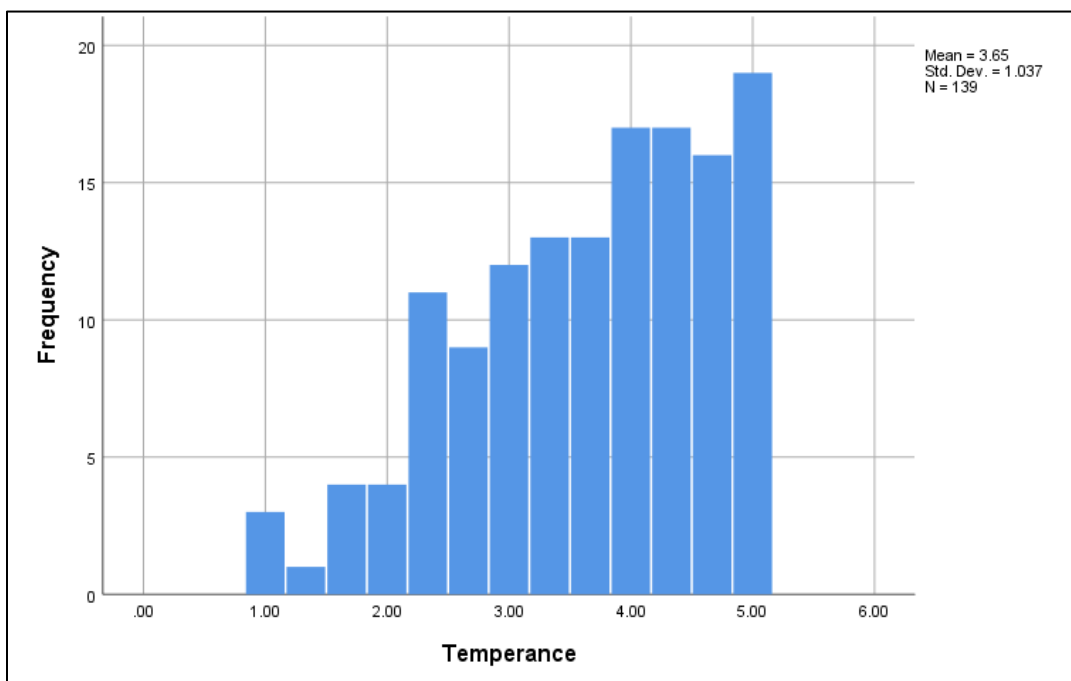
mean score for temperance which was 3.65. The overall mean score shows that on average, employees believe their managers “sometimes” or “fairly often” possess the virtue of temperance as a character trait to be able to control emotional reactions and desires including the avoidance of indulging in self-gratification (Sison, 2003; Wang & Hackett, 2015).

**Table 13: Descriptive statistics for temperance**

	N	Minimum	Maximum	Mean	Std. Deviation
Q12	139	1	5	3,50	1,38
Q13	139	1	5	4,04	1,06
Q14	139	1	5	3,40	1,33
Temperance Score	139	1,00	5,00	3,65	1,04
Valid N (listwise)	139				

The histogram presented below as Figure 4, shows that 4 respondents (2,9%) scored their managers with a minimum of 1 “never” and 19 respondents (13,7%) scored their managers with a maximum of 5 as “always” possessing the virtue of temperance.

**Figure 4: Temperance histogram**



### 5.5.5 Justice scores

Table 14 provides the scores for each of the three questions as well as the overall mean score for justice which was 3.62. This seems to suggest that on average, employees believe their managers “sometimes” or “fairly often” possess the virtue of justice.

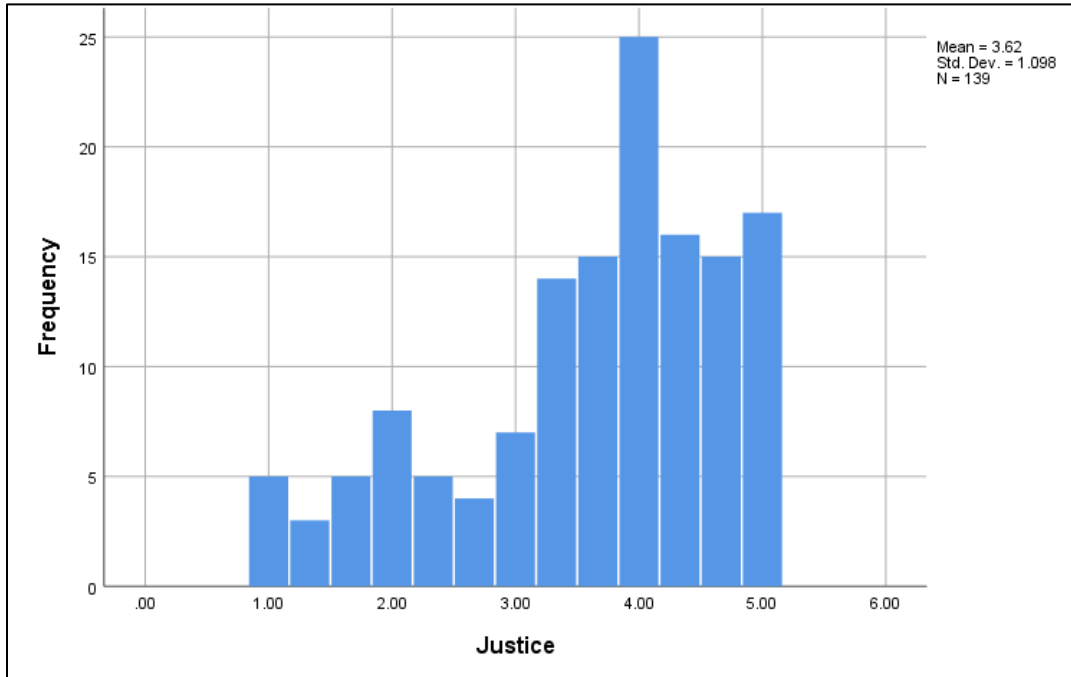
**Table 14: Descriptive statistics for justice**

	N	Minimum	Maximum	Mean	Std. Deviation
Q15	139	1	5	3,65	1,18
Q16	139	1	5	3,63	1,25
Q17	139	1	5	3,57	1,20
Justice Score	139	1,00	5,00	3,62	1,10
Valid N (listwise)	139				

The histogram represented below as Figure 5, shows that 8 respondents (5,8%) scored their managers with a minimum of 1 “never” and 17 respondents (12,2%) scored their managers with a maximum of 5 as “always” possessing the virtue of justice. The overall score with the most responses was around 4.00 as per the histogram in Figure 5. This indicates that most employees believed that their managers “fairly often” possessed the virtue of justice.



**Figure 5: Justice histogram**



**5.5.6 Prudence scores**

Table 15 below provides the scores for each of the three questions as well as the overall mean score for prudence which was 3.77. This seems to suggest that on average, employees believe their managers “fairly often” possess the virtue of prudence.

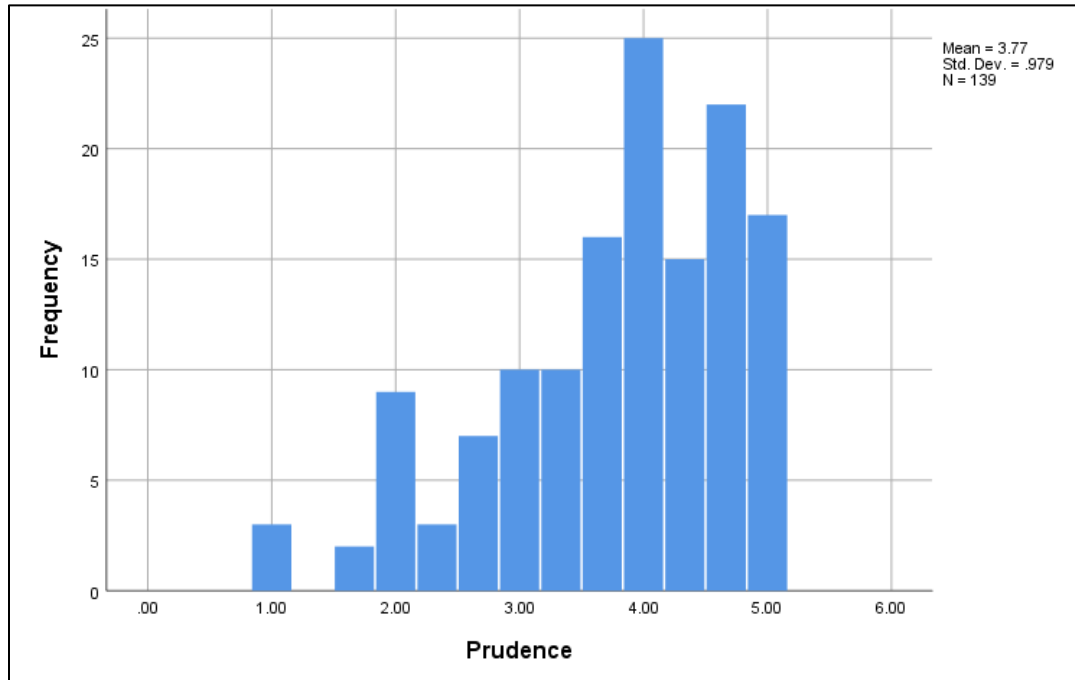
**Table 15: Descriptive statistics for prudence**

	N	Minimum	Maximum	Mean	Std. Deviation
Q18	139	1	5	3,81	1,15
Q19	139	1	5	3,79	1,05
Q20	139	1	5	3,72	1,08
Prudence Score	139	1,00	5,00	3,77	0,98
Valid N (listwise)	139				

The histogram represented below as Figure 6 shows that only 3 respondents (2,1%) scored their managers with a minimum of 1 “never” and 17 respondents (12.2%) scored their

managers with a maximum of 5 as “always” possessing the virtue of prudence. The overall score with the most responses was around 4.00 as per the histogram in Figure 6. This indicates that most employees believed their managers “fairly often” possessed the virtue of prudence.

**Figure 6: Prudence histogram**



### 5.5.7 Humanity scores

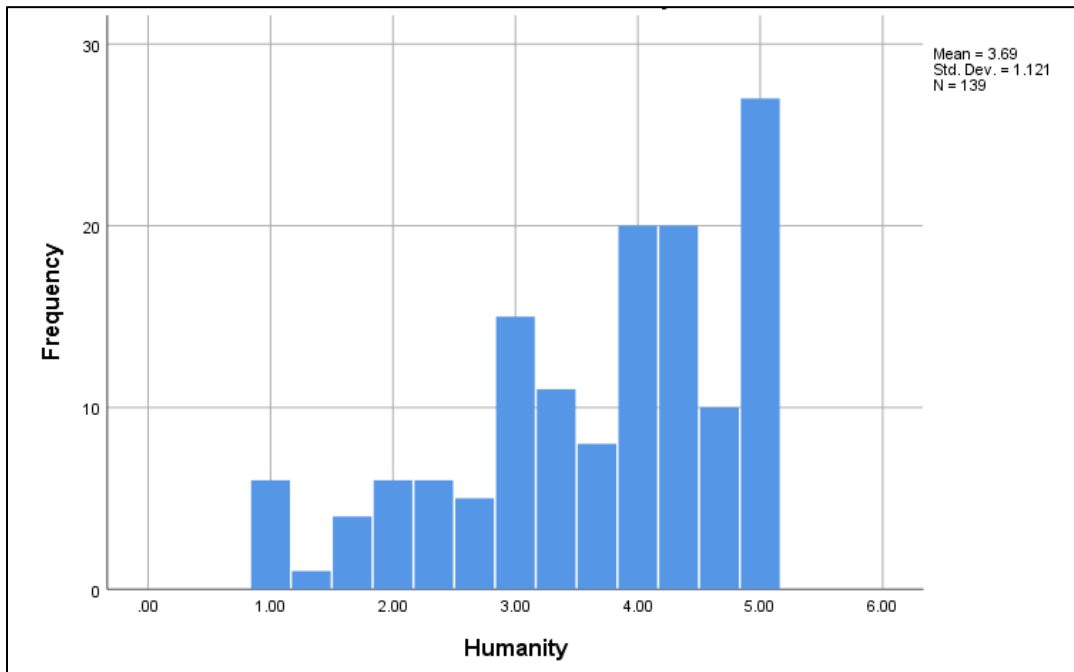
Table 16 below provides the scores for each of the three questions as well as the overall mean score for humanity which was 3.69 with a standard deviation of 1.12. The overall mean score shows that on average, employees believe their managers “fairly often” possess the virtue of humanity defined in chapter two as a character trait of expressing care for others and showing concern for the misfortunes of others (Wang & Hackett, 2015).

**Table 16: Descriptive statistics for humanity**

	N	Minimum	Maximum	Mean	Std. Deviation
Q21	139	1	5	3,65	1,27
Q22	139	1	5	3,73	1,12
Q23	139	1	5	3,68	1,26
Humanity Score	139	1,00	5,00	3,69	1,12
Valid N (listwise)	139				

The histogram represented below as Figure 7, shows that 7 respondents (5%) scored their managers with a minimum of 1 “never” and 27 respondents (19,4%) scored their managers with a maximum of 5 as “always” possessing the virtue of humanity. The maximum score of 5 was also the overall score with the most responses (27) as detailed in Figure 7.

**Figure 7: Humanity histogram**



Frequency tables for each construct are attached as Appendix B.

## 5.6 HYPOTHESES TEST RESULTS

The hypotheses test results include the statistical tests for each hypothesis formulated in chapters two and three of the current study. The hypotheses were tested at a chosen significance level of  $p < 0.05$ . The sections below detail the findings for each hypothesis.

### 5.6.1 Hypothesis 1

Hypothesis one, hypothesized that the virtue of courage is positively associated with responsible leader behaviour. The hypothesis was generated and anchored in the literature reviewed conducted in chapter two.

**Null hypothesis 1:** There is a negative or no association between courage and responsible leader behaviour.

**Alternate hypothesis 1:** There is a positive association between courage and responsible leader behaviour.

A correlation analysis was used to test if courage is positively associated with responsible leader behaviour. To explore predictability, a linear regression analysis was used. A simple linear regression was used to find a line of best fit between the two observed variables. Table 17 below provides the results of the correlation analysis.

**Table 17: Hypothesis 1 correlation analysis**

<b>Correlations</b>			
		Responsible Leader Behaviour	Courage
Responsible Leader Behaviour	Pearson Correlation	1	0,119
	Sig. (2-tailed)		0,164
	N	139	139
Courage	Pearson Correlation	0,119	1
	Sig. (2-tailed)	0,164	
	N	139	139

The correlation analysis shows a Pearson's R of positive 0.119. The Sig (2-Tailed) value is 0.164 which is higher than the level of significance chosen for the study of 0.05. This means that the correlation is not statistically significant.

Based on the linear regression results in Table 18 below, the correlation coefficient (R) of 0.119 indicates a small positive association between courage and responsible leader behaviour. The adjusted R square result (which is more reliable than the R square value since it takes into account the sample size) indicates that the virtue of courage explains 0.7% of the variability of responsible leader behaviour. The significance value in the ANOVA table is 0.164 (higher than 0.05) indicating that courage does not successfully predict responsible leader behaviour.

**Table 18: Hypothesis 1 linear regression analysis**

<b>Model Summary<sup>b</sup></b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.119 <sup>a</sup>	0,014	0,007	0,91122
a. Predictors: (Constant), Courage				
b. Dependent Variable: Responsible Leader Behaviour				

<b>ANOVA<sup>a</sup></b>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1,626	1	1,626	1,959	.164 <sup>b</sup>
	Residual	113,754	137	0,830		
	Total	115,380	138			
a. Dependent Variable: Responsible Leader Behaviour						
b. Predictors: (Constant), Courage						

<b>Coefficients<sup>a</sup></b>						
Model				Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,626	0,254		14,303	0,000
	Courage	0,095	0,068	0,119	1,400	0,164
a. Dependent Variable: Responsible Leader Behaviour						

The results of the correlation analysis indicate that a small positive association exists between the virtue of courage and responsible leader behaviour. However, there was not enough evidence to conclude that the association was statistically significant. The regression analysis indicates that the virtue of courage does not successfully predict responsible leader behaviour.

As per the results of the statistical tests, the study fails to reject the null hypothesis. The study acknowledges that the researcher may have committed a type II error which occurs when the study fails to reject a null hypothesis which is really false (Field, 2013). An explanation for committing a type II error could be that the study failed to respect the initial minimum sample size determined for the study i.e. the sample size was too small.

### **5.6.2. Hypothesis 2**

Hypothesis two, hypothesized that the virtue of temperance is positively associated with responsible leader behaviour. The hypothesis was generated and anchored in the literature reviewed conducted in chapter two.

**Null hypothesis 2:** There is a negative or no association between temperance and responsible leader behaviour.

**Alternate hypothesis 2:** There is a positive association between temperance and responsible leader behaviour.

A correlation analysis was used to test if temperance is positively associated with responsible leader behaviour. To explore predictability, a linear regression analysis was used. Table 19 below provides the results of the correlation analysis.

**Table 19: Hypothesis 2 correlation analysis**

Correlations			
		Responsible Leader Behaviour	Temperance
Responsible Leader Behaviour	Pearson Correlation	1	.169 <sup>*</sup>
	Sig. (2-tailed)		0,047
	N	139	139
Temperance	Pearson Correlation	.169 <sup>*</sup>	1
	Sig. (2-tailed)	0,047	
	N	139	139
*. Correlation is significant at the 0.05 level (2-tailed).			

The correlation analysis shows a Pearson's R of positive 0.169. The Sig (2-Tailed) value is 0.047 which is less than the level of significance chosen for the study of 0.05. This means that the correlation is statistically significant at a 5% level of significance. The results indicate that a small positive association exists between the virtue of temperance and responsible leader behaviour. In addition, the significance value of 0.047 indicates that there is a statistically significant correlation between responsible leader behaviour and the virtue of temperance.

Based on the linear regression results in Table 20 below, the correlation coefficient (R) of 0.169 indicates a small positive association between temperance and responsible leader behaviour. The adjusted R square result indicates that the virtue of temperance explains 2.1% of the variability of responsible leader behaviour. The significance value in the ANOVA table is 0.047 indicating that temperance is a fairly good predictor of responsible leader behaviour.



**Table 20: Hypothesis 2 linear regression analysis**

<b>Model Summary</b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.169 <sup>a</sup>	0,029	0,021	0,90452
a. Predictors: (Constant), Temperance				

<b>ANOVA<sup>a</sup></b>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3,293	1	3,293	4,024	.047 <sup>b</sup>
	Residual	112,088	137	0,818		
	Total	115,380	138			
a. Dependent Variable: Responsible Leader Behaviour						
b. Predictors: (Constant), Temperance						

<b>Coefficients<sup>a</sup></b>						
Model				Standardized Coefficients	t	Sig.
				Beta		
1	(Constant)	3,421	0,281		12,152	0,000
	Temperance	0,149	0,074	0,169	2,006	0,047
a. Dependent Variable: Responsible Leader Behaviour						

The results of the correlation analysis indicate that a small positive association exists between the virtue of temperance and responsible leader behaviour. The significance value of 0.047 indicates that the correlation is statistically significant and therefore the association was not due to chance. In addition, the linear regression analysis indicates that the virtue of temperance is a fairly good predictor of responsible leader behaviour.

Based on the results of the correlation and linear regression analysis, the null hypothesis is therefore rejected at a 5% level of significance. The study acknowledges that a type I error may have been committed. A type I error occurs if the study rejects the null hypothesis even though it is true (Field, 2013). An explanation for committing a type I error could be that the study failed to respect the initial sample size set out for the research as detailed in chapter four.

### **5.6.3 Hypothesis 3**

Hypothesis three, hypothesized that the virtue of prudence is positively associated with responsible leader behaviour. The hypothesis was generated and anchored in the literature reviewed conducted in chapter two.

**Null hypothesis 3:** There is a negative or no association between prudence and responsible leader behaviour.

**Alternate hypothesis 3:** There is a positive association between prudence and responsible leader behaviour.

A correlation analysis was used to test if prudence is positively associated with responsible leader behaviour. To explore predictability, a linear regression analysis was used. Table 21 details the statistical results of the correlation analysis.

**Table 21: Hypothesis 3 correlation analysis**

<b>Correlations</b>			
		Responsible Leader Behaviour	Prudence
Responsible Leader Behaviour	Pearson Correlation	1	.167*
	Sig. (2-tailed)		0,049
	N	139	139
Prudence	Pearson Correlation	.167*	1
	Sig. (2-tailed)	0,049	
	N	139	139
*. Correlation is significant at the 0.05 level (2-tailed).			

The correlation analysis shows a Pearson's R of positive 0.167. The Sig (2-Tailed) value is 0.049 which is less than the level of significance chosen for the study of 0.05. This means that the correlation is statistically significant at a 5% level of significance. The results indicate that a small positive association exists between the virtue of prudence and responsible leader behaviour. In addition, the significance value of 0.049 indicates that there is a statistically significant correlation between responsible leader behaviour and the virtue of prudence.

Based on the linear regression results in Table 22 below, the correlation coefficient (R) of 0.167 indicates a small positive association between prudence and responsible leader behaviour. The adjusted R squared result indicates that the virtue of prudence explains 2.1% of the variability of responsible leader behaviour. The significance value in the ANOVA table is 0.049 indicating that prudence is a fairly good predictor of responsible leader behaviour.

**Table 22: Hypothesis 3 linear regression analysis**

<b>Model Summary</b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.167 <sup>a</sup>	0,028	0,021	0,90477
a. Predictors: (Constant), Prudence				

<b>ANOVA<sup>a</sup></b>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3,231	1	3,231	3,947	.049 <sup>b</sup>
	Residual	112,149	137	0,819		
	Total	115,380	138			
a. Dependent Variable: Responsible Leader Behaviour						
b. Predictors: (Constant), Prudence						

<b>Coefficients<sup>a</sup></b>						
Model				Standardized Coefficients	t	Sig.
				Beta		
1	(Constant)	3,374	0,307		11,001	0,000
	Prudence	0,156	0,079	0,167	1,987	0,049
a. Dependent Variable: Responsible Leader Behaviour						

The results of the correlation analysis indicate that a small positive association exists between the virtue of prudence and responsible leader behaviour. The significance value of 0.049 indicates that the correlation is statistically significant and therefore the association was not due to chance. In addition, the linear regression analysis indicates that the virtue of prudence is a fairly good predictor of responsible leader behaviour.

Based on the results of the correlation analysis and linear regression analysis, the null hypothesis is therefore rejected at a 5% level of significance. The study acknowledges that a type I error may have been committed. A type I error occurs if the study rejects the null hypothesis even though it is true (Field, 2013). An explanation for committing a type I error could be that the study failed to respect the initial sample size set out for the research as detailed in chapter four.

#### **5.6.4 Hypothesis 4**

Hypothesis four, hypothesized that the virtue of justice is positively associated with responsible leader behaviour. The hypothesis is anchored in the literature view from chapter two of the study.

**Null hypothesis 4:** There is a negative or no association between justice and responsible leader behaviour.

**Alternate hypothesis 4:** There is a positive association between justice and responsible leader behaviour.

A correlation analysis was used to test if justice is positively associated with responsible leader behaviour. To explore predictability, a linear regression analysis was used. Table 23 details the results of the correlation analysis.

**Table 23: Hypothesis 4 correlation analysis**

<b>Correlations</b>			
		Responsible Leader Behaviour	Justice
Responsible Leader Behaviour	Pearson Correlation	1	0,071
	Sig. (2-tailed)		0,407
	N	139	139
Justice	Pearson Correlation	0,071	1
	Sig. (2-tailed)	0,407	
	N	139	139

The correlation analysis shows a Pearson's R of positive 0.071. Although this number is positive it is also very close to 0. The Sig (2-Tailed) value is 0.407 which is higher than the level of significance chosen for the study of 0.05. The results seem to suggest that no significant correlation exists between responsible leader behaviour and justice.

Table 24 below depicts the results of the linear regression analysis. The correlation coefficient (R) of 0.071 indicates a very weak positive association between justice and responsible leader behaviour. The adjusted R square result is a negative 0.002. The adjusted R squared penalized the model by virtue of adding the additional variable of justice which did not add any explanatory power to the model. This explains the negative value of the adjusted R square. The significance value in the ANOVA table is 0.407 suggesting that justice is not a good predictor of responsible leader behaviour.

**Table 24: Hypothesis 4 linear regression analysis**

<b>Model Summary</b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.071 <sup>a</sup>	0,005	-0,002	0,91540
a. Predictors: (Constant), Justice				

<b>ANOVA<sup>a</sup></b>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0,579	1	0,579	0,691	.407 <sup>b</sup>
	Residual	114,801	137	0,838		
	Total	115,380	138			
a. Dependent Variable: Responsible Leader Behaviour						
b. Predictors: (Constant), Justice						

<b>Coefficients<sup>a</sup></b>						
Model				Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,751	0,268		13,990	0,000
	Justice	0,059	0,071	0,071	0,831	0,407
a. Dependent Variable: Responsible Leader Behaviour						

The results of the correlation analysis indicated a very weak association between the virtue of justice and responsible leader behaviour. The significance value of 0.407 indicates that the correlation is not statistically significant and therefore any association may have been by chance. Furthermore, the regression analysis indicates that the virtue of justice does not successfully predict responsible leader behaviour.

From the results of the statistical tests conducted, the study fails to reject the null hypothesis. The study acknowledges that the researcher may have committed a type II error which occurs when the study fails to reject a null hypothesis which is really false (Field, 2013). An explanation for committing a type II error could be that the study failed to respect the initial sample size set out for the research as detailed in chapter four.

### **5.6.5 Hypothesis 5**

Hypothesis five, hypothesized that the virtue of humanity is positively associated with responsible leader behaviour. The hypothesis is anchored in the literature review from chapter two of the study.

**Null hypothesis 5:** There is a negative or no association between humanity and responsible leader behaviour.

**Alternate hypothesis 5:** There is a positive association between humanity and responsible leader behaviour.

A correlation analysis was used to test if humanity is positively associated with responsible leader behaviour. To explore predictability, a linear regression analysis was used. Table 25 details the results of the correlation analysis.



**Table 25: Hypothesis 5 correlation analysis**

<b>Correlations</b>			
		Responsible Leader Behaviour	Humanity
Responsible Leader Behaviour	Pearson Correlation	1	0,142
	Sig. (2-tailed)		0,096
	N	139	139
Humanity	Pearson Correlation	0,142	1
	Sig. (2-tailed)	0,096	
	N	139	139

The correlation analysis shows a Pearson's R of positive 0.142. The Sig (2-Tailed) value is 0.096 which is higher than the level of significance chosen for the study of 0.05. This means that the correlation is not statistically significant.

In terms of Table 26 below (Hypothesis 5 linear regression analysis), the correlation coefficient (R) of 0.142 indicates a small positive association between humanity and responsible leader behaviour. The adjusted R square result indicates that the virtue of humanity explains 1.3% of the variability of responsible leader behaviour. The significance value in the ANOVA table is 0.096 suggesting that humanity is not a good predictor of responsible leader behaviour.

**Table 26: Hypothesis 5 linear regression analysis**

<b>Model Summary</b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.142 <sup>a</sup>	0,020	0,013	0,90845
a. Predictors: (Constant), Humanity				

<b>ANOVA<sup>a</sup></b>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2,317	1	2,317	2,807	.096 <sup>b</sup>
	Residual	113,064	137	0,825		
	Total	115,380	138			
a. Dependent Variable: Responsible Leader Behaviour						
b. Predictors: (Constant), Humanity						

<b>Coefficients<sup>a</sup></b>						
Model				Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,538	0,266		13,306	0,000
	Humanity	0,116	0,069	0,142	1,675	0,096
a. Dependent Variable: Responsible Leader Behaviour						

The results of the correlation analysis indicate that a small positive association exists between humanity and responsible leader behaviour. However, there was not enough evidence to conclude that this association was statistically significant. Furthermore, the regression analysis indicates that the virtue of humanity does not successfully predict responsible leader behaviour.

The study therefore fails to reject the null hypothesis. The study acknowledges that the researcher may have committed a type II error which occurs when the study fails to reject a null hypothesis which is really false (Field, 2013). An explanation for committing a type II error could be that the study failed to respect the initial sample size set out for the research as detailed in chapter four.

### **5.6.6 Hypothesis 6**

Hypothesis six, hypothesized that the virtue of truthfulness is positively associated with responsible leader behaviour. The hypothesis is anchored in the literature review from chapter two of the study.

**Null hypothesis 6:** There is a negative or no association between truthfulness and responsible leader behaviour.

**Alternate hypothesis 6:** There is a positive association between truthfulness and responsible leader behaviour.

A correlation analysis was used to test if truthfulness is positively associated with responsible leader behaviour. To explore predictability, a linear regression analysis was used. Table 27 details the results of the correlation analysis.

**Table 27: Hypothesis 6 correlation analysis**

<b>Correlations</b>			
		Responsible Leader Behaviour	Truthfulness
Responsible Leader Behaviour	Pearson Correlation	1	0,127
	Sig. (2-tailed)		0,138
	N	139	139
Truthfulness	Pearson Correlation	0,127	1
	Sig. (2-tailed)	0,138	
	N	139	139

The correlation analysis shows a Pearson's R of positive 0.127. The Sig (2-Tailed) value is 0.138 which is higher than the level of significance chosen for the study of 0.05. This means that the correlation is not statistically significant.

In terms of Table 28 below (Hypothesis 6 linear regression analysis), the correlation coefficient (R) of 0.127 indicates a small positive association between truthfulness and responsible leader behaviour. The adjusted R square result indicates that the virtue of truthfulness explains 0.9% of the variability of responsible leader behaviour. The significance value in the ANOVA table is 0.138 suggesting that truthfulness is not a good predictor of responsible leader behaviour.

**Table 28: Hypothesis 6 linear regression analysis**

<b>Model Summary</b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.127 <sup>a</sup>	0,016	0,009	0,91033
a. Predictors: (Constant), Truthfulness				

<b>ANOVA<sup>a</sup></b>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1,849	1	1,849	2,231	.138 <sup>b</sup>
	Residual	113,531	137	0,829		
	Total	115,380	138			
a. Dependent Variable: Responsible Leader Behaviour						
b. Predictors: (Constant), Truthfulness						

<b>Coefficients<sup>a</sup></b>						
Model				Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,459	0,347		9,982	0,000
	Truthfulness	0,123	0,083	0,127	1,494	0,138
a. Dependent Variable: Responsible Leader Behaviour						

The results of the correlation analysis indicate that a small positive association exists between truthfulness and responsible leader behaviour. However, there was not enough evidence to conclude that this association was statistically significant. The regression analysis indicates that the virtue of truthfulness does not successfully predict responsible leader behaviour.

From the results of the statistical tests conducted, the study fails to reject the null hypothesis. The study acknowledges that the researcher may have committed a type II error which occurs when the study fails to reject a null hypothesis which is really false (Field, 2013). An explanation for committing a type II error could be that the study failed to respect the initial sample size set out for the research as detailed in chapter four.

## **5.7 SUMMARY OF THE RESULTS**

The results presented in this chapter seem to indicate that the virtue of prudence is positively associated with responsible leader behaviour and this association was found to be statistically significant. The results further suggest that the virtue of temperance is positively associated with responsible leader behaviour and this association was also found to be statistically significant.

Hypothesis one was rejected suggesting that the association between courage and responsible leader behaviour was statistically insignificant. Hypothesis four was rejected and the results from the correlation analysis suggested that the very weak positive association between justice and responsible leader behaviour was not statistically significant. Hypothesis five was also rejected which suggested that the observed weak positive association between the virtue of humanity and responsible leader behaviour was not statistically significant. Finally, hypothesis six was rejected suggesting that the weak positive association between the virtue of truthfulness and responsible leader behaviour was not statistically significant. The next chapter provides a discussion of the results presented herein.

## **CHAPTER 6: DISCUSSION OF RESULTS**

### **6.1 INTRODUCTION**

Chapter six provides a discussion of the results presented in chapter five. In doing so, the research objectives and hypotheses are discussed in relation to chapters two, three, four and five. The results are therefore discussed in relation to the overarching research question: Which virtues have a positive association with responsible leader behaviour?

The results of the study did not support some of the hypotheses. For example, hypothesis one, hypothesized that courage is positively associated with responsible leader behaviour. The results derived from chapter five did not support this hypothesis. This chapter discusses the explanations as to why this may have been the case.

Despite some of the contradictory findings, the results supported hypothesis 2 and hypothesis 3 of the study. As detailed in chapter three, Hypothesis 2, hypothesized that the virtue of temperance is positively associated with responsible leader behaviour. Hypothesis 3, hypothesized that the virtue of prudence is positively associated with responsible leader behaviour.

The results of the current study supported the literature of temperance as a cardinal virtue positively associated with different types of leader behaviour such as responsible leader behaviour (Sanders et al., 2003; Riggio et al., 2010; Thun & Kelloway, 2011; Neubert, 2015). In addition, the results support Naughton et al. (1996) who concluded that a prudent person understands the complexities of the situation and is able to do well and do good at the same time. Therefore, the current study contributes to the literature on the phenomenon of responsible leader behaviour and the evolving field of responsible leadership. A model diagram is presented as Figure 8 in the conclusion depicting the associations that were identified by the study.

## 6.2 HYPOTHESIS ONE

The literature review conducted in chapter two highlighted significant overlaps between responsible leader behaviour and other types of leader behaviour. For example, Antunes and Franco (2016) revealed overlapping dimensions between transformational leader behaviour, servant leader behaviour, and responsible leader behaviour. In addition, Riggio et al. (2010) reported positive associations between courage and transformational leader behaviour. Zauderer (2006) concluded that courage was positively associated with servant leader behaviour.

Anchored in the review of the leadership literatures, the current study hypothesized that courage is positively associated with responsible leader behaviour. The study defined courage as a character trait of taking action and doing what is right without fear (Wang & Hackett, 2015). Responsible leader behaviour was defined as “intentional actions taken by leaders to benefit the stakeholders of the company and/or actions taken to avoid harmful consequences for stakeholders and the larger society” (Stahl & Sully de Luque, 2014, p. 238). The study sought to understand whether leaders who are viewed as doing what is right without fear are also viewed as taking intentional actions to benefit stakeholders.

The results of the correlation analysis returned a Pearson’s R of 0.119 signalling a weak positive correlation between responsible leader behaviour and the virtue of courage. The correlation analysis also returned a Sig (2-Tailed) value of 0.164 signalling that the correlation was not statistically significant. The results indicated that the weak positive association between courage and responsible leader behaviour may have been by chance and therefore courage may not be an essential virtue for responsible leader behaviour.

The contradictory results may be explained by the literature suggesting that other factors are essential in understanding responsible leader behaviour (Stahl & Sully de Luque, 2014). As discussed in chapter two, current research tends to overemphasize individual-level factors such as virtues as potential influences on responsible leader behaviour (Stahl & Sully de Luque, 2014). According to Stahl and Sully de Luque (2014), responsible leader behaviour does not occur in a vacuum but is contingent upon contextual and situational factors.



Maak et al. (2016) reported other factors such as demographics and emotions that may influence responsible leader behaviour. The contradictory results of the current study may support the findings by Stahl & Sully de Luque (2014) that individual factors may be overemphasized in understanding what informs and shapes responsible leader behaviour. In doing so, the findings therefore add to the research literature on responsible leadership.

Secondly, the contradictory results obtained from the statistical analysis may be explained by the sample itself. Based on chapter four, the participants of the study were selected from two organizations, that being ACSA and SAFCOL, as they were more accessible to the researcher. The study was therefore limited to participants within this context.

The initial sample size as detailed in chapter four was  $n=200$ . According to Boomsma and Hoogland (2001), sample size reporting should be ideally  $n=200$  for ideal model fit. Although every effort was made to achieve a minimum sample size of 200 participants, the study was only able to achieve a sample size of 139 participants.

In chapter five, it was acknowledged that the researcher may have committed a type II error which occurs when the study fails to reject a null hypothesis which is really false (Field, 2013). An explanation for committing a type II error could be that the study failed to respect the initial sample size set out for the research as detailed in chapter four (Field, 2013). A larger sample size may have produced results more representative of the population. The results of the current study highlight a need for similar studies to be more representative and with a large enough sample size as articulated by Boomsma and Hoogland (2001).

### **6.3 HYPOTHESIS TWO**

Chapter one of this study cited leadership literatures supporting the contention that virtue informs responsible leader behaviour and virtues are a predictor of responsible leader behaviour (Cameron, Quinn, & Dutton, 2003; Cameron, 2011; Antunes & Franco, 2016). The introductory chapters further asserted that although divergent lists of virtues are commonly associated with responsible leader behaviour, there exists a lack of consensus about which virtues are 'the' virtues most commonly associated and therefore essential for responsible leader behaviour (Cameron, 2011; Antunes & Franco, 2016).

According to Antunes and Franco (2016), responsible leader behaviour converges with other types of leader behaviour, namely, transformational leader behaviour, servant leader behaviour, authentic leader behaviour, spiritual leader behaviour and emotional leader behaviour. The literature reported that cardinal virtues were associated with different types of leader behaviour. For example, Riggio et al. (2010) reported a positive association between the cardinal virtue of temperance and transformational leader behaviour. Sanders, Hopkins and Geroy (2003) reported a positive association between temperance and spiritual leader behaviour.

Anchored in the leadership research literature, the current study hypothesized that the virtue of temperance is positively associated with responsible leader behaviour. Temperance was defined as a character trait of being able to control emotional reactions and desires for instant gratification (Sison, 2003; Wang & Hackett, 2015). The study sought to understand if there was a positive association between leaders possessing the virtue of temperance and responsible leader behaviour.

For temperance, the results of the correlation analysis indicated that a small positive association exists between the virtue of temperance and responsible leader behaviour. The Pearson's R was a positive 0.169 and the Sig (2-Tailed) value was 0.047 (less than the level of significance chosen for the study of 0.05). The significance value of 0.047 signalled that the correlation was statistically significant and therefore the association was not due to chance. In addition, the linear regression analysis indicated that the virtue of temperance is a fairly good predictor of responsible leader behaviour.

The results support the literature of temperance as a cardinal virtue positively associated with different types of leader behaviour (Sanders et al., 2003; Riggio et al., 2010; Thun & Kelloway, 2011; Neubert, 2015). Although distinct in the relational management of stakeholders, responsible leader behaviour is commonly associated with other types of leader behaviour (Antunes & Franco, 2016). Temperate leaders pursue long-term goals ahead of short-term gains, engage in careful planning and budgeting, and do not overindulge in hedonistic behaviours (Wang & Hackett, 2015). The pursuit of long-term goals and careful planning may lead to the inclusion of multiple stakeholders and the consideration of stakeholder needs. It is therefore of no surprise that the virtue of temperance is associated with responsible leader

behaviour. The results therefore add to the existing body of knowledge on a virtue-based perspective to responsible leadership.

#### **6.4 HYPOTHESIS THREE**

As previously discussed, responsible leader behaviour converges with other types of leader behaviour, namely, transformational leader behaviour, servant leader behaviour, authentic leader behaviour, spiritual leader behaviour and emotional leader behaviour (Antunes & Franco, 2016). The review of the leadership literatures found the cardinal virtue of prudence to be positively associated with transformational leader behaviour (Riggio et al., 2010). In addition, Greenleaf (2002) reported that prudence was positively associated with servant leader behaviour. Sanders, Hopkins and Geroy (2003) reported positive associations between prudence and spiritual leader behaviour.

Based on the literature review, hypothesis 3, hypothesized that the virtue of prudence is positively associated with responsible leader behaviour. The hypothesis was tested using a correlation analysis followed by a linear regression analysis to explore predictability. The correlation analysis indicated that the Pearson's R was a positive 0.167 and the Sig (2-Tailed) value was 0.049 (less than the level of significance chosen for the study of 0.05). The results signalled a small positive association between the virtue of prudence and responsible leader behaviour and this was statistically significant. In addition, the results of the linear regression analysis suggested that the virtue of prudence is a fairly good predictor of responsible leader behaviour. The significance value in the ANOVA table was 0.049 which indicated that the model was significant.

The results presented in chapter five can be explained by the research literature in chapter two. In the literature on Aristotelian virtue ethics, prudence is described as the most essential of all virtues and the number one of all cardinal virtues (Aristotle, 350 B.C.E./1962; Piper, 1966). This view is shared by Riggio et al. (2010) who conclude that it is necessary to possess the virtue of prudence before developing any of the other cardinal virtues.

The findings of the study support Naughton et al. (1996) who concluded that a prudent person understands the complexities of the situation and is able to do well and do good at the same

time. For this reason, the current study contributes to the existing body of knowledge on a virtue-based perspective to responsible leadership.

## **6.5 HYPOTHESIS FOUR**

The literature reviewed in chapter two suggested that the virtue of justice is becoming increasingly important and more pronounced owing to the increasing moral failings and corporate scandals in the last few decades (Bragues, 2006; Wang & Hackett, 2015). To this end, a significant amount of research literature reported the positive association between the virtue of justice and different types of leader behaviour.

For example, Parry and Proctor-Thomas (2002) concluded that justice was essential for transformational leader behaviour, Riggio et al. (2010) reported that justice was positively associated with transformational leader behaviour, and Sanders, Hopkins and Geroy (2003) revealed positive associations between justice and spiritual leader behaviour. In addition, Greenleaf (2002) reported positive associations between justice and servant leader behaviour. As previously discussed, the literature review also highlighted significant overlaps between responsible leader behaviour and other types of leader behaviour (Antunes & Franco, 2016).

Hypothesis 4, hypothesized that justice is positively associated with responsible leader behaviour. This was detailed in chapter three of the study. The study aimed to understand if there was a positive association between leaders possessing the virtue of justice and responsible leader behaviour. A correlation analysis was used to test if justice is positively associated with responsible leader behaviour. To explore predictability, a linear regression analysis was used.

The results of the correlation analysis indicated that the Pearson's R was a positive 0.071 and the Sig (2-Tailed) value was reported as 0.407. This meant that the positive correlation was very weak and not statistically significant. The linear regression analysis returned a significance value in the ANOVA table of 0.407 and a correlation coefficient (R) of 0.071. This signalled that justice may not be a good predictor of responsible leader behaviour.

The contradictory results can be explained in terms of the sample itself. The small sample

size posed a limitation of the study in that it did not lend itself to gaining sufficient insights into understanding what informs and shapes responsible leader behaviour. Boomsma and Hoogland (2001) argued that sample size reporting should be  $n=200$  for ideal model fit. Although every effort was made to achieve a minimum sample size of 200 participants, the study was only able to achieve a sample size of 139 participants. A larger sample size may have produced results more representative of the population. In addition, the participants of the study were selected from only two organizations, that being ACSA and SAFCOL, as they were more accessible to the researcher. The study was therefore limited to participants within this context. For the reasons mentioned, the study highlights the need for similar studies to have a larger sample size more representative of the population.

In chapter five, it was further acknowledged that the researcher may have committed a type II error which occurs when the study fails to reject a null hypothesis which is really false (Field, 2013). An explanation for committing a type II error could be that the study failed to respect the initial sample size set out for the research as detailed in chapter four.

Another possible explanation for the contradictory results might be that other factors are essential to influencing responsible leader behaviour. According to Stahl and Sully de Luque (2014), situational factors such as stringent control systems may promote or hinder responsible leader behaviour. They argue that the moderating effects of situational factors such as situational strengths lack sufficient attention in the research literature (Stahl & Sully de Luque, 2014).

The results of the current study might support Stahl and Sully de Luque (2014) who argue that individual-level factors such as virtues tend to be overemphasized when attempting to understand what informs and shapes responsible leader behaviour. By supporting Stahl and Sully de Luque (2014), the findings add to the literature on responsible leadership.

## 6.6 HYPOTHESIS FIVE

As discussed in previous sections, the literature review highlighted significant overlaps between responsible leader behaviour and other types of leader behaviour (Antunes & Franco, 2016). The research literature further highlighted positive associations between the virtue of humanity and leader behaviour. For example, Zauderer (2006) reported positive associations between humanity and servant leader behaviour.

Based on the literature review, Hypothesis 5, hypothesized that the virtue of humanity is positively associated with responsible leader behaviour. This was detailed in chapter three of the current study. The virtue of humanity was defined as a character trait of expressing care and concern for others, including showing concern for the misfortunes of others (Wang & Hackett, 2015). As mentioned in previous sections and anchored in chapter two, responsible leader behaviour was defined as “intentional actions taken by leaders to benefit the stakeholders of the company and/or actions taken to avoid harmful consequences for stakeholders and the larger society” (Stahl & Sully de Luque, 2014, p. 238). With its grounding in Aristotelian virtue ethics, the study sought to understand if there was a positive association between leaders possessing the virtue of justice and responsible leader behaviour.

The hypothesis was tested using a correlation analysis while predictability was further explored using a linear regression analysis. The correlation analysis returned a Pearson’s R of 0.142 signalling a weak positive correlation between responsible leader behaviour and the virtue of humanity. The correlation analysis also returned a Sig (2-Tailed) value of 0.096 signalling that the correlation was not statistically significant. The weak positive association between humanity and responsible leader behaviour may have been by chance and therefore humanity may not be an essential virtue for responsible leader behaviour. The results therefore did not support the hypothesis.

The contradictory results may be explained by the literature suggesting that other factors are essential in understanding responsible leader behaviour (Stahl & Sully de Luque, 2014; Maak et al., 2016). According to Stahl and Sully de Luque (2014), the responsible leadership literature tends to overemphasize individual-level factors such as virtues. They highlight contextual and situational factors such as situational strength as potential influences on

responsible leader behaviour. The results of the current study seem to support the findings by Stahl & Sully de Luque (2014). The findings therefore contribute to the literature on responsible leadership.

Secondly, the contradictory results obtained from the statistical analysis may be explained by the sample itself. As discussed in previous sections, the participants of the study were selected from only two organizations, that being ACSA and SAFCOL, as they were more accessible to the researcher. The study was therefore limited to participants within this context.

According to Boomsma and Hoogland (2001), sample size reporting should be ideally  $n=200$  for ideal model fit. The initial sample size as detailed in chapter four was  $n=200$ . Although every effort was made to achieve the minimum sample size, the study was only able to achieve a sample of 139 participants.

In chapter five, it was further acknowledged that the researcher may have committed a type II error which occurs when the study fails to reject a null hypothesis which is really false (Field, 2013). An explanation for committing a type II error could be that the study failed to respect the initial sample size set out for the research as detailed in chapter four (Field, 2013). A larger sample size may have produced results more representative of the population. The results of the current study therefore highlight a need for similar studies to be more representative and with a large enough sample size as articulated by Boomsma and Hoogland (2001).

## **6.7 HYPOTHESIS SIX**

The literature review conducted in chapter two revealed overlaps between dimensions of responsible leader behaviour and servant leader behaviour (Antunes & Franco, 2016). Significant overlaps between spiritual leader behaviour and responsible leader behaviour were also reported by Antunes and Franco (2016). The research literature therefore supported a convergence of responsible leader behaviour with other types of leader behaviour.

In addition, Greenleaf (2002) and Zauderer (2006) reported positive associations between truthfulness and servant leader behaviour. Parameshwar (2005) concluded that truthfulness was an essential virtue for spiritual leader behaviour.

Based on the literature review, hypothesis 6, hypothesized that the virtue of truthfulness is positively associated with responsible leader behaviour. The virtue of truthfulness was defined as a character trait reflecting a leader's inclination to tell the truth and keep their promises (Wang & Hackett, 2015). The objective of the study was to identify if there was a positive association between leaders who are viewed as possessing the virtue of truthfulness and responsible leader behaviour.

The results detailed in chapter five did not support the hypothesis that the virtue of truthfulness is positively associated with responsible leader behaviour. A correlation analysis was employed to test if truthfulness is positively associated with responsible leader behaviour. To explore predictability, a linear regression analysis was used. The Pearson's R was a positive 0.127 and the Sig (2-Tailed) value was 0.138 (higher than the level of significance chosen for the study of 0.05). The results signalled a weak positive association between truthfulness and responsible leader behaviour that was not statistically significant. The results therefore did not support the hypothesis.

The contradictory results may be explained by the literature suggesting that other factors are essential in understanding responsible leader behaviour (Stahl & Sully de Luque, 2014). According to Stahl and Sully de Luque (2014), responsible leader behaviour is contingent upon contextual and situational factors that may moderate individual differences. Maak et al. (2016) converge with Stahl and Sully de Luque (2014) by reporting other factors such as demographics and emotions that may influence responsible leader behaviour.

The results seem to support Stahl and Sully de Luque (2014) who argue that individual-level factors such as virtues tend to be overemphasized when attempting to understand the phenomenon of responsible leader behaviour. Situational strength may be a factor that moderates the relationship between individual factors and the propensity to engage in responsible leader behaviour (Stahl & Sully de Luque, 2014). In supporting Stahl and Sully de Luque (2014), the findings of the current study enhance the literature on responsible



leadership.

Secondly, the contradictory results obtained may be explained by the sample itself. According to Boomsma and Hoogland (2001), sample size reporting should be ideally  $n=200$  for ideal model fit. The small sample size of  $n=139$  did not lend itself to gaining insights into providing sufficient evidence to support the assertions made in the hypothesis.

Chapter five of the study acknowledged that the researcher may have committed a type II error which occurs when the study fails to reject a null hypothesis which is really false (Field, 2013). An explanation for committing a type II error could be that the study failed to respect the initial sample size set out for the research as detailed in chapter four. A larger sample size may have produced results more representative of the population. For example, Parameshwar (2005) concluded that truthfulness, amongst others, was an essential virtue for spiritual leader behaviour based on his analysis of 504 events (Parameshwar, 2005).

## **6.8 CONCLUSION**

The results of the current study are based on a sample of 139 participants and statistically significant positive associations were found to exist between the virtues of prudence and temperance with the follower's identification of responsible leader behaviour. The research objective of understanding which are 'the' virtues essential for responsible leader behaviour was thus met.

The failure to support the positive associations between the other four virtues (courage, humanity, truthfulness and justice) indicated that they may be other factors such as contextual and situational factors that are essential in understanding what informs and shapes responsible leader behaviour. In the interpretation of the research results, the study noted the sample limitations and highlighted the need for similar studies to be more representative and with a large enough sample size as articulated by Boomsma and Hoogland (2001).

In light of the research findings, Figure 8 below provides a model diagram depicting the associations that were identified by the study. The diagram indicates that prudence and temperance can be identified as essential virtues for responsible leader behaviour.

**Figure 8: A summary of essential virtues for responsible leader behaviour**



## CHAPTER 7: CONCLUSIONS AND RECOMMENDATIONS

### 7.1 INTRODUCTION

The current study was based on the need to develop responsible leader behaviour in organizations for positive organizational outcomes. The study was designed to answer the overarching research question: Which virtues have a positive association with responsible leader behaviour? To this end, the objectives of the research were to investigate the following:

- The associations between discreet cardinal virtues and responsible leader behaviour.
- If there is a positive association between discreet cardinal virtues and responsible leader behaviour.
- If there is a negative or no association between discreet cardinal virtues and responsible leader behaviour.

The current study focused on a specific set of six cardinal virtues that were derived from the literature on virtue ethics as pertinent to responsible leader behaviour (Wang & Hackett, 2015). This helped to narrow the focus of the study with the aim of identifying which are ‘the’ virtues most essential for responsible leader behaviour. Chapter two provided a literature review grounding the six virtues of courage, prudence, temperance, humanity, justice and truthfulness in Aristotelian virtue ethics as the theoretical lens into how these six cardinal virtues may inform and shape responsible leader behaviour.

The study leveraged of the work of Cameron (2011) as well as Antunes and Franco (2016), all of whom reported that virtues are commonly associated with responsible leader behaviour. This study builds on the existing research literature which seeks to understand what informs and shapes responsible leader behaviour. Prior studies have highlighted the importance of virtue as a construct that informs and shapes responsible leader behaviour (Cameron & Caza, 2005; Cameron, 2011). However, prior studies have failed to reach consensus on which are ‘the’ virtues most essential for responsible leader behaviour (Newstead et al., 2019). This chapter presents the contributions, limitations, and recommendations for future research.

## **7.2 CONTRIBUTIONS OF THE STUDY**

The results from chapter five above indicated that statistically significant associations existed between certain cardinal virtues and responsible leader behaviour. The discussions from chapter six explicated the virtues of prudence and temperance as essential virtues for responsible leader behaviour. Other factors such as contextual and situational factors that are essential in understanding what informs and shapes responsible leader behaviour were then discussed. The current study makes a contribution at the theoretical as well as the practical level.

### **7.2.1 Theoretical Contribution**

The theoretical contribution is based on the importance of developing an understanding and consensus of which virtues are most important in cultivating responsible leader behaviour. Therefore, the study aimed to make a theoretical contribution to the existing body of knowledge on a virtue-based perspective to responsible leadership.

At the theoretical level, this study contributes at three levels. Firstly, the study contributes to the literature on responsible leadership by reducing the heterogenous set of cardinal virtues into a smaller set of essential virtues pertinent to responsible leadership. Based on the results of chapter five and the subsequent discussions in chapter six, these “Top Two” virtues of responsible leader behaviour are reported to be the virtues of prudence and temperance. The findings therefore contribute to the growing body of literature to support the notion that virtues inform responsible leader behaviour (Cameron et al., 2003; Cameron, 2011; Antunes & Franco, 2016).

Secondly, while the response rate was low, 153 despite only 139 being usable, the positive associations between virtue and responsible leader behaviour was affirmed, and therefore the study affirms that studies focusing on responsible leader behaviour are required if research literature is to make an impact on the field.

Finally, while the importance of virtue is well documented (Cameron, 2011; Antunes & Franco, 2016), the findings of the current study indicated that they may be other factors such as

contextual and situational factors that are essential in understanding what informs and shapes responsible leader behaviour. The findings of the study seem to support the findings by Stahl and Sully de Luque (2014) who argue that current research on responsible leader behaviour tends to overemphasize personal characteristics such as character traits. In doing so, the study makes a theoretical contribution to the growing body of literature on responsible leadership.

### **7.2.2 Practical Contribution**

The current study contributes at two levels in terms of the practical contributions. Firstly, the findings of the study highlight the essential virtues that should be cultivated for responsible leader behaviour in order to achieve positive organizational outcomes in the workplace. Studies have revealed how responsible leader behaviour contributes to positive organizational performance, employees' job satisfaction, commitment, and leader effectiveness (Voegtlin, 2011; Voegtlin et al., 2019). Senior executives would do well to understand what informs and shapes responsible leader behaviour.

Identifying which virtues are more essential than others may allow leaders to role model responsible leader behaviour thereby contributing to a better organizational climate and positive organizational performance (Cameron et al., 2004; Antunes & Franco, 2016). The study contributes to the enhancement of career development programmes that encompass virtue awareness and development utilizing the findings that support the virtues of prudence and temperance as essential virtues for responsible leader behaviour.

Secondly, the findings contribute to the practical level by highlighting the importance of contextual and situational factors in cultivating responsible leader behaviour. The discussions in chapter six above highlight the importance of contextual and situational factors such as situational strength as potential influences on responsible leader behaviour as reported by Stahl and Sully de Luque (2014).

## **7.4 LIMITATIONS OF THE STUDY**

The research design employing a quantitative mono-method with a survey strategy posed

certain limitations to the study. These limitations included a low return rate, the restrictiveness of closed-ended questions, the lack of depth, and the possible gap between what people reported versus what they actually did in practice (Griffis et al., 2003; Nardi, 2018). For example, while positive associations were identified between certain virtues and responsible leader behaviour, the researcher wondered if this was coincidental. The research design and methodology therefore limited the researcher's ability to gaining deeper insights into certain responses and why virtues may inform and shape responsible leader behaviour.

Closely aligned to this was the limitation of the sample size required for statistical analysis. According to Boomsma and Hoogland (2001), sample size reporting should be ideally  $n=200$  for ideal model fit. The initial sample size as detailed in chapter four was  $n=200$ . Although every effort was made to achieve the minimum sample size, the study was only able to achieve a sample of 139 participants. The small sample size of 139 respondents therefore limited the predictive power of the statistical tests.

In addition, the current study only focused on the six cardinal virtues by Hackett and Wang (2012) as pertinent to responsible leader behaviour with the aim of developing a consensus around the most essential virtues. There may be other virtues focused on understanding the phenomenon of responsible leader behaviour that may be unaccounted for, over and above these six cardinal virtues. The participants of the study were selected from two organizations, that being ACSA and SAFCOL, as they were more accessible to the researcher. The study was therefore limited to participants within this context. Contextual and situational factors influencing responsible leader behaviour were also not tested in the current research.

## **7.5 RECOMMENDATIONS FOR FUTURE RESEARCH**

The current study only assessed the six cardinal virtues as constructs that influence responsible leader behaviour. Future research should be extended to assess other virtues that may influence responsible leader behaviour. The literature points to the 24 essential virtues by Peterson and Seligman (2004) and the more than 60 essential virtues by Hackett and Wang (2012). Investigating these associations could have a significant influence on responsible leader behaviour, and therefore are require to be studied.

Secondly, future research should consider assessing combinations of virtues that may influence responsible leader behaviour. While Cameron (2011) reports on these, further research is required. Further research should also investigate the different aspects of each virtue and their relationship to responsible leader behaviour. For example, the different aspects of courage may provide deeper insights into how courage may influence responsible leader behaviour.

Thirdly, the current study did not consider the contextual and situational factors that may influence responsible leader behaviour. According to Stahl and Sully de Luque (2014), responsible leader behaviour is contingent upon contextual and situational factors that may moderate individual differences. For example, situational strength may be a factor that moderates the relationship between individual factors and the propensity to engage in responsible leader behaviour (Stahl & Sully de Luque, 2014). Mark et al. (2016) reported on factors such as demographics and emotions that may influence responsible leader behaviour. These factors may have a significant influence on responsible leader behaviour, and therefore are require to be studied.

Finally, future studies may benefit from employing a mixed-methods approach. The value in obtaining a depth of responses to some questions may allow for deeper understanding of why certain virtues shape and influence responsible leader behaviour. While the current study validated the existing measures by Hackett and Wang (2012), there is a need for a more diverse set of questions to develop a more holistic understanding of why certain virtues are more essential than others for responsible leader behaviour. Closely aligned to this need for diversity in design is the benefit of future studies having a large enough sample size as articulated by Boomsma and Hoogland (2001).

## **7.6 CONCLUDING REMARKS**

Responsible leadership and what inform and shapes responsible leader behaviour has emerged as an intriguing and relevant topic in management science. The results of the study support the research objectives in answering the overarching research question, 'Which virtues have a positive association with responsible leader behaviour?'

The results indicate that the virtues of prudence and temperance can be identified as essential virtues for responsible leader behaviour. The failure to support the positive associations between the other four virtues (courage, humanity, truthfulness and justice) indicate that they may be other factors such as contextual and situational factors that are essential in understanding what informs and shapes responsible leader behaviour.



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## APPENDICES

### APPENDIX A: Questionnaire

#### TITLE: Essential virtues for responsible leader behaviour

*I am currently a student at the University of Pretoria's Gordon Institute of Business Science and completing my research in partial fulfilment of an MBA.*

*I am conducting research on which are the most essential virtues that shape and influence responsible leader behaviour. To this end, you are asked to complete a survey about your manager. This will help us better understand responsible leader behaviour and should take no more than 10 minutes of your time. Your participation is voluntary, and you can withdraw at any time without penalty. Your participation is anonymous and only aggregated data will be reported. By completing the survey, you indicate that you voluntarily participate in this research. If you have any concerns, please contact my supervisor or me. Our details are provided below.*

*For the purposes of the survey, a stakeholder is defined as "any group or individual who can affect, or is affected by, the achievement of a corporation's purpose. Stakeholders include employees, customers, suppliers, stockholders, banks, environmentalists, government and other groups who can help or hurt the corporation" (Freeman, 2010, p. iii).*

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*Phone: 011 771 4223*

## Responsible leader behaviour

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	Never	Once in a while	Sometimes	Fairly Often	Always
	1	2	3	4	5

---

1. My manager demonstrates awareness of the relevant stakeholder claims (Voegtlin, 2011).
2. My manager considers the consequences of decisions for the affected stakeholders (Voegtlin, 2011).
3. My manager involves the affected stakeholders in the decision-making process (Voegtlin, 2011).
4. My manager weighs different stakeholder claims before making a decision (Voegtlin, 2011).
5. My manager tries to achieve a consensus among the affected stakeholders (Voegtlin, 2011).

## Virtues

---

Never	Once in a while	Sometimes	Fairly Often	Always
1	2	3	4	5

---

### Truthfulness

1. My manager tells the truth (Wang & Hackett, 2015).
2. My manager keeps me honest (Wang & Hackett, 2015).
3. My manager shows openness to sharing information when addressing my concerns (Wang & Hackett, 2015).

### Courage

1. My manager acts with sustained initiative, even in the face of incurring personal risk (Wang & Hackett, 2015).
2. My manager speaks up on matters of injustice and personal conviction, despite risking “backlash” (Wang & Hackett, 2015).
3. My manager leads fundamental change though it may entail personal sacrifice and personal risk (Wang & Hackett, 2015).

### Temperance

1. My manager behaves unselfishly even when there are opportunities to maximize self-gain (Wang & Hackett, 2015).
2. My manager prioritizes organizational interests over self-interests (Wang & Hackett, 2015).
3. My manager downplays personal successes to avoid discomforting

---

Never	Once in a while	Sometimes	Fairly Often	Always
1	2	3	4	5

---

#### Justice

1. My manager allocates valued resources in a fair manner (Wang & Hackett, 2015).
2. My manager respects individual interests and rights when allocating responsibilities (Wang & Hackett, 2015).
3. My manager resolves conflicts in a fair and objective fashion (Wang & Hackett, 2015).

#### Prudence

1. My manager exercises sound reasoning in deciding on the optimal courses of action (Wang & Hackett, 2015).
2. My manager efficiently and effectively assesses requirements demanded by any given situation (Wang & Hackett, 2015).
3. My manager uses only the resources necessary in responding to the demands of any given situation (Wang & Hackett, 2015).

#### Humanity

1. My manager shows concerns for subordinates' needs (Wang & Hackett, 2015).
2. My manager shows concern and care for peers (Wang & Hackett, 2015).
3. My manager expresses concern for the misfortunes of others (Wang & Hackett, 2015)



## APPENDIX B: Frequency Tables

Responsible Leader Behaviour					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	1	0,7	0,7	0,7
	1.20	1	0,7	0,7	1,4
	1.40	1	0,7	0,7	2,2
	1.80	2	1,4	1,4	3,6
	2.00	2	1,4	1,4	5,0
	2.20	3	2,1	2,2	7,2
	2.40	2	1,4	1,4	8,6
	2.60	4	2,8	2,9	11,5
	2.80	4	2,8	2,9	14,4
	3.00	8	5,6	5,8	20,1
	3.20	3	2,1	2,2	22,3
	3.40	5	3,5	3,6	25,9
	3.60	3	2,1	2,2	28,1
	3.80	7	4,9	5,0	33,1
	4.00	12	8,5	8,6	41,7
	4.20	17	12,0	12,2	54,0
	4.40	17	12,0	12,2	66,2
	4.60	21	14,8	15,1	81,3
	4.80	10	7,0	7,2	88,5
	5.00	16	11,3	11,5	100,0
	Total	139	97,9	100,0	

<b>Prudence</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	3	2,2	2,2	2,2
	1.67	2	1,4	1,4	3,6
	2.00	9	6,5	6,5	10,1
	2.33	3	2,2	2,2	12,2
	2.67	7	5,0	5,0	17,3
	3.00	10	7,2	7,2	24,5
	3.33	10	7,2	7,2	31,7
	3.67	16	11,5	11,5	43,2
	4.00	25	18,0	18,0	61,2
	4.33	15	10,8	10,8	71,9
	4.67	22	15,8	15,8	87,8
	5.00	17	12,2	12,2	100,0
	Total	139	100,0	100,0	

<b>Truthfulness</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	2	1,4	1,4	1,4
	1.67	1	0,7	0,7	2,2
	2.00	1	0,7	0,7	2,9
	2.33	8	5,8	5,8	8,6
	2.67	4	2,9	2,9	11,5
	3.00	11	7,9	7,9	19,4
	3.33	5	3,6	3,6	23,0
	3.67	12	8,6	8,6	31,7
	4.00	17	12,2	12,2	43,9
	4.33	15	10,8	10,8	54,7
	4.67	24	17,3	17,3	71,9
	5.00	39	28,1	28,1	100,0
	Total	139	100,0	100,0	

<b>Courage</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	5	3,6	3,6	3,6
	1.33	3	2,2	2,2	5,8
	1.67	6	4,3	4,3	10,1
	2.00	8	5,8	5,8	15,8
	2.33	5	3,6	3,6	19,4
	2.67	10	7,2	7,2	26,6
	3.00	14	10,1	10,1	36,7
	3.33	6	4,3	4,3	41,0
	3.67	11	7,9	7,9	48,9
	4.00	14	10,1	10,1	59,0
	4.33	24	17,3	17,3	76,3
	4.67	16	11,5	11,5	87,8
	5.00	17	12,2	12,2	100,0
	Total	139	100,0	100,0	

<b>Temperance</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	3	2,1	2,2	2,2
	1.33	1	0,7	0,7	2,9
	1.67	4	2,8	2,9	5,8
	2.00	4	2,8	2,9	8,6
	2.33	11	7,7	7,9	16,5
	2.67	9	6,3	6,5	23,0
	3.00	12	8,5	8,6	31,7
	3.33	13	9,2	9,4	41,0
	3.67	13	9,2	9,4	50,4
	4.00	17	12,0	12,2	62,6
	4.33	17	12,0	12,2	74,8
	4.67	16	11,3	11,5	86,3
	5.00	19	13,4	13,7	100,0
	Total	139	97,9	100,0	

<b>Justice</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	5	3,6	3,6	3,6
	1.33	3	2,2	2,2	5,8
	1.67	5	3,6	3,6	9,4
	2.00	8	5,8	5,8	15,1
	2.33	5	3,6	3,6	18,7
	2.67	4	2,9	2,9	21,6
	3.00	7	5,0	5,0	26,6
	3.33	14	10,1	10,1	36,7
	3.67	15	10,8	10,8	47,5
	4.00	25	18,0	18,0	65,5
	4.33	16	11,5	11,5	77,0
	4.67	15	10,8	10,8	87,8
	5.00	17	12,2	12,2	100,0
	Total	139	100,0	100,0	

<b>Humanity</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	6	4,3	4,3	4,3
	1.33	1	0,7	0,7	5,0
	1.67	4	2,9	2,9	7,9
	2.00	6	4,3	4,3	12,2
	2.33	6	4,3	4,3	16,5
	2.67	5	3,6	3,6	20,1
	3.00	15	10,8	10,8	30,9
	3.33	11	7,9	7,9	38,8
	3.67	8	5,8	5,8	44,6
	4.00	20	14,4	14,4	59,0
	4.33	20	14,4	14,4	73,4
	4.67	10	7,2	7,2	80,6
	5.00	27	19,4	19,4	100,0
	Total	139	100,0	100,0	

## APPENDIX C: Ethical Clearance Approval

**Gordon Institute  
of Business Science**  
University of Pretoria

**Ethical Clearance  
Approved**

Dear Yershen Pillay,

Please be advised that your application for Ethical Clearance has been approved.

You are therefore allowed to continue collecting your data.

We wish you everything of the best for the rest of the project.

[Ethical Clearance Form](#)

Kind Regards

This email has been sent from an unmonitored email account. If you have any comments or concerns, please contact the GIBS Research Admin team.